2014

Kansai in the Asia Pacific

APIR Economic Review

APIR Asia Pacific Institute of Research, Osaka

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The regional division in this book is as follows unless otherwise noted.

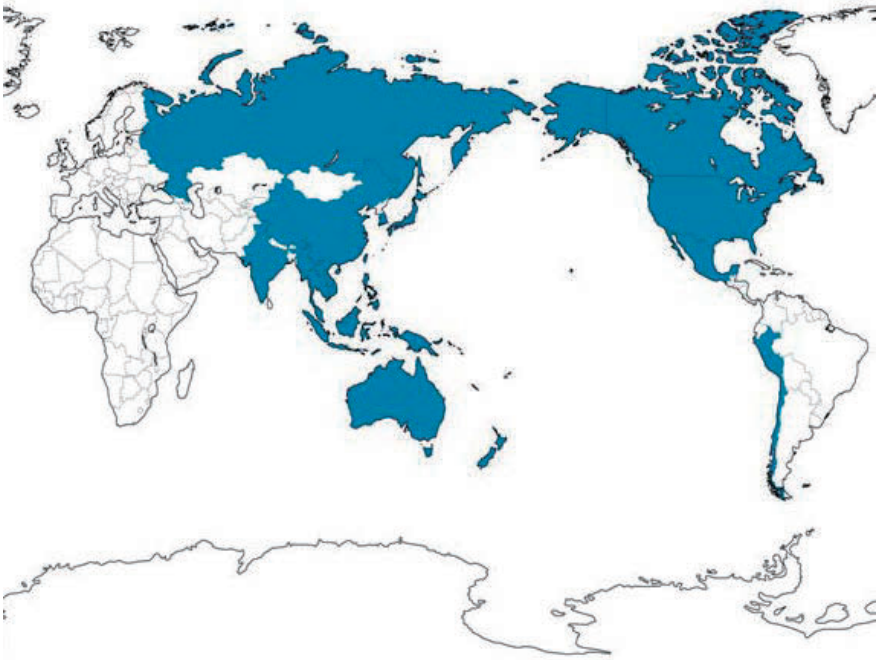
Kansai:	prefectures of Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama
Kanto:	prefectures of Ibaraki, Tochigi, Gunma, Saitama, Chiba, Kanagawa, Yamanashi, Nagano, and Tokyo Metropolis
Chubu:	prefectures of Gifu, Shizuoka, Aichi, and Mie
Japan:	all prefectures including Kansai, Kanto, and Chubu

The abstract maps used herein are for illustrative purpose only. They are not taken from official sources and do not necessarily represent territorial claims and boundaries.

Unless otherwise stated, currencies are herein presented in US dollars, calculated using the following exchange rates:

	US Dollar
Australian Dollar	1.154
Chinese Yuan	6.394
Euro Zone Euro	0.784
Japanese Yen	110.101
Philippines Peso	44.3952
South Korean Won	1098.233
United Kingdom Pound	0.632

Source: IRS 2014 Yearly Average Currency Exchange Rates (http://www.irs.gov/Individuals/International-Taxpayers/Yearly-Average-Currency-Exchange-Rates), Bangko Sentral ng Pilipinas (BSP) Exchange Rates



Message from the Research Director

Hideo Miyahara

Our deeply interconnected world continues to experience a period of profound changes and challenges, and the events of recent times seem certain to shape the global order for many years to come. Natural disasters and political unrest have affected countries in the Asia Pacific region and beyond. GDP figures and stock markets suggest that the world economy is returning to a growth path, but with social and economic problems evident in both developed and developing countries, it is more apparent than ever that we need to use knowledge and technology wisely and consider the totality of the complex problems we face in order to achieve sustained prosperity and stability.

Japan has an important role to play in addressing these global issues. While we face uncertain circumstances of our own—including the long-term impact of Abenomics, the effects of the consumption tax increase, and the outcome of the TPP negotiations—we also possess a wealth of practical and technical knowledge and experience that we can share to enhance global wellbeing. In particular, the Kansai region, with more than 1000 years of cultural exchange and trading relations with our Asian neighbors, can have a pivotal role in fostering new knowledge-based growth in the Asia-Pacific.

The mission of the Asia Pacific Institute of Research (APIR) is to work passionately towards finding solutions to the most pressing economic and social issues by drawing together an internationally diverse range of experts from academia, business, bureaucracies, and beyond, to conduct practically-oriented research aimed at increasing the regional and global public welfare.

I invite you to explore some of the highlights of APIR's recent research presented in this year's edition of *Kansai in the Asia Pacific*. The major themes of this book include economic and business developments and prospects in Asia-Pacific and innovation and challenges for the coming years. Together, they offer valuable information and practical suggestions for policymakers,

businesspeople, and others with an interest in the future of the world's most dynamic region.

Established in December 2011 as a new-model "neutral" think-tank, APIR moved in spring 2013 to our present home in the "Knowledge Capital" complex in the Ume-kita development in the heart of Osaka city. With this exceptional location as a platform, we are establishing a major new locus for interaction, innovation, and knowledge exchange between Kansai and Japan and the Asia Pacific region as a whole. We encourage you to visit our new website (www.apir.or.jp/en) for more information on our activities, and we warmly welcome enquiries from individuals or organizations interested in participating in our research or partnering with us, as well as any feedback you may have on this publication.

Finally, I wish to express my sincere gratitude to the many individuals who have contributed to the researching, writing, editing, and compilation of this work over the past twelve months. At every level of endeavor, we can surely achieve most when work together and share our knowledge, our experience, and our vision.

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PREFACE: SAILING IN THE PACIFIC WATERS

Toshihiko Hayashi

1. Economics and Politics

The year 2013-2014 saw relatively calm and steady growth in the Asia Pacific. The global financial crisis and the great recession that followed in 2009 belong to the past for much of the region. China's growth rate came down to 7.7% in 2013, yet it remains among the fastest growing economies on Pacific shores. The late starters, like Cambodia, Myanmar, and the Philippines, all recorded growth rates above 7%. For many countries in the region, the economic tide has been rising.

Table 1 Growth in the Asia Pacific (%)

Economies	2012	2013	2014
Australia	3.6	2.4	2.6
Brunei Darussalam	0.9	-1.2	5.4
Cambodia	7.3	7.0	7.2
Canada	1.7	2.0	2.3
Chile	5.5	4.2	3.6
China	7.7	7.7	7.5
Hong Kong SAR	1.6	2.9	3.7
India	4.7	4.4	5.4
Indonesia	6.3	5.8	5.4
Japan	1.4	1.5	1.4
Korea	2.0	2.8	3.7
Lao P.D.R.	7.9	8.2	7.5
Malaysia	5.6	4.7	5.2
Mexico	3.9	1.1	3.0
Myanmar	7.3	7.5	7.8
New Zealand	2.6	2.4	3.3
Papua New Guinea	8.1	4.6	6.0
Peru	6.3	5.0	5.5
Philippines	6.8	7.2	6.5
Singapore	1.9	4.1	3.6
Taiwan Province of China	1.5	2.1	3.1
Thailand	6.5	2.9	2.5
United States	2.8	1.9	2.8
Vietnam	5.2	5.4	5.6

IMF (2015), World Economic Outlook Database

In political terms, however, the waters were not as pacific as they should be. There were democratic leadership changes in Australia, Chile, India, Indonesia, Korea, Malaysia, and a military take-over in Thailand. Another regional concern was China's assertive posture in the South China Sea. Japan also has territorial disputes with China and Korea over outlying islands. Despite the "rebalancing" policy toward the Asia Pacific announced by the United States government, there remains some anxiety over the safety and security of the region's political infrastructure.

Economics may not be a panacea in international relations, but strong trading ties certainly help build a peaceful and stable political environment, which is so badly needed for inclusive growth in the Asia Pacific.

2. Japan and Abenomics

Japan's economy is the fourth largest in the world in terms of GDP at purchasing power parity, next only to the U.S., China, and India. However, in terms of per capita GDP, Japan ranks at 20th, together with the U.S. (1st), Hong Kong (6th), Australia (8th) and Taiwan (15th) from the Asia Pacific. The legacy of deflation is still haunting the Japanese economy. The Abe administration is keen to reverse this trend with the help from Bank of Japan. The three-arrow policy initiative is aimed at this target.

Despite the expansionary monetary and fiscal policies dubbed 'Abenomics', the Japanese economy is barely hovering around a 1% real growth rate level, with inflation still less than 2%. A "2% in two years" target had to be postponed by the Bank of Japan. With foreign exchange rate as low as 120 yen to the dollar, export companies' profits are soaring, though export volume has not shown a notable increase.

Abenomics is a mixed blessing so far. Stock price rose, the unemployment rate reached an all-time low, and wages started to rise in big corporations. However, the asset effect of higher stock price on consumption and investment has been weak. Jobs openings are increasing for temporary workers and fresh college graduates. More than anything else, the real wage rate is still declining, as is seen in monthly contractual payments adjusted for the Consumer Price Index rate increase.

More than two years in, whether and when the benefits of Abenomics will trickle down to middle-income households remains to be seen. However, things could have been worse than they are. The counterfactual GDP as calculated by APIR for a Japan's economy in the absence of Abenomics is below the actual GDP. From this perspective, even 1% real growth is something of a blessing.

3. Kansai's Role as an Asia Pacific Hub

The Kansai area of Japan has outstanding business characteristics and a strong regional and cultural identity. Situated at the centre of western Japan, Kansai includes 6 of the nation's 47 prefectures: Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama. The historic city of Kyoto, the lively commercial metropolis of Osaka, and the cosmopolitan port city of Kobe are all located in the heart of Kansai.

Population-wise, Kansai accounts for 17% of Japan's total, while its gross regional product (GRP) represents 16% of the national GDP. Kansai has a healthy and persistent rivalry with Tokyo, which is sometimes strongly felt. The Kansai economy is often compared to the Tokyo area, which draws in more business activities, information, and most conspicuously, is the seat of national politics. In

some ways, Kansai has been fighting a protracted battle with the national capital on these fronts.

However, Kansai has also been nurturing its own growth, including new technologies and business ideas in agriculture, manufacturing, tourism, and entertainment. Two of most promising sectors in recent years have been the health industry and tourism. The Kansai health industry aims to cater to the needs of aging societies at home and abroad, based on innovative academic research, the long tradition of the pharmaceutical industry here, and a network of support from small and medium-sized enterprises in the region. Inbound tourists, meanwhile, are attracted by a rich historical legacy, Kansai's famous cuisine, and the open-minded and fun-loving disposition of the people here.

Lastly and most importantly, Kansai is a gateway to and from Asia. It is no exaggeration to say that Kansai is embedded in Asia and Asia is embedded in Kansai. In terms of the share of exports going to Asia, Kansai exceeds the national average considerably. The percentage of foreign residents who are of Asian origin in Kansai is 89.8%, compared to 81.6% for the country as a whole; Osaka has the second highest rate among all prefectures, at 93.7%.

It is at this juncture that 'Kansai in the Asia Pacific' bears a special importance. The following chapters will show how closely Kansai is connected with the Asia Pacific through a network of trade, direct investment, supply chains, culture, and personal exchanges. Perhaps Kansai should strive to be a main hub of intellectual, business, and cultural life in the Asia Pacific, rather than trying to be a domestic competitor to Tokyo.

Part I

Kansai Forges Ahead

THE KANSAI ECONOMY: PAST, PRESENT, AND A GROWTH STRATEGY FOR THE FUTURE

Yoshihisa Inada

Part I of this volume examines the past and present developments of the Kansai economy, and suggests a growth strategy for its future. The most pressing task for Kansai businesses now is to develop unique local innovations. The authors of each of the chapters in Part I examine important aspects of the region's economy with this in mind.

Chapter 1 provides short-term forecasts of the Kansai and Japanese economies. It shows that both economies have yet to break free from the grip of the consumption and capital investment downturn caused by the April 2014 consumption tax hike. One positive for the Kansai region, however, is that its businesses have recently had a greater presence in Asia than those from other parts of Japan. The region is now reaping the rewards from its global efforts, with a surge in inbound tourism over the past two years bolstering the local economy. Kansai has increased its service exports overseas, boosted its inbound tourism, and in so doing, strengthened local consumption. To examine the effects of this increase, Chapter 1 conducts a simulation study measuring the contribution of foreign tourists' consumption to the Kansai economy.

Chapter 2 surveys past developments in the Kansai economy in detail, and discusses which industries may drive growth in the future. It is often said that Kansai has not yet managed to recover from its long-term economic slump. This problem is examined in detail in Section 1 of Chapter 2. According to the estimations in Section 1, the rate of technological progress (or total factor productivity) in the Kansai region slowed down significantly after the bubble economy burst, coming to almost a complete zero in the following twenty years. However, this does not mean that the economic outlook for Kansai is necessarily pessimistic. Economic theory tells us that total growth is determined by three elements: capital, labor, and technological progress. Section 1 shows that Kansai has the potential to grow in terms of its labor supply. The employment rate of female workers in Kansai is lower than the national average. Thus, the claim that increasing female workforce participation will push up the economic growth rate–one of the central tenets of Abenomics–is particularly salient in Kansai. The "Focus" box in Section 1 estimates the extent to which the Kansai economy will grow if its female workforce participation rate increases.

Section 2 investigates whether innovation has really dried up in Kansai by surveying a range of successful companies on a micro level. It provides a close-up view of Kansai innovation, and considers potential courses of treatment to help put regional innovation back on its feet.

For Kansai industries to be growth leaders, they must (1) have growth potential, (2) secure a sizable market, and (3) establish their own unique brand competitiveness. Section 3 looks at qualities such as these and examines strategies for creating growth-leading industries that can achieve success across Asia.

Thinking in concrete terms, which industries will drive growth in the future? Sections 4, 5, and 6 consider, respectively, methods of re-organizing and revitalizing the region's health care and electronics industries, and the export potential of its agriculture sector.

This year's *Kansai in the Asia Pacific* pays close attention to the problems posed by the population dilemma. Kansai's population is greying even faster than the Japanese average, and the effects of this trend are growing ever more apparent in a number of regions. Dealing with this issue will be a fierce challenge for Kansai, but rapidly aging populations across Asia and beyond also present new business opportunities for Kansai companies. Chapter 3 presents strategies for doing business with an aging society.

As the domestic market shrinks, how can Japan increase its industries' value-added production and maintain its standard of living? Surely the only way it can achieve this is by strengthening its ties with the Asia Pacific and by developing overseas markets.

With this is mind, Part II examines the economic circumstances of countries in the Asia-Pacific region (particularly China, the United States, Korea, the Philippines, and Australia) in detail, and considers these countries' business relationships with Kansai. Additionally, research in Part II focuses on business infrastructure in Asia and the Asian value chain.

I hope that the studies presented in this year's *Kansai in the Asia Pacific* will provide readers with important and useful information, not only for Japanese companies aiming to expand overseas and those organizations who support businesses abroad, but also for overseas firms looking to do business in the Kansai metropolis.

1 Recent Developments in and Forecasts for the Kansai and Japanese Economies

Yoshihisa Inada and Hiroaki Irie

Chapter 1 examines the present state of the Kansai economy, and the future outlook for the economies of Japan and Kansai. It will show, through input-output analysis and econometric model-based simulation analysis, the factors influencing the Kansai economy and the region's future potential. In particular, this study will focus on inbound tourism, a growth industry for Kansai.

Figure 1-1 is a summary of APIR's forecast for the Kansai and Japanese economies in the 2014-16 fiscal years. The forecast suggests that these economies are recovering from the negative effects of the consumption tax increase introduced in April 2014. A key finding of this forecast is that there is a high possibility that the Kansai and Japanese economies will move on from fiscal 2014's negative growth, shaking off the effects of the consumption tax increase and the oil price slump, and make a recovery with balanced domestic and foreign demand in fiscal 2015. Current conditions may be rough, but the future looks bright for the Japanese and Kansai economies in fiscal 2015.

Figure 1-1 APIR forecasts for the Kansai and Japanese economy

	Kansai Economy (2015/2/26)					Japanese Economy (2015/2/26)				
Fiscal year	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Household Consumption	0.4	2.0	▲ 2.2	1.2	1.5	1.8	2.5	▲ 3.1	1.9	1.7
Private Residential Investment	2.4	4.4	▲ 4.8	2.7	6.2	5.7	9.3	▲ 12.1	1.3	11.5
Private Non-Res. Investment	2.2	2.5	3.7	1.5	2.7	1.2	4.0	▲ 0.5	2.0	3.2
Government Consumption	0.3	1.5	0.4	0.9	0.8	1.5	1.6	0.2	0.9	0.8
Public Investment	2.7	10.1	1.9	▲ 2.4	▲ 2.0	1.0	10.3	2.4	▲ 3.2	▲ 2.6
Exports	▲ 2.5	0.9	5.6	3.8	2.5	▲ 1.3	4.7	7.7	5.4	4.8
Imports	2.3	1.8	1.7	1.9	1.5	3.6	6.7	3.2	3.6	2.8
Real GRP/GDP	▲ 0.6	1.8	▲ 0.4	2.0	2.1	1.0	2.1	▲ 0.9	1.9	2.1
Private Demand (Contrib.)	0.3	1.6	▲ 0.8	1.0	1.4	1.4	1.6	▲ 1.8	1.5	1.6
Public Demand (Contrib.)	0.1	0.6	0.1	0.1	0.1	0.3	0.7	0.1	0.0	0.0
Foreign Demand (Contrib.)	▲ 1.0	▲ 0.4	0.3	0.9	0.6	▲ 0.7	▲ 0.2	0.8	0.4	0.4
Nominal GRP/GDP	▲ 1.1	1.5	1.7	2.9	2.8	0.1	1.8	1.5	3.1	2.3
GRP/GDP Deflator	▲ 0.6	▲ 0.4	2.1	0.8	0.7	▲ 0.9	▲ 0.3	2.4	1.2	0.3
Consumer Price Index	▲ 0.5	0.8	2.9	0.2	0.3	▲ 0.2	0.8	3.0	0.3	1.0
Industrial Production Index	▲ 1.5	1.1	5.3	0.5	0.9	▲ 2.9	3.2	▲ 0.7	3.4	3.6
Unemployment Rate	4.9	4.2	4.0	3.9	3.9	4.3	3.9	3.5	3.4	3.4

Note: Unit=%, ▲= Negative figures

Figures for items other than "Unemployment Rate" show growth rates from the previous fiscal year. Figures for the Kansai economy for fiscal 2012 and 2013 are actual results, and figures for fiscal 2014, 2015 and 2016 are APIR estimates. Japanese economy figures for fiscal 2012 and 2013 are actual results, and figures for fiscal 2014, 2015 and 2016 are estimates from the "103rd Report on Economic Trend Analysis and Forecasts".

1. Forecasts for the Kansai and Japanese Economies for the 2014-2016 Fiscal Years

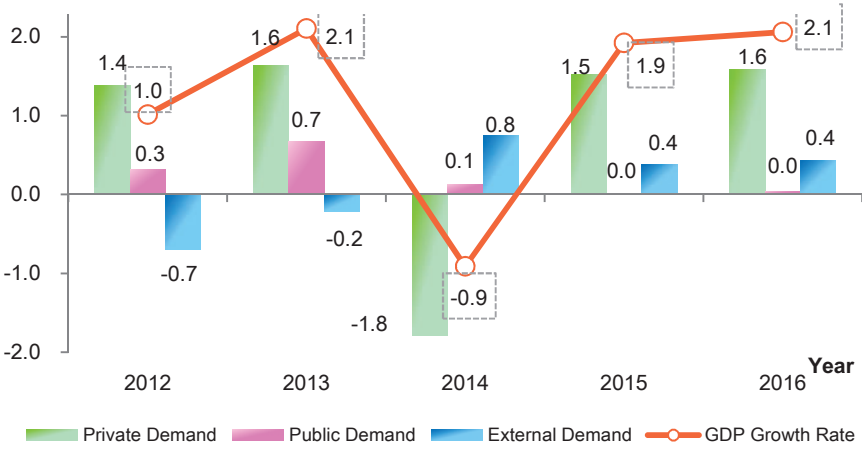
1.1. Forecasts for the Japanese economy

According to the first preliminary forecast of GDP released on February 16th, 2015, the real GDP growth rate (seasonally adjusted annualized rate from the previous quarter) for the 2014 October-December quarter was 2.2%, rising from -2.3% in the previous quarter. This was the first increase in the growth rate for 3 quarters. However, this growth was lower than the market consensus had predicted, indicating that the economy's recovery is moving sluggishly. In the end, the real total growth rate for 2014 narrowly avoided negative growth, hitting 0.0%.

A detailed breakdown of real GDP growth rate show that domestic demand has gained ground for the first time in 3 quarters after the tax hike slump, up 1.4 percentage points. Conversely, net exports have risen for the 3rd straight quarter, up to 0.9%. Both of these figures are calculated using an annual contribution base. Domestic and foreign demand made a balanced recovery, but made only small gains.

Incorporating the first preliminary forecast results into the calculations, APIR predicts that the Japanese economy's real GDP growth rate will be -0.9% in fiscal 2014, 1.9% in fiscal 2015 and 2.1% in fiscal 2016 (see Figure 1-2).

Figure 1-2 APIR growth forecast for the Japanese economy
(real GDP growth rate and contributors' growth)



Note: Fiscal 2012-13 figures are actual data, figures for fiscal 2014 onwards are estimates

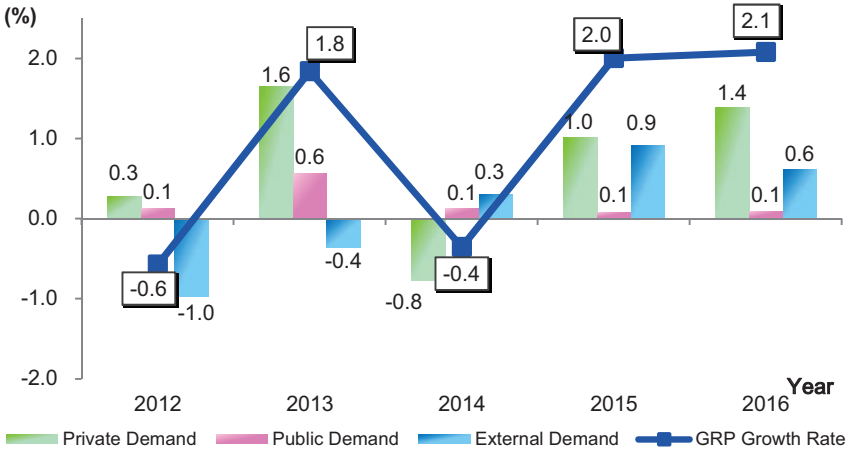
Next, the main contributors to the real GDP growth rate will be examined. The consumption tax hike affected private sector demand more harshly than the previous tax hike in 1997 had done. Nothing could prevent private sector demand from recording 1.8% of negative growth, and support from growth in public demand (up 0.1%) and net exports (up 0.8%) was not enough to prevent a large decline in real GDP growth for fiscal 2014. However, the government postponed a second consumption tax hike originally scheduled for October 2015 until April 2017, limiting the effects of the tax hike on the GDP growth rate for fiscal 2015 and 2016. In fiscal 2015, it is predicted that increases in real income and the sharp drop in the crude oil price will help the private sector's contribution to increase significantly to 1.5%. It is also predicted that in fiscal 2015, as the world economy continues to recover and the yen remains marginally weak, Japan's net exports will rise to 0.4%. Private sector demand and net exports will continue to drive real GDP growth in fiscal 2016, rising to 1.6% and 0.4% respectively.

Regarding the price of goods, the year-on-year core CPI and GDP deflator will both move into positive territory from fiscal 2014, and will continue to rise modestly having shrugged of the effects of the tax hike in fiscal 2015. The price will also be affected by the large drop in the crude oil price, so it seems unlikely that inflation will reach the Bank of Japan (BOJ)'s target of 2%. It is expected that the trade rate will reach 123.0 yen to the US dollar in fiscal 2015 and 125.0 yen to the US dollar in 2016.

1.2. Forecast for Kansai GRP growth: -0.4% in fiscal 2014, +2.0% in fiscal 2015, +2.1% in fiscal 2016

Based on the first preliminary GDP report released in the 2014 October-December quarter and the most recent internal and external economic data on the Kansai region, APIR has revised its forecast for the Kansai economy in fiscal 2014-2016. It is estimated that Kansai's real GRP growth rate will be -0.4% in fiscal 2014, 2.0% in fiscal 2015, and 2.1% in fiscal 2016 (see Figure 1-3).

Figure 1-3 APIR growth forecast for the Kansai economy
(real GDP growth rate and contributors' growth)



Looking at the forecast contributions of domestic and foreign demand on Kansai's real GRP growth rate in detail, in fiscal 2014, the contribution of private sector demand, declining since the tax hike, will fall -0.8% and limit overall GRP growth. Public sector demand will grow 0.1% and foreign demand will grow 0.3%, which will support GRP growth, but it will not be enough to offset the drop in private sector demand. In fiscal 2015, private sector demand will grow 1.0%, public sector demand will again grow 0.1%, and foreign demand will grow 0.9%. This means that private sector demand and foreign demand will provide well-balanced contributions to economic growth. Also, it is predicted that, in fiscal 2016, there will be a late surge in private sector demand before the April 2017 tax hike. The sector's contribution will rise to 1.4%, a strong increase that will drive economic growth in Kansai. Additionally, the 0.6% contribution from foreign demand will provide steady support for growth. On the other hand, the public sector's 0.1% contribution will have an almost neutral effect on growth.

Growth in the Kansai economy was lackluster in fiscal 2012-2013 compared to the national economy, but it is predicted that Kansai's GRP growth rate will perform marginally better than the national growth rate between fiscal 2014 and 2016. A major reason for this is that it is expected that Kansai's private sector demand will fall less than the nation's private sector demand. Another reason is that the contribution of foreign demand will be higher in Kansai than at the national level in fiscal 2015 and 2016. Export growth will also be relatively solid,

and an increase in net shipments to other regions of Japan will contribute to this positive growth.

2. The Effects of Foreign Visitors' Expenditure on the Kansai Economy

2.1. Inter-industry relations analysis

As Kansai's private sector consumption underperforms, its economy is being propped up by the large contribution of foreign visitors' expenditure. This section estimates the effects that foreign visitors' expenditure had on each prefectural economy in Kansai by using an Inter-Regional Input-Output Table. These effects are examined for fiscal 2013, a period when the yen was very weak on the trade-weighted index. The aim is to determine the extent to which visitors' expenditure affected each prefecture's economy by comparing foreign visitor expenditure figures with the nominal GRP and number of workers in each prefecture.

As Figure 1-4 shows, foreign visitors' expenditure boosted Kansai's nominal GRP by 0.33% in fiscal 2013. However, it can be seen from this table that there were significant differences in the effects that inbound tourism (foreign visitors' expenditure) had on each prefecture. Inbound tourism boosted Kyoto prefecture's nominal GRP by 0.72% and Osaka prefecture's by 0.36%, but conversely, it only made a 0.14% contribution to Nara's GRP. Nara and Kyoto prefectures both have numerous tourist attractions, including national treasures and important cultural heritage assets, but Nara is not using its abundance of tourist attractions to draw in foreign visitors as successfully as Kyoto is.

Examining the employment generated by inbound tourism, it is seen that inbound tourism supported 1.05% of jobs in Kyoto prefecture and 0.58% of jobs in Osaka prefecture, but only 0.15% of jobs in Nara. In terms of employment, too, it seems there is a big difference between the economic effect that inbound tourism has on Kyoto and the effect it has on Nara.

One reason why there is a large gap between the economic effects of inbound tourism on Kyoto and Osaka compared with Nara is a lack of tourist accommodation and supply restrictions on inbound tourist services in Nara. Because of these supply restrictions, most tourists choose to stay in Osaka or Kyoto and simply pass through Nara, meaning that the economic effect on Nara is relatively small. For this reason, it is important that Nara moves to improve its accommodation and soft tourism infrastructure. By investing in both hard and soft tourism infrastructure, the economic effects of inbound tourism can potentially be increased in every Kansai prefecture. However, it will not be

productive if each prefecture's government adopts this kind of economic policy relating to tourism. Kansai has an abundance of variety and diversity, and the region needs to make the most of this. By encouraging tourists to use Kyoto as a base and travel around the entire Kansai region, the effect of inbound tourism on the entire region can be increased. This is what is implied by the data in Figure 1-4.

Figure 1-4 The effect of foreign visitor expenditure on the Kansai economy

	Amount added to GRP (in million yen)	Percentage of GRP	Jobs Created	Percentage of Job Market
Shiga	10,280	0.17	1,441	0.20
Kyoto	69,712	0.72	13,383	1.05
Osaka	132,098	0.36	24,201	0.58
Hyogo	32,073	0.18	5,375	0.21
Nara	5,094	0.14	939	0.15
Wakayama	7,128	0.21	1,240	0.27
Kansai	256,385	0.33	46,579	0.47

2.2. Econometric model-based simulation analysis

As seen in the general overview, the number of overseas tourists visiting Kansai is currently rising dramatically. Section 3.1 measured the economic effects of foreign visitors' expenditure on each Kansai prefecture in 2013 using an Inter-Regional Input-Output Table. This section calculates the impact that inbound tourism would have on the Kansai economy if the regions meets its future targets for tourist numbers.

The Japanese government is treating promotion of the tourism industry as part of its economic revitalization strategy, and has set a target of attracting 20 million foreign visitors to the country in the year 2020. According to the Japan Tourism Agency, the number of foreign visitors rose 29.4% from 2013, to 13.414 million, 3 million more than the previous record of 10.364 million in 2013. If this trend of visitor numbers increasing by 3 million a year continues, it would be possible for the government to achieve its goal of attracting 20 million foreign visitors by 2016.

The Kansai Economic Federation (KEF) has stated that its goal is to increase the percentage of foreign tourists who visit Kansai from the current level of approximately 34% to 40% by 2020, bringing the total number of visitors to Kansai in 2020 to 8 million. This section simulates how inbound tourism would

affect the Kansai economy if these targets were met.

This simulation assumed that the number of foreign visitors to Japan reaches 20 million by the year 2020, and considers two potential scenarios in which the percentage of foreign visitors who come to Kansai rises to 40%. In the first hypothetical scenario (Case 1), the percentage of foreign visitors who come to Kansai rises gradually up to 40% by the year 2020. In the second scenario (Case 2), Kansai reaches its foreign visitor target ahead of time in the year 2016. The results present the difference in the percentage of foreign visitors compared with the current 4-year average percentage of foreign visitors, 33.8%. In Case 1, the number of foreign visitors to Kansai increases by 332,209 in fiscal 2015 and 475,125 in fiscal 2016, whereas in Case 2, the number of foreign visitors increases by 1,490,746 in fiscal 2015 and 2,981,492 in fiscal 2016. Next, foreign visitors' average expenditure is incorporates, which was ¥136,693 (approximately $1,241 USD) per person in 2013. If Kansai achieves its visitor target, in Case 1 the economy benefits by an extra 45.4 billion yen (approximately 412 million USD) in fiscal 2015 and an extra 64.9 billion yen (approximately 589 million USD) in fiscal 2016 from inbound tourism, while in Case 2 it benefits by an extra 203.8 billion yen (approximately 1.851 billion USD) in fiscal 2015 and an extra 407.5 billion yen (approximately 3.701billion USD) in fiscal 2016 (see Figure 1-5).

It should be noted that in the Cabinet Office's "Report on Prefectural Accounts", the money that foreign tourists spend in Kansai buying souvenirs and other items (their "expenditure") is appropriated not to Japan's Household Final Consumption Expenditure figure but to its export figure. For this reason, the model incorporates the increase in foreign visitors' expenditure if target visitor increases are met to Kansai's net export figure, and calculates the effect of this increase on GRP.

The results of the simulation are summarized in Figure 1-6. In Case 1, the increase in foreign visitor expenditure causes Kansai's real GRP to increase by 57.9 billion yen (approximately 526 million USD) in fiscal 2015 and by 70.4 billion yen (approximately 639 million USD) in fiscal 2016, while in Case 2, it causes real GRP to increase by 259.8 billion yen (approximately 2.360 billion USD) in fiscal 2015 and by 464.5 billion yen (approximately 4.219 billion USD) in fiscal 2016. In Case 1, this increase makes up just 0.1% of total GRP, but in Case 2 it makes up between 0.3% and 0.5% of GRP, an increase that would certainly have a positive effect on the economy. In addition to net exports, private sector capital will also reap benefits from this increase in foreign visitor

expenditure.

Japan's inbound tourist market looks set to go from strength to strength. While this opportunity exists, it makes sense for the Kansai public and private sectors to work together and promote tourism across the region.

Figure 1-5 Assumptions used in simulation analysis

		2015	2016
No. of Foreign Visitors to Japan		13,559,570	14,847,656
No. of Foreign Visitors to Kansai		4,583,135	5,018,508
Case 1	No. of Foreign Visitors to Kansai	4,915,344	5,493,633
	Difference from 2014 Visitor No.	332,209	475,125
	Net Export Increase (million yen)	45,411	64,946
Case 2	No. of Foreign Visitors to Kansai	6,073,881	8,000,000
	Difference from 2014 Visitor No.	1,490,746	2,981,492
	Net Export Increase (million yen)	203,775	407,549

Figure 1-6　Simulation analysis results

		Case 1		Case 2	
Fiscal Year		2015	2016	2015	2016
Household Consumption (in billion yen)					
A. Base		47,117	47,811	47,117	47,811
B. Simulation		47,117	47,811	47,119	47,815
	Deviation Range (B-A)	0	1	2	4
	Deviation Rate (%)	0.00	0.00	0.00	0.01
Private Non-Res. Investment (in billion yen)					
A. Base		11,500	11,809	11,500	11,809
B. Simulation		11,521	11,833	11,594	11,971
	Deviation Range (B-A)	21	24	95	162
	Deviation Rate (%)	0.18	0.20	0.82	1.37
Exports (in billion yen)					
A. Base		22,062	22,622	22,062	22,622
B. Simulation		22,108	22,687	22,266	23,029
	Deviation Range (B-A)	45	65	204	407
	Deviation Rate (%)	0.21	0.29	0.92	1.80
Imports (in billion yen)					
A. Base		17,486	17,754	17,486	17,754
B. Simulation		17,497	17,776	17,538	17,883
	Deviation Range (B-A)	12	22	53	130
	Deviation Rate (%)	0.07	0.12	0.30	0.73
Real GRP (in billion yen)					
A. Base		85,593	87,374	85,593	87,374
B. Simulation		85,651	87,444	85,853	87,838
	Deviation Range (B-A)	57.9	70.4	259.8	464.5
	Deviation Rate (%)	0.07	0.08	0.30	0.53
Real GRP Growth Rate (%)					
A. Base		2.0	2.1	2.0	2.1
B. Simulation		2.1	2.1	2.3	2.3
	Deviation Range (%pt)	0.1	0.0	0.3	0.2

2 INDUSTRIAL FRONTIERS IN KANSAI

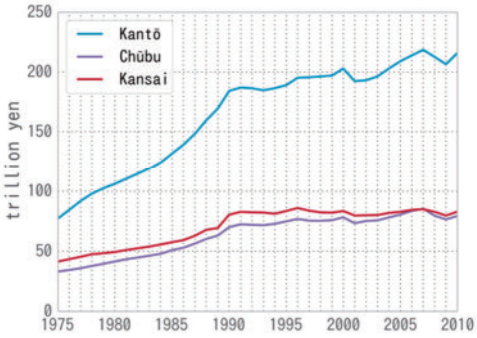
SECTION 1: LEARNING FROM KANSAI'S PAST ECONOMIC STAGNATION

Mitsuhiro Okano

1. Kanto, Chubu and Kansai

Kansai's economy has, over the past few decades, gone through what can be described as a period of long-terms low growth. This is one of the macro-level issues that must be resolved if the state of the Kansai economy is to improve. Comparing the progress of Gross Regional Product (GRP) in the Kansai, Kanto and Chubu regions[1], there is a clear trend in the expanding gap between Kanto and Kansai.

Figure 2-1-1 GRP progression by region



Note: Each sequence has been connected using the figure for 2005 as a base
Source: Cabinet Office, Government of Japan "Report on Prefectural Accounts"

As Figure 2-1-1 demonstrates, in 1975, Kanto's economy was 1.9 times larger than Kansai's, but by 2010, Kanto's economy had expanded to become 2.6 times larger than Kansai's. What's more, Kansai's economy was consistently larger than Chubu's in the past, but Chubu has gained ground on Kansai in recent years, and its GRP briefly surpassed Kansai's in 2007.

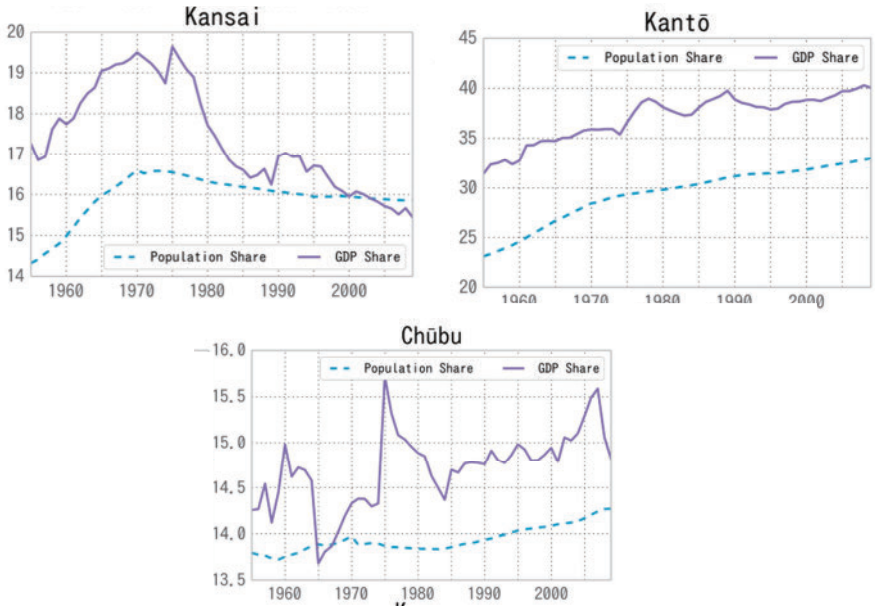
[1] Except where otherwise indicated, the regional terms in this report denote the following prefectures:
Kanto: Ibaraki, Tochigi, Gunma, Saitama, Chiba, Tokyo, Kanagawa, Yamanashi, Nagano.
Chubu: Shizuoka, Toyama, Ishikawa, Gifu, Aichi, Mie, Fukui.
Kansai: Shiga, Kyoto, Osaka, Hyogo, Nara, Wakayama .

2. Regional Population and GDP Share

The Kansai economy's stagnation following the bursting of the bubble economy in 1990 stands out clearly in Figure 2-1-1. Post-1990, the Kanto and Chubu economies were able to maintain a positive growth rate while adjusting to this period of slower growth. On the other hand, as Figure 2-1-1 demonstrates, the Kansai economy experienced very little positive growth between 1991 and 2010.

Next, let us compare how each region's share of national GDP and population has progressed in recent years. This data is presented in Figure 2-1-2.

Figure 2-1-2 Progression of national GDP and population share by region (%)



Note: "Kansai" here includes Fukui Prefecture
Sources: Calculations based on the Cabinet Office's "Report on Prefectural Accounts" and the Ministry of Internal Affairs and Communications' (MIC) "Population Census Report" and "Annual Report of Population Estimates"

Looking at Kansai's figures, it is seen that prior to around 1973, when Kansai's period of high growth came to an end, both its share of national population and GDP were trending upwards. However, after 1973, both its population and GDP percentages have been falling. Since the 1970s, Kansai's population share has only fallen slightly (15.9% in 2009 as opposed to 16.6% in 1973), but its share of

national GDP has fallen from a peak of 19.6% in 1976 to a low of 15.4% in 2009. In contrast, the flow of population into Kanto has continued unabated since the 1950s–Kanto's population share expanded from 23.1% in 1955 to 33% in 2009. Kanto's GDP share also increased as a result, from 31.4% to 40.1% in the same period. Chubu experienced some losses in the post-boom period as a result of financial crises such as the Great Recession in 2008, but like Kanto, its GDP and population share have gradually increased over this period. The story behind these statistics is Kansai's economic stagnation, a problem that is underpinned by the fact that Kansai may have failed to change its industry structure into one that produces high value-adding.

3. Shifts in Industrial Structure

In recent years, manufacturing industries' share of GRP has fallen in regional areas across Japan, but Chubu's manufacturing industry has bucked this trend. Central to Chubu's economy is the automobile industry and other related industries, and in recent years these industries have in fact strengthened their position as key players in the Chubu economy. Calculating based on statistics from the Cabinet Office's "Report on Prefectural Accounts", it is found that from 1990 to 2011, the percentage of Chubu industries producing transport machinery rose from 8.8% to 9.8%, and the percentage producing electrical machinery rose from 4% to 10.1%. It seems likely that by investing funds into high value-adding industries, particularly the automobile industry, Chubu was able to avoid long-term economic stagnation.

Unlike Chubu, the Kanto economy clearly shifted its focus from manufacturing to tertiary industries in the new millennium. Between fiscal 1990 and fiscal 2011, the Kanto service industry's total market share rose dramatically and eventually overtook the manufacturing industry to become Kanto's most valuable industry. In fiscal 1990, the manufacturing industry's share was 26.3% and the service industry's was 19.3%, but in fiscal 2011, manufacturing's 19.4% share had been overtaken by the service industry's 20.9% share. Characteristic of Kanto's industrial growth during this period was the expansion of industries with the potential for comparatively high value-adding, particularly the financial, insurance, telecommunication and information industries.

Meanwhile in Kansai, the electrical machinery industry has to the present day held a comparatively large share of total industry, and it is becoming one of the region's backbone industries. The electrical machinery industry held a 4.3% share of industry in fiscal 1990, and this rose to 6.3% in fiscal 2011. However, in recent

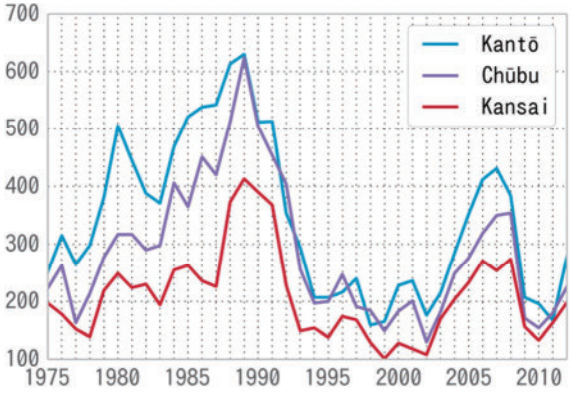
years, Kansai's electronics industry has struggled to maintain high market value because electrical machinery is easily commoditized and can easily be negatively affected by changes in the market. In the new millennium, Kansai's electrical machinery industry has been hampered by a fierce price war between overseas competitors that has hindered the industry's competitiveness.

4. Regulatory Impediments

Another factor that impeded the Kansai economy's smooth transition to a high value-adding industrial structure and contributed to economic stagnation was regulation issues, such as those brought about by the government's industrial restrictions. In the 1950s and 1960s, in an effort to decentralize factories away from metropolitan areas, the government introduced restrictions on where factories could be located. These restrictions were repealed in 2002, but it is believed that they suppressed potential capital investment and technological innovation in these areas for over 40 years.

As Figure 2-1-3 below demonstrates, the number of factories built in each of the three regions rose dramatically after factory location regulations were eased.

Figure 2-1-3 Number of factories constructed in each region annually



Note: The figures on the Y axis represent the number of times a site (including landfill sites) of over 1000m^2 was acquired for the purpose of constructing a factory.
Source: Created by APIR using data from the Ministry of Economy, Trade and Industry's (METI) "Survey of Factory Location Trends" and each regional branch of METI's own "Survey of Factory Location Trends"

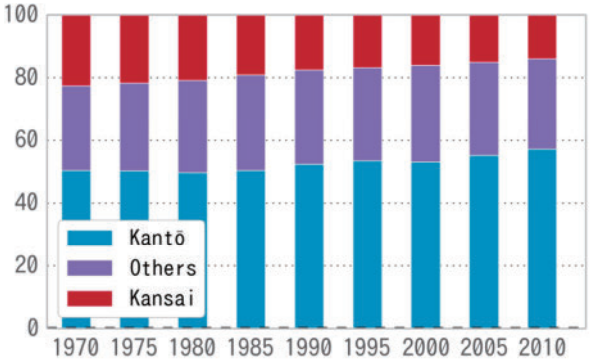
However, Kansai's recovery has been slower than Kanto's and Chubu's, possibly

because although Kansai has an adequate surplus of land (more than that of Kanto, for example), its manufacturing industries have been obstructed by local supply regulations.

5. Head-office Relocation

Head-office relocation, with a long series of firms moving their headquarters away from Kansai over the past 40 years, has also added to economic decline in the region. Figure 2-1-4 demonstrates the annual decline in the number of companies that choose to locate their head offices in Kansai. The graph shows clearly the large number of companies that chose to relocate their head office from Kansai to Kanto between 1970 and 2010.

Figure 2-1-4 National percentage of head office locations by region



Note: A "head office" is the headquarters of an ordinary corporation. "Kansai" includes Fukui Prefecture.
Source: Created by APIR using data from the National Tax Agency's "Annual Statistics Report"

Because of this large-scale relocation, Kansai was unable to prevent the exodus of many high-skilled workers, a phenomenon that only served to further damage its economy. Tallying data from the "Population Census Report" by the Ministry of Internal Affairs and Communications (MIC), it was found that between 1995 and 2005, 81,932 more workers migrated away from the Osaka metropolitan area than immigrated into it, and more than half of that number (45,208 workers) moved to Kanto. An examination of the occupations of these workers revealed that 15,202 were office employees, 13,729 were specialists and technically skilled workers, and 7,842 were salespeople. The exodus of these highly-skilled workers poses another serious threat to regional economies such as Kansai's.

As this section has shown, a number of roadblocks, including factory location restrictions and company head office relocations, have slowed Kansai's progress in

shifting to a high value-adding industrial structure. These issues are believed to have gradually stifled technical advancement in Kansai, and are chiefly responsible for the long-term economic stagnation of the region.

Focus: The macro-level effects of increasing female employment

Low levels of female employment are typical in Kansai. According to the MIC's "Population Census Report" and its "Annual Report of Population Estimates", of Kansai's six prefectures, only two had levels of female employment above the national average of 44.7% in 2010: Shiga with 46.3% and Kyoto with 44.8%. Of Kansai's other prefectures, Nara has the lowest female employment statistics in the country (39%), Osaka the second lowest (41.1%), Hyogo the third lowest (42.5%), and Wakayama the fifth lowest (42.6%).

To interpret these statistics in a more positive light, they indicate that Kansai has the potential to increase its female employment rate and raise the productivity of its labor force. The Japanese Government's plan to promote female participation in the work force, announced by Prime Minister Shinzo Abe in April 2014 as part of the "Abenomics" revitalization strategy, may be a particularly viable strategy in Kansai.

If the government is successful in raising the female employment rate in Kansai to at least the national average, the number of female workers in Kansai will rise beyond 2010 levels by 260,000, raising the GRP by 1.55 trillion yen (at least 14 billion USD) to 85.67 trillion yen (approximately 778 billion USD) (APIR provisional estimate). If these workers are hired incrementally over five years, Kansai's GRP will increase by 0.37% on average annually. The benefits that the Kansai economy can gain from supporting an increase in female employment cannot be ignored.

It is important to note, however, that this case study is no more than a basic simulation designed to provide a rough estimate of the macro-level effects of increasing female employment. In reality, female workers' individual age, occupation, role and productivity will affect their impact on the economy. This study has also not considered other potential positive effects of increasing female employment, such as the generation of new demand for businesses and the diversification of business.

SECTION 2: VIBRANT COMPANIES IN KANSAI

Yusuke Kinoshita

1. A Micro-Level Examination of Kansai Business

The role that business plays in supporting the economic growth of a region is vital. Using macroeconomic data, Section 1 of this chapter demonstrated that one of the reasons why Kansai's economy entered a period of long-term stagnation was because technical advancement in the region lost its energy. This section will present micro-level data demonstrating that, in spite of this trend, a number of Kansai-based businesses have managed to achieve success during the economic downturn that occurred as a result of the Great Recession. This section will also examine initiatives that these more vibrant Kansai businesses have carried out together.

2. Using Total Factor Productivity (TFP) to Measure Kansai Companies' Innovation

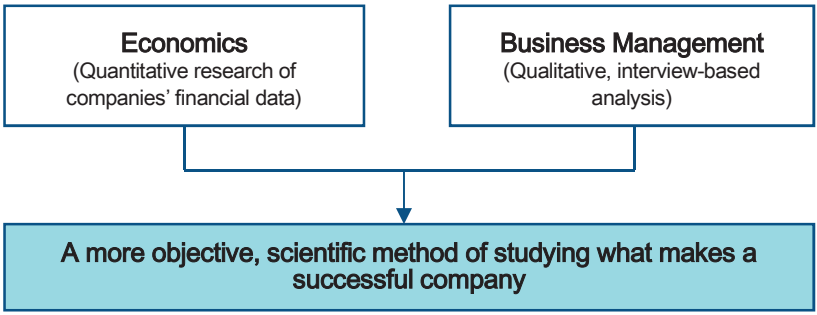
The methodology used here to measure how innovative Kansai companies are is Total Factor Productivity (TFP). TFP can be used to measure a company's technological advancement by taking its total output, removing any output that was affected by labor and capital inputs (the factors that influence the company's productivity) and presenting what remains, called the "residual". Included in the residual are the company's intangible assets, such as its investment in software and intellectual property, in human capital, and in organizational restructuring.

The TFP figures presented in this section were calculated from financial data listed in individual companies' annual securities reports. Due to limitations in this consolidated data, output was used as a base when calculating companies' actual yield (gross sales). Total Factor Productivity growth rate figures were calculated by subtracting the growth rates of labor and capital stock from the total output growth rate[1].

This section has sought to identify what actions affect a company's TFP growth rate by performing qualitative, interview-based business administration research in addition to quantitative, economics-centered TFP research. The findings suggest that the vigor of Kansai companies comes from the areas represented in the following flow chart. (Figure 2-2-1)

[1] TFP estimates were made referencing the Data Appendix in Kazuo Ogawa, Mika Saito, and Ichiro Tokutsu (2012), "Japan out of the Lost Decade: Divine Wind or Firms' Effort?" IMF Working Paper WP/12/171. All the data analyzed is from the 2001 to 2011 financial period.

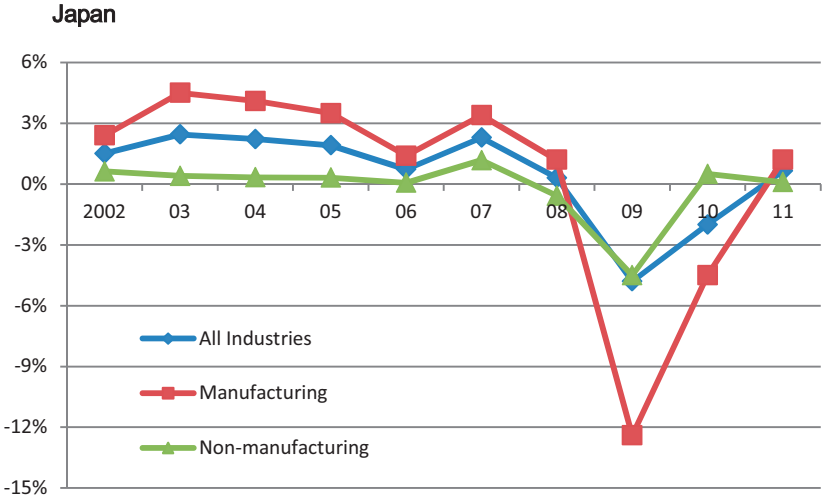
Figure 2-2-1 Fusing economic and business management research

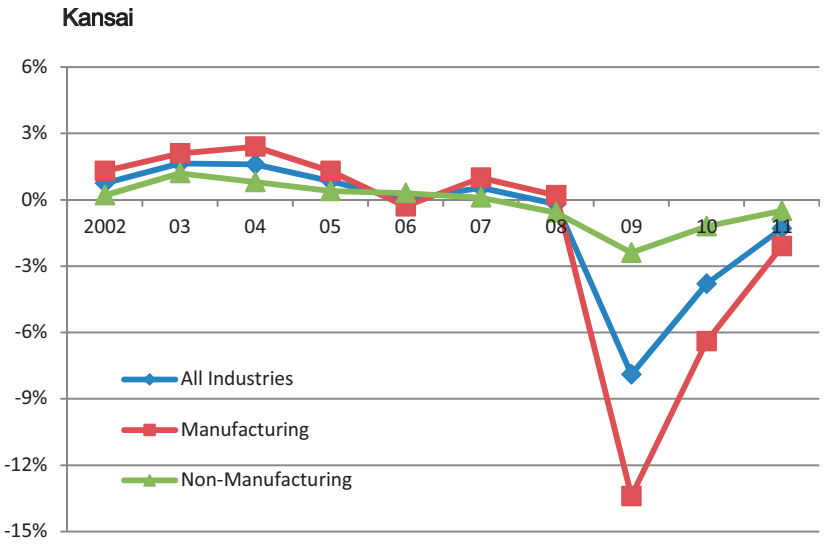


Source: Figures 7-2-1 and 7-2-2 were constructed using graphs from the Asia Pacific Institute of Research (2013), "The Lifeblood of High Producing Kansai Companies: Organizational and Personnel-Run Initiatives"

Figure 2-2-2 shows estimates of Japan and Kansai's TFP between fiscal 2002 and fiscal 2011. The results of these calculations show that in both the manufacturing and non-manufacturing sectors, Kansai's TFP growth rate was below the national average. This result is evidence of the drop in technological advancement in Kansai demonstrated in Section 1.

Figure 2-2-2 Progression of TFP growth rate in Japan and Kansai





3. What Vibrant Kansai Companies Have in Common

3.1. 24 Kansai companies with a high TFP ratio

This section performs a micro-level analysis of individual Kansai companies, in order to investigate whether or not Kansai hosts companies that are achieving high TFP ratings.

Examining the detailed data used in the TFP calculations, it was found that a number of Kansai-based companies that had a TFP growth rate above the national average during Japan's 2009-2011 economic slump; hereafter, these companies are referred to as "high TFP companies". Since the mid 2000s, Japanese companies have faced numerous unforeseen shocks, such as the Great Recession and the Great East Japan Earthquake, and have battled through periods of adversity, such as the period when the yen strengthened to below 80 to the US dollar. The results of this investigation show that there are companies in Kansai that were able, through conscientious effort, to increase their productivity even in these difficult periods.

Figure 2-2-3　Kansai's high TFP companies

① Chemicals (129 companies nationwide, including 43 from Kansai)

Kaneka Corporation ★	Synthetic polymers	Osaka
Takeda Co., Ltd. ★	Pharmaceuticals	Osaka
Kansai Paint Co., Ltd. ★	Paints	Osaka
Mandom Corporation ★	Cosmetics, hair gel	Osaka
Taoka Chemical Co., Ltd. ★	High-performance polymers	Osaka
Sanyo Chemical Group ★	Absorbent polymers	Kyoto

② General machinery (93 companies nationwide, including 26 from Kansai)

Daikin Industries, Ltd. ★	Air conditioners	Osaka
Kawasaki Heavy Industries, Ltd ★	Boilers, motors	Hyogo
JTEKT Corporation ★	Automotive components	Osaka
Kobelco Eco-Solutions Co., Ltd	Chemical machinery	Hyogo

③ Electrical machinery (104 companies nationwide, including 28 from Kansai)

Omron Corporation ★	Electronic parts, medical equipment	Kyoto
Horiba, Ltd. ★	Measurement equipment	Kyoto
Kyocera	Electronic machinery	Kyoto
ROHM Co., Ltd. ★	Semiconductors	Kyoto
Endo Lighting Corp.	Light bulbs and lighting parts	Osaka
Nitto Denko Corporation	Industrial machinery	Osaka
Shizuki Electric Co., Inc.	Industrial machinery	Hyogo

④ Construction (60 companies nationwide, including 11 from Kansai)

Daiwa House Industry Co., Ltd. ★	Housing	Osaka
Sekisui House, Ltd. ★	Housing	Osaka
Suitomo Densetsu Co., Ltd. ★	Electrical equipment construction	Osaka

⑤ Wholesalers (141 companies nationwide, including 40 from Kansai)

Shinsho Corporation	Minerals and hardware material wholesaling	Osaka
Chori Co., Ltd.	Textile wholesaling	Osaka

⑥ Retail (105 companies nationwide, including 14 from Kansai)

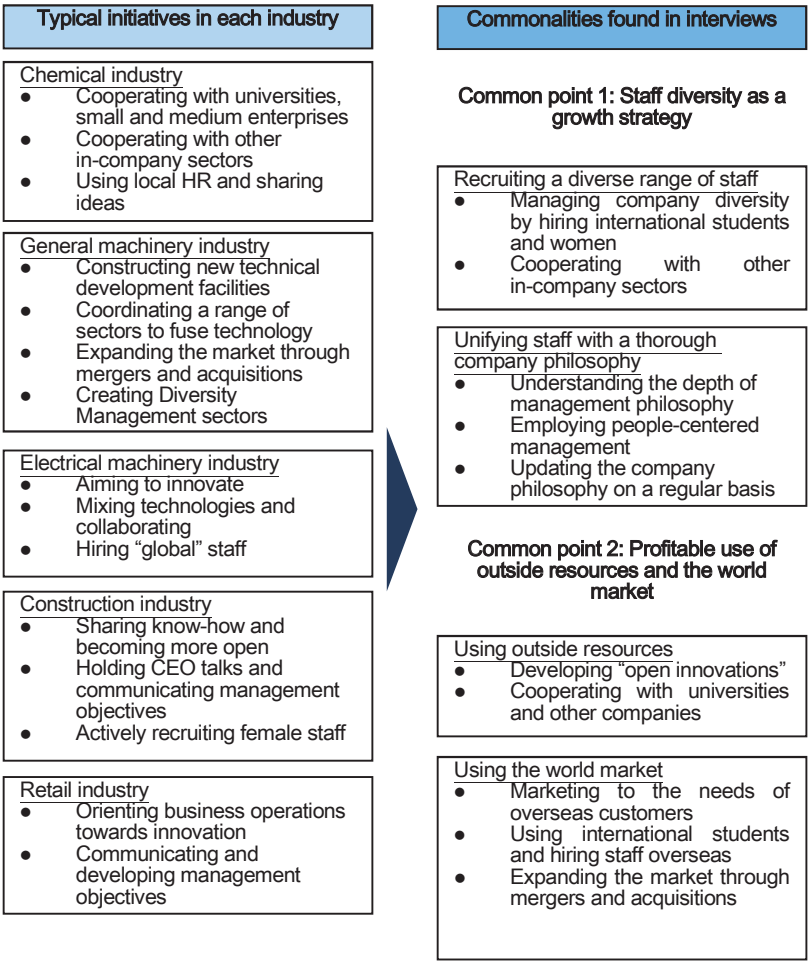
Kansai Super Market, Ltd. ★	Supermarkets	Hyogo
Joshin Denki Co., Ltd.	Other retailing	Osaka

Note 1: Graph shows (from left) the company's name, its main business, and the location of its head office
Note 2: A star (★) next to the company's name indicates that it participated in interviews conducted for this report. A total of 16 companies participated in interviews.

Figure 2-2-3 lists the 24 high TFP companies from Kansai chosen for this study: 6 companies from the chemical industry, 4 from the general machinery industry, 7 from the electrical machinery industry, 3 from the construction industry and 4 from the wholesale and retail industry. Of these, 16 companies (those marked with a star) agreed to participate in interviews for this report. These interviews focused on how these companies increased their productivity from a personnel perspective, and sought to discover how to produce high TFP.

Figure 2-2-4 summarizes the results of the interviews conducted for this report. The left hand column of this diagram lists some typical initiatives undertaken by companies with a high TFP rating. High TFP companies use a number of strategies to encourage employees to innovate, but which of these are most effective? And how do these companies hold on to their most exceptional, innovative employees? Through these interviews, it was found that a number of high TFP companies employ the same strategies.

Figure 2-2-4 Common initiatives in high TFP companies



3.2. Common initiatives amongst high TFP companies

Commonality 1: Staff diversity as a growth strategy

Working with a diverse range of staff

The first common point between these companies is that they all employ a diverse range of staff. As these companies start up developments overseas, they are increasingly relying on globally-minded staff with a wealth of overseas experience. To secure globally-minded staff, many companies employ highly-skilled foreign professionals, including international students, and provide training for staff overseas. Also, the number of companies employing exceptional female staff domestically as part of diversity management programs is increasing.

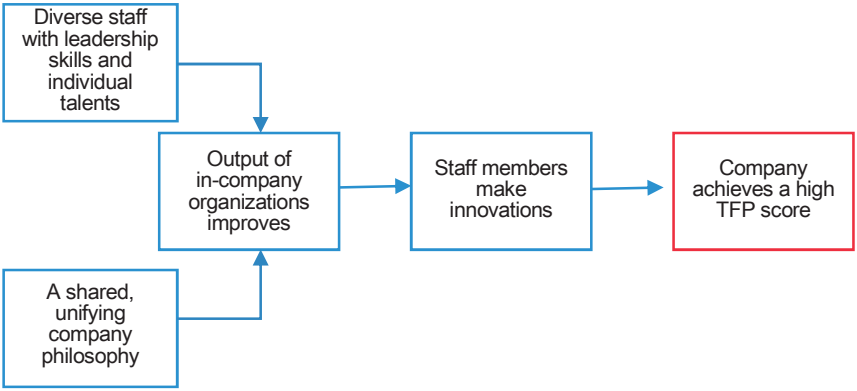
Another common strategy of encouraging cooperation between different in-company sectors is also believed to increase a company's diversity. Representatives from the companies interviewed recounted that when they tried to increase their organization's efficiency by merging and reshuffling sectors, ties between sectors and staff weakened. This is why many top companies are instead creating friendly working environments by carrying out multi-department training programs, implementing processes through which staff can openly share their individual knowledge, and purposefully creating opportunities for staff to interact with colleagues from other departments.

Unifying staff with a thorough company philosophy

The next commonality is that many of the companies interviewed increased their employees' ability to perform tasks and improved their productivity by creating a shared company philosophy.

When firms promote staff diversity, they inevitably attract staff with a range of different views into the company. Even if all of these staff members have exceptional individual talents, there is a danger that they could cancel out each other's efforts and drain the entire company's energy, if such talents are mismanaged. It was found from the interviews was that companies that only sought staff diversity struggled, but those that managed to unify the independent skills of diverse employees by sharing a basic company philosophy saw their employees' work rate improve and saw that their diverse staff members were able to work to their full potential. It seems likely that this shared company philosophy helped to increase staff productivity, which ultimately led to increasing those companies' TFP. (See Figure 2-2-5)

Figure 2-2-5 High TFP companies' common strategy for success



Commonality 2: Profitable use of outside sources and the world market

Through conducting interviews, it was also possible to discover commonalities between high TFP companies in areas other than HR. One such commonality was that these companies networked effectively and made profitable use of outside sources when conducting research projects. This effective networking was apparent in the "open innovation" projects and cooperative projects with universities and other companies that many of the high TFP companies had undertaken. Furthermore, top TFP companies realized that to tap into the world market, they would need to develop their products for different markets and disperse their staff across the world. The high TFP companies interviewed were conducting localized marketing activities and hiring foreign staff and international students to help achieve this goal. It seems likely that these initiatives also contributed to increasing the interviewed companies' productivity.

To summarize, through interview-based research, it was found that the high TFP companies in Kansai had the following 5 commonalities:

1. They implemented systems that allowed them to use diverse staff effectively
2. They broke down internal barriers to allow exchange between staff from different departments
3. They unified their staff by creating thorough company policy and a shared company philosophy
4. They effectively cooperated with outside sources on research projects
5. They distributed the technologies they developed for the Japanese market across the world

In conclusion, this section has used objective TFP data to discover which Kansai companies are doing business with vitality, and has shed some light on the secret to their high growth by examining the common points between those companies. Companies in Kansai that continue to post positive growth figures look attractive in both the domestic and overseas business worlds. It is to be hoped that as many Kansai-based companies as possible take up the initiatives introduced in this section and increase their capacity to innovate. If they do, their increased productivity will have a macro-level flow-on effect in the Kansai economy, and could contribute to the revitalization of the entire Kansai economy.

SECTION 3: THE CURRENT STATUS OF "DRIVING" INDUSTRIES

Akihiro Shima

1. Characteristics of Recent Growth Strategies

Central to the Abe Government's economic strategy, popularly known as "Abenomics", is its overhaul of Japan's economic environment. The Abe government's new strategy promotes a societal system geared towards growth. While previous governments' growth strategies often targeted specific products in specific industries, Abe's wide-reaching strategy is considered a change in direction for Japan's economy.

Last year, the Japanese government set the following goals as part of its plan to foster growth by overhauling the Japanese economic environment:

- Reducing the corporate tax rate
- Planning policy that promotes investment
- Improving labor market liquidity
- Fostering global human resources
- Promoting innovation
- Bringing Japan's IT to a world-class level
- Strengthening Japan's locational attractiveness

Furthermore, the government set the following goals as part of its "Strategic Market Creation Plan":

- Extending the nation's healthy life expectancy
- Realizing clean and economical energy supply and demand
- Building safe, convenient, and economical next-generation infrastructure
- Building regional communities that use their unique local resources to appeal to the world

The June 2014 revised edition of the "Japan Revitalization Strategy" made the chief aim of "Abenomics" clear with this statement: "The most important point is whether business owners and citizens of Japan can regain their confidence and belief in their future, and take real action in pursuit of new innovations".

The government has identified, based on the results of its 2013 Policy Effectiveness Audit, the remaining tasks it must complete in its reform of the nation's economy. Let us look at some of these tasks in detail.

Reforming management of public and quasi-public funds

This move has been considered in conjunction with a number of other policies developed to revitalize Japanese financial markets. The government has strong support for its plans to supply public funds through capital markets into growth areas, which will likely contribute to increasing the economy's growth rate, and as a result provide additional benefits for welfare recipients.

Pro-growth corporate tax reform

In 2008, Germany drastically reduced its corporate tax rate from 38.5% to 29.5%, and Britain followed suit from 2010 onwards, incrementally lowering their corporate tax rate from 30% to 21%. Both Germany and Britain made these cuts to increase their own competitiveness. As the battle to entice investors rages globally, reducing the corporate tax burden would be a sound policy decision for Japan. The Japanese public is demanding swift action on this front.

Developing aggressive agriculture, forestry and fisheries

With the aim of increasing the number of motivated, business-minded farm owners, a bill to reform agricultural committees, agricultural corporations and agricultural cooperatives will be presented to the Diet in 2015. Moreover, the government has announced a plan to accelerate agriculture, forestry and fishery exports by establishing export promotion groups for individual products.

Vitalizing the health industry and providing high quality health care services

Building on its prior achievements in establishing headquarters for medical research and development, the government aims to revitalize healthcare through initiatives such as founding a nonprofit holding company-type corporation system and setting up a patient request-based treatment system.

Regional revitalization/Regional economic structural reform

Along with centralizing regional ministries' community revitalization policies, the government is now considering revising the Local Revitalization Act. The government is also increasing community competitiveness by promoting concession-driven private finance initiatives in regional communities.

2. Kansai-based Initiatives

In Kansai, just as in other regions in Japan, the government has made efforts to uncover growth industries, and support industry in general. Within the region, the Kansai Bureau of Economy, Trade and Industry (METI Kansai) has been centrally responsible for fostering growth industries. In 2009, METI Kansai developed their "Kansai Mega-Region Framework", a report which examined Kansai as a large scale area. The Framework, considering central government policy and the unique identity of Kansai, identified the following growth industries:

Local industries expected to grow

- Green innovation industries
- Life science industries

Promising overseas developments

- Aircraft, air freight and related industries
- Environmentally-friendly, energy-saving innovation industries
- Creative industries

METI Kansai published a new report in 2013, entitled "JUMP UP KANSAI". JUMP UP KANSAI took post-2009 national economic policy trends into account and listed promising Kansai industries in more detail:

Figure 2-3-1 Promising Kansai Industries Identified in "JUMP UP KANSAI"

	Industry	Specific Growth Areas
1	Life Science	Medicines, medical equipment, advanced medical technologies, welfare and nursing care industries
2	Green	Energy production, reduction and saving developments, Environmentally-friendly system production
3	Creative	Content, design and entertainment industries

Source: Kansai Bureau of Economy, Trade and Industry publication

METI Kansai's JUMP UP KANSAI outlined three initiatives it would pursue to foster growth-leading industries in Kansai:

- The "Kansai Mega-Region Framework"

- Large-scale vision of Kansai (through the "Union of Kansai Governments")
- Kansai strategic total economic growth regions

The report stresses that these three initiatives have the same objective: increasing growth in the Kansai region. It identifies the need to develop a concrete plan for implementing these initiatives, and highlights the importance of promoting strong economic enterprises.

Regarding the promotion of Private Finance Initiatives (PFIs), another element of the nation's growth strategy, the government is planning to sell the management rights of the New Kansai International Airport Company (NKIAC; owners of the Kansai International Airport and Osaka International Airport) to the private sector. Sale of the company is expected to take place in 2015 at the earliest, and it is predicted to improve Kansai's position as a transport hub. In late July 2014, the Ministry of Land, Infrastructure, Transport and Tourism confirmed that it would move to sell management rights of NKIAC. According to reports, the terms of the sale will be management rights of the company for 45 years at a price of at least 2.2 trillion yen (approximately 20 billion USD). The total cost of management rights of the company will come to 49 billion yen annually (approximately 445 million USD). It is expected that the knowledge of private corporations will have a revitalizing effect on the airports' business.

The sale of NKIAC is a model of how the government is injecting private capital into public infrastructure development and harnessing the innovation of the private sector to encourage new business development.

3. Kansai's Growth-Driving Industries

What are the characteristics of Kansai's growth-driving industries? There are several factors to consider in regards to this question, but it is likely that growth-drivers in Kansai share the following three characteristics:

1. Their market position is predicted to increase
2. They have a relatively large market
3. They have secured individual brand competitiveness in Kansai

The first point is a relatively universal characteristic of economic growth initiatives, while the second and third points pick up on a problematic area in economic policy-making. In the past, there has been a tendency for initiatives implemented across Japan to overlook the second and third characteristics. For

example, among initiatives focusing on so-called "state of the art" industries, there have been many that had extremely limited demand and small potential markets. These initiatives might have overlooked the second characteristic.

In addition, many regions of Japan focusing on revitalization have implemented the same initiatives as other regions to their own detriment. In the current global economic climate, where international competitiveness is critical, policies such as these are unlikely to lead to effective industrial growth. It can be said that past initiatives have overlooked the importance of securing regional strength.

There is reason to believe that METI Kansai's three proposed growth industries (Life Sciences, Green Initiatives and Content Industries) all have the three characteristics listed above. Within Kansai's Life Science industry, research into Induced Pluripotent Stem Cells (iPS cells) is of particular interest. Where this project differs significantly from other medical projects is in terms of its market potential. Past initiatives mainly focused on the concept of "high-level medical treatment", funding research into treatment of incurable diseases, for example. These initiatives are extremely high-level in medical and technical terms, but from a market perspective, they only targeted a small number of patients and health organizations. For example, there are 80 universities in Japan with medical schools. It is fair to say that only a limited number of customers use the high-level equipment in the medical schools of these universities and in their affiliated hospitals. It follows that while these initiatives are significant from a medical perspective, their potential to effect growth in the medical equipment industry is limited. On the other hand, investors believe that iPS cell research is certain to play a major role in the large and versatile regenerative medicine market. According to estimates from the national Ministry of Economy, Trade and Industry (METI), the scale of the regenerative medicines market will increase from just 240 billion yen (approximately 2 billion USD) in 2012 to 1.1 trillion yen (approximately 10 billion USD) in 2020, and to 15 trillion yen (approximately 136 billion USD) by 2050. Kansai labs are considered to be world leaders in iPS cell research. This gives reason to believe that regenerative medicine research in Kansai's Life Science industry has the characteristics required to lead market growth.

There are surely industries in Kansai other than the three identified by METI Kansai with the characteristics of market growth drivers. Kansai has many sightseeing spots and tourist attractions that maintain consistent popularity, which means that the Kansai tourism industry will remain a promising growth area into the future. The food industry in Kansai is also expanding. Kansai produces a large

percentage of the ingredients used in “washoku” (Japanese cuisine), which was recently awarded UNESCO World Cultural Heritage status. Although these foods are highly valued both in Japan and throughout the world, pricing issues prevented expansion of this market. However, recent economic growth in neighboring Asian nations has alleviated these pricing issues to a certain degree, and allowed Japan’s food industry the potential to advance into overseas markets. There is reason to believe that Kansai’s tourism, food processing and agriculture, forestry and fishery industries have an excellent chance to grow in the near future.

This year’s “Kansai in the Asia Pacific”, rather than providing a broad-spectrum analysis of Kansai’s economic data, will instead examine a number of Kansai’s growth-driving industries in detail.

SECTION 4: THE LIFE INDUSTRIES COMING TO LIFE

Yusuke Kinoshita

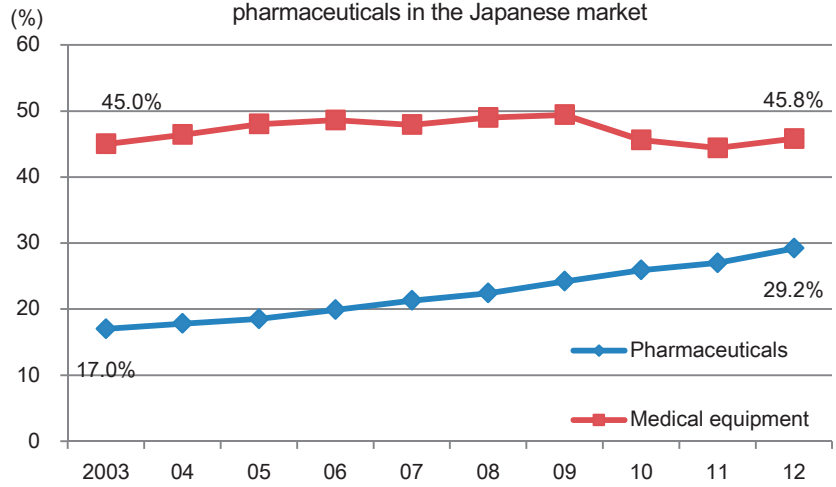
1. Life Industries Today

Life industries are expected to be growth-leading industries in Japan in the near future. One of the goals of the Abe administration's "Strategic Market Creation Plan" is to "extend the nation's healthy life expectancy", and the life industries will play a large role in the quest to achieve this. On the back of Kyoto University professor Shinya Yamanaka's Nobel Prize-winning research into induced pluripotent stems cells (iPS cells), expectations that Japan's life science industry will continue to grow are high in all sectors. The development of iPS cells is predicted to play a large role in expanding Japan's regenerative medicines market and promoting research into new medicines.

In 2012, domestic production of the medicines and medical equipment that make up the core of the life science industry yielded 6.98 trillion yen (approximately 63 billion USD) and 1.89 trillion yen (approximately 17 billion USD) respectively. In addition to this, Japan's production of over-the-counter medicines and medical cosmetics (known as "quasi drugs") yielded 800 billion yen (almost 7 billion USD), bringing the total worth of these three life industries in 2012 to about 10 trillion yen (approximately 91 billion USD). Besides production, Japan's medicines market is worth 9.66 trillion yen (approximately 88 billion USD) and its medical instruments market is worth 2.59 trillion yen (almost 24 billion USD), according to the Ministry of Health, Labor and Welfare (MHLW). This means that the total life science market is now worth 12 trillion yen (over 100 billion USD) per year in Japan.

Japan has a 10 % share of the world pharmaceuticals market, and the nation has the second-largest pharmaceuticals market in the world behind the US. However, in recent years, Japan's pharmaceuticals exports have flat-lined at a low level and its imports have risen, prompting some observers to suggest that the industry's global competitiveness has decreased. MHLW data confirms that the percentage share of imported pharmaceuticals in the Japanese market rose from 17% in 2003 to 29.2% in 2012. Even in the medical equipment industry, the percentage of imported equipment now exceeds 40% (see Figure 2-4-1).

Figure 2-4-1 Percentage of imported medical equipment and pharmaceuticals in the Japanese market



Source: MHLW study "Statistics of Production by Pharmaceutical Industry"

A major reason why Japan's supply and demand balance has come askew of late is because many Japanese pharmaceutical companies have moved their production facilities overseas. This means that a large percentage of these companies' increasing overseas sales come from medicines made outside of Japan, so these sales do not contribute to Japan's pharmaceuticals exports statistics. Additionally, Japanese companies' domestic production statistics are not increasing because most of the medicines they are distributing in Japan are imported. However, considering that the pharmaceuticals sector has a technical trade surplus, it would be fair to say that the sector has more than enough potential to be internationally competitive.

If Japanese pharmaceutical companies are still globally competitive, why then has the production sector made such little progress, and why is its supply and demand balance worsening? In its "New Vision for the Pharmaceutical Industry 2013" report, the MHLW identified and suggested strategies for dealing with 4 areas of concern in the industry:

1. Fewer successful pharmaceutical developments
2. A lag in the release of newly developed medicines
3. Competition from giant, multi-national medical conglomerates
4. The introduction of generic medicines

The government believes that the life science industry can overcome these issues and become a growth leader in the Japanese economy.

2. Kansai's Life Industries

Three prefectures in the Kansai region rank in the national top 10 in terms of yield from pharmaceuticals production, with Osaka 4th, Hyogo 7th, and Shiga 10th. Furthermore, Kansai production accounts for 18% of the total national yield from pharmaceuticals (see Figure 2-4-2). It is believed that developments in regions like Osaka's Doshōmachi, long known as a "pharmaceuticals town", and Hyogo's Port Island, have contributed to Kansai's success.

Figure 2-4-2 Kansai pharmaceuticals industries' yield and national rank

National Rank	Prefecture	Production Yield (¥, billions)	Production Yield (USD, billions)	National Share (%)
4	Osaka	509.1	4.6	7.3
7	Hyogo	294.8	2.7	4.2
10	Shiga	246.9	2.2	3.5
23	Fukui	77.3	0.7	1.1
27	Kyoto	71.1	0.6	1.0
32	Nara	52.0	0.5	0.7
41	Wakayama	3.7	0.03	0.1
	Kansai Total	1254.9	11.40	17.9

Source: MHLW study "Statistics of Production by Pharmaceutical Industry"

The Kansai medical equipment industry only recorded a yield of 167 billion yen (approximately 1.5 billion USD) and accounted for just 8.9% of the national market in 2012 (a comparatively lower share than that of its pharmaceuticals industry). However, a large percentage of Japan's medical equipment manufacturers (approximately 20%) were operating in Kansai in 2012, giving the region influence in this industry.

In general, Kansai is a region with a high concentration of pharmaceuticals companies, medical equipment companies, and laboratories performing groundbreaking research in fields such as iPS cell research. It is predicted that these companies and laboratories' projects will fuel the growth of Kansai's life science industry.

3. Using "Strategic Special Zones" to Encourage Economic Growth

3.1. Kansai region named as a "National Strategic Special Zone"

In March 2014, as part of its economic growth strategy, the Japanese government decided to make the Kansai region (specifically Osaka, Hyogo and Kyoto prefectures) a "National Strategic Economic Zone" (SEZ). The government is relaxing regulations in these SEZs to help the region's economy to grow. In Kansai, the government has relaxed regulations regarding town development, employment, education, historical buildings and, most importantly, the medical industry, seeing the potential for growth in these areas (for more information, see Figure 2-4-3). As mentioned previously, Kansai hosts not only a large collection of pharmaceuticals companies and medical equipment makers, but also Kyoto University, which conducts world-leading research into iPS cells and regenerative medicine, and other medical research laboratories and companies, such as those in the Kobe Biomedical Innovation Cluster. It is believed that these solid foundations of medical research in Kansai encouraged the government to select the region as a special economic zone.

Figure 2-4-3 Industries with eased regulations in National Strategic Economic Zones

Zone \ Industry	Medicine	Town Development	Employment	Education	Building Preservation	Agriculture	Others
Kansai	○	○	○	○	○		
Tokyo	○	○	○				○(Labor etc)
Fukuoka City	○	○	○				○(Labor)
Niigata City			○			○	
Yabu City, Hyogo						○	
Okinawa							○(Tourism, Labor)

- **Tokyo Zone**: Support for medical treatment for foreign residents, the creation of health industries and cutting edge medical treatment, and the training of international medical practitioners
- **Fukuoka Zone**: Support for medical treatment for foreign residents

Source: Created based on materials published by the *Kansai International Strategic Comprehensive Special Zone Regional Council*

Kansai's six local governments had already been assigned as the "Kansai Innovation International Strategic Comprehensive Special Zone" by the

Democratic Party of Japan (DPJ)-led government in 2011. The DPJ government authorized 43 projects and invested a total of 63 billion yen (over 500 million USD) in Kansai.[1] However, although Kansai businesses asked the DPJ government to ease a number of regulations to allow projects to progress, many of these requests never made it past the discussion stage. It would be an exaggeration to say that the DPJ's Special Zone strategy gave the Kansai economy growth-leading potential. However, expectations are high for the current Abe government's more lenient SEZ strategy.

The major difference between the SEZ and the DPJ's Special Zone strategies is that SEZs are coordinated by a central "Growth Area Council" led by the Prime Minister that deals directly with requests from businesses to ease regulations. By comparison, under the DPJ's Special Zone policy, the government accepted applications from local public bodies and processed them from the bottom up through its already existing departments. This meant that negotiations involved in reforming regulations took a considerable amount of time and effort to complete. This issue has been rectified in new SEZs, however. Now, when a public or private body wants a regulation to be eased, they submit a reform bill directly to the Growth Areas Council, which considers the proposal, devises a specific "Growth Area Plan" for it, and then passes it on the Prime Minister's office to be enacted. Whether SEZs profit from the new government strategy depends on the quality of the "Growth Area Plans" they submit. It is in Kansai's best interests to draft concrete Growth Area Plans that will help strengthen its promising medical and bioscience enterprises.

Kansai hosted the first ever Growth Area Council meeting on June 23rd, 2014. At the meeting, businesses presented their draft enterprise plans to council members. Some of the specific plans they presented included medical enterprises and town developments. Subsequently, on the 9th of September, the government recognized Yabu City in Hyogo Prefecture as an SEZ, and on the 24th of that month held the Kansai Zone's second Growth Area Council meeting. At the meeting, the government passed a previously submitted enterprise plan that included medical regulation reform policy. The reform policy had two main benefits for the Kansai medical industry: firstly, it allowed hospitals such as Osaka and Kyoto University Hospitals to offer mixed billing for a wider range of cases, and secondly, it eased hospital bed number regulations, allowing the "Kobe Eye Center" (due to be constructed in 2017) to offer 30 beds.

[1] *Kansai Economic Federation* conference papers, published in Cabinet Office, Government of Japan, "Regional Futures Working Group 3" (http://www5.cao.go.jp/keizai-shimon/kaigi/special/future/wg3.html [Japanese]).

However, these were just a few of the regulation changes that the business sector and local business organizations were calling for. Other submissions to the Council included a request to remove the ban on foreign doctors examining Japanese patients. Unfortunately however, the Council decided to delay its decision on this law change, and instead added the suggestion to its list of future topics for deliberation. The Council deserves praise for reforming regulations like the mixed billing ban[2], which was described in the past as being "set in stone". However, as Osaka Prefecture Governor Matsui has stated in newspaper articles, "Kansai's medical industry may have moved half a step forward, but its other industries haven't moved at all". In response, Prime Minister Abe argued that "we are going to increase our speed and put all the reform plans for "set-in-stone" regulations on the table over the next two years, which will open the way for more breakthroughs". The public has high hopes that the Prime Minister will follow through with the developments he has promised.

3.2. Great expectations for medical innovation in SEZs

The three medical law reforms suggested in Kansai that are particularly promising are the removal of the ban on foreign doctor examinations, the easing of hospital bed regulations, and the introduction of mixed billing. This section will briefly explain the aims and expected results of these reforms.

Firstly, many foreign business people working in Japan are excited about the prospect of allowing foreign doctors to carry out examinations. There is currently high demand for foreign doctors in Japan from overseas visitors wishing to be diagnosed in English or in their mother tongue. Allowing foreign doctors to examine patients should attract more foreign businesses to Japan. A law change such as this could also attract the interest of overseas media, giving Kansai life science businesses the perfect opportunity to promote their medical equipment in other countries and lay the foundations for future overseas developments.

Next, allowing local governments to authorize the construction of new hospitals and increase hospital bed numbers will make it easier for hospitals to add more patients and beds, which will improve the scope of these institutions' clinical data about medical procedures and drug developments. This more precise data will surely assist with the implementation of regenerative medicines. What's more, with local governments supporting hospitals with everything from basic research to

[2] Under the current system in Japan, patients opting for even one non-standard treatment not covered under the national healthcare insurance system as part of their overall course of treatment must pay out-of-pocket for the entirety of their treatment, including the parts that would otherwise have been covered by the national healthcare insurance system. 'Mixed billing' refers to permitting doctors to bill patients separately for non-standard treatments while billing standard treatments to the national healthcare system.

implementation of new medical procedures, they are bound to attract more sponsors and personnel from other domestic and overseas regions.

Finally, expanding the number of illnesses and medical industries covered by the mixed billing system will help make it easier for patients to receive cutting-edge medical treatment. This reform will no doubt bring about an increase in the number of life science companies and medical research institutions in Kansai.

Traditionally, the Japanese medical industry has required a significant amount of time to make research developments or to implement new procedures. However, the Kansai SEZ can be used as an opportunity to make bold reforms of national regulations and systems, it will give key Kansai sectors the chance to grow into growth-leading industries. This growth can be expected to extend beyond medical and pharmaceuticals companies and into developments that branch across the entire life sciences sector. There is reason to be hopeful that the SEZ will be a seed from which innovation in Kansai will grow and flourish into economic success.

SECTION 5: RECHARGING THE ELECTRONICS SECTOR

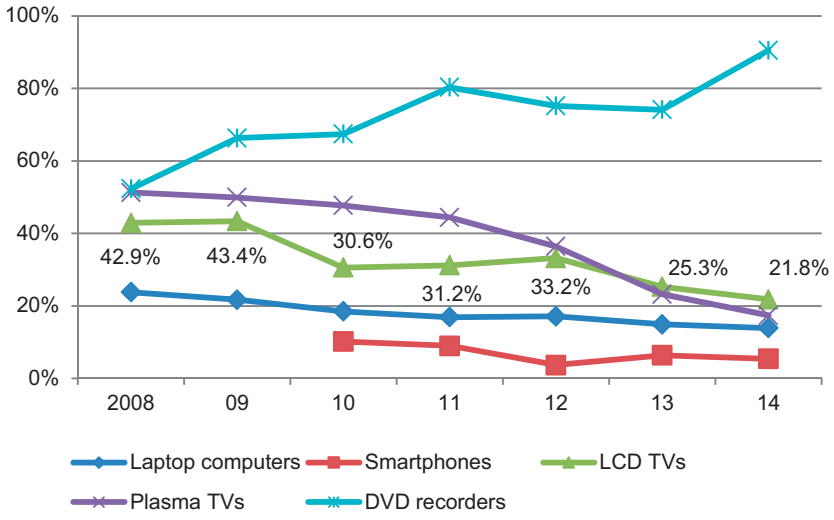
Yusuke Kinoshita

1. Current Challenges for the Kansai Consumer Electronics Industry

Kansai's manufacturing sector is made up of a number of different industries, including new energy and environmental industries that produce such items as solar panels and storage batteries, as well as parts and raw materials industries. One of these industries, the consumer electronics industry, played an important role in supporting Japan's exports in recent decades, then went into relative decline at the turn of the millennium, but is now showing signs of recovery in the Abenomics era.

Until the year 2000, shipments of electronic goods made in Kansai represented 3% of all national exports, and the industry was an important growth leader in Kansai. Firms gained market advantage due to the image quality and functionality of their goods, as well as their sales and investment strategies. However, after the year 2000, it became difficult for Japan's consumer electronics businesses to increase their profits. One reason for this was other nations' successes in modularizing computerized household appliances, known as "brown goods", and rapidly turned them into commodities largely indistinguishable by maker. This commoditization drove prices down and created fierce competition in the global electronics market. Televisions, which command a large share of the total sales of electronic goods, became particularly problematic. As South Korean, Chinese and Taiwanese companies expanded, the price of LCD panels fell dramatically and this led to the price of televisions dropping in general, down to a price that made it difficult for Japanese companies to make a profit. In 2008, LCD TVs manufactured by Japanese companies made up 43% of global television sales, but by 2013, this figure had fallen to 25% (see Figure 2-5-1). The data shows that other Japanese electronic products' share of global sales has also continued to decrease in this decade. As a result, Kansai's consumer electronics industry has lost its status as a growth leader in the region, and the majority of Kansai electronics companies are now dealing with high levels of debt.

Figure 2-5-1 Global share of Japanese electronics companies' major appliances



Source: Ministry of Internal Affairs and Communications, "ICT International Competitiveness Index"

However, since 2013, Japanese electronics manufacturers have gained some momentum, thanks to the low yen and the general economic recovery created by Abenomics policies. Manufacturers have started reforming their businesses and implementing new growth strategies. This section will examine the changes being made to the business and merchandising strategies of two companies that are the face of the Kansai electronics industry: Panasonic and Sharp.

2. Changes to the Business Strategies of Electronics Companies

2.1. Business Portfolio Changes

The two developments that rocked Japan's consumer electronics industry were the large fall in companies' television sales and the rapid expansion of the smartphone market. In response to these problems, Japanese companies set about revising their business portfolios. In one example, Panasonic overhauled its unprofitable television business by closing its factory in Amagasaki in Hyogo prefecture and ceasing its television production in China and Mexico, where price wars with local manufacturers had caused the company's turnover to fall dramatically. Another example is Sharp, which shifted its focus from producing LCD TVs to selling small and medium-sized LCD panels to Chinese smartphone

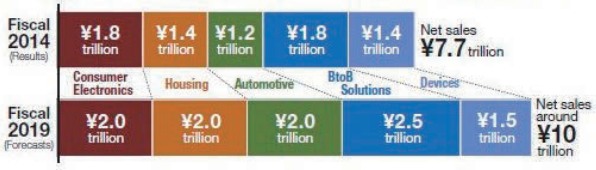
manufacturers. In this way, Kansai electronics companies are implementing changes and appraising their business portfolios.

2.2. Shifting the Focus from BtoC to BtoB

One significant strategy these companies are implementing is to shift their focus away from BtoC (Business to Consumer) dealings and towards BtoB (Business to Business) partnerships. For example, one of the business reform plans Panasonic has announced in preparation for its 100th anniversary in 2018 is make "BtoB solutions" in consumer, housing and automotive electronics one of the pillars of its business. The company aims to increase its net sales to 10 trillion yen (approximately 91 billion USD) through BtoB initiatives.

To reform the core of its business, consumer electronics, Panasonic's main strategy is to focus on profitability and eliminate debt by consolidating unprofitable projects and revising the structure of its distribution system. In its housing division, which is forecast to grow, Panasonic is expanding its existing projects and introducing new BtoB-oriented projects. In one such project, the company is feeding into the trend of creating "smart houses" by developing energy management (energy-creating, energy-storing, and energy-saving) household technologies. The company is also moving to increase its focus on BtoB dealings in the automotive industry (see Figure 2-5-2).

Figure 2-5-2 Panasonic's vision: Expanding into the wide-ranging areas of BtoB business



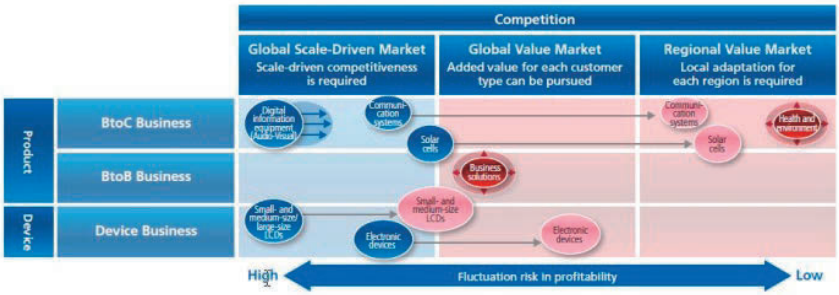
Source: Panasonic, "2014 Annual Report"

Sharp is also moving to restructure its business portfolio. However, unlike Panasonic, a large percentage of Sharp's business comes from television and LED screen sales. For this reason, Sharp has decided to change the focus of its business portfolio from expansion into a "global-scale market" to maintaining a high market standing in "value markets".

Specifically, Sharp's digital IT electronics division is aiming to create more profitable, higher-definition, large-scale LCD screens, while its white goods

division is planning to develop its business in ASEAN countries, anticipating future growth in the region. Additionally, the LCD division, which is facing the most intense international competition, is planning to raise its profitability by focusing on sales to other businesses and increasing the percentage of small and medium-sized LCD screens it produces. Overall, Sharp is steering its focus away from BtoC business and towards BtoB business (see Figure 2-5-3).

Figure 2-5-3 Sharp's vision: Shifting to value markets



Source: "SHARP Annual Report 2013"

Both Panasonic and Sharp are aiming to stabilize their management and improve their financial standings by moving away from their reliance on the unprofitable consumer electronics sector. These companies are now focusing on creating value-adding processes in all of their divisions. There is evidence to suggest that these reforms are producing tangible results, with Panasonic in particular already making upward revisions to its fiscal 2014 earnings forecast.

3. Changes to Companies' Merchandising Strategies

While the external environment Japanese companies deal with has improved, consumer electronics manufacturers are still confronted with a fierce global price war. However, in this harsh sales environment, there are still some electronics companies that have succeeded in maintaining their high-value and high value-adding businesses. These companies have evaded the price competition that has arisen from the commoditization of technologies by developing innovative merchandising strategies to differentiate themselves from their competitors.

In a recent report, the Development Bank of Japan's (DBJ) Kansai Branch listed Kansai companies using "innovative design" as a business initiative[1]. The

[1] Development Bank of Japan (2014), "Kansai Manufacturing: Building Fans Through Design Innovation"

report explains that as a means of combating commoditization, companies must offer products and services that respect customers' individuality and values, and construct business processes that communicate those values and stimulate customer interest. The DBJ argues that the best way to do this is by using design.

Design can bridge the gap between the value of highly technological and functional products that companies make and the 'emotional' values that customers and wider society have. The DBJ report finds that amongst the Kansai companies offering superior products and services, those that have used design in their management strategies and business models to stress their individuality have been the most competitive.

The report also introduces case studies of two design strategies that have helped companies to produce successful high-quality products. The first strategy is effectively using customer service to communicate the value of one's products. For example, in Panasonic's sale of its "Let's NOTE" notebook computer, the company pays particular attention to providing quality after-sale service. In this way, Panasonic is setting itself apart from other brands by providing services that respond to customers' emotional demands, such as repair and maintenance services.

The second strategy is embedding a company's philosophy and vision into the foundations of their products. By attaching personalized messages or back stories to their products, companies can give those products value that other brands do not have. For company managers, the key to increasing their company's individuality is to not just to pursue high sales figures and superior product functionality. Rather, managers need also to reconnect with their customers and rethink how they communicate with them.

4. Towards Recharging the Growth-Leading Electronics Sector

The business and merchandising strategies introduced in this section are helping re-energize Kansai's electronics sector back towards success. However, in adapting to the new realities of the global consumer electronics market, many challenges remain. Whether or not Kansai's electronics sector can fully recharge depends in part on how the market moves next.

SECTION 6: KANSAI AGRICULTURE AS AN EXPORT INDUSTRY

James Brady

The standard account of Japanese agriculture abroad is typically bleak, painting a picture of a sector beset by structural problems, with elderly, part-farmers on tiny plots, producing high-cost rice and other produce for a captive domestic market, benefitting from tariff barriers and government subsidies, with the agricultural cooperative conglomerate JA[1] lobbying intensely to preserve a privileged position for farmers and itself, irrespective of consumer costs or lost growth potential through investment diversion or foregone trade agreements.

Within Japan, however, some positive trends are emerging that offer a different vision of agriculture. This section focuses on one of these: the increasingly active role of firms in various aspects of agricultural production and related services. While operational scale remains small for now, these activities are developing forms of agricultural production that better suit Japan's factor endowments, thus offering potential for competitive advantage in global food markets. With domestic population and food demand expected to shrink, many new entrants are also motivated by the prospect of exporting products, technology, and management know-how to a global food market that the agriculture ministry forecasts will double in size to USD 7.2 trillion between 2009 and 2020[2].

Within this national trend, the Kansai region is a leading player. Somewhat uniquely among Japanese regions, Kansai has a concentration of large firms in the Osaka-Kyoto-Kobe conurbation, extensive agricultural hinterlands with diverse production, and a large local consumer market of over 20 million people. Firms from fields including manufacturing, IT, real estate, transportation, and general trading have entered the local agricultural sector, and some have already begun operations overseas, with the aim of taking advantage of Kansai's Asia-oriented trade posture and the expected growth in the high-value segment of the Asian food market.

After providing overviews of issues in contemporary agriculture and Kansai's agricultural sector, this section moves on to examine the growing role of corporations in agriculture, and looks in more detail at the plant factory sector. The final section offers preliminary suggestions regarding the prospects for

[1] *Nokyo*, now known in English as "Japan Agriculture", or JA.
[2] See MAFF (2015), "The Global Food Value Chain Strategy", http://www.maff.go.jp/j/kokusai/kokkyo/food_value_chain/pdf/201503_gfvc_en.pdf

Kansai agriculture as an export industry.

1. Meta-problems and Underlying Potential

Japanese agriculture has many structural problems, such as farm scale, an average age of farmers of almost 70, lack of full-time farmers, a successor shortage, and increasing levels of abandoned land which have each contributed to a long-term decline in employment and production levels in the sector. More problematically, there is the 'meta-problem' of relative land scarcity, set against abundance in capital and skilled labour. These factor endowments give rise to a comparative disadvantage in land-intensive (i.e. crop-extensive) production.[3] Thus, even if the structural problems were resolved, Japan would remain at a disadvantage to other countries in terms of relative production cost for land-intensive agricultural goods, such as rice, wheat, and soybeans. Even so, agricultural policy remains largely focused on such crops, in part out of concern for "food self-sufficiency" (calculated to be 39% by the agricultural ministry, using questionable methodological assumptions)[4], as well as for reasons of history, culture, and public sentiment favouring rice.[5]

1.1. The agricultural trade balance

One problem that arises from prioritising land-intensive agriculture in a land-scarce country is the impact on the agricultural trade balance, which sums the value of food imports and exports. Japan has run a large agricultural trade deficit for decades, and though this may be politically problematic, it is an entirely normal state of affairs in economic terms, given factor endowments.

Figure 2-6-1 shows Japan's food imports and exports from 2004 until 2013. During this period, exports grew at average rate of 6.1% per year, from USD 2.62 billion in 2004 to USD 4.48 bn in 2013 (JETRO 2015)[6]. In relative terms, exports performed better than imports, which averaged a 3.3% annual increase in the same period, but in absolute terms, imports rose from 50.0 billion USD in 2004 to 66.8 billion in 2013. Food exports accounted for 0.6% of all exports in 2013,

[3] Topologically, Japan is around 72% mountainous (including 68.6% forested), while agricultural land accounts for only 12.5% of total land area, much lower than the figures for Australia (53.3%), the EU (44.3%), the United States (50.0%), or the world average (37.5%). See World Bank data (accessed 27 April 2015):
(http://data.worldbank.org/indicator/AG.LND.AGRI.ZS/countries/1W?display=default)
(http://data.worldbank.org/indicator/AG.LND.FRST.ZS/countries/1W?display=default).

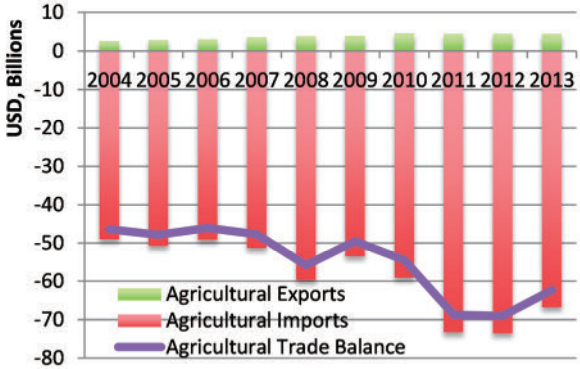
[4] Although common in political discourse on agricultural policy, calorie-based agricultural trade calculations are not an economic statistic, since they are based on political concerns related to trade embargoes or war. In economics, value-based agricultural trade statistics are appropriate.

[5] Today, 55% of land is used for rice production alone, despite domestically produced *japonica* rise costing over three times the world market price.

[6] JETRO report trade figures in USD.

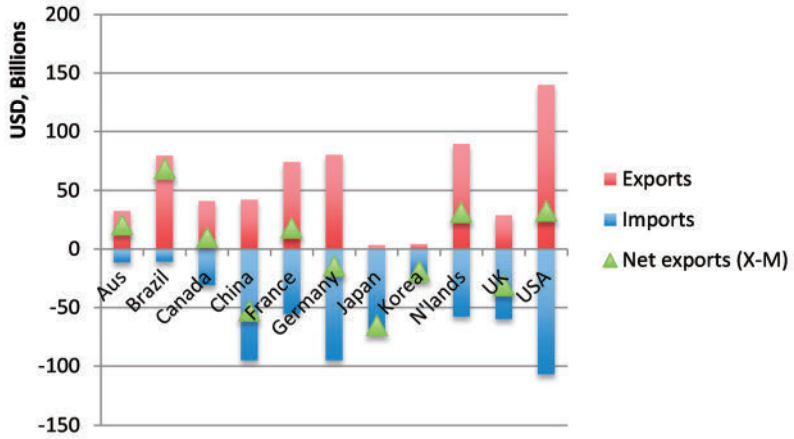
while food imports represented 8.0% of all exports in the same year.

Figure 2-6-1 Japan's agricultural trade balance, 2004-2013



Source: JETRO, Japan's International Trade in Goods (Yearly), http://www.jetro.go.jp/en/reports/statistics/

Figure 2-6-2 Agricultural trade balances in international comparison



Source: FAO Stat (2015), http://faostat3.fao.org/download/T/TP/E

Figure 2-6-2, showing the trade balances for crops and livestock products for major agricultural trading nations in value terms in 2011, puts Japan's situation in international context. In this comparison, Japan was only the third-largest importer in gross terms. In net terms, however, Japan was the largest importing nation, due to its extremely low level of agricultural exports. This contrasts with other major economies, which engage in much higher levels of two-way trade in

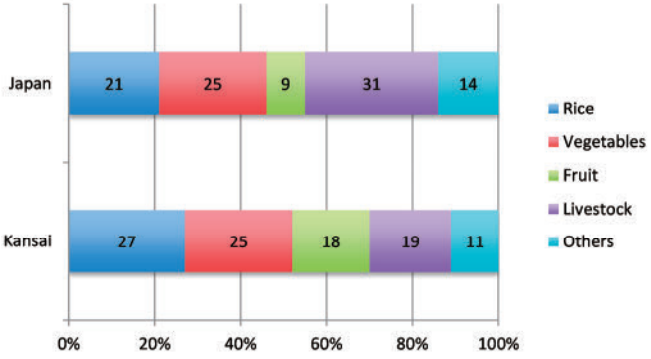
agricultural goods.

Thus, while international debates centre on further opening Japan's agricultural markets through trade agreements, and domestic debates often focus on boosting the (calorie-base) food self sufficiency rate, an arguably more interesting question in economic and business terms is whether Japan's agricultural trade profile can be "normalised" by boosting the value of food exports from their current low level. If food producers can produce in a factor endowment-appropriate way, there is the potential to increase the value of agricultural exports significantly. Doubling agricultural exports is a policy goal of the current Abe administration, which has set a target value for exports of 1 trillion yen by 2020.[7]

2. Agriculture in Kansai

Agriculture in Kansai is characterised by production diversity and high-value output, with a focus on fruit. Kansai has 295,000 agricultural households, which represents 11.7% of the national total, and has 6.1% of total cultivated land[8]. In value terms, agriculture in Kansai is above the national average, with agricultural output worth 578.3 billion yen (USD 5.25 bn) in 2012, or 6.9% of the national total.

Figure 2-6-3 Agricultural output by category for Kansai and Japan



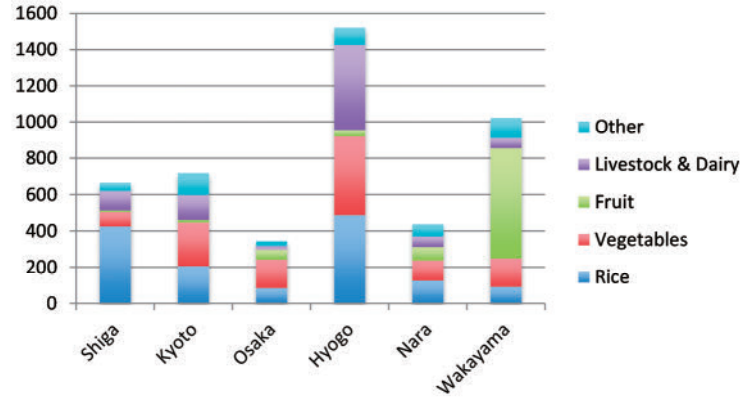
Considering output by category (Figure 2-6-3), rice and vegetables each account for around one quarter of output. The share of fruit in Kansai's output

[7] Sceptics will likely note that doubling agricultural exports was also a goal for the previous Abe administration in 2006-07, with no noticeable effect, as Figure 2-6-1 indicates.

[8] Sources: Statistics Bureau of the Ministry of Internal Affairs and Communications website (http://www.stat.go.jp), and *Statistical Yearbook of the Ministry of Agriculture, Forestry and Fisheries (2012-2013).*

(18%) is double the national level, while the share of livestock is below the national level. By prefecture, major production items include rice, livestock, and vegetables in Hyogo, rice in Shiga, vegetables in Osaka and Kyoto, and fruits in Wakayama (Figure 2-6-4).

Figure 2-6-4 Main agricultural products by prefecture / speciality agricultural products (100 million yen)



Source: MAFF (2013), Heisei 24 nendo nougyou seisangaku oyobi seisan nougyou shotoku (todoufukenbetsu)

3. Corporations and Agriculture

3.1. Easing barriers to entry

The trend towards a more endowment-appropriate form of agriculture has been led by corporations, who have until recently been largely absent from the agriculture sector. Due in part to the legacy of the politically powerful landlord class and frequent tenant disputes in the prewar decades, the postwar agricultural system was organised around a "cultivator principle" (*kousakusha shugi*). Postwar land reforms facilitated the transfer of land ownership to former tenants at low prices, restricted land ownership rights to the farmers who worked the land, and also set limits on maximum holdings. While beneficial in social terms, the agricultural reforms obstructed large-scale production and corporate involvement.

The failure of policy to create a prosperous sector in the subsequent decades provided the context for the first move to permit joint-stock companies to enter agriculture in the late 1990s. The 1999 Food, Agriculture, and Rural Areas Basic Law allowed joint-stock firms to invest up to 25% of capital in farmer-led 'agricultural production companies' (*nougyou seisan houjin*), while the revised

Agricultural Land Law of 2009 permitted private firms to rent (but not own) farmland. Since then, the number of agricultural production corporations has risen by 29.5%, reaching 14,333 in 2014.[9]

Most recently, as one aspect of the so-called 'third-arrow' regulatory reforms, the current Abe administration is raising the capital investment limit to about 50%, and reducing the minimum number of farmers required to sit on an agricultural production company board, from 50% to one member. In February 2015, the administration announced significant reforms to JA-Zenchu, a peak body in the JA structure, to increase the financial and management autonomy of local cooperatives, allowing them to pursue their own business strategies. If implemented, such reforms may also add to the increasing business orientation and farm-firm linkages in the sector.

3.2. Firms on the farm

Paradoxically, despite being the oldest sector in one of the world's most advanced economies, agriculture in Japan is spoken of today as a "blue ocean" by some businesspeople. Barriers still remain, but regulatory easing towards firms, together with the JA reforms, is creating space in the food production market in which new participants can enter.[10] Despite expected demand shrinkage, the domestic market offers growth opportunities to producers who cater more closely to changing consumer tastes than has been the case until now, as well as producers who utilise new technologies to raise productivity.

In addition, many new market entrants are also motivated by opportunities in growing overseas food markets. One aspect of this is demand for safe, high-quality produce from high-income consumers in Asia, a market segment that Japanese products like *wagyu* beef and luxury fruits could cater for. Another aspect will be the export of technology and operational know-how developed in Japan in order to facilitate local production for local consumption in other countries, as well as income from after-sales maintenance contracts, as already exists for Japanese companies exporting machinery to Southeast Asia.

Firm from a range of business sectors have entered agriculture in recent years in two main ways: production, and IT agriculture. Concerning production, firms are using the new regulatory framework to establish operations in larger scales, generally for sales through the firm's own retail channels. A farming subsidiary of

[9] http://www.maff.go.jp/j/tokei/sihyo/data/09.html#a

[10] The magazine Diamond Weekly ran a special agriculture issue in November 2014 with the headline 'JA dismantlement, rebirth of agriculture' (*JA kaitai, nougyou saisei*).

the supermarket retailer Aeon that was established in 2009 now operates 15 fruit and vegetable farms on about 300 acres, and is scheduled to harvest its first rice crop this autumn.[11] Two large convenience store chains have also entered the market. As of 2014, Lawson operated more than a dozen farms, while Seven and I Holdings operated ten.

Within the field of IT agriculture, the concept of the "agricultural cloud" is a major areas of innovation. Cloud-based data services collect and analyse data from on-farm sensors, compare it with an existing database, and give feedback to farmers to increase efficiency and boost production. Accessing data through smartphones and tablets also allows for the possibility of remote cultivation management. Fujitsu, NEC, Hitachi, Toshiba, NTT, and Toyota are among the companies active in this area.

Combining technologies from various divisions including industrial systems and housing systems, Panasonic has developed high-technology greenhouses that allow for the production of spinach and other leaf vegetables all year round. It is also trialing a plant factory in Singapore, which could provide a platform for selling such systems across Southeast Asia. The next section considers plant factories in detail.

4. Plant Factories

Plant factories are facilities for the intensive production of vegetables or flowers in a controlled environment, using artificial light (fluorescent or LED), natural light, or both. Plants grown this way tend to grow more quickly than normal, and can be cultivated to have higher nutritional content, improved taste, or lower chemical content to meet dietary requirements of patients with certain medical conditions. Plant factories have the potential to offer environmental and societal benefits, as well as having economic and business logic.

In terms of environmental benefits, plants are typically grown in a hydroponic solution, requiring fewer or no pesticides, and consuming only 1-2% of the water required in a field or greenhouse. Wastage of outer leaves is also much lower, with up to 95% of the weight of the plant being consumed, compared with around 60% for standard techniques.

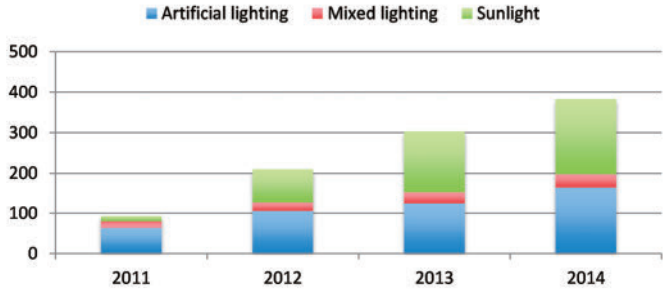
In societal terms, utilization of shelving allows production to take place on relatively small areas of land, and so plant farms can be situated in urban or suburban areas, adjacent to retail sites, or in disused buildings. In the Kansai region, for example, the Hanshin Dentetsu and Kintetsu railway companies are

[11] Source: Nikkei Asian Review, 7 October 2014.

experimenting with plant factories built under some of the raised railway lines that traverse much of the region, while the real estate firm Orix Fudousan is operating a plant factory from a disused rural elementary school. The standardisation of the growth process makes cultivation relatively straightforward and less physically demanding, opening cultivation work to elderly or disabled workers.

In terms of economic and business logic, as noted above, using little land and high technology, plant factories are suited to Japan's factor endowment. Since plant factory land is (so far) not being designated as 'agricultural land', firms do not face land ownership constraints. Moreover, plant factories can produce multiple crops annually, even outside the natural growing season, allowing for increased production levels. Also, indoor production prevents crop damage from severe weather or storms, ensuring a stable supply. On the other hand, plant factory operators must deal with high start-up and energy costs, and the range of factory-suitable plant types remains limited.

Figure 2-6-5 Plant factories by type, 2011-2014



Source: Japan Greenhouse Horticulture Association, http://www.jgha.com/shiryou.html

As Figure 2-6-5 shows, plant factories have been sprouting across Japan recently, rising from 93 in 2011 to 383 in 2014, of which 43% were artificial-only lighting, 9% mixed artificial and natural lighting, and 48% sunlight-only type[12]. The value of the consumer market for factory produce is also expected to grow, with one market study forecasting that the total value of the domestic market for artificial and mixed lighting would rise from ¥23 billion in 2013 to ¥150 billion by 2025.[13]

[12] Source: Japan Greenhouse Horticultural Association website. http://www.jgha.com/shiryou.html. Accessed 28 April 2015.
[13] Source: Yano Research Institute. https://www.yanoresearch.com/press/press.php/001213. Accessed 28 April 2015.

5. Towards a Greater Export Orientation for Kansai Agriculture

The agricultural sector as a whole in Kansai faces many of the same problems as agriculture elsewhere in the country. Major local concerns include falling income and increasing uncertainty for agricultural producers, a declining number of workers, an aging workforce, and a weakening production base, including increasing abandonment of cultivation land[14].

At the same time, characteristics of the Kansai region give local producers some important potential advantages over other areas. These include a diverse agricultural hinterland with many high-quality products, a regional food market of more than 20 million consumers, the local preference for high quality products, strong infrastructural links to growing markets in Asia that offer routes for future exports, and an active corporate sector which is becoming increasingly involved in agricultural ventures.

Given its factor endowments, Japanese agriculture will always be at a relative cost disadvantage in the production of crops like rice and wheat, which require large amounts of land. Conversely, agriculture that utilizes advanced technology on small amounts of land has much potential. The trend of firms developing IT agriculture could become an important catalyst for creating a more competitive and prosperous domestic sector, and also the basis for exporting products, technologies and/or know-how to growing food markets in Asia. These trends also raise questions about the shape of agriculture in decades to come, and calls for a reconsideration of some basic ideas about the role of agriculture in society, and the prospects for developing a more resilient "food infrastructure" to allow for sustainable, reliable food production in a time of population rises and climate change.

[14] *Kansai kouiki nourinsui sangyou bijon* (Vision for Kansai-region agriculture, forestry and fisheries industry), *Kansai kouiki rengou* (Union of Kansai Governments), *Kouiki shinkoukyoku* (Regional Promotion Office), *Nourinsuisanbu* (Agriculture, Forestry and Fisheries Division), [report] November 2013. http://www.kouiki-kansai.jp/data_upload03/1386048748.pdf. Accessed 28 April 2015.

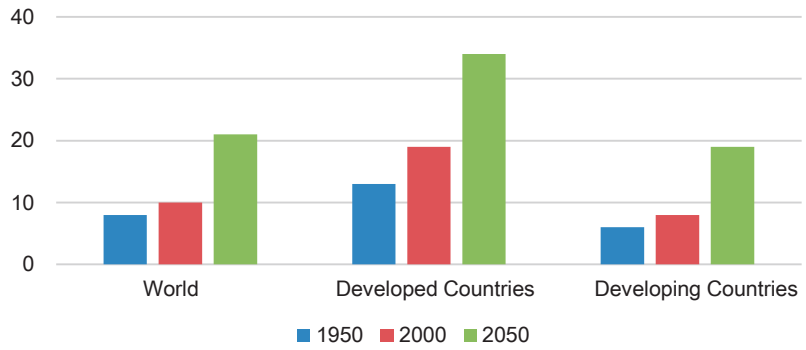
3 Opportunities in an Aging Society

Kan Kimura

The world has changed dramatically since the late 20th Century, when many societies were preoccupied by fears of a "population explosion". Now, we are on the precipice of a new era for the global population. Low birth rates have caused the rate of population growth in developed nations to slow significantly in recent years. In some parts of the world, declining birth rates, combined with improved medical standards, have already caused the number of children in society to decrease and the number of elderly people to increase. Unlike in the past, this issue has started to emerge in developing nations as well. According to certain estimates, between 2020 and 2030, the growth rate of the world population will fall to 0.6% in non-Islamic countries, and it will even drop to 1.4% in Islamic countries, which are generally opposed to birth control. This trend indicates that the world population's growth rate will slow down significantly by the year 2050.

A serious problem that accompanies this trend is the progressive aging of the world population. According to the UN, 21% of the world population will be over the age of 60 by 2050, which means that the aged population will be more than

Figure 3-1 Population over the age of 60 (%)



Source: Department of Economic and Social Affairs Population Division, "World Population Ageing: 1950-2050", http://www.un.org/esa/population/publications/worldageing19502050/ (last accessed on 2015/2/23).

double its year 2000 level. The same UN study also predicts that between now and 2050, the percentage of people over the age of 60 will have risen from 19% to 34% in wealthy countries, and from 8% to 19% in poor countries.

In other words, developing countries' populations will be in the same dangerous position as those of developed countries in the future, if not in a worse position. And if this trend continues on a global scale, it will steadily become more difficult for developed countries to counteract decreases in their working-age population by bringing in migrant workers, as is common today. In countries at relatively low levels of economic development, elderly people who do not work will remain in the country, while younger workers will likely continue to migrate to developed countries, thus making their country's population problems all the more extreme.

With the population of the current generation unlikely to rise, these dramatic predictions about the future global population appear set to become a reality, unless there is a dramatic change in birth and death rates. This raises the question: how can societies deal with the inevitable crisis?

1. Supply and Demand

First, let us consider the specifics of the problem. As mentioned previously, there are a number of factors to consider regarding population change in the world today. The first problem is the decline in national populations, or the severe reduction in their growth rates. As a population as a whole decreases, so too does the working-age population, causing domestic markets in turn to shrink. The second problem is the percentage of the total population made up by workers. As society ages, welfare for the dependent population will become more expensive, which will hinder the world economy's performance. The third is the number of elderly dependents overtaking the number of young dependents. Elderly dependents require different kinds of support to young dependents, so society will have to adjust to accommodate for this change.

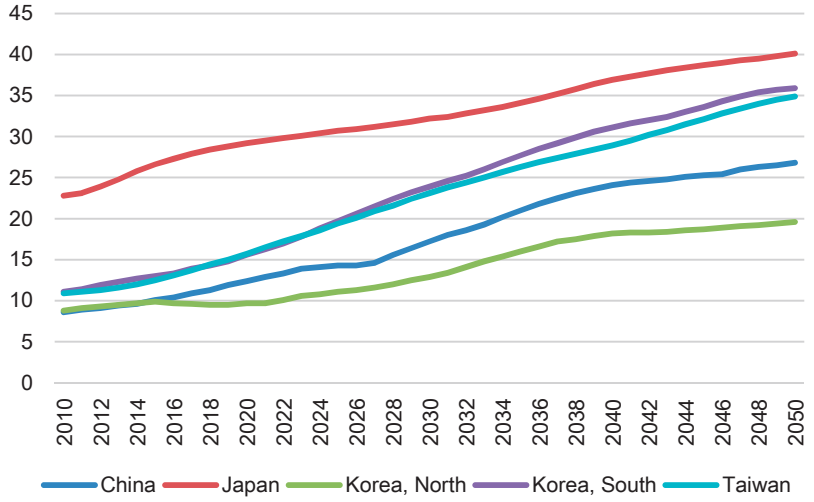
To solve the first problem, a society must either increase the birth rate or take in more migrants, and as mentioned, global trends are making the latter increasingly difficult. The only way to solve the second problem of decreasing working populations, apart from somehow increasing the number of migrants, is to raise the employment participation rate. This means that societies will need to encourage greater numbers of people not presently participating in the labor market, particularly women and the elderly, to join the workforce.

The nature of the third problem is quite different to that of the first two.

Whereas the first two concern changes in the absolute quantity of people or workers, the third problem relates to changes in the quality of elements of society. As long as life expectancy remains within a certain range, the aged population is guaranteed to increase, regardless of how many migrants are accepted, or how many female or elderly workers are added to the workforce. Societies will need to accommodate the changes that arise as a result of this phenomenon.

The following section investigates the nature of demand in aging societies, and how to uncover that demand. While there are a number of perspectives from which this problem could be approached, the issue will be examined by taking an in-depth look at medical sectors in Northeast Asia, one of the fastest-aging regions in the world.

Figure 3-2 Population over the age of 65 in Northeast Asian nations (%)



Source: US United Census, http://www.census.gov/population/international/data/idb/informationGateway.php (last accessed on 2015/2/23).

2. The Medical Sector in Aging Societies

This section examines the effects of an increase in the elderly population on the medical sector, first by clarifying the characteristics of the elderly population, then by analysing the financial impact of an elderly population on the rest of society.

The financial burden of elderly dependents on society is different to the financial burden of young dependents. Specifically, young dependents mainly require society to cover their educational costs, whereas elderly dependents require society to cover higher pension and medical expenses. Therefore, if the number of elderly dependents exceeds the number of young dependents, education costs will drop but pension and medical support fees will rise.

Therefore, it is important to determine how to decrease the burden of pensions and medical fees on aging societies. The amount of pension that individuals receive is generally determined automatically based on their pension contributions, the age they started paying contributions, average life expectancy in the society, and other conditions specific to that system. Adjusting the burden of pension payments is therefore not a difficult task from a technical perspective, political difficulties aside. On the other hand, the burden of medical costs is not solely determined by the medical insurance scheme. Medical costs are also influenced by the number of people who pay them, the amount of money each person pays, and the period of time they pay for. This means that it is difficult to substantially change the cost of medical fees simply by reforming the medical system. Instead, it is necessary to think of ways of controlling both medical insurance costs and the other social factors that determine the cost of our medical bills.

So, how can societies go about reducing the burden of medical costs? As mentioned, bringing these costs down requires reducing the number of people receiving treatment at medical institutions, the average time each patient spends there, and the average daily costs of treatment. Even in an aging society, the burden of medical bills can be reduced by controlling these three elements.

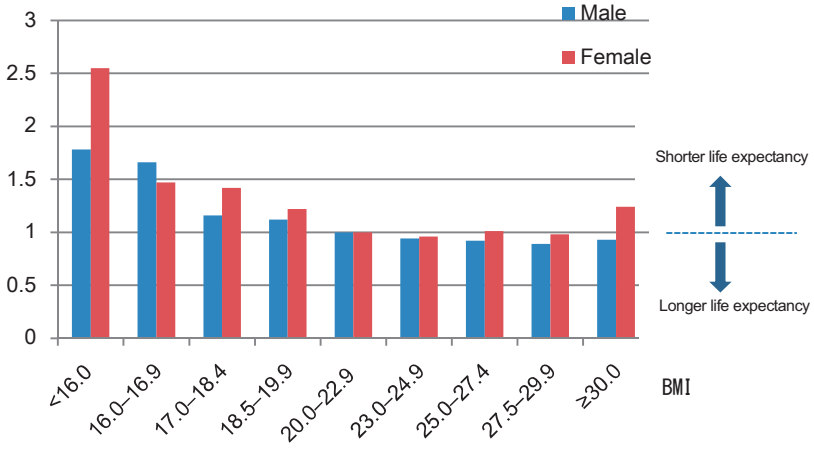
One important factor that has been attracting public attention recently is the "healthy life expectancy" in a society. Increases in a society's *average* life expectancy are directly related to increases in medical costs because this causes the number of elderly people to rise, and also causes the amount of time each person spends in a medical institution to increase. But from a different perspective, if it is possible to increase the amount of time that elderly people enjoy good health—i.e., the *healthy* life expectancy—at a faster rate than the rate

at which the average life expectancy is increasing, the amount of time that each elderly person spends at medical institutions will decrease.

In an aging society, it is important not simply to extend the average "healthy life expectancy", but also specifically to extend the healthy life expectancy of the group making up a growing percentage of the total population-- the elderly. Maintaining the health of the elderly population requires taking different steps to those required to maintain the health of other areas of society. For example, recent research investigating the correlation between BMI and health risks found that a high BMI is not as severe a risk for elderly people as it is for the general population, but a low BMI is more dangerous for elderly people than for the rest of society. In other words, lean elderly people are at greater risk than obese elderly people, at least in Northern Asia.

This research identified a number of reasons why the relationship between BMI and health risks is different for elderly people than for others. The first is that it is harder for older people to recover muscle strength than it is for younger people. If older people lose muscle strength due to an illness, they are more likely to be left bed-ridden and in a poor state of health. Underweight elderly people with low muscular strength are at greater risk of suffering from this sort of problem than overweight elderly people with low muscular strength.

Figure 3-3 BMI and vital prognosis among Japanese people over 65 years old



Source: From data on Tables 3, 4, Tamakoshi et al., "BMI and all-cause mortality among Japanese older adults: findings from the Japan collaborative cohort study," Obesity (Silver Spring), 2010 Feb.

Another reason highlighted in the research was that although elderly people in general have lower tolerance of diseases compared with others, those in the overweight band have more nutrients stored in their bodies than those in the underweight band and thus have greater resistance to disease.

What these medical findings tell us is the necessity of changing the way of thinking about health in an aging society, and the need to make a more concerted effort to improve the nutrition of the elderly population. By improving society's healthy life expectancy, it will not only decrease the burden of medical bills for society as a whole, but also greatly improve the quality of elderly people's lives. Education and publicity from media outlets can be used to encourage elderly people to change their diets and eat more healthy, nutritious meals. It is particularly important to encourage elderly people to eat protein-rich diets, which will help them to maintain their muscle strength and reduce the health risks mentioned above.

3. Ancillary Services: Rethinking the Nutrition Business

In the quest to improve the healthy life expectancy of the elderly, a major problem remains. Medical research has indicated the nutritional level that elderly people must reach in order to maintain their own health. However, there remains the question of whether elderly people will be able to reach this level.

There are three main factors that prevent elderly people from obtaining the nutrients they need to maintain their own health. The first is the change in diet that accompanies aging. As people age, their appetites decrease and they tend to eat meals that are low in protein, since such meals are easier to digest. As described above, this lowers an individual's ability to maintain healthy muscle strength. The second factor is that as the years go by, activity levels decrease and social situations change, and thus the effort put in to food preparation decreases. There are also other factors that can make diets gradually worsen with age, such as the death of a spouse or progressive isolation from society. Finally, the third problem is an economic one. A majority of elderly people do not have a job and are living off their pensions and past savings. Many elderly people are aware of the importance of a nutritionally-rich diet, but are simply be unable to improve their diets for financial reasons.

Hence, it is important for societies to create systems that can fix these issues preventing elderly people from eating nutritionally-rich diets. To fix the first issue, foods that are both nutritious and easy for elderly people to digest must be developed. To counter the second issue, it is important that other members of

society prepare nutrient-rich food for the elderly. Finally, to solve the third issue, food should be provided to elderly people at a low price. If societies can develop systems that meet these three requirements, it will be possible to develop businesses that can tap into enormous potential demand.

How can such businesses be made a reality? One way is through a new "dining system": specifically, a business similar to a lunch delivery service that supplies nutritious food to the elderly. This kind of enterprise would develop meals that are both nutritious and easy for elderly people to digest, and deliver these meals to customers. Such delivery services already exist in Japan, administered by companies such as Nihon Unisys and Tanita. However, there is a gap in the market for new business ventures that focus specifically on delivering foods that give elderly people the necessary protein and fats they need to stay healthy. Another service new businesses could provide is to have customers record and submit their own body weight data, which could then be used to develop meals tailored to customer needs. An advantage of this business model is that it can easily adapt its services based on medical feedback relating to customer BMI, nutrition, and health risks.

Wolgue Social Welfare Center in Nowon-gu, Seoul, South Korea.

One key to uncovering this large potential demand is to find out how to offer the service at the lowest possible price. A noteworthy example in this respect is

the Wolgue Social Welfare Center, a project being undertaken in Nowon-gu, Seoul, South Korea. This center, set up in the corner of an apartment complex, distributes coupons to elderly people which can be used at food establishments in the neighborhood. These coupons encourage elderly people to get to know local food establishments, and prompt the establishments to create new developments that target potential elderly patrons. This idea not only encourages new products, but also encourages the local food industry to actively provide welfare for senior citizens. Even if this idea does not create entirely new businesses, it makes good use of already-established resources and, in the end, provides nutritious meals for the elderly at lower prices.

Another innovative service is the "Lunchboxes of Love" charity service operating in Yongin City, Korea. This service delivers lunchboxes to the elderly at reduced prices by recruiting elderly volunteers to deliver the lunches themselves. By using these volunteers, the service both reduces distribution costs and creates a social network for elderly people who might otherwise be cut off from society.

4. Creating Demand within the Medical Sector Itself

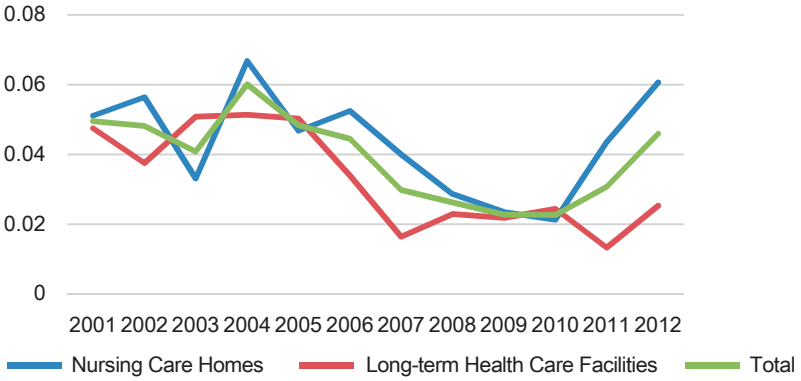
As seen throughout this chapter, the kind of services required is different in an aging society. By uncovering this demand, new business opportunities can be created. Importantly, new business models that are made to target an aging society sometimes have the additional benefit of decreasing this sector's financial burden on wider society. The Wolgue welfare center discussed in Section 3 is was a pilot project undertaken by the Seoul city government. By promoting the benefits to society that the center could offer, the local administration successfully convinced the national government in South Korea to support the project. If governments see that a business project will create a greater reduction in social welfare costs than the cost of supporting it, it is logical that they will support it.

This theory also applies to larger hospitals and nursing care systems. For example, one of the most serious problems in modern Japan is the rising costs of home nursing care. The background to this problem is that elderly people who are made to leave hospital early often have trouble reserving a place in a rehabilitation center or nursing home, and thus these elderly people, who need specialist treatment, end up being cared for at home by family members. Many working-age people, particularly women, are leaving the workforce early to care for elderly family members. This is putting even more pressure on the Japanese labor market, which is already being negatively impacted by changes brought about by the aging population.

One source of Japan's elderly care problem is that there is a large gap between already established medical institutions and nursing homes. There have been cases where nursing homes in Japan have planned to use care insurance funds to expand their facilities, but had to cancel the expansions because they did not have the funds to pay wages for the additional workers required. These problems are arising because care insurance funds, which are supposed to support the management of nursing homes, are too low. Nursing homes' low insurance funds are preventing them from servicing the full demands of an aging society, which in turn is causing a large number of potential workers to leave the workforce.

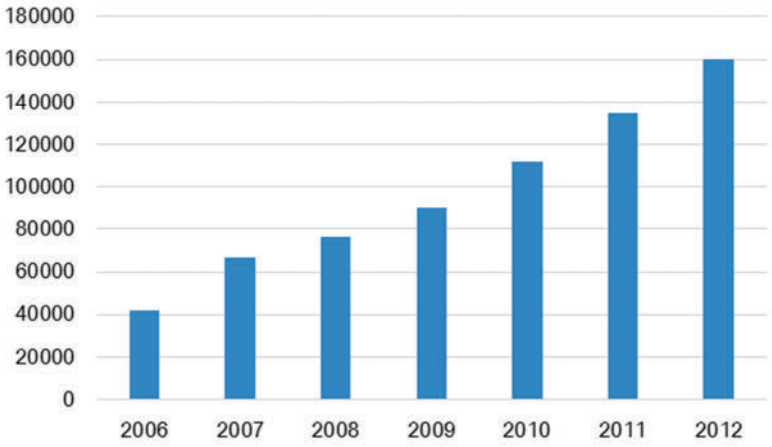
If it is possible to improve the system that links medical facilities and nursing care homes, then more elements of nursing care can be served by businesses, and more workers can contribute to the labor market, which will benefit the economy. But what makes up a system such as this? One example that gives some clues is South Korea's "sanatorium" system. South Korea's sanatoriums, which have been influenced by Japan's long-term care bed system, are constructed as separate entities to regular hospitals, which means that host medical institutions are not tempted to give up long-term care beds (which host patients with limited medical bills) to regular hospital patients (who have potentially unlimited medical bills). As a result, while the number of Japan's long-term care beds is declining, South Korea's sanatorium system is growing rapidly. These sanatoriums act as a bridging service, making it easier for hospitals to transfer recuperating elderly patients to nursing homes.

Figure 3-4 Growth of Japanese Aged Care Facilities



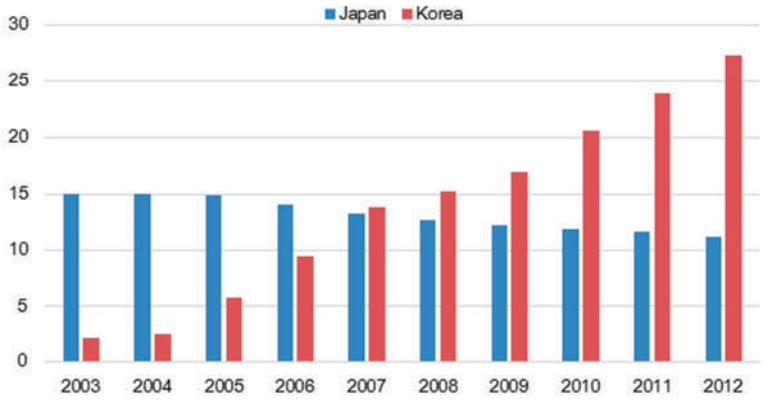
Source: Ministry of Health, Labour, and Welfare Social Security Committee, Care Insurance Committee paper (published 2013/9/18), "Capacity of Aged Care Facilities and Homes for the Elderly". http://www.mhlw.go.jp/file/05-Shingikai-12601000-Seisakutoukatsukan-Sanjikanshitsu_Shakaihoshoutantou/0000025314.pdf (Last accessed on 2015/2/23)

Figure 3-5 Korean Sanatorium Numbers



Source: South Korean Ministry of Health (2013), "2013 Medical Resource Statistics Handbook".

Figure 3-6 Long-Term Care Beds per 1,000 people aged 65 and over



Source: OECD StatExtracts, http://stats.oecd.org/ (last accessed on 2015/2/23)

Another feasible step that could be taken to improve elderly health care is to promote cooperation between medical institutions, nursing homes, and pharmacies. By cooperating further, these institutions could transfer information about individual patients more smoothly and provide more efficient care for patients. The "Medical Information Exchange System", operated by the Kanazawa Medical Association (KMA) in Japan, is a good example of such a development. By linking the aforementioned institutions using an online sharing system, the KMA aims to provide more streamlined care for families and patients. Naturally, if nurses are able to access expert advice about patients from doctors, their jobs will become easier and the quality of care-giving will improve. In addition, if central hospitals and remote local clinics are able to share that same information, those remote clinics will be also able to provide higher levels of care, which means that the medical sector will be able to use clinics in regional locations more efficiently.

5. The Future of Aging Societies

This chapter has shown that the social demands of the aging societies of the future is different to the demand of the societies of the past, and that there are still a number of opportunities to commercialize new services in such societies. It is important in these new societies that central and local governments use budgets more strategically, and ease the financial burdens on families and communities.

However, there are a number of tasks that must be completed to make this possible. The first is to properly understand the nature of aging societies and carefully research the new kinds of needs that have begun to arise, as the nutritional meal supplier introduced in this chapter did. This means finding out how to accurately identify the location of demand, which may not be easily ascertained through simple surveys.

The second task is to establish a suitable system for turning these new services into businesses. The decline in Japanese long-term care beds is a typical example of how, if the administration doesn't establish a suitable business model, certain commercialized services can waste scarce labor resources, and make the market itself shrink.

In conclusion, it should be stressed that an aging society will provide opportunities that can be taken advantage of by more actively tailoring businesses to its particular needs. If this approach is not adopted, there is a risk that future societies will suffer under the weight of increasingly heavy social and fiscal burdens.

BOX 1: KANSAI 50

Yusuke Kinoshita

Return on equity (ROE) is defined as a ratio of corporate net income to shareholders' equity. It is a widely used accounting concept to measure the financial performance of corporations. Two government documents called for attention to the relatively poor ROE of Japanese companies in 2014: a cabinet decision to uphold 'Revision of Japan Revitalization Strategy, and the 'Itoh Review of Competitiveness and Incentives for Sustainable Growth" published by the Ministry of Economy, Trade and Industry. Both documents pointed to the urgent need to improve corporate Japan's ROE.

This box ranks the top 50 companies in Kansai in terms of ROE. Similar rankings are already available regarding the big corporations listed in the first section of Tokyo Stock Exchange (TSE). The purpose of ranking here is to highlight high performing Kansai companies.

Kansai companies are those who have head offices in Shiga, Kyoto, Osaka, Hyogo, Nara or Wakayama prefectures. Kansai born companies that have moved their head offices to Tokyo or elsewhere such as Nippon Steel & Sumitomo Metal Corporation are excluded from the list. Another characteristics of this ranking is that all listed companies are included: TSE first section, TSE second section, and JASDAQ for emerging companies.

It is noteworthy that this list finds many high performing companies in machinery, service, real estate, healthcare services, and construction industries. Also, the list finds a considerable number of small and medium enterprises with employment less than 300 among the high performing companies in Kansai.

Kansai 50

Rank	Company Name	Sales (Mill. ¥)	ROE (%)	Staff	Product/ Service	Homepage
1	Tabuchi Electric Co.,Ltd.	42,803	90.9	3,697	Electronic Parts	http://www.zbr.co.jp/
2	Shirai Electronics Industrial Co., Ltd.	25,596	48.0	1,733	Electronic Parts	http://www.shiraidenshi.co.jp/
3	NIPPON PARKING DEVELOPMENT CO., LTD.	15,118	44.6	716	Service	http://www.n-p-d.co.jp/
4	Nippon Commercial Development Co., Ltd.(*)	10,828	36.7	23	Real Estate	http://www.ncd-jp.com/
5	MonotaRO Co.,Ltd.	34,556	35.9	231	Service	http://www.monotaro.com/
6	URBAN LIFE Co., Ltd.(*)	2,209	33.4	80	Real Estate	http://www.urbanlife.co.jp/
7	ARRK Corporation	51,654	32.0	3,334	Machinery	http://www.arrk.co.jp/
8	DAISUE CONSTRUCTION CO.,LTD.	52,182	31.6	570	Construction	http://www.daisue.co.jp/
9	WILL,Co.,Ltd.	3,786	29.1	103	Real Estate	http://www.wills.co.jp/
10	ES-CON JAPAN Ltd.(*)	13,558	27.7	69	Real Estate	http://www.es-conjapan.co.jp/
11	Linical Co., Ltd.	3,721	26.1	340	Healthcare, Service	http://www.linical.co.jp/
12	AIFUL CORPORATION	88,653	25.8	1,353	Finance	http://www.aiful.co.jp/
13	FUJIO FOOD SYSTEM CO., LTD.	26,838	25.5	564	Eating And Drinking Services	http://www.fujiofood.com/

Rank	Company Name	Sales (Mill. ¥)	ROE (%)	Staff	Product/ Service	Homepage
14	AIT Corporation	19,126	25.1	525	Transport	http://www.ait-jp.com/
15	SK-Electronics Co., Ltd.(*)	19,413	24.4	278	Electronic Devices	http://www.sk-el.co.jp/
16	QUICK CO.,LTD.	10,202	23.3	592	Service	http://919.jp/
17	IwaiCosmo Holdings, Inc.	-	23.3	827	Finance	http://www.iwaicosmo-hd.jp/
18	TAKUMA CO., LTD.	96,333	22.7	3,315	Machinery	http://www.takuma.co.jp/
19	I'LL INC	6,786	22.4	433	Software	http://www.ill.co.jp/ill/
20	SRG TAKAMIYA CO., LTD.	32,773	21.5	952	Construction	http://www.srg.jp/
21	Namura Shipbuilding Co., Ltd.	124,559	21.1	1,011	Machinery	http://www.namura.co.jp/
22	IMV CORPORATION(*)	7,863	20.9	182	Electronic Parts	http://www.imv.co.jp/
23	SANWA COMPANY LTD.(*)	6,899	20.9	52	Home Comfort	http://www.sanwacompany.co.jp/
24	Asanuma Corporation	136,311	20.7	1,234	Construction	http://www.asanuma.co.jp/
25	eBASE CO.,LTD.	2,782	20.7	394	Software	http://www.ebase.co.jp/
26	KAWAKAMI PAINT MFG.CO., LTD(*)	5,935	19.6	137	Chemical	http://www.kawakami-paint.co.jp/
27	Sanyo Department Store Co.Ltd.	19,874	19.2	262	Retail Trade	http://www.sanyo-dp.co.jp/
28	SHIP HEALTHCARE HOLDINGS,INC.	259,189	19.1	3,750	Healthcare, Service	http://www.shiphd.co.jp/
29	Hitachi Zosen Fukui Corporation	25,474	19.0	418	Motor Parts	http://www.h-f.co.jp/
30	WDB Holdings Co., Ltd.	25,479	18.8	1,333	Service	http://www.wdbhd.co.jp/
31	ELECOM CO., LTD.	69,105	18.7	775	Electronic Parts	http://www.elecom.co.jp/
32	VINX CORP	27,271	18.6	1,359	Software	http://www.vinx.co.jp/
33	Nihon Trim Co., Ltd.	13,144	18.4	448	Healthcare, Service	http://www.nihon-trim.co.jp/
34	Emori Group Holdings Co.,Ltd.	219,187	18.4	823	Chemical	http://www.emori.co.jp/
35	PRESSANCE CORPORATION	51,755	18.2	284	Real Estate	http://www.pressance.co.jp/
36	KOBE BUSSAN CO.,LTD	179,499	18.1	1,960	Food Manufacturing	http://www.kobebussan.co.jp/
37	Nippon Paint Holdings Co., Ltd.	260,578	18.1	5,755	Chemical	http://www.nipponpaint-holdings.com/
38	AMITA HOLDINGS CO., LTD.	4,676	17.7	148	Service	http://www.amita-hd.co.jp/
39	EM SYSTEMS CO.,LTD	11,369	17.2	586	Healthcare, Service	http://www.emsystems.co.jp/
40	YUKE'S Co., Ltd.	3,399	17.1	215	Software	http://www.yukes.co.jp/
41	Toyo Machinery & Metal Co., Ltd.	23,687	16.9	694	Machinery	http://www.toyo-mm.co.jp/
42	Taiko Pharmaceutical Co., Ltd.(*)	9,947	16.8	215	Drugs And Medicines	http://www.seirogan.co.jp/
43	Fukui Computer Holdings,Inc.	8,768	16.8	419	Software	http://www.fukuicompu.co.jp/
44	ICHINEN HOLDINGS Co., Ltd.	67,636	16.5	779	Finance	http://www.ichinenhd.co.jp/
45	SANSEI CO.,LTD.(*)	5,351	16.4	239	Machinery	http://www.sansei-group.co.jp/
46	HouseFreedom Co.,Ltd.	6,114	16.3	160	Construction	https://www.housefreedom.co.jp/
47	FUKUSHIMA INDUSTRIES CORP.	62,044	16.0	1,412	Machinery	http://www.fukusima.co.jp/
48	Daihatsu Motor Co., Ltd.	1,913,259	15.9	42,663	Motor Vehicles	http://www.daihatsu.co.jp/
49	MegaChips Corporation	58,469	15.9	843	Entertainment Goods	http://www.megachips.co.jp/
50	NICHIRIN CO., LTD.	44,522	15.9	1,626	Tires And Inner Tubes	http://www.nichirin.co.jp/

Note: (*) = SME (Small and Medium Enterprise) by Small and Medium Enterprise Agency

Source: Toyo Keizai, Inc. "The JAPAN COMPANY HANDBOOK 2015 Winter"

	Product/Service	Number
1	Chemical	3
2	Construction	4
3	Drugs And Medicines	1
4	Eating And Drinking Services	1
5	Electronic Devices	1
6	Electronic Parts	4
7	Entertainment Goods	1
8	Finance	3
9	Healthcare, Service	4
10	Home Comfort	1
11	Machinery	6
12	Food Manufacturing	1
13	Motor Parts	1
14	Motor Vehicles	1
15	Real Estate	5
16	Retail Trade	1
17	Service	5
18	Software	5
19	Tires And Inner Tubes	1
20	Transport	1
	Total	50

Prefecture	Number
Fukui	3
Shiga	0
Kyoto	4
Osaka	33
Hyogo	10
Nara	0
Wakayama	0
Total	50

Part II

Japan and the Asia-Pacific

RECENT DEVELOPMENTS IN THE ASIA PACIFIC

Toshihiko Hayashi

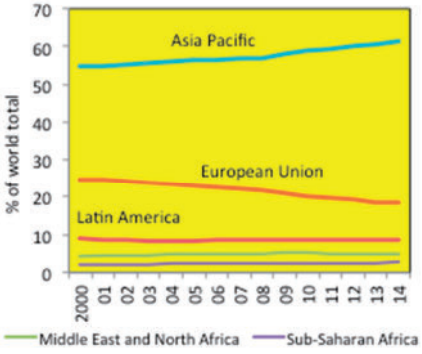
1. The Presence of the Asia Pacific

Embracing the three biggest national economies, the United States, China, and Japan, the Asia Pacific region is by far the largest region of economic activity in the world. The region's combined GDP exceeds 34 trillion international dollars in 2013, more than double the second largest regional economy, the European Union.

Figure A illustrates the five regions' relative shares of total world GDP, where Asia Pacific consists of the 10 ASEAN countries, 4 Western countries (U.S., Canada, Australia, and New Zealand), and 3 East Asian countries (Japan, China, and Korea). Note that the Asia Pacific economy as a whole accounts for more than 60% of total world GDP in 2014[1].

Moreover, the relative share of the European Union, composed of 28 member-states, has been declining steadily since 2000. Latin America and the Caribbean countries, Middle East and North Africa, and Sub-Saharan Africa have kept their shares more or less constant in the past 15 years.

Figure A Relative share of regional economies in the world



All told, the Asia Pacific is the largest regional economy and its secular growth trend is higher than any of the other regional economies in the world today. However, the Asia Pacific has gone through a tumultuous fluctuation in the short run. In the aftermath of the global international financial crisis, the Asia

[1] IMF, *World Economic Outlook Database* (WEO).

Pacific economy fell into negative growth in tandem with other regions in the world. This synchronous slump involving advanced economies and developing economies alike came to be called the 'great recession.'

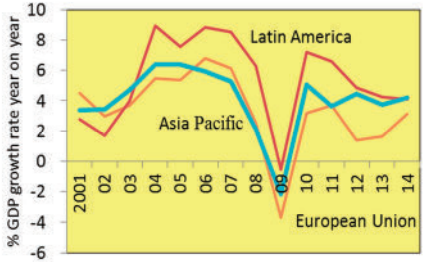
2. Growth Comes Back

It all stemmed from the subprime mortgage demise in the United States. In around 2006, it became apparent that some of subprime mortgage loan for low-credit borrowers were turning delinquent. These mortgages were a viable proposition only so long as house prices kept rising. When house prices dropped on a massive scale, non-performing loans led to a banking crisis in the United States. Securities incorporating subprime mortgage were downgraded, leading to a huge capital loss on the part of securities companies throughout the world. Eventually, Lehman Brothers was refused a government bailout and went bankrupt. A sequence of financial market failures echoed throughout the 2008-2009 recession in the United States, and the crisis spread to Europe and Asia.

In 2009, the Latin America, EU and the Asia Pacific economies all had to live through the fallout from the global financial crisis. In fact, GDP growth rates in all three regions turned negative in that year, as the financial crisis turned into the largest global recession in decades.

However, the recovery was rather quick. The three regions came back to a 3 to 4 percent growth level after 2010. The recovery in the EU was weak compared to Asia Pacific and Latin America. In 2014, the IMF estimates that Asia Pacific, together with Latin America, will register 4% growth, topping all other regions.

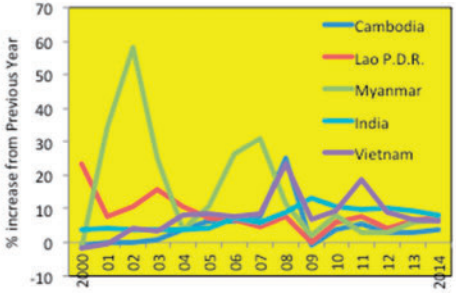
Figure B GDP growth rate for 3 regions



3. Prices Stabilize

Consumer prices were relatively stable in Asia Pacific in 2013. Previously, price levels frequently showed wide fluctuations in later-developing countries in ASEAN (Cambodia, Laos, Myanmar, and Viet Nam, or CLMV). With foreign exchange rates more stable since the 1997 currency crisis, consumer price indices of CLMV came to be stabilized within the 2 to 6 percent range in 2013. The fear of run-away inflation is now a thing of the past in Asia, albeit with India still experiencing an 8% price increase in 2013[2].

Figure C CPI in CLMV and India



4. Unemployment Rates Vary

Unemployment rates vary from country to country within the region. While advanced economies show higher rates, between 5% and 7%, Brunei, Singapore and Thailand recorded lower than 4 % rates. Thailand's unemployment rate was strikingly low, at 0.7% in 2013[3].

A caveat is in order when comparing unemployment figures in different countries. Figure D is based on the national definition of unemployment, which may vary from one country to another. For example, Japan's rate is 4%, but this excludes such underemployment as those who work in temporary jobs, part-time workers, and those on fixed-term contracts without job security.

[2] WEO.
[3] WEO.

Figure D Unemployment rate by countries, 2013

5. Development Disparity Narrows

There are conflicting hypotheses regarding the relationship between economic growth and income distribution. One hypothesis says that countries show a tendency toward greater equality in per capita GDP as worldwide economic development proceeds. This has been called the convergence hypothesis[4]. The other hypothesis emphasizes that development almost inevitably aggravates income inequality.[5]

Even Japan's Prime Minister Shinzo Abe admits this. He defends his economic policy initiative which is dubbed 'Abenomics' by saying that the fruit of economic growth may be concentrated in a handful of big companies in the beginning but the benefit will eventually 'trickle down' to every sector of the country including workers in small and medium enterprises.

With regard to the fast-growing Asia Pacific, is income inequality widening or narrowing? The case in point is the cross-country disparity. Figure E illustrates the historical pattern of the Gini coefficients for the world at large and for the Asia Pacific, as calculated by APIR. The methodology used is based on distribution of the per capita GDP of each country weighted by its population.

The Gini coefficient over 180 countries in the world is steadily declining. As of 2013, it is still as high, at 0.523, which is comparable to the domestic Gini coefficients over household disposable income in Brazil (0.523 in 2012) and Chile (0.51 in 2011).

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[4] For recent treatise on the subject, see Cole, Matthew A. and Neumayer, Eric (2003), "The pitfalls of convergence analysis: is the income gap really widening?" [online] London: LSE Research Online.(http://eprints.ise.ac.uk/archive/00000603)

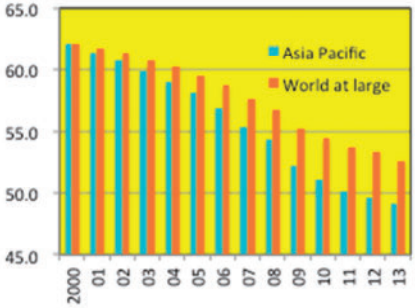
[5] Economists have traditionally focused on the relationship between economic growth and income inequality within a country since Kuznets (1955). Thomas Piketty's well-received book (2013) represents this view.

More impressive is the decline in the Gini figure for the Asia Pacific region. In 2000, it was 0.621, almost equal to the figure for the world at large. In terms of distribution of per capita GDP, the region contained as much diversity among countries as the world as a whole.

However, by 2013, the Asia Pacific Gini had fallen to 0.497, while the world figure had fallen to 0.527. What this suggests is that Asia Pacific countries are converging more rapidly than the world as a whole in terms of the level of economic development. As such, "inclusive growth" is not just a slogan but the reality of what is taking place in the Asia Pacific[6].

To be sure, income diversity is still large in the Asia Pacific compared to EU, the Gini coefficienct for which, calculated this way, is 0.15. There is much room for improvement. It is also expected that the disparity will shrink still further once the region sees closer economic integration.

Figure E Gini coefficients for the world and Asia Pacific (APIR calculations)



6. A Great Demographic Transformation Ahead

Thus, the future for the Asia Pacific economy looks bright. But clouds are gathering on the horizon. The Asia Pacific economies will have to face their aging and declining populations in future.

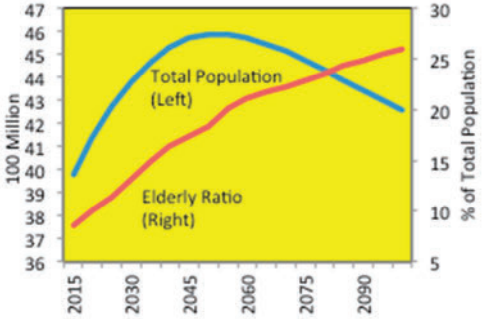
Figure F illustrates the most noteworthy demographic change that awaits the region. The "elderly ratio" -- the ratio of people over 65 years old to the total population -- will keep rising continuously in the Asia Pacific. The trend will continue until 2100, according to the United Nations Population Prospects forecast. Moreover, the level of population will peak off in the middle of the

[6] Gini coefficients reported here are calculated on the basis of each country's per capita GDP in international dollars weighted by its population.

twenty-first century with a little less than 4.6 billion maximum.

An aging and declining population is already an acute reality in Japan. Population works on the demand side and supply side of the economy. On the demand side it is a decisive factor in consumption: its volume and composition.

Figure F The aging and declining population in the Asia Pacific



On the supply side, it is the source of human capital, technology, management and labor.

The greatest challenge that lies ahead for the Asia Pacific economy is how to prepare for the great demographic transformation with the accumulated wealth that the current economic development will have won for the region.

Japan is leading the demographic trend in the region. Already it is feeling the strain of population decline in such important social infrastructure as the electoral system, social security, disparity in regional development, and slower growth. A panacea does not exist. There is no quick fix for the demographic trend, given that it is a consequence of the free choice of hundreds of millions of individuals.

Then, how can a country adapt to a demographic tsunami? Perhaps the role of government in a national economy needs be reconsidered. A small government in disguise may already be a middle-sized government in reality. Fiscal reform is keenly needed, to move from debt financing to tax-supported public finance.

To be sure, raising labor productivity by spontaneous innovations, upgrading managerial practices, and industrial transformation are the most important supply-side solutions. Demand-side change is also necessary. One certain way of expanding aggregate demand is to expand business overseas. Already industrial resources are being shifted away from domestic use to building overseas value chains.

The Kansai area around Osaka is embedded in this big picture. The influence

is two-directional; in business and other fields, Kansai's deep historical connections to the Asia Pacific are becoming perhaps stronger than even, while Kansai is in turn being enlivened and enriched by the many people and cultures who coming in historically high numbers from Asia Pacific to the region.

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4 THE ASIA PACIFIC ECONOMIES IN 2013-2014

SECTION1: JAPAN UNDER ABENOMICS

Toshihiko Hayashi

1. The Abenomics Hype

The 2013-2014 Japanese economy was fully under the influence of Abenomics. When Shinzo Abe retook office as Japan's 96th prime minister on December 26, 2012, he placed at the top of his policy agenda the task of pulling the Japanese economy out of the deflationary stalemate. A slower growth and moderately decreasing consumer prices had been plaguing the country for more than two decades after the bubble burst in the early 1990s. He proposed a bold new set of economic policies which have come to be called "Abenomics."

Figure 4-1-1 shows the annual rate of increase in the consumer price index excluding food and energy prices (CPI core core). The year-on-year inflation rate stayed negative almost until the end of PM Abe's first year in office. The sudden jump in April reflects the fact that the consumption tax was raised from 5 to 8 percent in that month.

Figure 4-1-1 Japan's deflationary economy

2. Three Arrows

PM Abe's policy program consisted of 'three arrows,' a well-understood reference to a legendary saying of a certain medieval lord to his three sons: a bundle

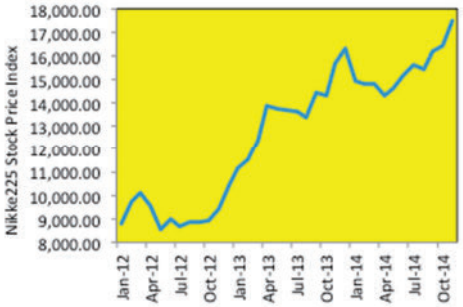
of three arrows is unbreakable even though each one individually may be snapped. They are: 1) putting pressure on the Bank of Japan (BOJ) to launch an unprecedented monetary easing program, 2) a deficit-financed budget with a focus on public works spending, and 3) a deregulation program to encourage growth through private investment.

With regard to the first policy goal, PM Abe approved the appointment of a pro-administration governor, Haruhiko Kuroda, to lead the BOJ. Mr. Kuroda announced in April 2013 that he would pursue a policy of quantitative easing of a "different dimension," to steer the economy onto a moderately inflationary path with an annual consumer price index increase of two percent, to be achieved within two years of the beginning of his tenure[1].

One aspect of the new governor's monetary policy was to devalue the yen to favor Japanese exporters. This policy, combined with Kuroda's "ability to communicate with the market"[2] and his swift actions, gave a boost to Japan's capital markets. Stock prices rose by 46 percent during the first five months of 2013[3], which was welcomed by institutional investors and wealthy individuals.

Proponents talked about the confidence and expectations instilled by Abenomics. They pointed to the possible channels through which the capital market hype would trickle down to the markets for goods and services: the psychological effect, the collateral effect, and the asset effect[4]. With improved balance sheets, companies

Figure 4-1-2 Stock market surges



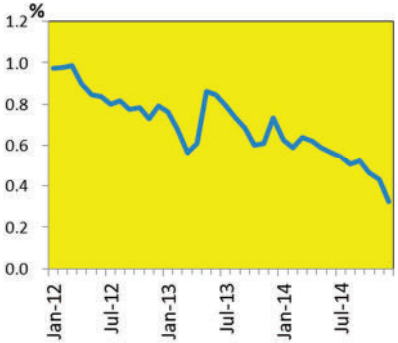
[1] This was formally approved at a BOJ's Monetary Policy Meeting. See BOJ, "Launching a Quantitative and Qualitative Monetary Easing Policy," April 4, 2013.
[2] The Wall Street Journal, "Communication Skills Boosted BOJ Governor Nominee," March 1, 2013.
[3] The Nikkei started from 10,398.61 on January 4 , 2013 and climbed to 15,291 in December. The high volatility in the stock market seems to reflect uncertainties with regard to Abenomics as well as in international economic conditions. Real estate prices did not show a conspicuous rise except for the price of condominiums.
[4] The psychological effect was expected to work on business leaders. The latter two effects were first pointed out in the context of post-bubble Japanese economy by Hoshi and Kashyap (1999).

would be willing to invest in plant and equipment because they could afford to take larger risks. Besides, the real interest rate was expected to go down even further.

Secondly, the Abe administration proclaimed that the government would keep the target for fiscal re-balancing unchanged by cutting expenditures and raising the consumption tax rate again in 2014. However, it is far more important for the administration to increase fiscal spending on infrastructure that is resilient against natural disasters.

Expansionary public spending and the concomitant increase in public debt did not crowd out private investment. Indeed, the long-term interest rate fell toward a historically low level. The yield rate of new issue of 10-year government bond kept falling as Figure 4-1-3 illustrates[5].

Figure 4-1-3 Yield on 10 year



The third arrow in Abe's quiver has yet to be released: a package of growth-promoting policies. The core of the policy consists of a program of reforms to foster more flexible employment of productive resources, ideas and human capital[6]. Promoting capital investment, fostering human capital utilization, creating new markets, and closer integration with the world economy are being sought after.

Controversy has erupted over the Abenomics program, involving not only the Liberal Democratic Party (LDP) and the opposition parties but also such international bodies as the OECD and the IMF. Those who support Abenomics see it as a bold new treatment that other advanced countries should learn from[7]. However, critics of the package see it as a mere red herring creating artificial

[5] The fall in long-term interest rate also meant that the market rated Japanese government bonds (JGB) as not particularly risky financial instrument.

[6] In the speech delivered on June 5, 2013 PM Abe gave an outline of his growth plan. The stock market responded with its third-largest fall of the year.

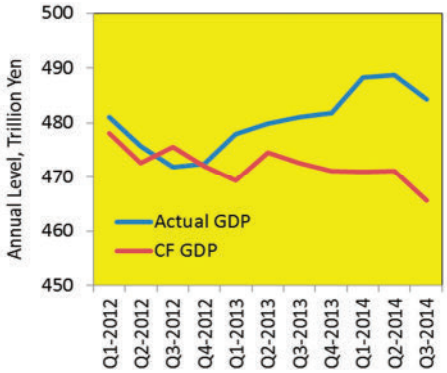
[7] Examples are Joseph E. Stiglitz (2013) and Paul Krugman (2013).

exuberance in the asset market without expansion in the real sector and the labor market[8].

3. Asessing the Effect of Abenomics

The final verdict on Abenomics is still some way off. In order to assess the overall impact of the policy program, a counterfactual (CF) analysis may be useful. This method compares the actual GDP with a counterfactual GDP, which is predicted based on the assumption that the statistical structure that existed before the inauguration of Abenomics would be unchanged after Abenomics[9].

Figure 4-1-4 Actual and CF-GDP



According to Hayashi (2014), Japan's quarterly GDP rose above the level which would have materialized in the absence of Abenomics. The red line in Figure 4-1-4 shows CF-GDP since Q1-2012. The blue line is the actual GDP.

Although actual GDP shows a sign of weakness in Q3-2014, it is still above CF-GDP, and the timing of when a favorable gap started to appear coincides with the introduction of Abenomics. This implies that Abenomics succeeded in lifting GDP above the level which would have prevailed without these policy measures.

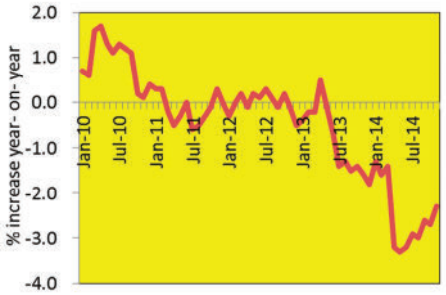
Moreover, CPI started to rise 1 or 2 percent net of consumption tax from September 2013 as Figure 4-1-1 shows. Together, these observations seem to point to a conclusion that favorable effects are emanating from Abenomics.

[8] For a ruthless critique, see Noriko Hama (2013).
[9] For more detail, see Hayashi (2014b).

4. Real Wage Falls

However, there remain some weaknesses in this recovery. Perhaps the most troublesome is the downward trend in wage rates. Nominal wage as measured by contractual monthly earnings made by a worker working for enterprises with more than 5 employees has been falling since the worldwide great recession in 2009[10]. Ironically, the price rise orchestrated by the BOJ only aggravated the fall in real wage, as Figure 4-1-5 illustrates.

Figure 4-1-5 Falling real monthly contractual earnings



Even if PM Abe's third arrow takes wing, it will take some time before Japan's overall productivity and global competitiveness edge up. In the meantime, negative effects on aggregate demand from declining population must be squarely faced. Already, business is making much more new investment in Asia than at home, aiming to cater to the Asian demands originating from the expanding number of middle class consumers there. This is a natural response by Japan's private sector. What is critically lacking in the policy debate in Japan is the recognition of this reality.

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[10] This is calculated by subtracting CPI increase including food and fuel from the increase in contractual earnings.

Section 2: The Economic Legacy of Japan's 2011 Triple Disaster

Mampei Hayashi

1. The Disaster Recovery is Delayed

Four years have passed since March 11, 2011, the day when a once-in-a-millenium earthquake and tsunami hit the Tohoku region and the Fukushima Daiichi Nuclear Power Plant. At the time of writing in 2015, the economy and the social conditions of Japan as a whole seem to be gradually regaining some dynamism through policies such as Abenomics. However, affected people have yet to fully restore their livelihoods and Japan's socio-economic conditions have not yet returned to normal.

The government has already shifted its focus from emergency response to recovery policy. It established a 'Basic Act on Reconstruction in Response to the Great East Japan Earthquake' (GEJE) in 2011, and the Reconstruction Agency has started to implement comprehensive policy to help the reconstruction efforts. The government has also set the period of FY2011-2015 as the nation's "intensive recovery" period.

Thanks to the enormous restoration effort, the amount of debris and tsunami-related flotsam has been significantly reduced (Figure 4-2-1). The government officially announced that the treatment of debris ended in March 2014, except for the waste disposal from designated evacuation zones in Fukushima.

However, affected people seem to be taking longer to recover their former lives. There is still around a quarter of a million refugees, coming mostly from Iwate, Miyagi, and Fukushima, and about 93% of them (216,762 in total as of 2014 December) are still living in temporary houses.

Figure 4-2-1 Treatment ratios of debris and tsunami depositions, and number of refugees

Date	Debris		Tsunami deposition		Number of refugees			
	Removed ratio(%)	Treatment ratio(%)	Removed ratio(%)	Treatment ratio(%)	Iwate	Miyagi	Fukushima	Total
2012.12	84	47	62	17	41,626	112,008	98,235	321,433
2013.3	88	61	77	32	40,304	108,357	97,072	313,320
2013.6	92	76	86	50	38,780	101,328	93,915	298,033
2013.9	93	85	92	70	37,370	96,330	91,392	286,006
2013.12	97	94	95	86	35,925	92,290	87,712	274,088
2014.3	99	97	96	92	34,494	88,575	84,221	263,958
2014.6	–	–	–	–	33,221	81,923	82,657	251,419
2014.9	–	–	–	–	31,714	77,836	78,577	243,040
2014.12	–	–	–	–	30,289	73,796	75,440	233,512

(Source) Ministry of the Environment, Reconstruction Agency.

The reconstruction after 3.11 is one of the most important policy issues in Japan, not only because the GEJE is the worst natural disaster to have ever occurred in Japan, but also because there has been serious concern that another devastating disaster, such as the anticipated Nankai Trough Great Earthquake, may soon occur. Furthermore, the knowledge that Japan has gained from its reconstruction experiences could have a broad range of applications both domestically and in other countries facing the risk of huge natural disasters in the Asia Pacific region, which is known as the most natural disaster-prone area in the world.

2. Financial Resources for Recovery and Reconstruction: Is It Enough?

Is the reason for the delay in providing humanitarian aid for the disaster victims the lack of a sufficient government budget? This section will assess the government budget for the reconstruction. The size of the financial resources forms the basis for how the government plans and conducts recovery policies.

The figure of the economic damage brought by natural disasters is often used as a criterion for evaluating the adequacy of a reconstruction budget (e.g. Cavalle et al., 2010; Downton et al., 2005). Toshihiko Hayashi (2005) reviewed the amount of public expenditure related to the recovery policy implemented after the Great Hanshin-Awaji Earthquake (GHAE), and found that the amount of expenditure was close to the figure of the economic damage[1].

[1] The total amount of money that the government spent on disaster recovery after the GHAE was about 9.5 trillion yen,

Recently, researchers have made advancements in damage assessment research. Cavalle et al. (2010) attempted to evaluate the economic damage of the 2010 Haiti Earthquake by using cross-country panel data. An econometric approach to damage assessment like panel data analysis has a certain advantage over an accumulation approach because of the double counting or statistical discrepancy that can occur during a huge disaster. Mampei Hayashi (2012) applied the panel data analysis method to the case of the GEJE, and estimated that the total amount of economic damage in Iwate, Miyagi, and Fukushima was approximately 26.2 trillion yen (about 21.8 billion USD)[2]

The reconstruction budget for the GEJE seemed to be no less than was needed because the total amount spent on disaster recovery was almost equivalent to the economic damage. On January 27, 2013, Japan's central government announced that it would budget about 25 trillion yen[3] (about 20.8 billion USD) for reconstruction and disaster relief during the five-year intensive recovery period.

However, the government's actual expenditure on the recovery effort has not progressed as far as was planned in the recovery budget. On March 2, 2015, the Board of Audit of Japan reported that budget spending on the reconstruction was delayed, and that spending executed from FY2011-2013 was only about 20.1 trillion yen (about 16.8 billion USD), which was about 80.1% of the total recovery budget[4]. The reasons given for these issues were that there was a shortage of human resources in affected local governments, and that people affected by the disaster and concerned organizations failed to quickly agree on how to use funds, causing delays[5].

3. The Economic Recovery after 3.11

Just like budget spending on post-GEJE reconstruction, the economic recovery after 3.11 has also not progressed as far as it could have. This section examines macroeconomic statistics for Miyagi, Iwate, and Fukushima.

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following economic damage of about 9.9 trillion yen.

[2] The Cabinet Office of Japan officially announced that total economic damage was about 16.9 trillion yen. However, this figure was announced on June 24, 2011, before the damage situation had been fully investigated.

[3] Initially, the Reconstruction Agency allocated 19 trillion yen based on the following reasoning. First, they estimated how much should be spent on recovery after the GEJE based on the amount that was spent after the GHAE. This figure was calculated by multiplying the ratio of economic damage brought by the GEJE in comparison to the GHAE by 9.2 trillion yen, the figure spent on post-GHAE recovery. Also, the government added 2.5 trillion yen and 1.3 trillion yen to these figures. The former addition comes from the amount of subsidies the government provided after the Great Recession occurred in 2008, and the latter figure was the amount spent on nationwide disaster mitigation policy after the GHAE.

[4] The amount of recovery funds carried over and evaluated as unnecessary were 1.96 and 3.02 trillion yen, respectively.

[5] Some media outlets criticized the government for its apparent inability to use the budget to effectively support the recovery effort. However, the Board of Audit also cautioned that the amount of unused funding doesn't necessarily indicate mismanagement of budget projection or spending. This is because this unused funding figure can reflect budget savings, and assumptions or predictions made in normal times are sometimes hard to apply in times of emergency.

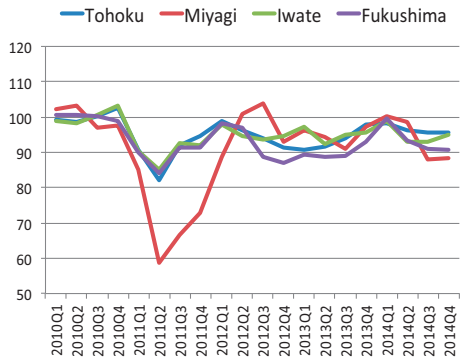
The production levels of the manufacturing sectors in the disaster-affected areas have gradually recovered after a significant decline (Figure 4-2-2). Miyagi's Index of Industrial Production (IIP) rose sharply in every quarter after the disaster occurred until the third quarter of 2012. Iwate and Fukushima's respective IIPs also show that their industries had regained a significant amount of ground by the first quarter of 2012. Even so, these prefectures' IIP figures still remained below their former levels.

The export sector was also significantly affected (Figure 4-2-3). Major seaports at Shiogama in Miyagi, Kamaishi in Iwate, and Onahama in Fukushima, were severely damaged by the tsunami. Because of this, Miyagi's exports dropped sharply and this sector too has not yet fully recovered.

Compared to the manufacturing and export sectors, the construction sector is booming (Figure 4-2-4). Construction expenditure in Miyagi and Fukushima jumped after the second quarter in 2011, and Iwate's figure followed this trend. Sectoral growth rates in Iwate and Fukushima are still positive, and Miyagi's growth rate is maintaining a quite high level as of 2015. Reasons for this include the enormous amount of funds the government devoted to restoring infrastructure and removing debris, and the huge demand for house-building.

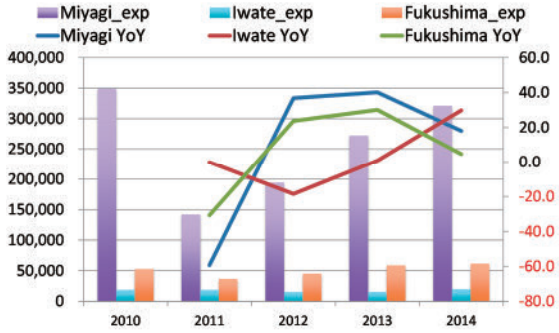
However, Japan must prepare for the end of the post-disaster construction boom in this fiscal year (2015). The manufacturing and export sectors have not fully recovered yet even three years after the GEJE. Furthermore, many media reports have been focusing on problems in restoring struggling primary industries in the affected regions, but the terms of trade in Miyagi, Iwate, and Fukushima were only 1.7%, 3.7%, 2.0% respectively in 2009. For economic recovery and sustainability, it will be necessary to create new industries and businesses.

Figure 4-2-2 IIP (Seasonally Adjusted, 2010=100)



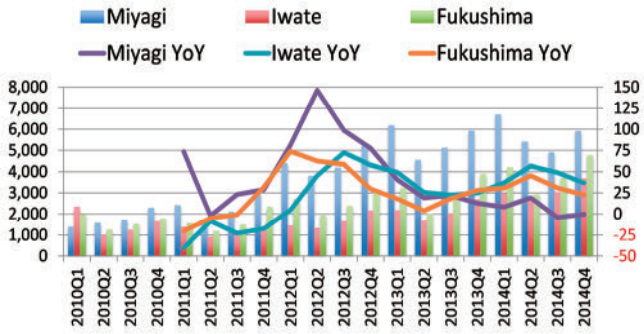
Source: METI Tohoku

Figure 4-2-3 Export value (left: million yen, right: YoY growth rate)



Source: Japan Customs

Figure 4-2-4 Construction Work Value (left: 100 million yen, right: YoY growth rate)



Source: Ministry of Land, Infrastructure, Transport and Tourism

4. Economic Losses in Miyagi, Iwate, and Fukushima

What was the effect of the GEJE on the Gross Regional Product (GRP) of Tohoku as a whole? This section will estimate the economic loss that the region suffered by calculating the counterfactual Tohoku GRP, to see what would have likely have happened to Tohoku GRP had no earthquake occurred in 2011. Reducing economic loss is one of the most important policy priorities when reconstructing a society after a disaster because that society cannot be sustainable unless its economy recovers. The level of its counterfactual GRP offers a preliminary benchmark against which economic recovery can be measured. The counterfactual GRP projection presented here is a re-estimate of the

counterfactual study presented in Mampei Hayashi (2014). It is based on the latest fiscal 2011 prefecture-level GRP data provided by the Cabinet Office (Figures 4-2-5, 4-2-6, 4-2-7,4 -2-8).

The results of this counterfactual projection show that the actual nominal GRPs of prefectures in the Tohoku region started deviating from counterfactual GRP estimates from fiscal 2010, and it can be assumed that this deviation demonstrates the economic loss caused by the GEJE, which occurred at the end of that fiscal year. In particular, the projections show that Fukushima and Miyagi suffered significant losses. This study has confirmed that Tohoku experienced substantial economic losses from fiscal 2010, and that these expanded in fiscal 2011, despite the success of the construction industries in those prefectures.

Figure 4-2-5 Iwate CF and actual nominal GRP (million yen)

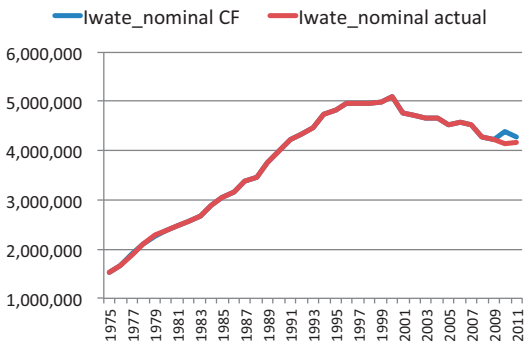


Figure 4-2-6 Miyagi CF and actual nominal GRP (million yen)

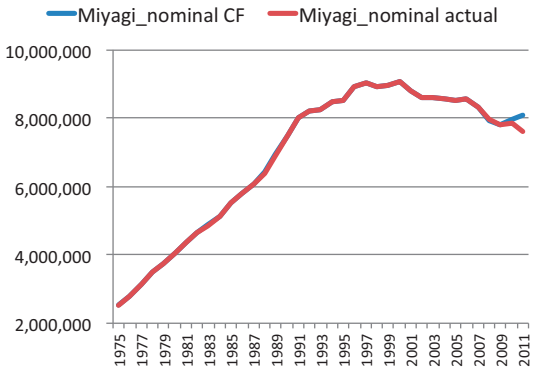


Figure 4-2-7 Fukushima CF and actual nominal GRP (million yen)

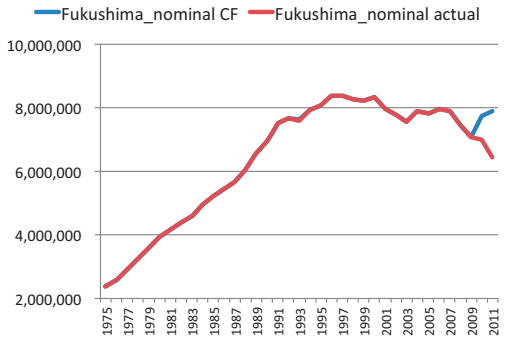


Figure 4-2-8 The CF and nominal GRPs of Iwate, Miyagi, and Fukushima in figures

	GRP nomina (Million Yen)								
	Iwate CF	Iwate actual	deviation (%)	Miyagi CF	Miyagi actual	deviation (%)	Fukushima CF	Fukushima actual	deviation (%)
2010	4,373,300	4,146,783	5.5	7,964,946	7,835,863	1.6	7,733,069	7,007,114	10.4
2011	4,270,232	4,179,680	2.2	8,077,542	7,632,961	5.8	7,880,237	6,432,386	22.5

5. Evacuation Zone in Fukushima

The huge drop in Fukushima's actual GRP compared to its counterfactual GRP is strongly related to the dispersal of radioactive materials caused by the Fukushima Daiichi Nuclear Power Plant accident. The decontamination has shown only limited progress, and the government has only slightly reduced the size of the evacuation zones so far[6,7] (Figure 4-2-9).

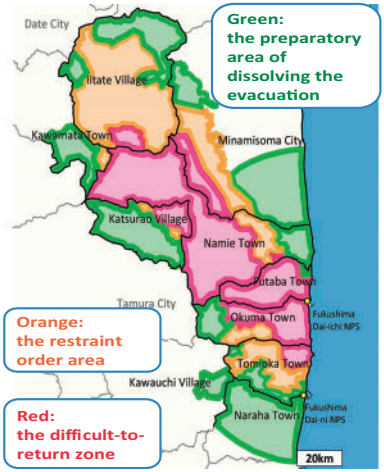
Furthermore, it is hard to foresee a promising future for Fukushima even after the decontamination. Surveys of the inhabitants in some affected municipalities

[6] After the accident, the government declared the 20 km radius around the Fukushima Daiichi Nuclear Power Plant as an evacuation zone, and also established planned evacuation zones and preparatory evacuation zones outside of this radius until April 22, 2011 as a precaution. Since then, the government has gradually reorganized these areas based on the actual cumulative dosage of radiation in the air per year. If the cumulative dosage of radioactive materials per year falls below 20mSv in a certain area, the government designates the area as one that can be prepared for future habitation. Areas with a cumulative dosage of radiation in the air of over 50mSv per year, and areas with a dosage of 20mSv to 50mSv are called "difficult to return " and "restraint order" areas, respectively. The former areas are completely closed off and trespassing in these areas is prohibited, while the latter areas are open for visitation but lodgment has been prohibited. Furthermore, the government establishes specific spots recommended for evacuation in neighboring regions if the dosage of radiation in a certain region surpasses 20mSv per year.

[7] The government has set the following three criteria that an area must fulfill to be allowed to transition from the "preparatory" stage to the "habitable" stage. First, it must be confirmed that the dosage of radiation in the area per year has fallen below 20mSv. Second, public infrastructure and everyday industries in the region must be restored, and also decontamination of the region needs to have progressed. Third, the government, municipalities, and inhabitants must reach a consensus about how best to rebuild the area.

found that many of the refugees have decided to move out from their hometown regardless of how successful the decontamination has been. About half of respondents originally from Tomioka, Ookuma, Futaba, and Namie, and 20-30% of respondents originally from Kawamata, Naraha, and Iidate said that they had decided not to go back.

Figure 4-2-9 The evacuation zones in Fukushima prefecture



Source: METI "Measures and Requests in response to the Great East Japan Earthquake"

6. Towards Human Reconstruction after 3.11

This section concludes by presenting some policy recommendations. Firstly, the shortage of human resources in the local governments of affected areas should be addressed as quickly as possible, so that these organizations can promote reconstruction policies effectively. The Japanese government must consider decentralization strategies as a means of addressing this problem.

Secondly, it is important to create new industries in these regions to support their economic sustainability and assist with their reconstruction. The construction boom in these regions is not sustainable since debris removal work has already ended in the disaster-affected areas. It is also worth noting that the three prefectures affected by the disaster are still experiencing economic losses in spite of the success of their construction industries. Inviting young people from outside prefectures into these areas might be a key strategy for revitalizing their economies, although the population of young people in Iwate, Miyagi and

Fukushima has been declining.

Thirdly, it is just as important that Japan assists the recovery of the livelihoods of disaster victims who moved out of the affected areas as it is that the nation assists the people who remained in the affected areas. The government should provide assistance for these people without waiting for the societies of affected areas to be reconstructed.

Finally, Japan and other disaster-affected countries need to pay more attention to the quality of life and the well-being of the victims as one of the most important aspects of reconstruction.[8].

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[8] Kosaka et al. (2007) examined the mechanisms relating to different kinds of trust that influence citizen's well-being using data from surveys taken in Hyogo prefecture, which was once hit by the GHAE.

SECTION 3: ASEAN ON THE RISE

Jose O. Tiu Sonco II

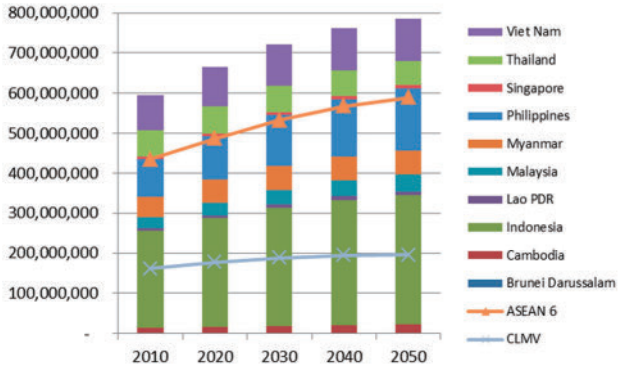
This section provides an overview of ASEAN's rise and promise as a sustainable player in the Asia-Pacific region in a rapidly changing global economy[1]. It focuses on demography, unemployment, and human development; economic productivity and structure; and relations with Asian markets, focusing on foreign direct investment (FDI), particularly from Japan.

1. ASEAN Population, Unemployment and Human Development

Asia comprises 60% (4.4 billion) of the world's population; ASEAN represents 9% of the global total, China 19%, India 18% and the rest of Asia (RoA) 15%. Asia's population will continue to grow, but its share of the world total is expected to decline to 54% by 2050, due to Africa's rapid population growth. Africa's share will increase from 15% to 25% as its population is projected to increase two-fold by 2050. Europe's share will decline from 11% to 7%, while North America will maintain its current share (5%) by 2050.

Within Asia, the populations of ASEAN, India and RoA (excluding East Asia) will continue to grow at varying rates; however, East Asia's relative share will decline – China from 33% in 2010 to 27%, and Other East Asia from 6% to 4%

Figure 4-3-1 ASEAN Population



Source: Based on UN Department of Economic and Social Affairs 2012.

[1] ASEAN refers to 10-member states of the Association of Southeast Asian Nations with Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand, and Singapore as original members (referred to as ASEAN 6); and Cambodia, Lao People's Democratic Republic (Lao PDR), Myanmar, and Viet Nam as new members (referred to collectively as CLMV).

by 2050. India's share will increase from 29% to 31%, while ASEAN's share will expand from 14% to 15% by 2050.

Figure 4-3-1 suggests a rise of ASEAN's population from around 600 to 800 million between 2010 and 2050, with ASEAN-6 representing 75% and CLVM 25% respectively. According to this forecast, Indonesia's relative share will remain at 41%, and the Philippines will expand from 16% to 20% by 2050.

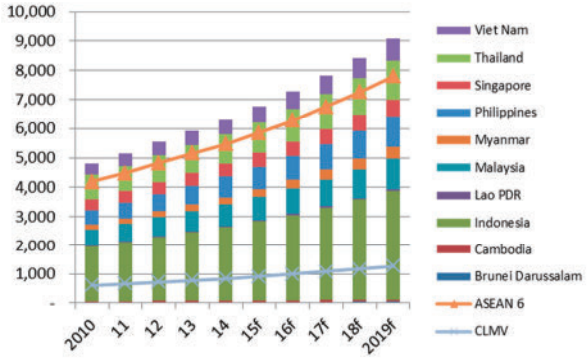
ASEAN's unemployment rates dropped from an average of 4.7% in 2000[2] to 3.2% in 2013 (no data for Myanmar and Cambodia). In 2013, Thailand (0.7%), Cambodia (1.3%), Lao PDR (1.9%, 2010 data) and Viet Nam (1.9%) each registered low unemployment levels, while the Philippines (7.1%) and Indonesia (5.9%) saw higher levels.

ASEAN's Human Development Index (HDI) improved from an average of .614 in 2000 to .691 in 2013. Furthermore, Toshihiko Hayashi's (2015) integrated GINI coefficient estimates suggest that income inequality in Asia-Pacific has been narrowing at a faster rate than in any other region in the world (See Introduction of Part II, especially Figure E).

2. ASEAN Economy: Productivity Levels, Growth, and Structure

ASEAN is the second-largest emerging economy in Asia after China, with US$6.3 trillion GDP in Purchasing Power Parity (PPP) terms in 2014, forecast to rise to US$9 trillion by 2019 (IMF 2015). Figure 4-3-2 shows ASEAN's actual and forecast regional PPP GDP for the period 2010-2019.

Figure 4-3-2 ASEAN GDP in PPP, billion US$

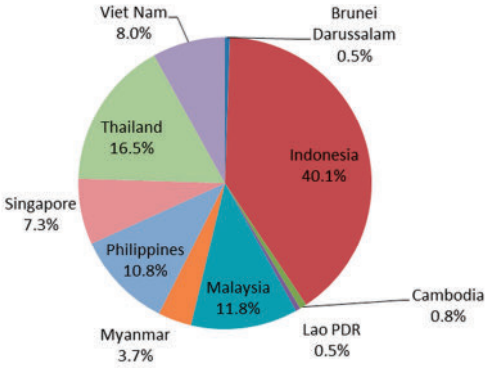


Source: International Monetary Fund (IMF) -World Economic Outlook (WEO) Database, October 2014.

[2] Excluding Myanmar and Cambodia, for which no data were available for 2000.

ASEAN 6 and CLMV represented 87.0% and 13.0 % of ASEAN GDP in 2010-2014, respectively, as seen in Figure 4-3-3. Indonesia has the largest relative share with 40.1%, followed by Thailand (16.5%), Malaysia (11.8%), Philippines (10.8%), and Singapore (7.3%). Viet Nam contributes 8.1% of ASEAN GDP.

Figure 4-3-3 ASEAN GDP in PPP, relative share (%)



Source: IMF-WEO Database 2014.

Figure 4-3-4 indicates the real GDP growth rates of ASEAN member states, averaging about 5.9% in 2010-2014. CLMV countries are expanding at a faster rate, averaging 7.0% compared to 5.1% among ASEAN 6 countries.

Figure 4-3-4 ASEAN GDP growth

	2010	11	12	13	14e	15f	16f	2017f
Brunei Darussalam	2.6	2.2	1.3	1.2	n.a.	n.a.	n.a.	n.a.
Cambodia	6	7.1	7.3	7.4	7.2	7.5	7.2	7.0
Indonesia	6.1	6.5	6.3	5.8	5.1	5.2	5.5	5.5
Lao PDR	8.5	8	8.0	8.5	7.5	6.4	7.0	6.9
Malaysia	7.2	5.1	5.6	4.7	5.7	4.7	5.1	5.2
Myanmar	5.3	5.9	7.3	8.3	8.5	8.5	8.2	8.0
Philippines	7.6	3.6	6.8	7.2	6.0	6.5	6.5	6.3
Singapore	15.2	6.1	2.5	3.9	2.8	n.a.	n.a.	n.a.
Thailand	7.8	3.1	6.5	2.9	0.5	3.5	4.0	4.5
Viet Nam	6.8	5.9	5.2	5.4	5.6	5.6	5.8	6.0

Source: Compiled based on IMF-WEO Database 2014, Navarro and Llanto 2014.

Average growth in the ASEAN 6 countries slowed down after the global

financial crisis, with Singapore and flood-affected Thailand particularly affected.[3] Indonesia's growth decelerated in 2013-2014 due to its stabilization policy and sluggish exports (Asian Development Outlook 2015). Cambodia, Lao PDR and Vietnam appeared to be less affected by the crisis than their peers; as a group CLMV achieved much higher growth than ASEAN 6.

Unlike most other ASEAN 6 countries, the Philippines' growth decelerated from 7.6% to 3.6% in 2011, mainly due to a slow-down in government spending and lower fixed investments, rather than the impact of global shocks. Growth picked up to 6.8% in 2012 and 7.2% in 2013 (see the next section of this chapter for updates on 2013-2014).

Major shifts in ASEAN economic structures occurred between 1990 and 2010, particularly in CLMV (moving from agriculture to industry), and the Philippines (from agriculture to services), owing to efforts to industrialize and develop economies. Singapore and the Philippines are largely dependent on the services sector, representing 72.3% and 55.1%, respectively. Brunei, Thailand, Malaysia, and Indonesia have stronger industry sectors. Agriculture remains important in CLMV countries, accounting for between 18.9% and 36.9% of their economies.

3. ASEAN Foreign Direct Investment (FDI) Inflows

Japan has been a key player in FDI to the world, with North America as its largest recipient (31.2% of the total) followed by Asia (27.8%). Its total outward FDI increased from 830 billion USD in 2010 to 1.12 trillion USD in 2013 (JETRO 2014). During this period, Japan's FDI outflow to Asia increased by US$98 billion (46%), while increases to North America and Europe were US$86 billion (33%) and US$80 billion (41%), respectively.

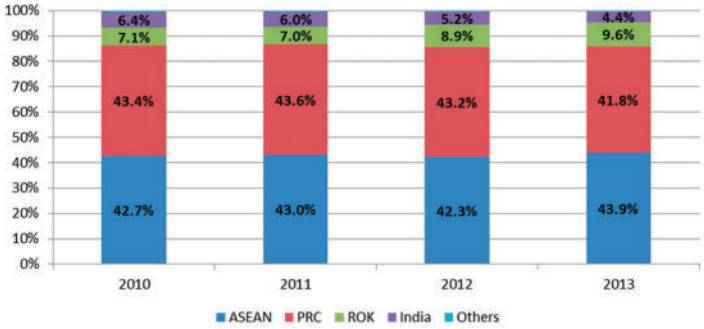
Japan's FDI provides important capital inputs for Asia's productivity and growth. Its FDI outflow to ASEAN rose by about 50%, from US$90 billion to US$136 billion between 2010 and 2013 (Figure 4-3-5). ASEAN now represents the biggest share of Japan's FDI in Asia with 43.9% (up from 42.7% in 2010), overtaking China with 41.8% (43.4% in 2010). Meanwhile, the Republic of Korea's (ROK) share expanded from 7.1% to 9.6% in this period.

Within ASEAN, CLMV's share of Japan's outward FDI declined from 6.4% to 4.4% during the same period. Interestingly, there have been shifts in Singapore's relative share from Japan's FDI outflow (1996-2013), particularly to

[3] See Mampei Hayashi (2014) on the effects of Thailand flooding on growth in 2011. Moreover, subsequent political instability and internal disruptions have stunted its growth in recent years.

ASEAN 4[4] and Viet Nam. The relative share of ASEAN 4 and Vietnam in total FDI from Japan increased from 65.3% to 72.7%, while that of Singapore and the rest of ASEAN members declined from 32.3% to 26.8% and from 2.4% to 0.4%, respectively. Moreover, Japan's FDI to ASEAN 4 and Viet Nam increased from 63 to 99 billion USD in 2010-2013, or by about 37% in four years, compared to a 25% increase for Singapore.

Figure 4-3-5 Japan's FDI to ASIA, % share



Source: JETRO 2014, Ministry of Finance.

Figure 4-3-6 indicates the relative share of ASEAN 4 and Vietnam. In 2013, Thailand had the biggest share at 45%, followed by Indonesia (20%), Malaysia (13%), the Philippines (11%), and Viet Nam (11%). The relative share of the Philippines and Malaysia shrank due to Viet Nam's faster FDI accumulation.

Figure 4-3-6 Japan's FDI to ASEAN 4+Viet Nam, % share

[4] ASEAN 4 refers to Indonesia, Malaysia, Philippines and Thailand. Due to large amount of FDI going to Singapore, relative to other individual ASEAN 6 members, it is treated separately; Brunei is not included.

Source: JETRO 2014, Ministry of Finance.

Overall, the Philippines' FDI net inflows represented on average of 1.3% of GDP in 1981-2010. This figure remains low compared to other ASEAN countries with an average of just 1% relative to GDP in 2010-2013; the equivalent figures were 21% in Singapore, 5.7% in Viet Nam, 4.1% in Malaysia, and 2.4% in Thailand. However, structural changes have been taking place recently in the Philippine economy that may affect this figure, as discussed in Section 4 of this chapter.

4. Make Growth More Inclusive in ASEAN

It is no longer debatable that the ASEAN regional economy bloc is been rising – and fast. Indeed, there is a bright future in terms of labor productivity, economic output, and market size. With appropriate structures and institutional arrangements, ASEAN is poised to lead growth in the Asia-Pacific region. Higher production, diversification, and technological innovation in goods and services for domestic consumption and trade are necessary to sustain economic growth; hence, inputs from and synergies with developed economies like Japan are needed.

Making growth more inclusive in ASEAN, with no country left behind, would enable member states to pursue a sustainable growth path. In spite of rising productivity levels and growth in ASEAN vis-à-vis the rest of the world, there remains a huge gap between rich and poor economies. As such, an inclusive and sustainable growth path should be pursued not only at the country level but also at the regional level.

The objective is to create enduring growth structures and partnerships between and among ASEAN countries as well as developed economies in the Asia-Pacific region. The end-goal is to achieve prosperity through sustainable solutions to development constraints, creating mutual partnerships and benefits, and breaking the pattern of the "middle income trap." This will further close the income gap as observed by Toshihiko Hayashi in Chapter 1 of this volume.

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SECTION 4: PHILIPPINES – NO LONGER THE SICK MAN OF ASIA

Jose O. Tiu Sonco II

Today, the Philippines is reborn with better institutional and governance quality, increased competitiveness, and focused public sector investment targeting infrastructure and human capital development. The country appears to be on track in addressing its critical development constraints on economic growth and poverty reduction through an inclusive growth agenda.[1] As a July 2014 cover story in the Nikkei Asian Review put it, "once the sick man of Asia," the Philippines is "starting to fulfill its promise."

This section examines the uniqueness of, prospects for, and opportunities in the Philippine economy, as well as the revitalization of its role in ASEAN. Indeed, had the Philippines started to fulfil its promise in earlier decades, ASEAN may by now have been enjoying even higher levels of growth and productivity. However, it is not too late for the Philippines to rise again and become a sustainable player in the ASEAN Economic Community (AEC) and the Asia-Pacific region.

1. Philippine Development Performance - In Perspective

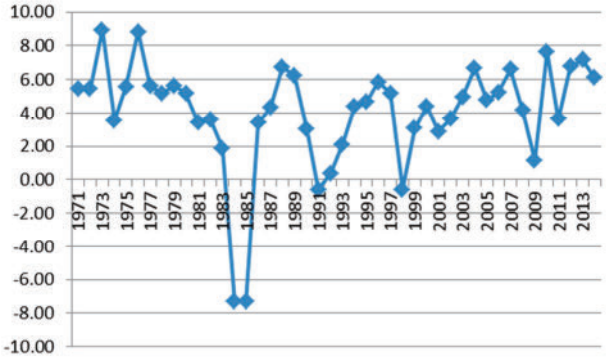
The Philippines is an archipelagic country with more than 7,100 islands, strategically located in the Asia-Pacific region. It had a promising future in the 1950s and 1960s. However, the country's development performance puzzled economists as it lagged behind its Asian neighbors in economic growth and poverty reduction.[2]

After the Second World War, the Philippines trailed behind the so-called "economic miracles" of Asia – Hong Kong, the Republic of Korea, Singapore, and Taiwan – and missed the opportunity to transform itself. It declined from having one of the highest per capita incomes in East Asia to one of the lowest, and was overtaken by Thailand in 1983 in per capita gross domestic product (GDP).[3] The country suffered from lost decades in economic growth between 1981 and 1999, with average growth rates of 2.0% and 2.8%, respectively, and relatively low growth between 2000 and 2009, averaging 4.5%. Negative GDP growth was recorded in 1983-84, 1991, and 1998. However, growth held up better after the global financial crisis, bottoming out at 1.2% in 2009[4] (see Figure

[1]See Tiu Sonco (2014), APIR Discussion Paper No. 37.
[2]See Usui 2011; Canlas, Khan, & Zhuang 2009; Paderanga 2004; Balisacan &Hill 2003.
[3]See Canlas, Cham and Zhuang (pp. 13-31) in Canlas, Khan and Zhuang (2009).
[4]Paderanga (2004) noted one deep recession which started in 1983 after Benigno Aquino's assignation and in 1985; two

4-4-1).

Figure 4-4-1 Real GDP growth (%)



Source: Philippine Statistics Authority.

Services and consumption are important parts of the Philippine economy, and over the past decade, the IT business process management (IT-BPM) sector and remittances by overseas Filipino workers have made significant contributions (ADB 2014). Total factor productivity growth and foreign investments stagnated for about three decades (Usui 2011).

Looking at the Philippine economy more closely, Balisacan (2015) observes structural changes taking place since 2010. GDP growth averaged 6.3% in 2010-2014; the highest 5-year average since 1970s.[5] Aggregate demand has been boosted by private consumption (partly fueled by remittances), as well as investments and an increased government spending share. On the supply side, although the services sector contributed more than half of GDP, the industrial sector's share has expanded significantly compared with the past three decades.

2. Recent Economic Performance – 2013 and 2014

Services accounted for 56.8% of real GDP in 2013, with the industrial sector accounting for 32.8% and the primary sector 10.4%. Overall, real GDP grew by 7.2% in 2012-13, and 6.1% in 2013-14, a robust performance compared to a 4.0% average in 2007-2009, and 6.0% average in 2010-2012. By sector, services

relatively minor recessions in 1990 with a major coup attempt against Corazon Aquino government, and in 1997 due to the Asian financial crisis.

[5]See Balisacan, Arsenio. The Philippine Economy: Prospects and Outlook for 2015 and 2016. Accessible at http://www.neda.gov.ph/?p=4944.

grew 7.2% in 2012-13 and 6.0% in 2013-14; during the same two periods, the industrial sector grew 9.5% and 7.5% (with manufacturing and construction as major growth drivers) and the primary sector grew 1.1% and 1.9% respectively (ADB 2014; Navarro and Llanto 2014).

In 2014, the Philippines was second to China among Asia's fastest-growing countries, and remains within its growth trajectory (NEDA, 2015). Higher growth is expected as recovery under the Reconstruction Assistance on Yolanda (RAY) programme in disaster-affected areas and major infrastructure development projects through the public-private-partnership (PPPs) scheme are underway. This should further boost the Philippine economy from 2015, with the government targeting 7-8% growth in 2015, and 7.5-8.5% in 2016.

Moreover, recent natural disasters and man-made calamities are a wake-up call to build more resilient regions, local governments, and communities[6]. The government emphasizes a recalibrated policy of cluster programs to support: i) regions with opportunities for growth with high incidences of poverty; ii) the poorest areas with low growth potential; and iii) areas with geo-hazards and vulnerability to disasters. As such, economic performance and the effects of disasters on development progress re-shaped the path towards transforming the Philippine economy. Governing the state and managing the economy will take a different course as the government takes into account recent progress and disaster risks.

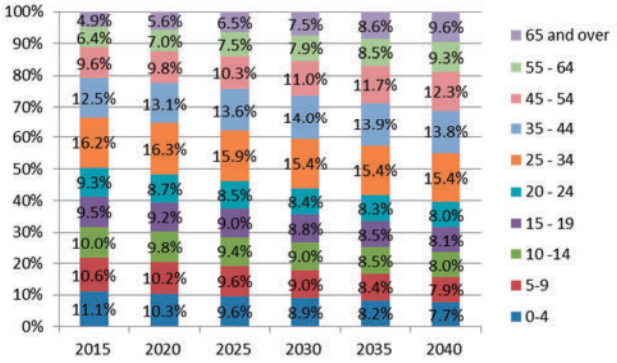
3. Philippine Labor Market – Vital and Sustainable in ASEAN

The Philippines is projected to sustain a relatively young population structure over a very long period of time. Its human capital – typically English-speaking, young, and mobile – is seen as among the country's strongest assets.

With more than 100 million people in 2015, it promises a strong source of young, dynamic, and sustainable labor, with 63% of the population aged 15-64,[7] that can be tapped in the production of a "diversified basket" of goods and services in an integrated regional economy (See Figure 4-4-2).

[6] Sources of threats to human security that disrupt people and business activities, e.g., armed conflicts, insurgency, and escalated effects of natural disaster due to unsustainable use of natural resources resulting in landslides and flooding, among others.
[7] This age group represents 63% (65 million) of projected total population in 2015, and is expected to increase to 67% (95 million) by 2040.

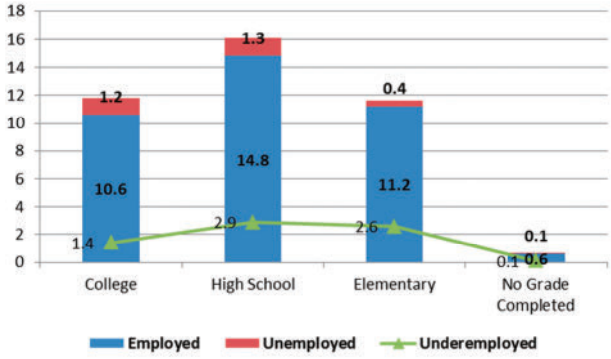
Figure 4-4-2 Population structure projection



Source: Based on National Statistics Office.

In spite of recent growth performance, limited job opportunities for about 10 million Filipinos continue to persist. Around 3 million people are unemployed, and a further 7 million underemployed or employed but still looking for additional work (Figure 4-4-3). In 2013, levels of unemployed and underemployment were the highest in ASEAN, at 7.2% and 19%, respectively; figures improved slightly to 6.8% and 18.4% in 2014.

Figure 4-4-3 Labor force by education, 2011 (in million)



Source: Based on LabStat Bureau of Labor and Employment Statistics 2012.

Aggregate labor productivity growth measures indicate that productivity grew slightly through labor shifts from agriculture to services, while the industrial

sector did not contribute to economy-wide growth.[8] As such, private investments – domestic and foreign – are critical for addressing the remaining key challenges and opportunities concerning the persistent problem of unemployment and underemployment, reviving the manufacturing sector, and improving technological innovation and production capability (Tiu Sonco 2014).

With greater confidence in the economy, large domestic firms are expected to continue increasing major capital expenditures. Foreign direct investment (FDI) rose to US$6.2 billion in 2014, up 66% on the previous calendar year (Bangko Sentral ng Pilipinas data, March 2015).

It is imperative to sustain FDI growth in order to transform available human capital into productive labor, thereby creating an enduring inclusive growth structure and sustainable development. Within the industrial sector, the manufacturing sub-sector in particular should further be revived and strengthened to employ the 'huge pool of semi-skilled and unskilled labor' (Navarro and Llanto 2014). Foreign investment in the manufacturing sub-sector would create employment and help address underemployment; further, investors can capitalize on a sustainable human capital to boost productivity and trade of goods in the AEC.

4. Rising from Adversity, Working Towards Inclusive Growth

Undoubtedly, the Philippines has made significant strides in economic growth. However, this must be sustained with even stronger institutional quality, an appropriate policy mix, and a more engaged role in ASEAN. It should be recalled that the country was an "early leader with a relatively advanced manufacturing [sector] and well-developed human capital" in East Asia in the 1950s and 1960s (Usui 2011). Tapping the available human capital would boost economic growth, making it more inclusive and sustaining a high growth path.

Given the recent changes and challenges in the Southeast Asia region, such as internal instabilities, external shocks, and the effects of natural disasters, the Philippines is increasingly seen as a key partner and perhaps the next logical option for foreign investment in ASEAN. It offers a vital and sustainable labor source for productivity and growth in the region, with its own unique characteristics: dynamic human capital at home and abroad, resilience to external shocks, a vibrant IT-BPM sector, and strong macroeconomic fundamentals. From this promising base, the Philippines is now in pursuit of inclusive growth and

[8]Usui (2011) measured the ability to improve living standards over time by decomposing i) dynamic structure reallocation effect, ii) within-sector productivity growth, and iii) structural reallocation effect.

development.

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SECTION 5: CHINA AND KOREA AMID POLITICAL TENSIONS

(i) CHINA

Dongyang Zhang

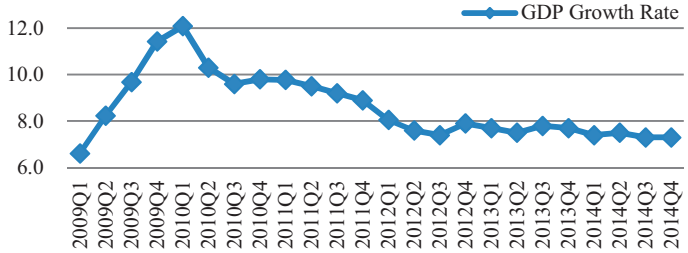
In 2013, the 12th National People's Congress elected Xi Jinping as the General Secretary of the Communist Party and President of the People's Republic of China, effecting a regime transition that has been attracting attention around the world. This section analyses the economic impact of this once-in-a-decade political change by examining recent trends in macroeconomic indicators.

1. Chinese GDP Growth Rate Slowdown

1.1. China's GDP growth rate

Immediately after the Great Recession in 2009, China's GDP growth rate returned to double-digit levels. However, it began decelerating in 2010, and has continued to slow until the present day. In 2014, China's fourth quarter GDP growth rate was 7.3%, and its annual growth rate that year was 7.4%. Growth has stayed below 8% for 11 consecutive quarters, as seen in Figure 4-5-1.

Figure 4-5-1 China's GDP growth rate (%)

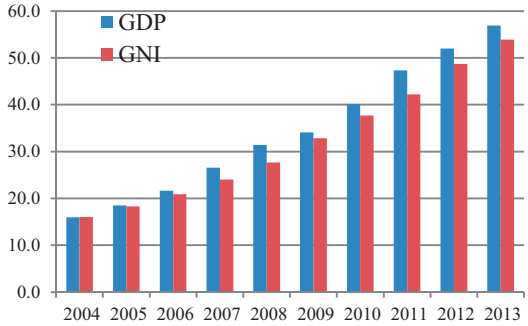


1.2. GDP and GNI

The size of the Chinese economy continues to increase by significant increments, year after year. In 2013, nominal GDP was 57 trillion RMB[1] (8.4 trillion USD) and nominal GNI was 54 trillion RMB (8.4 trillion USD) (Figure 4-5-2). Per capita GDP was 41,800 Yuan (6,537 USD,) and per capita GNI was 39,600 Yuan (6,193 USD).

[1] In the same way the UK currency is officially called 'sterling' and individual units are 'pounds', the official name of China's currency is the 'renminbi' (RMB), and individual units are 'yuan'.

Figure 4-5-2 Nominal GDP and GNI (trillion Yuan)



1.3. Analysing the decline of China's GDP growth rate

1.3.1. China's eroding globalization dividends

The ratio of China's trade surplus to total GDP decreased sharply from a peak of 0.99% in 2007 down to 0.33% in 2011. The growth rate of exports also dropped from 31.3% in 2010 to 8.0% in 2013, while the growth rate of imports decreased similarly, from 39.9% in 2009 to 7.0% in 2013 (Figure 4-5-3).

Figure 4-5-3 Rapid decrease in global dividends

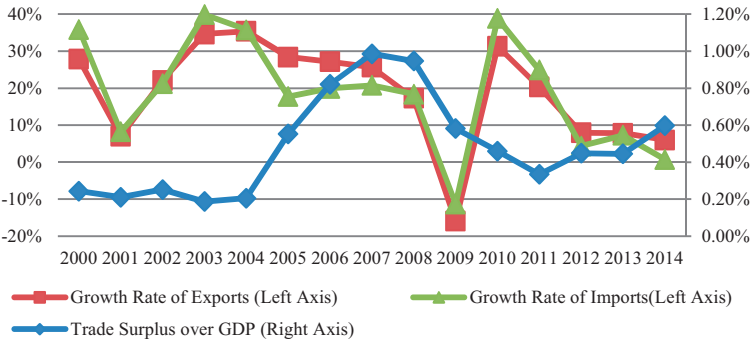
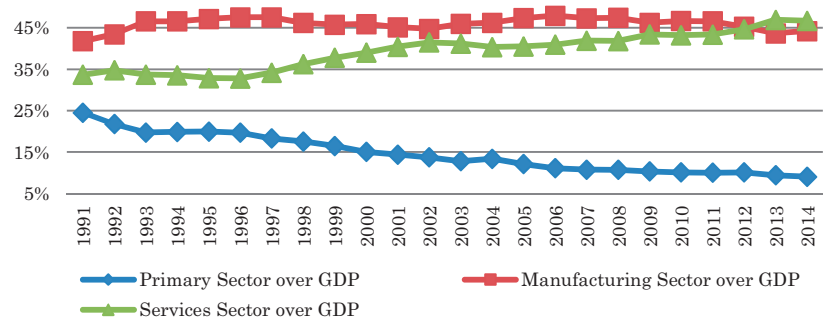


Figure 4-5-4 Decline in industrialization dividends



The service sector's share of GDP has exceeded that of the manufacturing sector since 2012, and China's economy has transformed to become service-industry centered (Figure 4-5-4). However, the cause of this change appears to be a relative decline in the performance of the primary and manufacturing sectors, rather than strong growth in services. Even so, this change appears to indicate the transition of the Chinese economy from an industrialization era towards a post-industrialization era.

1.3.2. Changing political environment

In 2013, President Xi declared a "zero-tolerance" policy-making stance, promising to keep "waving high the sword against corruption" and "fastening the cage of regulations". On one hand, this may be creating a stronger institutional framework for China, but on the other hand, local government expenditure, consumption, luxury consumption, and real estate investment have all declined sharply in the past two years. As a result, President Xi's political programme is creating downward pressure on economic growth, at least in the short-term.

2. The Real Estate Market

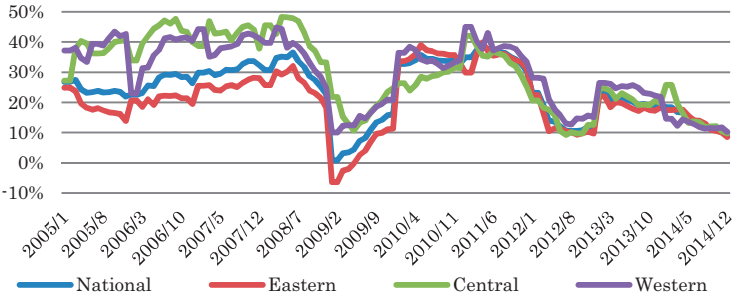
All land in China is owned by the People's Republic of China, and the government determines the maximum terms for land-use rights granted to residents, based on how those residents propose to use the land. The growth rate on real estate investment (accumulated[2]) in China was increasing rapidly prior to

[2] Accumulated investment indicates the total amount of real estate investment accumulated over a year and is calculated from the beginning month until the last month of a given year.

2005 but then fell suddenly, reaching a low point in 2009. Although the growth rate reached historically high levels in 2010 and 2011, it dropped sharply again in 2012.

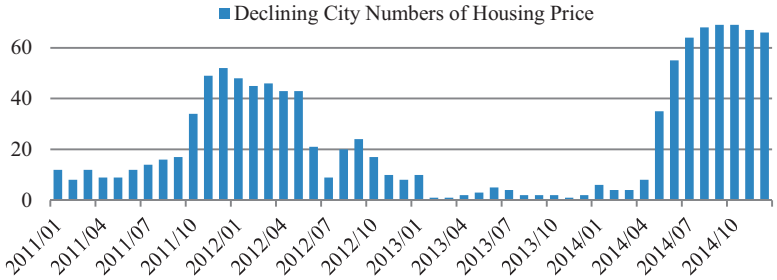
Examining the growth rate of China's real estate investment by region, it is seen that the national growth rate in 2014 was 9.2% on average while regional growth rates were different. The growth rate was 8.5% in eastern China, 9.7% in central China, and 10.3% in western China respectively (Figure 4-5-5).

Figure 4-5-5 The growth rate of real estate investment (accumulated)



In terms of real estate, average prices declined in 35 cities out of a sample of 70 main cities in May 2014, and this number rose to 69 out of 70 cities by September 2014, a historic low point for the real estate industry (Figure 4-5-6).[3]

Figure 4-5-6 Number of cities with declining housing prices

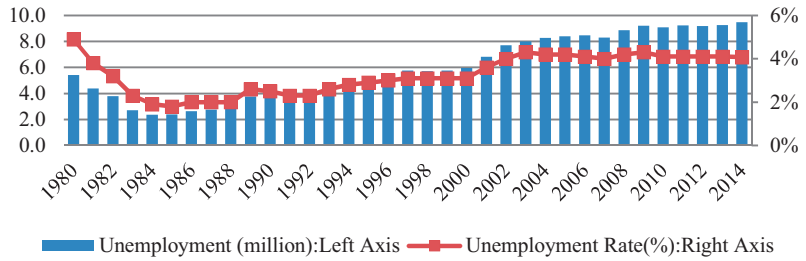


[3] The housing price index is called the "Sales Price Indices of Residential Buildings in 70 Large and Medium-Sized Cities". The government uses this index to describe the overall trend and magnitude of change of house prices. This index is composed of the prices of housing, construction, and sales, observed in 70 large and medium-sized cities.

3. Labor Market and Income

Though unemployment increased from 24 million in 1984 to 95 million in 2014 due to population growth, the unemployment rate has remained stable for over a decade, and stood at 4.07% in 2014. The labor market continues to be tight in China (Figure 4-5-7).

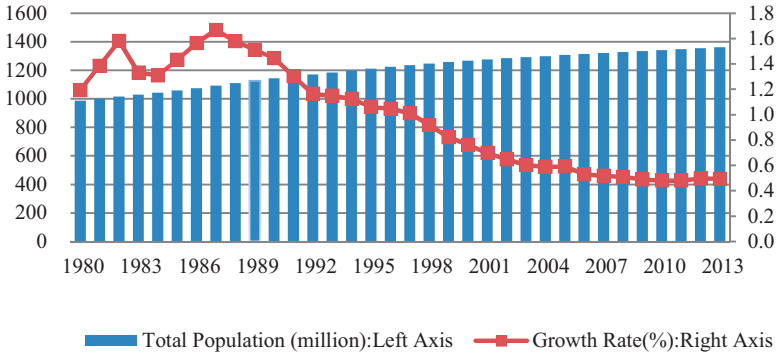
Figure 4-5-7 Unemployment and the unemployment rate



4. Population Structure and Aging Population

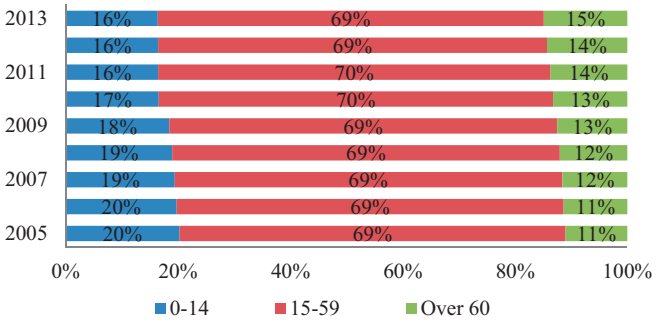
China's population continues to increase steadily, despite the implementation of the "One Child Policy" since 1980. Total population increased in this period from 990 million to 1.3 billion in 2013, though the population growth rate fell from 1.7% in 1987 to 0.5% in 2013 (Figure 4-5-8).

Figure 4-5-8 China's population and population growth rate



During 2013-14, the population aged 15-66 reached a peak of 1.01 billion, and the working population aged 15-59 peaked at 935 million. From the perspective of aging, the ratio of China's population aged over 60 increased from 11% in 2005 to 15% in 2013. China is becoming an aging society (Figure 4-5-9).

Figure 4-5-9 Demographic distribution



China's ageing labor force may help raise the quality of management skills and increase the workforce's overall productivity, but at the same time, societal aging will put pressure on domestic demand for both goods and services. Societal aging is a significant challenge awaiting China in the near future.

(ii) KOREA

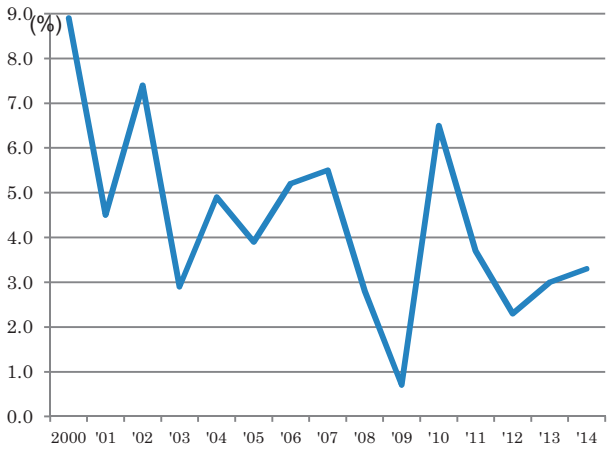
Hyunkoo Kim

1. The 2013-14 Korean Economy

The government of President Park Geun-Hye completed its second year in office in February 2015. Initially, the Park administration introduced policies aimed at establishing a "creation economy" and initiating "economic democratization". Through these measures, the government attempted to spark an economic recovery, create jobs, and reduce the gap between rich and poor. The following section will consider Korea's macroeconomic performance from 2012 to the present, focusing on GDP growth, population, the unemployment rate, the Gini index, shares of total trade, and Foreign Direct Investment (FDI).

Figure 4-5-10 shows Korea's annual GDP growth rate since 2000. Growth fell from 9% to 3% in the early 2000s and sharply decreased again in 2008-09, during the Great Recession. The overall trend in the past 15 years has been downward. From 2013, growth declined under the influence of the weak yen that followed the Bank of Japan's quantitative easing programme. The weak yen hampered the price competitiveness of Korean manufacturing, and accordingly the performance of export industries that compete with Japan decreased.

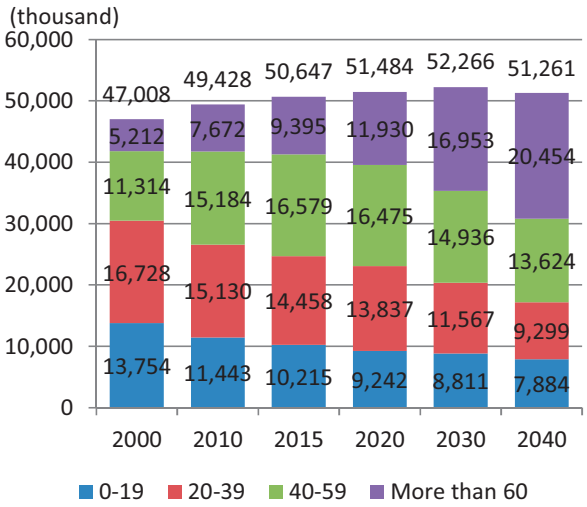
Figure 4 -5-10 The rate of GDP growth



Source: Korea National Statistical Office

The working population is an important factor in any economy, and at present, Korea has a low birth rate and an ageing population, similar to Japan. Figure 4-5-11 gives a population forecast until 2040. According to this projection, the population will stay at 50 million for the next 25 years. But while the size of those aged 60 and over will increase, the young population will decrease. As a result, there will be a decrease in the total working population and an increase in the number of dependents, and this may have a significant influence on the performance of the Korean economy.

Figure 4-5-11 Korean population projection

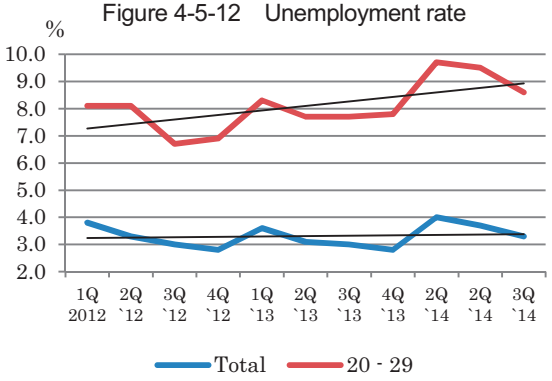


Source: Korea National Statistical Office

Figure 4-5-12 shows Korea's unemployment rate on a quarterly basis since 2012. The overall unemployment rate has remained around 3.5% since 2012, but the rate in the 20-29 age bracket has been consistently higher. The unemployment rate in this group has gradually increased since the new government took power, and exceeded 9% in 2014. One possible explanation for this is that students preparing for employment or civil service examinations are included in these figures. Even allowing for this, one effect of the increase in the unemployment rate of young adults is that the income gap between young people and the general population has increased. Income statistics for the period 2003-2013 show that average monthly income for the youngest 10% of the working population

increased by 44%, from 630,000 won (63,000JPY, 574USD) to 910,000 won (91,000JPY, 830USD), while average income for the eldest 10% increased by 60%, from 5.8 million won (581,000JPY, 5,281USD) to 9.3 million won (932,000JPY, 8,468USD). As a result, the average salary in the upper age decile was 10 times higher than that in the lowest decile in 2013, up from 9 times in 2003. The average income of in the lowest decile was in fact lower than Korea's minimum wage, of 1.01 million won (101,000JPY, 920USD) per month for workers working a 40-hour week.

Figure 4-5-12 Unemployment rate



Source: Korea National Statistical Office

2. International Political Tensions and the Economy

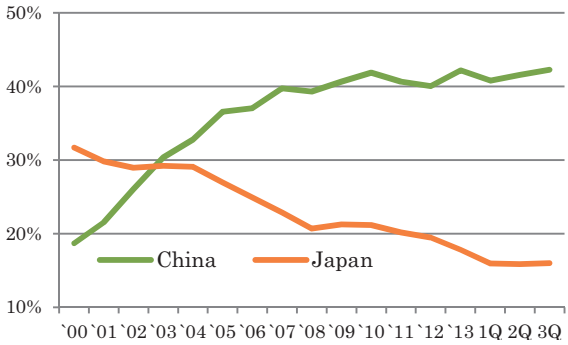
International politics and the economy are inevitably linked, and diplomatic relations can have an influence on trade levels. In 2012-13, many diplomatic incidents occurred between Japan and Korea, as summarized in Figure 4-5-13. These incidents affected public opinion, and resulted in protracted diplomatic friction between the two nations.

Figure 4-5-13 Significant events in Japan-Korea relations, 2012-13

12.08	President Lee visits Dokdo-Takeshima, calls for the Emperor of Japan to apologize for Japan's wartime abuses
12.12	Abe government takes office in Japan
13.02	Park government takes office in Korea
13.04, 08	Japanese cabinet ministers visit Yasukuni shrine
13.12	Prime Minister Abe visits Yasukuni shrine

Figure 4-5-14 shows the shares of Japan and China of Korea's total trade in recent years. Shortly after the turn of the millennium, the value of Korea's trade with China (summing imports and exports) surpassed the value of its trade with Japan, and the gap between China and Japan has continued to widen ever since. Particularly after 2012, Japan's share of Korea's total trade volume has slowly decreased, while China's share has increased.

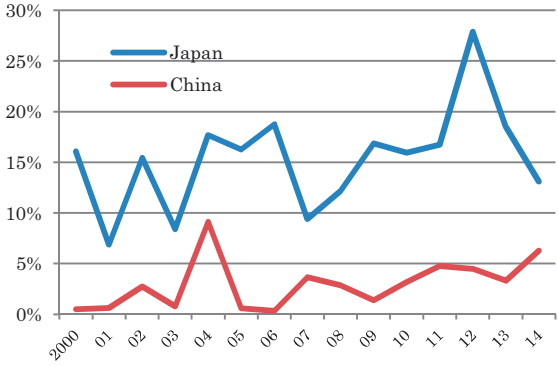
Figure 4-5-14 Shares of Korea's total trade



Source: Korea National Statistical Office

Figure 4-5-15 shows Korea's inward FDI rate. It is seen that levels of investment from Japan have historically been much higher than those from China.

Figure 4-5-15 Rate of inward FDI in Korea



Source: Korea Ministry of Trade, Industry and Energy

Even so, as with total trade shares, since 2012 Japanese investment into Korea has decreased quite sharply, while investment from China has increased.

Given the Korean economy's heavy reliance on exports, trade levels are a significant factor in determining domestic economic performance. As such, economic stability will depend in part on the stabilization of exports, which will also be important for establishing multilateral trade deals. Recently, however, the country's dependence on trade with China has increased. Because of this, if the Chinese economy encounters problems, the likelihood of Korea's economy being negatively affected will rise. Now more than ever, Korea needs to establish multilateral trade agreements to stabilize its economy. In addition, as discussed above, political tensions can create economic problems, so it is important for Korea to avoid friction and pursue cooperation with neighboring countries. Whether Korea can flourish economically depends heavily on whether it can achieve these two goals. If it wishes to succeed, the Park government must focus on these policy agendas during the remaining three years of its term of office.

Section 6: Australian Economy Tough in Turbulent Times

Miles Neale

The Australian economy, although sometimes overlooked in business circles, is the 12th largest in the world and the 4th largest in the Asian region. Moreover, Australia has had 23 years of uninterrupted economic growth, and even recorded positive growth during the 2008-09 Great Recession. But will this trend of positive growth continue in the future? This section will consider this question by investigating the current state of the Australian economy, particularly focusing on its GDP, population, unemployment and inflation statistics, and its trade relationship with Japan.

1. Long-term GDP Growth to Continue?

With a relatively small population and high profits from recent growth in its mining industry, Australia has achieved a very high per capita GDP. In 2013, nominal per capita GDP was 7th highest in the world, at 67,458 USD, while in Purchasing Power Parity (PPP) terms, per capita GDP was 43,453 USD.[1] Recent GDP growth can be attributed largely to the strong performance of the nation's mining sector in the late 2000s, which was fuelled by increased investment in the mining industry from businesses in China and ASEAN nations. Between 2000 and 2014, during this so-called "mining boom", mining sector investment increased from 2% to 9% of GDP.[2]

However, as the IMF's per capita GDP forecast (Figure 4-6-1) demonstrates, the nation's economy is currently experiencing a period of turbulence. According to IMF data, Australia's GDP per capita is falling and will continue to fall over the next two years. A major reason for this is that the mining boom is currently in the "production phase"[3], as the number of companies constructing mines in Australia has decreased and the mines built over the past decade are now ready to produce mineral resources for export. With a number of mines commencing operations over the next three years, Australia's net exports look set to increase by about 6.5% annually over this period, albeit affected by falling import levels.[4] However, mining investment and mining-related employment are both decreasing in the production phase.

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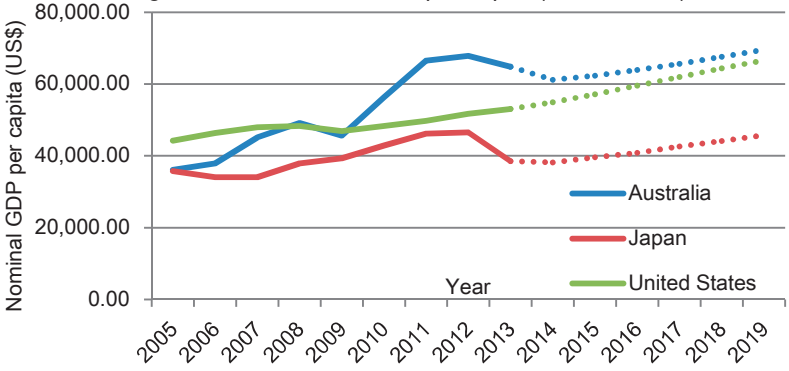
[1] World Bank (2015), *GDP per Capita*. Retrieved from World Bank database on February 4, 2015.
[2] Tourism Research Australia, (2013), *The Current Impact of the Mining Boom on the Australian Tourism Industry*, p. vi
[3] Tourism Research Australia, (2014), *Tourism Forecasts, Autumn 2014*, p. 9.
[4] Emmett, F., Been, D. Murphy, C. and Fabo, J. (2014), *Australian Economics: Phase III of Australia's Mining Boom*. Sydney: ANZ Bank.

Demand to build mines has decreased and the mining industry is expected to expand at a lower rate than during the last fifteen years. Mining investment's contribution to GDP is predicted to decline from 9% to around 3% by 2020.[5] However, the Australian Government is prepared for this future. It plans to boost key elements of the services sector (which has the highest output of all sectors, comprising 57% of the nation's GDP[6]), including the construction and education industries. This will help increase productivity and shift the focus of the economy away from the mining sector. As was announced in the 2014-15 budget, the government plans to raise infrastructure spending by $58 billion AUD ($46 billion USD[7], or nearly 4% of GDP), increase female workforce participation by improving the country's paid parental leave scheme, increase incentives for young people to enter the workforce, and reform the Vocational Education and Training sector.[8] The Treasury (finance ministry) believes that these reforms will ensure that the nation's GDP stabilizes and continues to grow in the future. And as its forecasts show, the IMF too has faith that Australia's per capita GDP will continue to exceed that of the US and Japan until 2019 at least.

Figure 4-6-1 Nominal GDP per capita (IMF forecast)



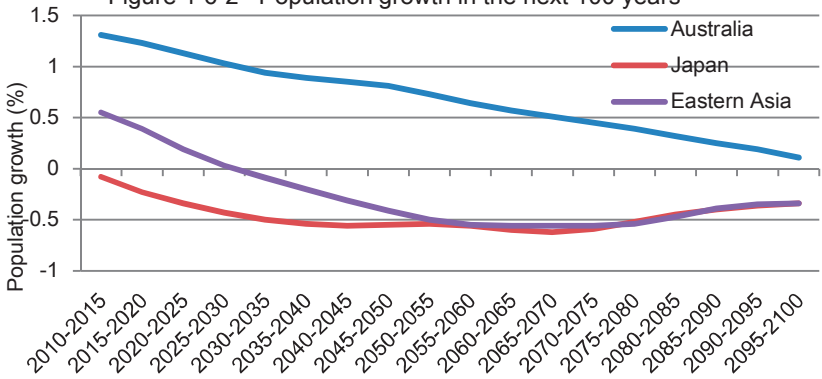
Source: International Monetary Fund (IMF), World Outlook Economic database (Accessed March 17th, 2015)

[5] Downes, P., Hanslow, K., and Tulip, P. (2014), *The Effect of the Mining Boom on the Australian Economy*. Reserve Bank of Australia Research Discussion Paper, August 2014, p. 8.
[6] CIA World Factbook (2015), *GDP- Composition, by Sector of Origin*. Accessed April 1, 2015.
[7] USD figures have been calculated using a standard exchange rate of 1 AUD=0.80 USD.
[8] Australian Treasury (2014), *Comprehensive Growth Strategy,* Australian Government

2. The Rise and Rise of the Australian Population

Unlike GDP, Australia's population is rising consistently. The Australian Bureau of Statistics found that population increased by 1.8% between 2012 and 2013, and now exceeds 23 million.[9] Moreover, unlike most other nations in the Asia Pacific, Australia's population appears likely to continue to rise in the future. The UN Population Forecast predicts that although Australia's population growth will decrease as its population ages, it will remain positive for the next 100 years (Figure 4-6-2). In contrast, most East Asian nations will see population declines from around 2040. Over the next 100 years, Australia's population is expected to grow by nearly 20 million people, while Japan's population is likely to decline by over 40 million.[10] A large percentage of this growth will be driven by immigration, which already accounts for 60% of the total population growth on average.[11]

Figure 4-6-2 Population growth in the next 100 years



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2012 Revision (Accessed March 18, 2015)

3. High Unemployment, but Hope for the Future

While population is rising, unemployment statistics show that the number of jobs available is decreasing. Unemployment rose from 6.1% in December 2014 to 6.4% in January 2015[12], exceeding rates in Japan (3.6%)[13], the United States

[9] Australian Bureau of Statistics (2014), *Regional Population Growth, Australia, 2012-13*.
[10] Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2012 Revision (Accessed March 18, 2015)
[11] Department of Immigration and Border Protection (2015), *Overview of Skilled Migration to Australia,* https://www.immi.gov.au/media/fact-sheets/24overview_skilled.htm, (Accessed 2015/03/06).
[12] Australian Bureau of Statistics (2015), *6202.0 - Labour Force, Australia, Jan 2015*, Retrieved from ABS database March 7, 2015
[13] Ministry of Internal Affairs and Communications Statistics Bureau (2015), *Labour Force Survey January 2015*, Retrieved from

(5.7%)[14], and the UK (5.7%)[15]. The main reason for the rise in unemployment was a decline of approximately 28,000 full-time jobs in the December-January period, which was influenced by the downturn in the mining industry.

While the workforce is currently struggling, government reforms to vocational education and increased investment in non-resources sectors look set to bolster employment in the future. The Department of Employment predicts that total employment in Australia will increase by 10% (over 1.1 million jobs) in the next five years.[16] It forecasts that the majority of these increases will be in the healthcare (19.9%), education and training (11.7%), construction (11.6%), and technical service (11.2%) industries. Meanwhile, it predicts that employment in the mining industry will fall by 17.8% over the next five years as mines move into the less labor-intensive production phase. Overall, however, the Department forecasts that the unemployment rate will drop to 5.5% by 2019. It is hoped that growth in the services sector will help the country to overcome its unemployment problem in the future.

4. Turning Falling Inflation into a Positive

Much like with the unemployment figures, there are positives and negatives to be taken from Australia's inflation statistics. In December 2014, the nation's Consumer Price Index fell to 1.7% change, down from 2.3% in September 2014. The fall in the CPI was spurred by US Brent Crude Oil prices dropping from USD 86/bbl in November to USD 49/bbl in December[17]. This took the steam out of Australia's gasoline market, and gasoline prices fell 8.4% in December[18]. The low oil price led to transport industry prices falling 2.2% in December, offsetting rises of 1.7% in alcohol and tobacco prices, 1% in recreation and culture prices (brought on by increases in international holiday travel, a positive outcome of lower fuel prices), and a 0.5% increase in housing prices, which was driven by a 1.1% rise in new dwelling purchases.

In November, the Reserve Bank of Australia (RBA) forecast that underlying inflation in Australia would rise 2.5% for the January-June 2015 period, and then to 2.75% for the July-December 2015 period. However, observers such as the

Statistics Japan database March 7, 2015

[14] United States Department of Labor (2015), *Labor Force Statistics from the Current Population Survey,* Retrieved from Bureau of Labor Statistics database March 7, 2015

[15] UK Office of National Statistics (2015), *Labour Market Statistics February 2015 release*. Retrieved from ONS database March 7, 2015.

[16] Department of Employment, *Industry Employment Projections 2015 Report*, Australian Government.

[17] Nasdaq (2015), *End of day Commodity Futures Price Quotes for Crude Oil Brent*. Retrieved from Nasdaq database February 2, 2015.

[18] Australian Bureau of Statistics (2015), *6401.0 Consumer Price Index, Australia, December 2014*. Retrieved from the ABS database February 2, 2015.

chief economist of Westpac Bank predicted that continued low oil prices, falls in nominal income and decreasing market activity would force the RBA to lower its annual growth rate predictions down 0.5% in 2015 and 2016, dropping them to 2.5% for 2015 and 3% for 2016. With only moderate growth prospects for the next two years and low inflation, the central bank decided to lower the interest rate to 2.25% in February 2015. The aim of this move is to boost businesses, to build up demand, and push inflation back into the RBA's target 2-3% band. The rate cut will also help to push down the Australian dollar, which the RBA predicts will fall to 75 cents to the US dollar in 2015.[19] This drop will help exporters, and for an export-driven economy like Australia's, a weak dollar is definitely good news.

Whilst relatively low inflation is a problem that the RBA will have to negotiate, it remains confident that growth in non-mining sectors, low interest rates, and a weakening dollar will foster sustainable growth over the next two years.[20]

5. JAEPA to Jumpstart Australia-Japan Trade

Unemployment and inflation are two hurdles that the Australian economy must overcome to maintain its positive growth into the future. However, on top of workforce reforms and investment in non-mining sectors, another way the country is attempting to improve its standing is through its trade with Japan and the rest of the world.

Trade is a vital part of the Australian economy. Australia's two-way trade in goods and services was worth nearly 670 billion AUD (536 bn USD) in 2013-14[21]. An important contributor to this two-way trade figure was Japan. More than 10% of Australia's total two-way trade in 2013 was with Japan, and Japan was also the third-largest source of investment in Australia in 2013.

Trade relations between the two nations look set to strengthen even further in the future, following the January 2015 enactment of the Japan Australia Economic Partnership Agreement (JAEPA). Under the JAEPA, the Japanese government will reduce or remove tariffs on Australia's mineral, energy, manufacturing, and agricultural exports to Japan, while the Australian government will reduce or eliminate tariffs on a range of goods imported from Japan, including new cars and electronic goods. There are also incentives in the JAEPA to attract Japanese students to Australia and Australian tourists to Japan. Furthermore, JAEPA will

[19] Peters, Will (2015), *Australian Dollar Forecasts for 2015 Warn of AUD Weakness*, PoundSterling Live, 16 February 2015. URL: https://www.poundsterlinglive.com/aud/1636-aus-dollar-forecast-2014-2015-3424 (Last accessed April 1, 2015).
[20] Reserve Bank of Australia (2014), *Statement of Monetary Policy- November 2014*. URL: http://www.rba.gov.au/publications/smp/2014/nov/html/overview.html (Last accessed February 2, 2015).
[21] Department of Foreign Affairs and Trade (2015), *Trade and Economic Statistics*. URL: http://www.dfat.gov.au/trade/resources/trade-statistics/pages/trade-statistics.aspx (Last accessed March 8, 2015).

assist Japanese investors investing in Australia by raising the foreign investment threshold. The JAEPA is a particularly noteworthy bilateral agreement because it will adapt to match the conditions of other successive multilateral economic agreements (such as the Trans Pacific Partnership) if that agreement's tariff reductions are more favorable than the JAEPA.

Both Australian and Japanese exporters are hopeful that the JAEPA will give their businesses a competitive advantage. Australian food and mineral exporters in particular are confident that the agreement will accelerate the growth of their products in Japan, as they will now be able to sell these products for less and meet the growing demand for Australian products in Japan. If the JAEPA lives up to its promise, it will boost both Japanese and Australian trade and the two countries' economies in general.

6. Looking to the Future

The Australian economy has grown for the past 23 years on the back of strong, immigration-led population growth and its resources sector. To maintain this growth into the future, however, Australia must overcome the challenges that come as its mining industry enters the production phase, such as higher unemployment and lower inflation. This is why the government's investment in non-mining sectors, workforce participation incentives, and trade initiatives, such as the JAEPA, are so important. Australians are hopeful that, on the back of these policies, the nation will be able to navigate through its current economic turbulence and maintain its record of strong economic growth. If it can do this, Australia will secure its place as an economic power in the Asia Pacific region for years to come.

SECTION 7: U.S. RECOVERY FROM THE GREAT RECESSION

Toshihiko Hayashi

1. From Boom to Crisis

Housing prices had been rising since the early 1990s in the United States, only to see a peak in 2007 and a sharp decline thereafter. The price rise was linked to two financial innovations, subprime mortgages and mortgage-backed securities. Subprime residential mortgages were sold to borrowers with poor credit ratings at low interest rates in the first half of the loan term and higher rates thereafter. The scheme was potentially a good proposition, since borrowers could pay back the mortgage in full by selling the property at a higher price, making a capital gain.

Banks sold mortgages to other financial institutions, which created marketable securities combining a number of other instruments.[1] The mortgage-backed securities were rated favorably by ratings companies, and were sold in the global market to profit-seeking financial institutions in the United States, Europe, and other countries. The scheme worked well as long as housing price kept rising.

To be sure, concerns were growing regarding the rising level of total household liabilities in relation to disposable income. However, the prospect of capital gains in the housing market gave assurance to borrowers and lenders--until housing prices started to fall, and some of the subprime mortgages became delinquent in 2007.

Figure 4-7-1 Housing Price Index

[1] The practice of pooling various kinds of financial liabilities including residential mortgages and credit card obligations and selling the composite instrument as security is called securitization.

Figure 4-7-1 illustrates the historical rise and fall in the housing prices index covering the entire United States, published by the Federal Housing Finance Agency. Together with a sharp fall in house prices came waves of bank failures, starting in the United States and almost instantly spreading around the world. The financial crisis thus created culminated in the largest ever bankruptcy of an investment bank in American history, that of Lehman Brothers in September 2008, after the bank was denied a government bailout.

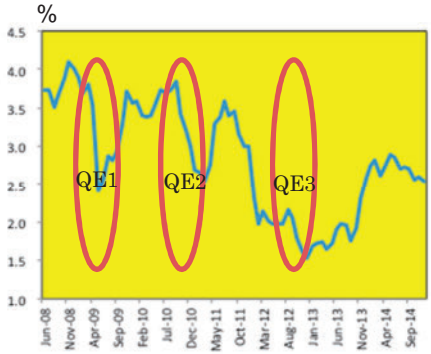
Banking crises erupted in Canada, Germany, France, the Netherlands, Spain, Portugal, Iceland, Ireland, Italy, Greece, the United Kingdom, and Ukraine. Surviving banks squeezed loan assets, leading to a precipitous decline in real economic activities. The financial crisis took the world into a great recession in 2008 and 2009.

2. Non-Traditional Monetary Policy

While the US economy was sliding down towards negative growth, traditional Keynesian policy instruments seemed either ineffective or unavailable. The Federal Reserve Board (FRB) had already soaked the market with easy money, and the federal funds rate was virtually zero. The federal government was stuck with accumulated deficits, and was approaching the congressionally-determined 'debt ceiling'.

Emergency rescue could only come from some sort of non-traditional monetary policy. The Federal Reserve (the Fed) bought not only government securities but also mortgage-backed securities from depository institutions and non-depository institutions. Quantitative easing (QE), as the new policy facility came to be called, was executed in three installments; QE1 from November 2008,

Figure 4-7-2 Market yields on 10-year government security



QE2 from November 2010, and QE3 from September 2012. The effect was felt in the long-term interest rate, as shown in Figure 4-7-2.

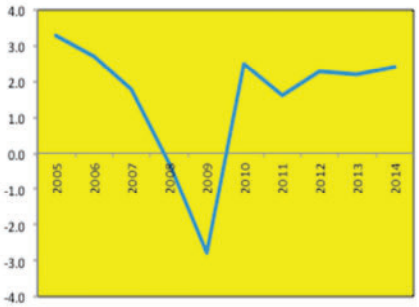
3. Stock Market-Led Recovery

The increased money supply did not stimulate either consumer spending or business investment. Instead, it flowed into the stock market. Investors regained confidence in the market as they could take Fed's commitment at face value. The Standard & Poor's 500 stock index bottomed out in March 2009, then started to pick up.

Figure 4-7-3 Stock price surges

Recovery in the stock market led to a recovery in aggregate demand. The non-traditional monetary expansion worked through a non-traditional channel on aggregate demand: the wealth effect. The wealth effect, or the favorable effect of increased equity value on household consumption and business investment, is more pronounced in the United States than in Japan, primarily because American households hold more wealth in the form of securities rather than depository instruments compared to their Japanese counterparts.

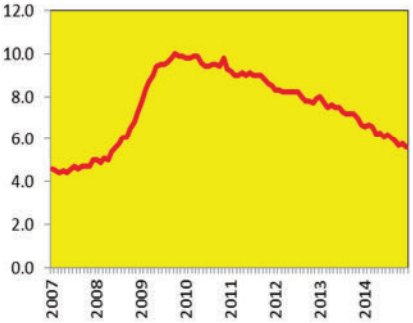
Figure 4-7-4 Real GDP rebounds from the recession



The federal government enacted the 'American Recovery and Reinvestment Act' (ARRA) in February 2009. The act included income tax concessions, employment promotions, and increased public infrastructure investments. As a result of flexible resource allocation in the markets and companies helped by various policy measures, the U.S. economy emerged from recession in 2010. Figure 4-7-4 illustrates annual real GDP growth rates for 2005-2014. By 2014 the U.S. economy had shown positive economic growth for five consecutive years. America has recovered from the Great Recession.

From the middle of 2009, the unemployment rate started to fall. President Obama would boast of the return of confidence to the American economy and emphasize how many new jobs had been created in the labor market.[2]

Figure 4-7-5 Unemployment rate fell



4. Deficits Reduced

The American economy was plagued by chronic 'triple deficits': fiscal deficits, current account deficits, and household liabilities. In the recovery process, all each of these deficits gradually came to be mitigated.

Foreclosures in the housing market and household bankruptcies, among other factors, led to a decline in the ratio of household liabilities to personal disposable income. The liabilities-to-income ratio fell from above 1.3 years of disposable income in 2007 to 1.05 in 2013. A solid deleveraging of households took place.[3]

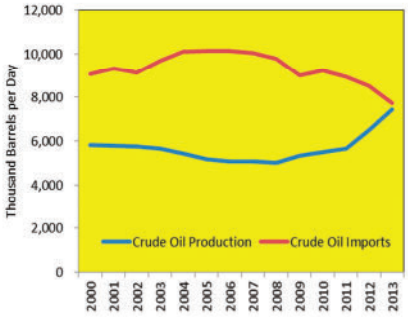
The U.S. government stood on the edge of a 'fiscal cliff' in January 2013. The expiration of various tax breaks, tax increases, and spending cuts were all scheduled to come into effect simultaneously on 31 December 2012. If no compromise was made between the president and the Congress on increases in

[2] See, for example, p.3 in *Economic Report of the President* 2014.
[3] 'Leverage' in financial transactions refers to the use of borrowed capital for the purpose of making a higher return.

taxes and the debt ceiling, the U.S. might "fall over the cliff" and default on public debt. An agreement was finally reached at midnight on 1 January 2013, and temporary measures to raise the debt ceiling were agreed. The immediate crisis was averted. The administration and the Congress took on the task of working out detailed plans for tax increases and spending cuts.

It was feared that the austerity measures in the immediate aftermath of the Great Recession could drive the country into another recession. However, GDP growth returned, and the fiscal deficit as a percentage of GDP fell from 11.2% in 2010 to 5.5% in 2014.

Figure 4-7-6 US crude oil production and imports



The current account deficit improved as well, falling as a percentage of GDP from 3.0% in 2006 to 2.4% in 2013.[4]

An increase in exports and a decrease in oil imports also contributed to the improvement. In particular, production of shale oil at domestic wells accelerated from around 2008, and domestic shale oil become a substitute for imported crude oil. The U.S., a long-time oil importing country, became an oil-exporting country.

5. Household Income

Almost all macroeconomic indicators rose in 2013, pointing to a strong recovery for the U.S. economy. However, future prospects now hinge on how consumption, the largest component of GDP at 60%, will behave, which in turn is connected to the fate of personal disposable income. Will it keep up the momentum in light of improved job market conditions, deleveraging, and the wealth effect?

[4] Deficits-to-GDP ratio are taken from IMF, *World Economic Outlook database, 2014.*

The largest portion of household disposable income consists of labor income, namely wages and salaries. Despite the expansion in the job market, the real wage rate has remained stagnant. Figure 4-7-7 illustrates the average level of the earnings per hour after adjusting for consumer price increases. During the initial period of macroeconomic recovery, from 2011 to 2013, real earnings per hour actually fell. Although there is some sign of improvement in the index recently, the long-term sustainability of American growth will require an upward trend in the real wage rate.

Figure 4-7-7 Real earnings per hour

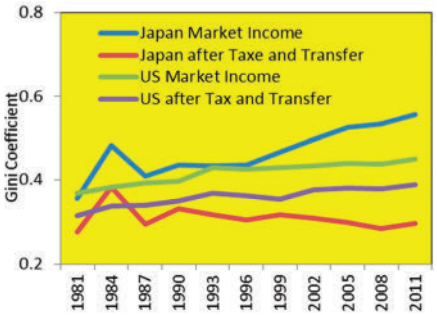
Another matter of concern in relation to household consumption is how income is distributed among households. U.S. income inequality as measured by the Gini coefficient over household income distribution has been amongst the highest in OECD countries.[5] Moreover, Gini coefficients calculated using both 'before taxes and income transfers' and 'after taxes and transfers' in the denominator have been rising gradually since 1945. America is becoming more and more unequal in terms of household income distribution.

To understand the extent to which taxes and transfers mitigate inequality, a comparison of the U.S. and Japan is illuminating. Figure 4-7-8 depicts Gini coefficients for market income and disposable income with transfers in the U.S. and Japan.[6] Notably, Japan's market income inequality is clearly higher than that of the U.S. However, Japan's Gini coefficient after taxes and transfers is below that of the U.S., and if there has been any trend during the last 30 years, it has

[5] See Figure 1 in page 24 in OECD (2011).
[6] Calculations of Gini coefficients for Japan are APIR's own, based on the data reported in *Income Redistribution Survey,* which is published every three years. The U.S. Gini coefficients are taken from data from the Bureau of Economic Affairs.

been downward for Japan and upward for the U.S.

Figure 4-7-8 Income inequality creeps up



Naturally, it is a matter of citizens' value judgments and the general political disposition in each country as to how much income inequality should be tolerated. However, it is also true that if income is concentrated in the segment of households with lower propensity to consume, the level of aggregate consumption will be lower than otherwise. Improved income equality will contribute to increased economic growth.[7]

6. Assessing Obamanomics

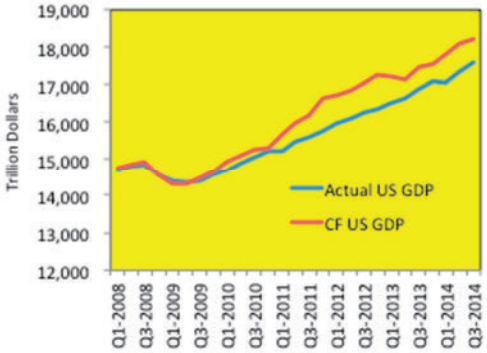
President Barak Obama was inaugurated when the U.S. economy was at the bottom of the Great Recession, in January 2009, and elected to a second term in 2012. His economic philosophy, economic policies and initiatives came to be called 'Obamanomics.' Did this policy set make any appreciable difference to the course of the American economy?

In order to assess the contribution of Obamanomics, a benchmark is necessary. One way of doing this is to estimate how the U.S. economy would have behaved if it were not for Obamanomics, and measure the contribution as the difference between the counterfactual GDP and actual GDP.

Figure 4-7-9 illustrates the actual quarterly GDP and the counterfactual GDP. It shows that actual U.S. GDP, though expanding at a healthy speed, persistently lay below the counterfactual GDP level. This suggests that the American economy could have done better after 2009.[8]

[7] Cingano (2014), pp.10-17.
[8] Calculations of counterfactual GDP figures by APIR.

Figure 4-7-9 Assessing Obamanomics



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5 JAPANESE MNCS MOVE TOWARD LOCALIZATION

Yotaro Suzuki

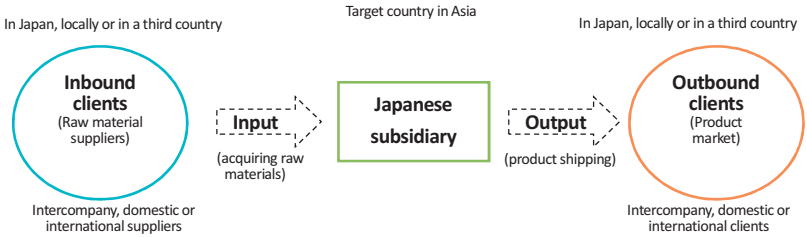
1. The Localized Asian Value Chain

This chapter examines Japanese MNCs' Asian value chains from a number of angles. This first section focuses specifically on examining the characteristics of the Japanese MNCs that are making efforts to localize, using data to demonstrate how they have localized. The second section discusses the question of firms maintaining their "Japanese identity" during localization, in terms of such things as long-term relationships and trust-based partnerships, with reference to two case studies of Kansai firms expanding into Asia.

1.1. The Asian value chain of Japanese MNCs

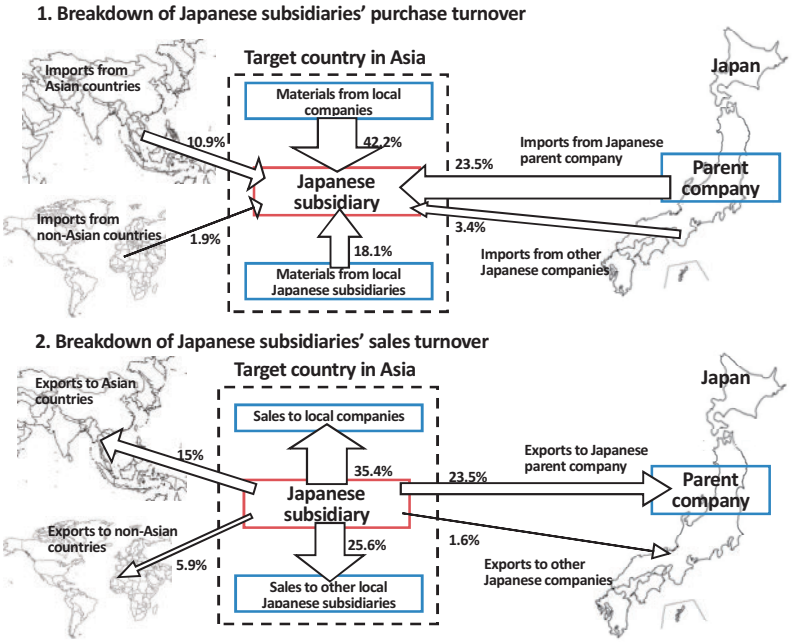
A Japanese corporation's Asian value chain, pictorially represented in Figure 5-1, generally involves a central, locally-based subsidiary of the Japanese corporation receiving input (raw materials) procured by inbound clients and dispersing output (product shipments) to outbound clients. However, when analyzing Japanese subsidiaries, it is important to determine whether their main suppliers (inbound clients) and their major markets (outbound clients) are operating locally, in Japan, or in another country. Moreover, it is crucial to consider whether or not the inbound and outbound clients are part of the same company (or parent company), or whether they are a Japanese-owned company or a local company.

Figure 5-1 A Japanese MNC's Asian value chain



The specifics of the supply chain of these internationally-based Japanese subsidiaries (in the manufacturing industry) can be examined by looking at breakdowns of their purchase turnover and sales turnover data (represented in Figure 5-2). In fiscal 2011, 60.3% of Japanese subsidiaries' purchase turnover came from purchasing raw materials from local sources (purchases from other locally-based Japanese subsidiaries made up 18.1% and purchases of turnover from locally-owned companies made up 42.2%), while 26.9% came from importing materials from Japan (of which 23.5% from parent companies, 3.4% from other sources), and 12.8% came from imports from other countries (of which 10.9% from Asian countries, 1.9% from non-Asian countries). On the other side of the supply chain, 60.9% of Japanese subsidiaries' sales turnover came from selling their products to local clients (of which 25.6% from sales to local Japanese subsidiaries, and 35.4% from sales to local companies), 18.1% from exports to Japan (of which 16.5% from exports to parent companies, and 1.6% from exports to other countries), and 20.9% from exports to other countries (of which 15% from exports to Asian countries and 5.9% from exports to other countries).

Figure 5-2 Characteristics of an Asian value chain



Source: Ministry of Economy, Trade and Industry "Basic Survey of Overseas Business Activities"

Looking at data for Japanese subsidiaries in Asia, materials purchases from local suppliers made up 43.9% of Japanese subsidiaries' purchase turnover, and sales to local companies made up 47.9% of sales turnover respectively in fiscal 2001. This is evidence of how subsidiaries' local purchases and sales rose dramatically in the 2000s. Furthermore, subsidiaries purchased most of their resources from other local Japanese subsidiaries in fiscal 2001, but by fiscal 2011 they were purchasing the majority of their resources from local suppliers. These figures are indicative of Japanese subsidiaries' efforts to localize their business during this decade.

1.2. Localizing the value chain

As described above, subsidiaries of Japanese MNCs located in Asia have increased their local purchases and sales in recent times, in particular making efforts to increase their business with local clients more than with other local Japanese subsidiaries. This business strategy of "localizing the value chain" is attracting much attention.

"Localizing the value chain" refers not only to localizing products (purchasing local resources and selling products to local clients), but also to localizing people, by increasing the number of local people they employ, which can lead to an increase in the subsidiary's business with local clients. From now on, it will be necessary for Japanese MNCs to include a localized value chain into their business strategy in order to succeed in Asia.

2. The Identity of Japanese MNCs

Many Japanese subsidiaries have recently begun sourcing business locally, hiring local staff, and creating ties with local clients. One issue that has emerging here is the question of whether these subsidiaries have managed to retain their Japanese "identity". This section will investigate the identity of Japanese MNCs' localized subsidiaries.

2.1. Service, Japanese style

The services offered by Japanese MNCs (including their particular management styles and maintenance operations) are considered to be important parts of their identity. The importance of Japanese MNCs maintaining this service style when expanding their businesses in Asia will be explained by examining the cases of two small-to-medium enterprises (SMEs) from Kansai, "Company A" and "Company B".

Company A had constructed plants and other facilities in Vietnam, and in 2010 established a subsidiary there. With careful Japanese-style management of production, safety and quality assurance, it gained the trust of Vietnamese businesses and is now succeeding financially. The company had started taking in Vietnamese trainees and technical interns at their Japanese facilities from 2003, and these training program graduates are now part of the core leadership group in Vietnam. Vietnamese people are diligent workers, but their approach to business differs from that of the Japanese, so it was important for the Japanese company to acclimatize Vietnamese employees to their uniquely Japanese managerial style. The contribution of these training program graduates, who were already accustomed to the Japanese management style when they began working for the subsidiary, was a key factor in the success of Company A in Vietnam. Originally, the company also considered expanding into Thailand, but rival companies had already established affiliates in Thailand while Company A had a successful Vietnamese intern training program, so it resolved to abandon other expansion plans and committed all of its focus to Vietnam. At first, the company struggled to obtain local parts and materials from Vietnam's underdeveloped parts supply industry, but the company saw that it could turn this hindrance into an opportunity. It realized that because these parts suppliers were struggling, there was demand for construction of plants and equipment. Company A was well-placed to provide this construction.

Company B, a forklift supplier and maintenance company, established a subsidiary in Thailand in 2007. It succeeded in tapping into this market thanks to its typically Japanese strategy of providing maintenance in addition to supplying products, a service not offered by other suppliers in Thailand. Forklift suppliers in Japan make their profits by selling new machines, but Company B understood that demand for used forklifts was higher in Thailand, and thus threw its weight squarely behind selling used forklifts and succeeded in turning a profit. In 2012, the company established another branch office in southern Thailand.

The reason why Company B decided to establish a subsidiary in Thailand in the first place was because Thai forklift sellers regularly ordered used machines from the company, impressed by the quality of its maintenance and the smooth operation of the machines it serviced. Upon inspecting the state of the market in Thailand, the CEO of Company B found that local factory workers were performing maintenance on their own forklifts as the maintenance services offered by forklift companies were extremely limited. The CEO saw this as a prime opportunity to tap into the market in Thailand, and so decided to establish a

subsidiary there. This move turned out to be doubly successful, as the large concentration of Japanese companies operating in the region made Thailand an ideal place for Company B to do business with Japanese clients as well as local ones.

The successes of Company A and B demonstrate that, while there are various strategies regarding the countries and regions to be targeted and the styles of business to be implemented, Japanese companies can gain strong market positions in Asia by exploiting their Japanese-style service--that is, their careful management style, sound maintenance, and thorough business practices. Japanese companies overseas are increasingly becoming associated with this positive brand image, which is helping to give them the edge in international markets.

2.2. Long-term business partnerships based on mutual trust

This "Japanese-style service" was born from the long-term business partnerships that have existed in Japan for centuries. These partnerships are sometimes portrayed as closed-door dealings between inner-circle businesses, but they are also believed to have taught Japanese firms to trust their business partners and consider their partners' point of view. The spirit of building mutual trust with business partners and providing Japanese-style service is the essence of Japanese MNCs' identity.

Japanese MNCs find it easiest to embody this ideal of providing generous Japanese-style service and creating partnerships based on trust when dealing with long-term business partners. However, it is not easy for MNCs to form long-term relationships with clients in overseas markets akin to those they have formed with Japanese clients. This is why it is important that Japanese MNCs inform local businesses and governments in target countries about the value of long-term Japanese-style business partnerships and trading relationships based on mutual trust. It is also important that MNCs make local businesses and governments aware of the importance of purchasing products with low "lifecycle costs", a term that covers not only the cost of producing a product but also the cost of maintaining it over an extended timeframe.

2.3. Examining the role of the international division of labor in the Japanese/Asian value chain

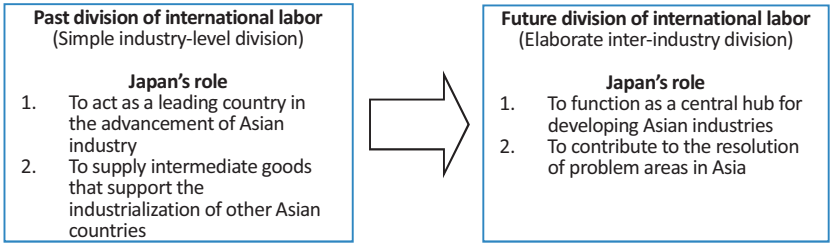
The preceding sections have investigated how Japanese MNCs have localized their Asian value chains and exploited their Japanese 'identity' (Japanese-style service and creation of trading partnerships based on trust) to succeed in

localizing within specific Asian markets. However, there in another objective that is just as important for Japanese MNCs as making progress in Asia: finding a path to true globalization. To achieve this goal, MNCs must consider the current state of the international labor division and the Japanese/Asian value chain.

2.3.1. Changes in Japan and Asia's international division of labor

In the past, analysts could create a basic model of Japanese and Asian companies' international division of labor based on differences in the sophistication of each country's industrial structure. Japanese analysts believed that Japan led the advancement of industry in Asia and was followed successively by other Asian countries' industries. This theory is known as the "flying geese paradigm", referencing how one flying goose is joined by other geese. As the theory suggests, Japan started out playing an important supporting role in the industrialization of other Asian countries, supplying them with necessary intermediate goods, such as parts, materials and machinery.

Figure 5-3 Changes in Japan and Asia's international division of labor



In recent times, however, the international division of labor has advanced at the complex, inter-industry level. If Japan wishes to maintain economic growth in this environment, it must move beyond its role as a supplier of intermediate goods and strengthen its position as a central hub for developing Asian industries. Japan also has an important role to play in resolving problems in emergent Asian countries. Asian countries are now facing environmental and energy problems that have arisen as a result of their rapid industrialization and urbanization, problems that Japan has extensive experience in dealing with. Japan is perfectly placed to use its experience, technology, and know-how to help solve emergent Asian nations' problems. It can also contribute to the improvement of other problem areas in Asia, such as the region's aging population and sub-par healthcare systems.

2.3.2. Constructing a Japanese-Style "Smart" Value Chain

To solve these problems in Asia, it is important that MNCs develop a value chain that includes all of the company's business operations (both 'hard' and 'soft') from the inbound to the outbound level. The best strategy for solving the aforementioned problems in Asia would be to develop Asian value chains in cooperation with domestic and overseas governments, institutions and financial groups. The importance of MNCs incorporating long-term Japanese-style business partnerships based on mutual trust into their value chains should also be stressed. Strategies such as these may be referred to as "Japanese-style smart value chains".

If they cannot convince local businesses and governments in target countries of the value of Japanese-style long term relationships and trust-based partnerships, Japanese firms will not be offered the opportunity to expand their businesses into Asia, or use their technological skills and know-how to help solve problems in emerging Asian nations. This is because while Japanese businesses are still constructing quality products and offering high-level after-sales service, they are losing basic price wars in certain international tenders (in which lifecycle costs are not considered) to businesses from Newly Industrialized Economies (NIEs), like Korea.

In cooperation with Ho Chi Minh City, the Osaka City Office and METI Kansai are currently offering incentives to Kansai-based environmental businesses to expand their operations to Vietnam. This scheme has attracted the interests of observers who are anxious to see whether or not this new business strategy based around resolving problems in Asia will succeed.

While a target country-based, localized value chain is becoming an increasingly important aspect of Japanese MNCs' overall Asian value chain, the global value chain, incorporating Japanese, inter-Asian, and inter-emergent nation perspectives, remains of the upmost importance. This is why national restrictions on international business operations must be eased to the greatest possible extent. The Japanese government must continue to steadily pursue Economic Partnership Agreements (EPAs) such as the TPP and RCEP, agreements that will assist Japanese MNCs as they continue to refine their Asian value chains.

6 The Textile and Garment Value Chain in Asia

Kenta Goto

1. Asia and Global Value Chains

One of the key features of contemporary economic globalization is manifested in the production and distribution networks spanning across borders. This type of economic organization has evolved as a result of fragmentation dynamics, in which business processes and functions, traditionally integrated and completed in one particular country, have been sliced up into smaller units according to differences in technological attributes and factor intensities, and relocated to other countries. Such dynamics in particular gained momentum in the 1990s, to some extent due to reductions in tariffs and transportation costs, but primarily through the spread of information and communication technologies. The development of such international production and distribution networks has been especially significant in Asia (see, for instance, Kimura and Ando, 2005)

The spread of these business functions across countries and regions is the result of dynamic offshoring strategies on the part of multinational enterprises based on comparative advantages in technological and factor endowments; production processes and functions that are relatively labor-intensive are typically located in countries with abundant (unskilled) labor such as Vietnam and Cambodia, while the more capital intensive processes and functions tend to agglomerate in middle income countries such as Malaysia, Thailand, and China. The knowledge intensive functions and processes such as marketing, design and R&D are often retained in the most advanced economies, such as Japan. These international intra-industry divisions of labor have evolved from the strategic decisions of lead-firms from these advanced economies. Among such industries, the international textile and apparel value chain was one of the earliest to emerge in Asia, where Japanese multinational firms have played pivotal roles since the 1970s (Goto 2014a).

International production and distribution networks have traditionally been characterized and described by the expansion of Foreign Direct Investment (FDI) linkages and flows; however, it is critical to highlight the increasingly important

roles of non equity-based inter-firm relationship networks. For example, in the apparel industry, Japanese corporations sometimes set up offshore garment production facilities through FDI in developing countries; however, it is more common to outsource such assembly functions to local garment companies with no ownership relationships. Among the key concerns for enterprises and industries is how to realize industrial upgrading within such internationalized production and distribution networks, and the Global Value Chain (GVC) approach has been widely used in this respect. The GVC refers to the successive functional links connecting the different stages of production and services from pre-assembly to marketing and retail, where each production and service function is performed in different countries.

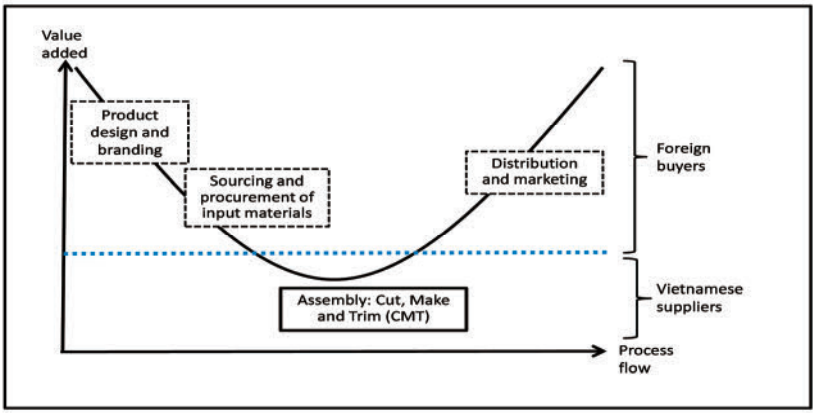
The GVC framework places emphasis on the prospects of industrial upgrading of corporations and industries in these international networks. Upgrading potentials in GVCs are more or less determined by how individual firms are connected to these chains, and through what governance mechanisms. Lead-firms coordinating such GVCs play key roles in this, as they determine which firms are connected to their chains, and how functions and value-added are distributed along these chains (Goto and Endo, 2014). The apparel value chain is an archetypal "buyer driven chain" where "buyers" coordinate the chain, in which lead-firms are often apparel companies and retailers from end market countries such as Japan. This chapter uses this GVC approach and looks at the Vietnamese garment industry from the Japanese perspective, and attempts to highlight the problems and potentials under the ongoing regional integration initiatives such as the Trans Pacific Partnership (TPP) negotiations.

2. The Vietnamese Garment Industry: Recent Changes

Garments[1] were the second largest export commodity of Vietnam in 2013, next to electronic products. The industry is important for developing countries such as Vietnam because of its high labor intensity, generating significant employment opportunities in its domestic economy. Vietnamese garment companies cater for the assembly functions in the international apparel value chain, which is often referred to as the CMT (Cut, Make, and Trim) function.

[1] Note that the terms "apparel industry" and "garment industry" are used with clear distinction in this paper. The "apparel industry" refers to the entire vertically structured production and service links, including the designing, planning, production, and marketing functions of an "apparel product" (or "garments"), while the "garment industry" is used as an industry confined to the manufacturing (assembly) function in this vertical structure. While "garment" companies are typically located in developing countries with abundant non-skilled labor, "apparel" companies are often involved in the non-manufacturing functions, primarily R&D, designing, planning and marketing, and are located in developed countries.

Figure 6-1 The garment smiling curve: functional hierarchy in the garment production-distribution flow



Source: Modified from Goto (2014b).

The CMT function is a relatively low value-added process function, where international buyers supply materials and key product specification to Vietnamese garment companies. Other higher value-added functions such as product design, material sourcing and marketing are typically undertaken by foreign buyers (see Figure 6-1).

Competition in the global garment industry has increased significantly since the abolition of the Multi-Fiber Arrangement (MFA) in 2005[2], crowding out many garment-exporting countries, particularly in Africa, from global trade. While it had major restructuring effects on a global scale, Vietnam managed to seize the opportunities in this tumultuous process and its garment industry recorded robust exports growth. Nevertheless, it is finding itself in an increasingly difficult position, as the sector must now compete to attract workers who see more jobs emerging in its service sectors. Labor shortages in the labor-intensive manufacturing industries are becoming more apparent, leading to acute wage increases (Goto 2014b).

In order to recruit and/or retain much-needed workers, garment companies must be able to absorb wage increases through upgrading production processes, with increasingly efficient production technologies and management practices. Individual firms' capabilities for process and product upgrading in the garment

[2] The Multi-Fiber Agreement was a major international quota system regulating the trade of textiles and garments to the markets in North America and Europe, in effect from 1974.

industry defines whether the company can manage to survive and further grow, and there is ample evidence that intra-industry firm performance is becoming very heterogeneous. Competitive and dynamic garment firms have in most cases been successful in process and product upgrading, and tend to be the ones well-connected to GVCs led by Japanese buyers where technological transfers typically occur with higher frequency and intensity (Goto, 2014b).

3. Japanese Companies and the Vietnamese Garment Industry

These recent dynamics of the Vietnamese garment industry have affected Japanese companies coordinating their value chains as well. Among the largest challenges these Japanese companies are facing is the rapid increase in orders from buyers catering for non-Japanese markets to Vietnamese garment companies, which had traditionally been oriented towards the Japanese market. As some of these buyers, particularly the US market-oriented ones, offer much bigger orders in terms of production quantity, these often result in Japanese orders being crowded out from production lines. This trend has become apparent in 2013, where the following issues have been perceived as the main causes: (1) the shift in orders away from China; (2) the negativities associated with the collapse of the garment factory building complex in Bangladesh in April 2013; and (3) the increased expectations of the potential benefits in sourcing garments from Vietnam, in light of the ongoing Trans-Pacific Partnership (TPP) agreement negotiations. While the first and second seem to be important factors perceived by the business community responsible for this sudden influx of orders in Vietnam, this chapter will focus on the TPP effect on the booming export oriented garment sector of Vietnam.

Vietnam is one of the participating countries in the ongoing TPP negotiations, and at the time of the field work in September 2013, the public's interest at the local level regarding the TPP seemed to be almost entirely confined to issues pertinent to its effects on the growth potential of the garment industry. This is most likely a reflection of the disproportionately large expectation of the benefits that garment exports growth to the US can bring into its economy, in relation to the potentially positive (and negative) effects on other sectors. Such positive expectations in this sector, it is argued among businesses in Ho Chi Minh City and Hanoi, is what is attracting production orders for exports from new foreign buyers, inducing supply shifts from other major garment suppliers such as China.

The focus of discussions regarding the TPP negotiations and the garment industry in Vietnam had, at the time of field work in 2013, been centered on the

issue of the "yarn forward rule (YFR)", which is essentially a process-based rule of origin, advocated for inclusion in the TPP rules primarily by the US. The YFR requires garment exporting countries to conduct three processes in the production of garments domestically, consisting of spinning, weaving and assembly (CMT), in order to qualify for the reduced TPP tariff rates. It is quite typical for major garment exporting countries such as Cambodia and Myanmar to be dependent on imports for input materials including yarn and fabrics because of the inefficiencies of these upstream sectors, which tend to be more capital and technology intensive compared to the garment sector. Vietnam is one such country whose export-oriented garment industry is heavily import-intensive, with the majority of inputs imported from China. However, as China is not a member of the TPP framework, garments produced with Chinese yarns and textiles will not be eligible for the favorable TPP tariff rates. The relaxing of this YFR has been among the key goals for the Vietnamese government in its TPP negotiations with the US.

In terms of the potential benefits that this TPP framework could bring to the Vietnamese garment industry, Japan finds itself in quite a contrasting position in comparison to the US. Japan has already granted Vietnam very favorable tariff structures through its Japan-Vietnam Economic Partnership Agreement (EPA) and the Generalized System of Preferences (GSP) program, with a much more relaxed set of country of origin requirements for their exports[3]. An additional TPP structure would therefore provide only marginal benefits to the Vietnamese garment sector, while potential gains for Vietnam with respect to the US could be much more significant due to the lack of such preexisting arrangements. This has led Japan into a rather ironic situation, particularly considering the important role it played in the technological accumulation phase of the Vietnamese garment industry, practically introducing it into the global market in the early 1990s when no one else seemed to be interested in taking up that role.

The Japanese apparel market has almost exclusively been catered by GVCs governed and coordinated by Japanese buyers, and these GVCs are known for their stringent quality standard requirements in Vietnam. Orders to the US market, on the other hand, are on average more likely to have less stringent requirements, and thus processing fees tend to be lower. However, while the order quantity for Japanese markets are typically small, those for the US are much larger. It is therefore not unusual to see Vietnamese garment companies turning down

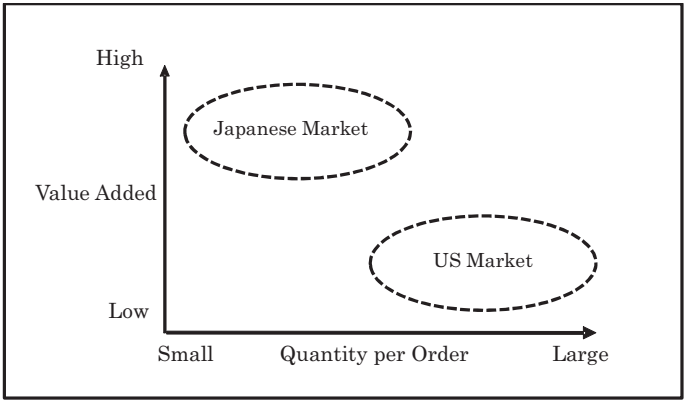
[3] Vietnamese apparel exports to Japan are constrained only by a two-process rules of origin (double transformation rule) under the bilateral Japan-Vietnam EPA. Moreover, the Japanese GSP rules require only one process for HS62 category products (woven fabric based apparel) for eligibility of the GSP tariff rates.

Japanese orders in competition with orders from the US, as the Japanese buyers are more "demanding with only small orders."

However, the Japanese buyers have at the same time provided the necessary technological contents to Vietnamese garment producers by, for instance, sending their own technical personnel to production lines of Vietnamese garment companies. While they have contributed significantly to the upgrading of the production processes of Vietnamese garment companies, these have also been costly investments on the Japanese side. Because such investments have been relation-specific, Japanese buyers have strong incentives to commit themselves to a stable business relationships with the particular Vietnamese garment companies to retrieve their investment costs and capture the benefits in a longer time horizon. For Vietnamese companies, this means that they can expect to receive stable orders over a relatively long term.

On the contrary, while orders to the US markets tend to be larger, product specification is typically much simpler with relatively fewer quality requirements[4]. The need for technology transfer from buyers is therefore much more limited, and thus happens less frequently. In addition, buyer-supplier relations are more based on arm's-length spot-orders, in which suppliers are determined through what can be categorized as a competitive tender processes in which suppliers compete with each other by offering the most attractive terms and

Figure 6-2 A comparison of market orientation: Japan and the US



Source: Modified from Goto et al. (2011).

[4] This is a well-perceived, archetypal characteristic of the garments produced for the US and EU markets in Vietnam, and does not suggest that the overall quality requirements for apparel products in the US and EU are in general lower than the Japanese. This is probably due to different sourcing strategies in terms of supplier location choice.

conditions to the buyers (Goto, et al. 2011). While both the Japanese and US market-oriented value chains have their pros and cons, given the rather booming nature of the Vietnamese garment industry, garment suppliers may find the US market oriented chains more attractive in comparison to the Japanese ones. Vietnamese suppliers who have already achieved higher levels of process efficiency through technological transfer from Japanese buyers may now have an even higher preference for orders towards the US markets, as their dependence on Japanese expertise is no longer crucial for further process upgrading.

It appears that these dynamics are already affecting Japanese buyers catering for Japanese markets to the extent that it is eroding their bargaining power vis-à-vis the Vietnamese garment suppliers. This has further led to the crowding out of Japanese buyers from production lines in Vietnamese garment companies, which traditionally were producing garments for the Japanese market. In response, an increasing number of Japanese buyers find themselves in a situation with no viable option other than to look for new suppliers. The other potential option available to Japanese buyers would be to relocate production sites to other emerging garment exporting countries such as Cambodia or Myanmar. However most felt that this was still rather premature given the current sectoral, infrastructural, and broader institutional capacities in these countries.

4. Future Prospects

While Japanese companies in the apparel industry are increasingly facing difficulties in the progressive international economic environment promoted though arrangements such as the proposed TPP agreement, these arrangements however may present Japanese firms with new opportunities.

First, there is increasing incoming FDI being reported in Vietnam in the more capital and skill intensive sectors of textiles and related industries from China, Taiwan, and Korea. Locally, this is being perceived as a strategic move by investors in case the US-led YFR remains in its current form at large in the TPP agreement, in which case spinning and weaving/knitting must also be done in Vietnam to qualify for TPP tariff rates for exports towards its member countries. The relative weakness of the Vietnamese textile industry has for a long time been regarded as one of the key bottle-necks to the further growth of the industry. However, this new investment can help its domestic industry upgrade in terms of highly needed process technology in spinning, weaving/knitting, and other related value-added processes such as dyeing. The Japanese synthetic-fiber industry, which has maintained international competitiveness for a long time, has in the

past expanded operational horizons to other ASEAN countries such as Thailand and Indonesia, which has helped build local industrial capacity and improved competitiveness. The ongoing TPP negotiations could provide new investment opportunities for such Japanese textile companies in Vietnam.

The TPP agreement may also lead to increased export opportunities for the more traditional Japanese textile industries, such as the yarn-dyed woven fabric producers in the Banshu district in Hyogo prefecture. These Japanese textiles could, for example, be exported to TPP member countries such as Vietnam, assembled locally into garments, and then exported to other TPP member countries including Japan under the favorable TPP tariff structure. This type of business model could revive the craftsmanship-based Japanese traditional industrial districts, such as Banshu.

Like most countries in Asia, industrialization in Vietnam has traditionally followed a predominantly export-oriented trajectory. However, there has been some refocusing in market orientation, where Vietnamese enterprises have started putting more emphases on their domestic market. Major Vietnamese garment companies are increasingly catering for the rapidly expanding domestic market, supplying own-designed and own-branded apparel (Goto, 2014b). World brand manufacturers and retailers from the US and EU are actively investing in urban areas, particularly Ho Chi Minh City and Hanoi. Investments from Japan are also on the rise, with FamilyMart and Mini Stop opening convenience stores on key commercial streets in major urban districts, and Aeon opening a large shopping mall in Ho Chi Minh City in early 2014. In Vietnam, with a population of 86 million, and where the "middle class" is growing rapidly, the domestic market will prove very promising.

One caveat in committing towards the domestic market in developing countries such as Vietnam relates to the problem of underdeveloped domestic economic institutions that are key to the effective functioning of market mechanisms (Ishikawa, 2006). For instance, the lack of efficient and integrated local distribution systems forces companies to pursue very extensive vertical integration strategies, ranging from production and distribution to retailing. As it becomes difficult to capture the benefits of specialization and economies of scale, this often results in significant inefficiencies. The lack of domestic trade credit systems is another key deficiency (Goto, 2006).

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7 JAPANESE *MONODZUKURI* SMES SET A COURSE FOR ASIA: NATIONAL AND KANSAI-BASED INITIATIVES

Izumi Ohno

In recent years in Japan, a growing number of small and medium-sized manufacturers operating independently from large companies have navigated their way into overseas markets, riding a new wave of internationalization. With the winds of business changing, the previous administration led by the Democratic Party of Japan (DPJ) launched an initiative to support SMEs' overseas ventures, signaling its intention in the "White Paper on Small and Medium Enterprises in Japan 2010". At the national level, the government established the "Conference on Supporting SMEs in Overseas Business", chaired by the Minister of Economy, Trade and Industry in October 2010, and this conference adopted the "Framework for Supporting SMEs in Overseas Business" in June 2011. Subsequently, the regional bureaus of the Ministry of Economy, Trade and Industry (METI) established their own conferences to concretize actions and provide necessary support to SMEs, in collaboration with support organizations in respective regions.

The Abe administration led by the Liberal Democratic Party (LDP), which took office in late December 2012, has pushed this initiative even further, announcing in its "Emergency Economic Stimulus Package" (January 2013) and its "Japan Revitalization Strategy" (June 2013) that the government would provide focused support for SMEs, as a strategic move to expand their overseas markets. The Japan Revitalization Strategy declared that the government would "extend and deepen its assistance for SMEs' overseas expansion by scaling up its support, and realize overseas expansion of another ten thousand companies for the next 5 years"[1].

Fiscal 2010 was the period of launching the SME overseas business support initiative at the national and local levels, and fiscal 2012 onwards has been the period of expanding this initiative. Major initiatives introduced by the Japanese

[1] In an effort to revive the Japanese economy, the government formulated a "15 month budget" by linking the supplementary budget for the 2012 fiscal year (FY) and the FY2013 budget. Similarly, the government announced that it would merge the supplementary 2013 budget and the FY2014 budget so as to implement gap-free economic policy. Policies announced in the "Revitalization Strategy" were thus implemented throughout the year 2014.

government from fiscal 2012 onwards include the following:

1. Enhancing hands-on support for SMEs
2. Creating one-stop overseas consultation offices and the "SMEs' Overseas Development Fastpass" Program
3. Utilizing Official Development Assistance (ODA) to support SMEs' overseas business development

These initiatives have been designed to facilitate collaboration among various organizations to support SMEs' overseas business development (including outward FDI), and also to improve the quality of business information with stronger networks with overseas institutions, by using ODA.

Support from local governments and related organizations has also expanded, particularly in the Kansai region, which is known as one of Japan's leading "*monodzukuri*" (manufacturing) centers. Many national administrative offices and business support organizations are located in Osaka, and dynamic initiatives are taking place in both the public and private sectors to support SMEs' overseas business. These organizations include the government's regional bureau of METI-Kansai as well as supporting organizations such as the Japan External Trade Organization (JETRO)'s Osaka office, the Organization for Small and Medium Enterprises and Regional Innovation (SMRJ)'s Kinki office, the Japan International Cooperation Agency (JICA)'s Kansai International Centre, the Overseas Human Resources and Industry Development Association (HIDA)'s Kansai Kenshū Center and the Pacific Human Resource Center (PREX). In addition, there is active collaboration among private sector organizations, such as the Kansai Economic Federation and the Osaka Chamber of Industry and Commerce (OCIC), local banks, and the *shinkin* banks (or credit unions).

This chapter will review major national initiatives to support SMEs' overseas business development, and then introduce Kansai-based regional/local initiatives taken by METI-Kansai, local governments, businesses, and financial institutions. Finally, it will outline some implications for Japan's support for SMEs' overseas business development in the future.

1. Recent National Initiatives for SMEs' Overseas Business Development

1.1. Enhancing hands-on support for SMEs

1.1.1. Cooperation between SMRJ and JETRO on new feasibility studies

SMRJ has since 1981 been providing management advisory services to SMEs. In fiscal 2012, SMRJ introduced a new feasibility study service to finance market surveys and business plan development for those SMEs interested in expanding their overseas business. Under this service, experts familiar with overseas business accompany SMEs and assist in gathering information, assessing the market potential of their products, technologies, and services, and examining whether they can establish manufacturing facilities and find customers overseas. SMRJ subsidizes two-thirds of the total costs of the study, reimbursing SMEs up to ¥1.2 million (approximately $10,900 USD).

To complement this SMRJ-supported feasibility study service, JETRO introduced a new service to finance additional studies, especially when SMEs need to obtain the more detailed information overseas. JETRO subsidizes up to two-thirds of the total costs of the study, reimbursing SMEs up to ¥500,000 (approximately $4,500 USD).

1.1.2 Customized support for SMEs by overseas investment experts

JETRO has for a number of years been providing hands-on support to SMEs through the Regional Industry Tie-up (RIT) and the Export Support services. In March 2013, it introduced a new service for SMEs considering overseas investment in developing countries. Under this service, JETRO dispatches senior experts with a wealth of experience in overseas business, to provide hands-on support to SMEs on various issues including the establishment of local offices. Once JETRO staff, the assigned expert, and the SME agree on the period and terms of this support, the expert provides advice to the SME through regular visits and phone calls. JETRO has offered this support services for two years (March 2013 to March 2015), with the target of supporting 1,500 SMEs. JETRO finances the consultancy fees of these experts, and their domestic and overseas travel expenses. It also subsidizes part of the overseas travel expenses of SMEs.

1.2. One-stop overseas consultation offices

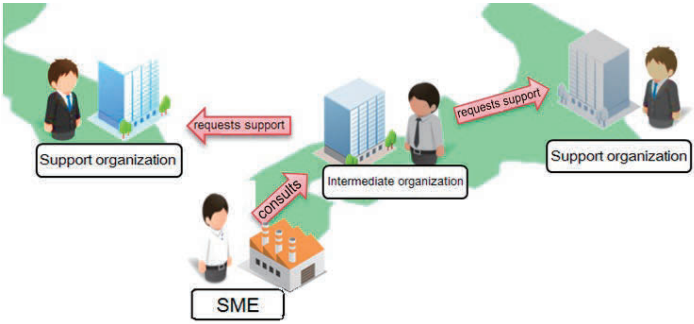
In September 2013, JETRO created one-stop overseas consultation offices (including Japanese embassies, the local offices of JETRO, JICA, and the Chamber of Industry and Commerce [CIC], legal offices, accounting and consultancy firms). This is a local platform aimed at strengthening the networks of public and private organizations and improving the in-country capacity for supporting SMEs' overseas business development. In 2013, JETRO established

ten one-stop overseas consultation offices in 8 different countries[2], and in 2014 planned to create five more offices. Each consultation office is operated by a dedicated JETRO adviser, who serves as a contact point and directly deals with all enquiries from SMEs. The adviser introduces SMEs to necessary services and information and links SMEs to specialist organizations in respective fields free of charge (although JETRO does not subsidize the services provided by these specialist organizations).

1.3. "SMEs' Overseas Development Fastpass" Program

The "Fastpass" program, initiated in February 2014 and administered by JETRO, is designed to provide support for SMEs with the desire and potential to expand their domestically-based business overseas. In the Fastpass program, SMEs interested in overseas investment can consult with local financial institutions and business support organizations (intermediate organizations) such as the CIC. In turn, these intermediate organizations can request the cooperation of the Ministry of Foreign Affairs (MOFA), Japanese embassies, and JETRO (through support organizations) for obtaining necessary information to assist their SME clients. There are 321 national and local government offices, government-affiliated institutions, and local economic and financial institutions which participate in the Fastpass program (as of February 2014 when the program was launched). Around 200 of those participants are local banks and *shinkin* banks (credit unions). This suggests there exists strong needs for these banks to provide overseas information to their local SME clients.

Figure 7-1 "SMEs' Overseas Development Fastpass" program



Source: Ministry of Economy, Trade and Industry (METI) website (modified for English edition)

[2] The 8 countries (and 10 cities) in which JETRO consultation offices are located are: China (Chongqing and Chengdu), India (Chennai and Mumbai), Indonesia (Jakarta), Thailand (Bangkok), the Philippines (Manila), Vietnam (Ho Chi Minh City and Hanoi), Myanmar (Yangon) and Brazil (São Paulo).

1.4. ODA for supporting overseas business development

JICA, along with HIDA, has participated in the "Conference on Supporting SMEs in Overseas Business" since March 2012 when the government revised the "Framework for Supporting SMEs in Overseas Business"[3] to include these organizations. Accordingly, JICA has started various ODA programs aimed at contributing to the socio-economic development of developing countries, by utilizing the technologies and products of Japanese SMEs.[4] As part of the "Japan Revitalization Strategy," the budget for such ODA programs has increased in recent years. Figure 7-2 summarize these programs.

Figure 7-2 ODA programs to support SMEs overseas business development

Area of Support	ODA Program & Launch Date	Purpose
Targeted at SMEs Only		
Fact-finding surveys	Needs survey (FY2012- , MOFA: commissioned to JICA) ; Project formulation survey (FY2012- . MOFA: commissioned to JICA; FY2014- transferred to JICA)	Verify developmental needs for a company's technologies and products in developing countries, and support project formulation
	Preliminary survey for preparing for SME otward FDI (FY2012- , JICA)	Support information gathering and project formulation prior to outward FDI into developing countries
Pilot and dissemination	Feasibility study and pilot projects for disseminating SME's technologies in developing countries (FY2012- , JICA)	Verify the suitability of SME's products and technologies in developing country and disseminating them
Grant aid	Non-project grant aid (FY2012- , MOFA)	Provide SME's products that contribute to the socio-economic development of developing countries, at their requests
Partnership with Local Governments		
Grass-roots technical cooperation	Grass-roots technical cooperation in partnership with local governments and for econonmic reacctivation (FY2012 supplementary budget- , JICA)	Support the socio-economic development of developing countries, by mobilizing resources of local governments/ communities (technologies, experiences, human networks)

*The Japanese fiscal year runs from April to March.
(Source) Compiled by the author, using information available in Japanese from the JICA website. JICA has other programs in partnerships with the private sector (including large companies).

[3] The national "Conference on Supporting SMEs in Overseas Business" revised the framework in March 2012 so as to include economic cooperation organizations such as JICA and HIDA, as well as the Japan Federation of Bar Associations, in order to enhance the support framework.
[4] JICA is also developing programs with private businesses, such as its "Base of the Pyramid (BOP) Collaborative Business Support Study" (which started in 2010), which includes support to SMEs.

2. Kansai-Based Initiatives: Efforts for Creating New Synergies and Networks

Kansai is one of the most dynamic regions in Japan, where both the public and private sectors are actively engaged in supporting SMEs' overseas business development. Various organizations are collaborating by building support networks and providing multi-layered support to SMEs. This section focuses on notable initiatives by METI-Kansai (regional), local governments (prefectural and municipal), and financial institutions in the Kansai region.

2.1. The Kansai-Vietnam Economic Forum

Following the national policy direction, METI-Kansai established its own "Conference on Supporting Kansai SMEs in Overseas Business" in October 2010. In this regional framework, related organizations are actively working to support SMEs' overseas business development. In particular, the establishment in April 2012 of the "Kansai-Vietnam Economic Forum", a public-private initiative, deserves special attention because it aims to build sustainable economic relations between Kansai and Vietnam, in light of Vietnam's strategic role in the Kansai region.[5] The Kansai-Vietnam Economic Forum is a special working group of the above Conference, with eleven members.[6]

Key features of the Kansai-Vietnam Economic Forum include:

1. Creating a network of support organizations promoting Kansai SMEs' business development in Vietnam.
2. Establishing consultation channels with Vietnam's central and local governments to discuss and negotiate policy issues. As part of this, METI-Kansai signed a Memorandum of Understanding with the Vietnam Chamber of Commerce and Industry, the Dong Nai People's Committee in southern Vietnam, and the Ho Chi Minh City People's Committee.
3. Establishing services devoted to solving the problems faced by SMEs. These include a "Kansai Business Desk" in the Vietnamese Ministry of Planning and Investment to deal with requests and inquiries from Kansai-based SMEs operating in Vietnam, and a "Kansai Desk" in the

[5] According to a survey conducted on 1 February 2012 by Teikoku Databank, 345 Kansai-based companies operate in Vietnam. This figure makes up 22% of the total number of Japanese companies operating in Vietnam (1,542 companies). Clearly, businesses in Kansai are even more interested in expanding to Vietnam than businesses in other areas of Japan.

[6] The organizations participating in the special working group are: METI-Kansai, JETRO Osaka, SMRJ's Kinki Department, the Kansai Economic Federation, OCIC, the Osaka Foundation of Trade and Industry (OFTI)'s International Business office, JICA Kansai, HIDA, PREX, the Osaka Prefectural Government and the Osaka City Government.

Dong Nai People's Committee to deal with general inquiries from SMEs. Moreover, the Kansai Economic Federation has been collaborating with this Forum to organize an annual "Kansai-Vietnam Economic Roundtable", where members of Kansai's public and private sectors conduct practical and frank discussions on economic issues with the Vietnamese government and related organizations.

4. Implementing a model of SMEs' collective overseas investment. The Forum has been supporting the creation of industrial zones designated to SMEs, equipped with small-scale rental factories (called the "Kansai Supporting Industry Complex") in the Long Duc Industrial Park in Dong Nai Province, and more recently in the Vie-Pan Techno Park in Ho Chi Minh City.

These activities are good examples of public-private partnership to offer specialized support to SMEs. The Kansai Supporting Industry Complex was inspired by a private-sector initiative spearheaded by "Fuji Impulse Co. Ltd", an Osaka-based *monodzukuri* SME, to promote collective overseas investment in the Long Duc Industrial Park. As of September 2013, seven Kansai-based SMEs decided to operate in rental factories in the Long Duc Industrial Park[7]. More recently, another model of the Kansai Supporting Industry Complex has been extended to the Vie-Pan Techno Park within the Hiep Phuoc Industrial Park in the Ho Chi Minh City. The Kansai-Vietnam Economic Forum plans to make continued efforts to expand this model of SMEs' collective overseas investment.

Furthermore, in September 2013, METI-Kansai released an information package for supporting Kansai SMEs interested in Vietnam. This package, called "100-Point Vietnam Business Support Measures," contains measures offered by METI-Kansai and Kansai-based support organizations and financial institutions. Such an information package is unique because it targets a particular country and covers all stages of overseas investment including the operational stage (after the establishment of overseas offices and factories), which has tended to be overlooked in the past.

2.2. The power of networking: three examples of linking domestic and overseas support

This section introduces three examples of Kansai-based local institutions

[7] "Kansai Supporting Industry Complex, a collective area for Kansai SMEs, open for business in Vietnam!" METI-Kansai press release, September 19, 2013.

(prefectural government, municipal government, and financial institutions), which are providing various support to *monozdukuri* SMEs by linking domestic and overseas support measures and networks.

2.2.1. Monodzukuri Business Information-center Osaka (MOBIO)

The Monodzukuri Business Information center Osaka (MOBIO), located in Higashi-Osaka City, provides a wide range of support (excluding technical support) to SMEs in the Osaka prefecture. MOBIO was launched in April 2010 when Osaka Prefecture's Manufacturing Support Division was relocated. Its services include a permanent exhibition hall (the largest of its kind in Japan), business-academia collaboration (incorporating a university and technical college liaison office), a one-stop consultation service with specialist coordinators, and a patent consultation service. In addition, MOBIO organizes a series of small seminars and networking events, "MOBIO Cafe", which deals with various business-related topics. Part of these seminars are related to overseas business issues, and participating companies have opportunities to listen to the lectures and discussions given by experienced businesspeople or experts working in various countries.

2.2.2. Amagasaki International Business Exchange

The Amagasaki International Business Exchange is a networking initiative created and coordinated by the Amagasaki Shinkin Bank. The exchange has six members: Amagasaki City (Economy and Environment Bureau), the Amagasaki Chamber of Commerce and Industry, the Amagasaki Institute of Regional and Industrial Advancement, the Amagasaki Industrial Association, the Amagasaki Employers' Association, and the Amagasaki Shinkin Bank. The International Business Exchange aims to provide opportunities for interested SMEs in Amagasaki to meet and exchange information on overseas business (free of charge). Participants meet every three months to listen to the experiences of companies with overseas ventures (including their mistakes), receive information from the member organizations, and join informal networking meetings. Eight companies attended the first Exchange in January 2012, and as of April 2014, the number of participating companies increased to 24. Five of those companies have already succeeded in establishing businesses overseas.

2.2.3. Kobe Asian Business Support Center

The Kobe Asian Business Support Center, established in July 2012, is an arm

of the Kobe Enterprise Promotion Bureau. It provides support for SMEs in emerging Asian countries, primarily the 10 ASEAN nations, India, China, and South Korea. The Kobe Asian Business Support Center was created to boost the local economy in a dynamically changing and intensely competitive global economic environment. Center staff and registered business advisers work closely together, and the Support Center provides hands-on support to SMEs considering the establishment of overseas offices, subsidiaries, manufacturing facilities, or any other kind of overseas businesses. The Support Center is located in the Kobe Commerce, Industry and Trade (CIT) Center building, next to the JETRO Kobe Trade Information Center. The offices of the Support Center and JETRO are connected with an internal passage, and in May 2014 the Hyogo International Business Center moved to the same floor as the Kobe Asian Business Support Center. As a result, the national, prefectural, and municipal organizations are all located on the same floor. Taking advantage of this setup, the Kobe Asian Business Support Center plans to further enhance its one-stop service functions, providing multi-level support to SMEs.

3. Increasing the "Power of Networking" to Realize Locally-Rooted Support for SMEs Overseas Business Development

Over the past three years, the number of support programs and initiatives has risen dramatically, particularly in fiscal 2012, when the national government introduced policies that linked businesses with domestic and foreign support organizations. For these new policies to be truly effective for SMEs, it is important that the government connects SMEs with local consultation services and support organizations, and likewise introduces support organizations to Japanese and international government organizations and key business people. In this regard, the initiatives taken by METI Kansai and the various support organizations and businesses introduced in this chapter deserve attention as they are all designed to encourage cooperation between the public and private sectors, connecting a range of internal and external groups and resources together.

It is important to note that there are some other regions outside of Kansai that are also actively supporting overseas business development in their own way. For example, Kitakyūshū City and Yokohama City have combined their experience in pursuing environmentally-friendly town planning and the technical expertise of their local businesses in their support projects for overseas ventures, while the Suwa region in Nagano, which has a long history as a hub for the precision machinery manufacturing industry, is planning to become an export base for

machinery and technology. Japan is home to different manufacturing industries, and each is pursuing their own unique development strategy. This is why it is now important to give special attention to locally-rooted support initiatives, such as those by local governments and support organizations, while maintaining the government's national initiatives.

The best future course of action for the Japanese government would be to continue actively creating opportunities for the business sectors of each local region and share their success stories and knowledge from others' experiences overseas.

BOX 2: SPAGHETTI BOWL OR HIROSHIMA-YAKI?

Fukunari Kimura

Free trade agreements (FTAs) are often criticized for bringing complications to the international trade regime. If a country concludes multiple FTAs in an unorganized way, its tariff structure necessarily becomes complicated. A tariff table is not easy to read from the outset, consisting of rows of minutely classified commodities and columns for different tariff schemes, such as the WTO concessional tariff rates, the most-favored-nations (MFN) applied tariff rates, tariff rates under the Generalized System of Preferences (GSP), and others. The conclusion of an FTA adds another additional column, for the FTA preferential tariffs.

Furthermore, FTAs are often concluded in an overlapping manner, so that a given pair of countries may be connected by multiple FTAs with different tariff structures. When a private company would like to export or import, it must investigate such a complicated tariff table and choose a tariff scheme to apply, while balancing possible tariff-related savings against compliance costs. Such complications have become know as "the spaghetti bowl phenomenon", or, in the context of East Asia, "the noodle bowl phenomenon."

This issue originated from differences between FTAs and customs unions. An FTA is a flexible policy tool. Because it does not require the equalization of external tariffs among member countries (unlike a customs union), it is easy to negotiate. Even if country A and country B already have an FTA, country A can conclude another FTA with country C, without involving country B. This is why multiple FTAs can be concluded, even in a sequential and overlapping manner. Instead, unlike a customs union, a FTA has to set rules of origin in order to block imports from non-member countries entering via a member country with low external tariffs. This can push up the compliance costs for applying FTA preferential tariff rates.

Does the spaghetti/noodle bowl phenomenon deter trade? Although such concerns were frequently voiced several years ago, recent experiences in East Asia have revealed that things are not so serious. Private companies are smart enough to choose the most beneficial scheme. When gaps between FTA preferential tariffs and the MFN applied tariffs are large, firms take advantage of it. On the other hand, if tariff gaps are small, they take into consideration compliance costs for meeting the rules of origin and may not use FTA preferential tariffs. Of course, a complicated system is not good, but it is not bad for private firms to have multiple

choices to apply. Additional trade liberalization provided by an FTA potentially provides gains for private people. Of course, facilitation for utilizing FTA preferential tariffs may be necessary, particularly for small and medium enterprises and firms in developing countries.[1] Yet overlapping FTAs do not seem to cause seriously bad consequences.[2]

The region is now in the era of mega-FTAs that include many countries. In East Asia, there have already been five ASEAN+1 FTAs concluded: ASEAN-Japan, ASEAN-Korea, ASEAN-China, ASEAN-Australia-New Zealand, and ASEAN- India, in addition to the ASEAN Free Trade Area and a number of bilateral FTAs. In addition, negotiations are ongoing for a Regional Comprehensive Economic Partnership (RCEP) that includes ASEAN+6.

Are countries in the region trying to scrap old ASEAN+1 FTAs and consolidate them to one big agreement? No, they are not. Consolidation would take time and be costly to negotiate. Instead, countries will go for overlapping FTAs. Of course, RCEP must be better than existing FTAs in the region, or else nobody would use it. To make up for the negotiation costs, benefits from additional liberalization should be large.

Perhaps the most apposite food metaphor is that of the *Hiroshima-yaki*, a kind of *okonomiyaki*. Unlike Osaka okonomiyaki, which is a savoury pancake made with shredded cabbage and various fillings, this variation has fried noodles on the bottom and the pancake on top. Mega-FTAs are like the top of *Hiroshima-yaki*. The pancake should be made to taste good, so that diners will prefer it to the noodles underneath.

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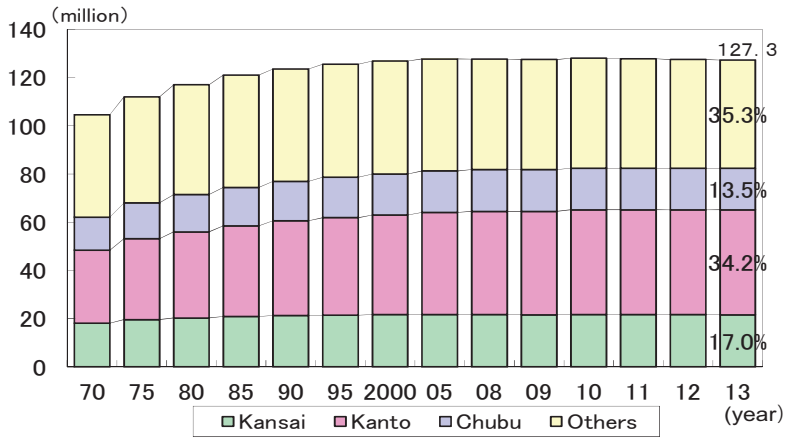
[1] Korea has implemented a series of FTA utilization promotion policies and has successfully improved FTA utilization rates. See Cheong (2014).

[2] The rules of origin in ASEAN and East Asia are mostly business-friendly; see Medalla and Balboa (2009) for ASEAN and ASEAN+1FTAs, and Cadot and Ing (2014) for a quantitative assessment of ASEAN. In addition, in ASEAN, FTA utilization rates seem to go up over time (Kohpaiboon and Jongwanich (2015).

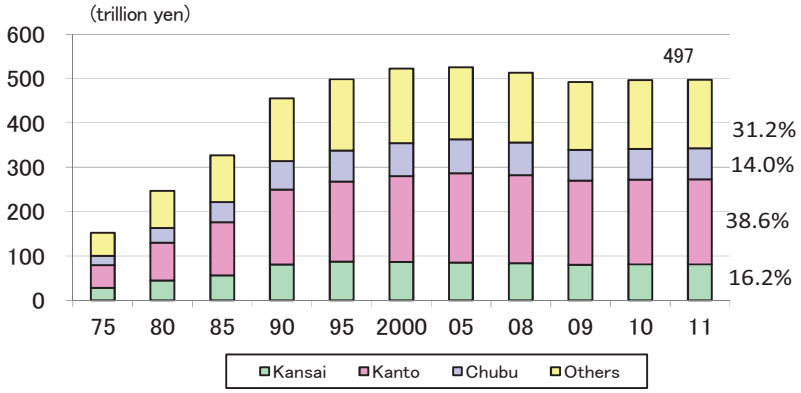
Statistical Annex

●Figure 1　Total Population



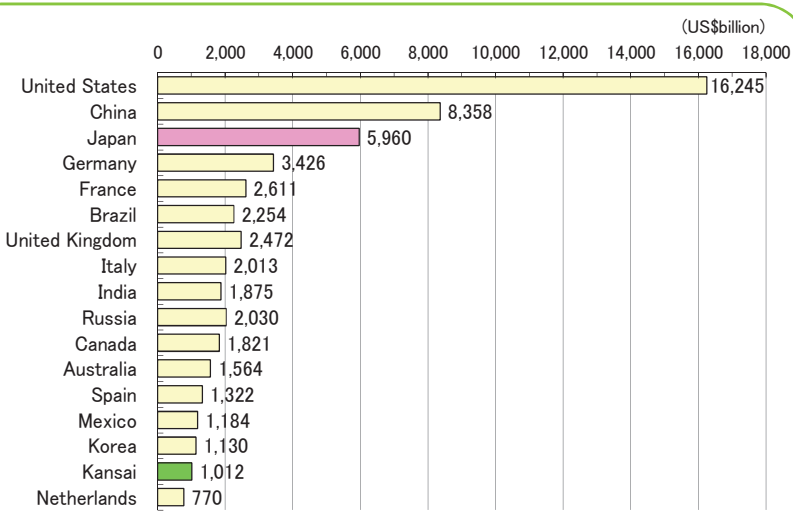
Note:　Numerical value as of October 1 for each year.
Source:　the Bureau of Statistics of the Ministry of International Affairs and Communications, "Population Census", "Population Estimates".

●Figure 2　Gross Regional Products



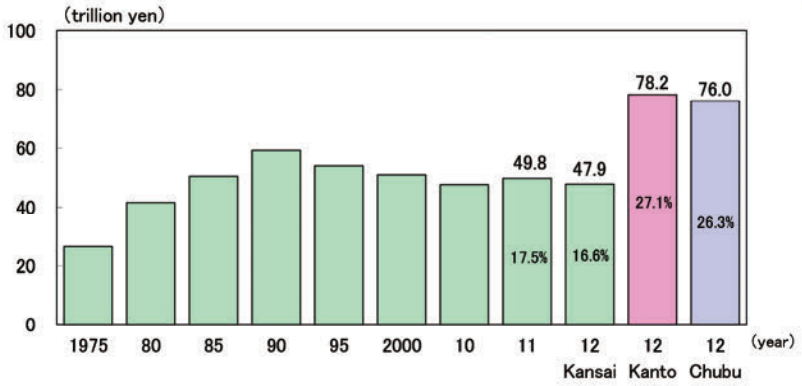
Note:　Nominal. A new calculation system has been adopted since the 1990 fiscal year.
Source:　the Cabinet Office, "Annual Report of Regional Accounts Statistics".

●Figure 3　GDP in Cross-Country Comparison（2012）



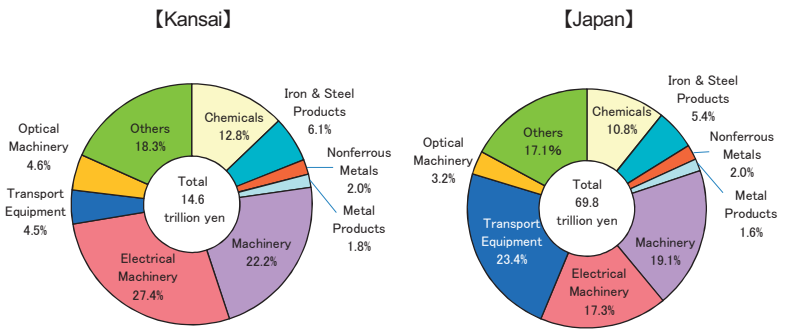
Note: 2012 Calendar year. Nominal. The value of Kansai is based on the GRP (nominal) in the 2010 fiscal year. The exchange yen rate was 79.82 to US dollar in 2012.
Source: UN, "National Accounts Main Aggregates Database"; the Cabinet Office, "Annual Report of National Accounts Statistics", "Annual Report of Regional Accounts Statistics".

●Figure 4　Values of Manufactured Goods Shipments



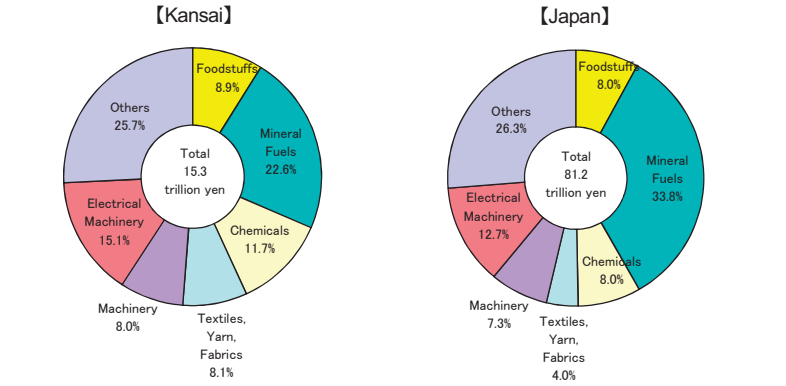
Note: The survey covers establishments with 4 or more employees.
Source: the Ministry of Economy, Trade and Industry "Statistics Table on Census of Manufactures". (The figures in 2011 are based on the “2012 Economic Census.”)

●Figure 5　Exports by Commodity (2013)



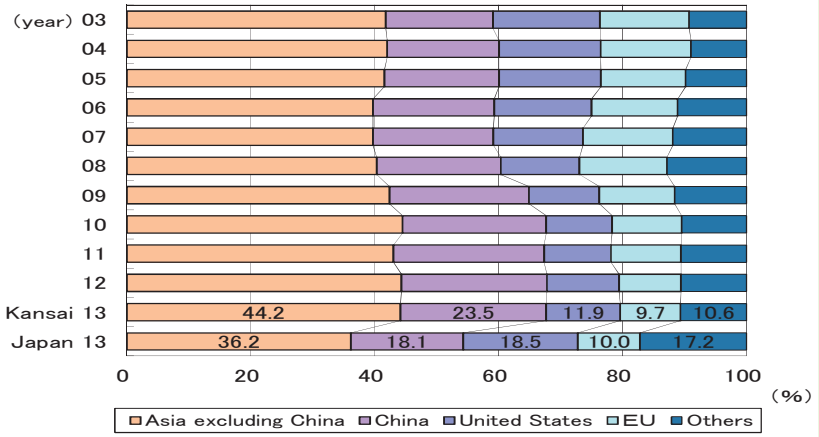
Note:　Kansai consists of 6 prefectures - Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama.
Source:　the Ministry of Finance, Osaka Customs, "Trade Statistics"

●Figure 6　Imports by Commodity (2013)



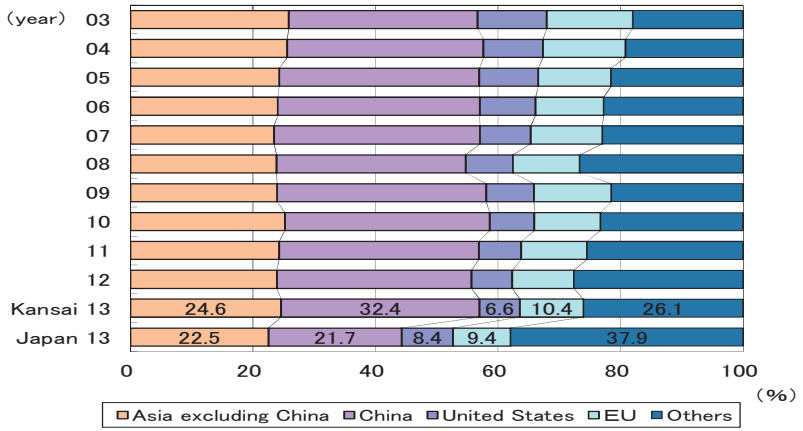
Note:　Kansai consists of 6 prefectures - Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama.
Source:　the Ministry of Finance, Osaka Customs, "Trade Statistics"

●Figure 7　Export Destination from Kansai



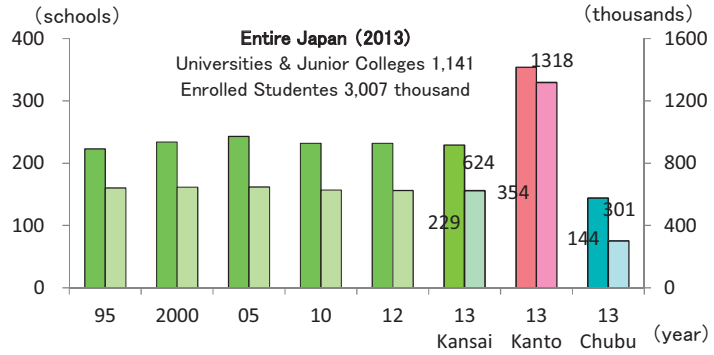
Note:　Kansai consists of 6 prefectures - Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama.
Source:　the Ministry of Finance, Osaka Customs, "Trade Statistics".

●Figure 8　Import Origin to Kansai



Note:　Kansai consists of 6 prefectures - Shiga, Kyoto, Osaka, Hyogo, Nara, and Wakayama.
Source:　the Ministry of Finance, Osaka Customs, "Trade Statistics".

●Figure 9　Numbers of Universities and Junior Colleges, and Student Enrollment



Note:　left axis = universities & junior colleges　　right axis = enrolled students
Source:　the Ministry of Education, Culture, Sports, Science and Technology, "School Basic Survey".

●Figure 10　Numbers of National Treasures & Important Cultural Properties

Prefectures	National Treasures	Important Cultural Properties	National Treasures Domestic Share (%)	Important Cultural Properties Domestic Share (%)
Fukui	6	107	0.6	0.8
Shiga	55	813	5.1	6.3
Kyoto	228	2,145	20.9	16.6
Osaka	60	664	5.5	5.1
Hyogo	20	464	1.8	3.6
Nara	198	1,311	18.2	10.1
Wakayama	36	385	3.3	3.0
Kansai	603	5,889	55.4	45.5
Kanto	326	3,620	29.9	28.0
Chubu	40	1,064	3.7	8.2
Japan	1,089	12,936	100.0	100.0

Note:　The values are as of June 1, 2014.
Source:　the Agency for Cultural Affairs.

ASIA PACIFIC INSTITUTE OF RESEARCH

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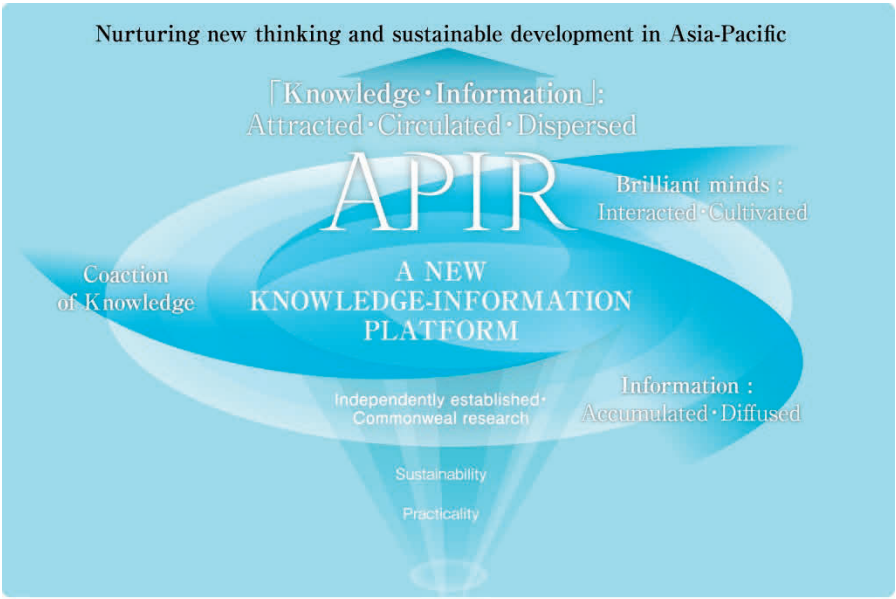
- Focusing on the Asia-Pacific region, we aim to create a new platform for generating and sharing "smart ideas" and information.
- Underpinning all of our work is a desire to contribute research-based policy solutions to some of the most vital issues facing countries across Asia-Pacific, to stimulate economies and societies, and to support the sustainable development of countries throughout the region, including Japan.
- We aim to bring together the rich diversity of human talent, expertise, and information that is spread throughout the region.

Our research portfolio includes the following areas:

- Providing theoretical and empirical bases for developing public policies and business strategies
- Identifying important issues, offering future forecasts, and recommending effective policies
- Producing results and data to serve the public good and create an information infrastructure

Through our research, APIR provides practical, useful recommendations and information for economic, administrative, and academic fields. In addition, through a broad range of activities, we cultivate skilled employees who can make positive contributions to society in the future.



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We undertake independent research on the most salient regional issues, make practical policy recommendations, and help catalyze their implementation, for the regional public good.

Coaction of Knowledge

We are working to develop an expanding web of knowledge, research and information, acting and reacting together with individuals, universities, and other research institutions all over the globe.

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- Corporate Members: 182
- Members of Board of Directors: 13
- Basic Assets: 330 million yen

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