Part One

Annual Report 2013—Competitiveness of Asian Economies

Chapter 1

Internal and External Environments Affecting the Competitiveness of Asian Economies

1.1 Global Economy with a Persistent Low Growth Rate

In 2012, the global economic situation looked grim. The deepening euro zone debt crisis seemed without an end in sight. Despite the established European Stability Mechanism (ESM) and the initial agreement reached by the European Banking Federation, the Spanish banking problem worsened and the euro zone economy was sliding towards a recession. European financial integration continued to move forward at a crawl due to the great disparities between Germany and South European countries, thus, the international society has not ruled out a "Lost Ten Years" for Europe. The risk of a split euro zone still exists. Although the US achieved growth, the "Fiscal Cliff" becomes the sword of Damocles hanging over its economy. The US injected itself with a third round of quantitative easing (QE3) stimulus, but the outlook is up in the air. Coupled with the party grappling during the election year and Hurricane Sandy, the US economy was under downward pressure. Japan's economy took a hard blow, hinting a dire growth outlook. The BRIC countries lived through an uneven year in 2012, under both currency depreciation and capital flight pressure. Although the tension relaxed somewhat after the QE3 stimulus in August, the emerging economies faced an inevitable slowdown.

1.1.1 Global Economy Continuously Slowing Down

In 2012, the European economy slid towards a recession, with quarter-on-quarter growth rate of the first three quarters scrabbling at 0, 0.2% and -0.1%. When the -0.3% negative growth of the previous year's fourth quarter was taken into account, the euro zone economy was in a four-quarter-long recession. Among them, Italy and Spain had undergone recessions lasting more than one year, while Greece was in a great depression. Although Germany and France—the two economic heavyweights in Europe, achieved a 0.2% growth in the third quarter, this alone could not shield Europe from a double-dip recession. The European Commission thought that the euro zone economy shrank 0.4% in 2012. From the policy-making level, the European Central Bank conducted two rounds of Long-Term Refinancing Operations (LTRO) and one Outright Monetary Transaction (OMT), which greatly eased the interbank liquidity in the short-term and prevented the European Central Bank from facing a deteriorating credit crunch. Currently, there are two worries in the euro zone's debt woes, which are Greece's exit from the euro zone and Spain's fragile banking system. In general, the chance of Greece's exit is lower than 50%, and after the 100 billion euro loan injected into Spain's banking system, worries were somewhat reduced. The euro zone economy is forecasted to encounter a slight revival in the second quarter of 2013. However, euro zone economic growth still is not likely to return to pre-crisis levels in the next few years. The annual growth rate of the euro zone was 2% from 2001-2007 and the IMF predicts a possible recovery to 1.7% by 2017. Thus, it can be seen the debt crisis will cast a long-term shadow on the region. Euro zone will experience "The Lost Ten Years."

Compared with the sluggish euro zone economy, this year turned out to be productive for the US. During the first three quarters of 2012, the US growth was 2%, 1.3% and 2%, with a yearly growth rate of 2.2%. This shows the vitality of America's economy. However, there are still signs that indicate the negative prospect of US economy. The unemployment rate jumped to 7.9% in October and new unemployment registered at 170,000. Meanwhile, retail sales plunged in October, with a month-by-month decrease from 1.3% to 0.3%, reflecting the consumers' pessimistic outlook on the "Fiscal Cliff." From the perspective of enterprises and investors, the Purchasing Managers Index (PMI) has risen to 51.7 and the investors' confidence index stood at five in November, shrugging off the pessimism that dragged on during the period of June-October, which reflected QE3 was playing a positive role in investor confidence. Granted that the euro zone crisis does not escalate, the US economy will maintain a mild growth for the foreseeable future. However, the US economy still faces three uncertainties. First, labor market data are weakening with a rising unemployment rate and limited new jobs. Second, it is not certain whether the property market can keep the seven-month growing trend after a four-year downturn. Last, a possible baseline and alternative conditions of the "Fiscal Cliff" will be short-term threats for the US economy, which closely relate to the consultation between the Obama administration and Congress.

In 2012, the emerging markets performed notably better than the advanced economies, despite being under the pressure of a downward trend affected by both shrinking international market demands and a tough world economy. The 12 emerging economies[1] grew 6.5% in 2011 and are predicted at 5.4% and 6.1% in 2012 and 2013 respectively. The reason for the downturn is the effect of the euro zone debt crisis on emerging markets. China's economic growth has witnessed a decline of seven successive quarters, with the third quarter standing at a record low for recent years at 7.4%. Brazil's economy came to a standstill in the first half year, quite at odds with the previous two years' growth. India's second quarter growth only struck at 3.94%, a record low for the last ten years. Economic slowdown also occurred in Russia, South Africa and Mexico. The growth gap between the 12 emerging economies and advanced economies was 4.7% in 2011 and forecasted to narrow to 4.3% in 2012 and will be below 4% in 2013.

1.1.2 Global Easy Monetary Policies May Invite Worldwide Inflation

Global easy monetary policies entered their second season in the second half of 2012, with more intensified versions to come. Utilizing easy monetary policies has become a universally accepted measure to stimulate economic growth amongst major economies. The European Central Bank (UCB) decided to start Outright Monetary Transaction (OMT), which enables its members' debts to be brought in without limits on lowering their financial cost. UCB will decide whether to buy in debts and the purchase scale on interest, interest margin, liquidity and volatility, with a varied time limit of 1-3 years. Meanwhile, UCB's OMT plan will be carried out with the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM), with an aim to stabilize member economies' debt rates and ensure the liquidity of those countries' financial systems.

The Federal Reserve launched the third round of quantitative easing on September 19th, helping to keep its low rate of 0-0.25% until the end of 2015. The Federal Reserve expanded its holding of long-term securities with open-ended purchases of USD40 billion Mortgaged-Backed Securities (MBS) a month and continued to purchase long-term treasury bonds of USD45 billion a month in QE3. Despite the Federal Reserve having purchased USD2.3 trillion of national bonds in the past two rounds of quantitative easing, it continued the reverse operation of swapping USD667 billion in short-term national bonds for long-term ones.

Apart from the aggressive US easing policies, Japan's Central Bank geared to expand its asset purchase program from 70 billion to 80 billion yen on September 19th, with an added 5 trillion yen of short- and long-term national bonds respectively. Besides, the purchase deadline of long-term debt

1 These economies include China, India, Brazil, Russia, Singapore, Malaysia, Indonesia, Thailand, the Philippines, China's Hong Kong, Republic of Korea and China's Taiwan.

extended from June, 2013 to the year-end. It's another round of monetary easing policy that began in April of 2012.

On October 2nd, 2012, the Australia Federal Reserve lowered its interest rate 25 base points, from 3.5% down to 3.25%. At the same time, the Brazilian central bank cut the central bank benchmark interest rate for the tenth time. Besides lowering its benchmark interest rate, China also released large amounts of liquidity by reverse purchase. Emerging economies like India, Republic of Korea and Thailand all reduced their reserve ratio and interest rate to alleviate the downward spiraling economy.

Releasing liquidity seems to be a good way to stimulate economic growth, but liquidity is a double-edged sword, boosting the economy but also inviting inflation.

On one hand, easy monetary policy de facto triggered worldwide currency "competitive devaluation." The US dollar depreciated on the same day QE3 was introduced. The US dollar against RMB exchange rate fell to 6.30 yuan on September 20th, 2012 and slid to the present 6.21 yuan, dropping more than 200 points. Likewise, the Japanese yen against the US dollar and Australian dollar dropped 46 and 40 points respectively.

On the other hand, easy-money policy will surely invite an international commodity price hike from a medium- and long-term point of view. In America, QE1 raised the commodity price index by 36% and oil price by 59%, while QE2 raised oil prices by 30%. It can be predicted that QE3 and the quantitative easing policies in Japan and Australia will raise the international commodity price in due time. In the next two years, the international commodity price will be on the rise.

In short, if debt and growth issues are resolved with printing machines, inflation is inevitable all over the world.

1.2 The Asian Economy Is Significantly Slowing Down with Varied Conditions in Different Economies within the Region

1.2.1 Despite Slowing Down, Asia Is Still the Major Driving Force of the Global Economy

In 2012, the economic growth of Asian-Pacific region slowed down, as a result of the influence of external unfavorable factors; to name a few, European and Japanese economies were on the verge of recession, and US economy had a weak recovery. More important, as Asia's major driving forces, China and India maintained a low growth rate, hindering the development of the Asian economy as a whole. In the first half of 2012, the real GDP growth of Asia was 5.5%, far above the global level, but still on the low since the 2008 global financial crisis. (See Figure 1.1)

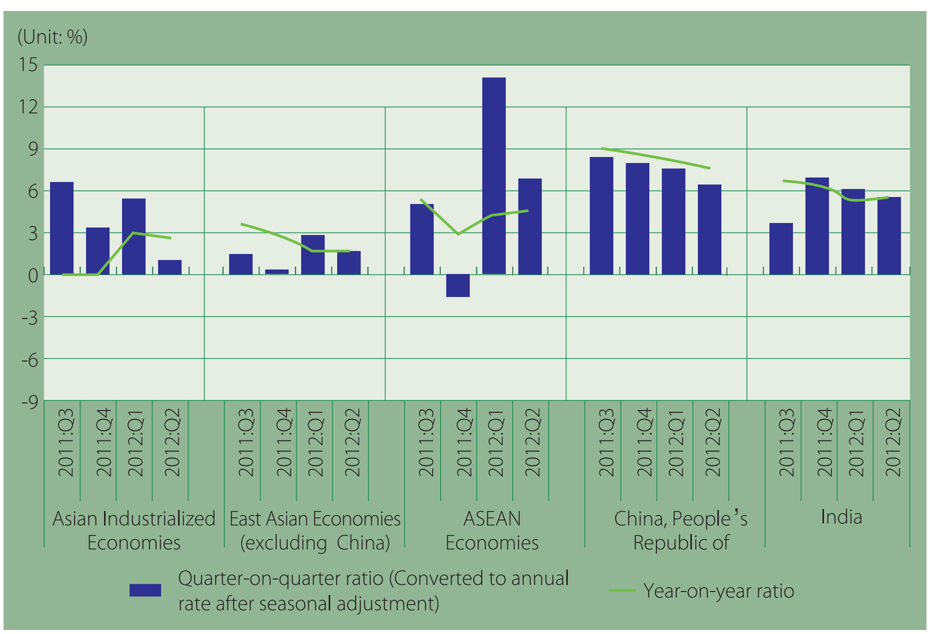

Figure 1.1 Asian Regional Economies' GDP Growth Rate

Source: CEIC database.

In China and India, domestic factors played a key role in the stunted economic growth. China found a soft-landing by taking tightened monetary and credit policies and controlling the heating investment, while India's limited supply and long-term structure problems dampened the investors' zeal.

Japan faced the most severe economic problems in Asia. Its third quarter GDP was 3.5% lower than the previous quarter and dropped from a second quarter 3.3% to a third quarter 0.1% compared with the same period last year. Among them, private consumption fell 1.8% compared with the previous quarter, investment down 3.7% and export, the major contributor to GDP growth, down 18.7%. After the 2007-2009 global economic crisis, Japan's economy was largely driven by export growth. However, with the global economic slowdown, western technology shocks in innovative industries gave a blow to the overseas Japanese good consumption. Japan's export growth to America, Europe and Asia was 5.3%, -23% and -8% respectively in the third quarter. Japan's economy continued to decline in the fourth quarter due to the gloomy global economy and the yen appreciation. Japan relapsed to recession during 2012.

Indonesia, Malaysia, the Philippines and Thailand boosted the growth of ASEAN, with its growth nearing the potential level, due to the public investment flow. Australia managed to weather the negative global influence too, which was especially shown through the robust growth in its mining industry. Apart from Japan, most Asian economies maintained a steady credit growth. (See Figure 1.2) In the first half of 2012, the Asian area as a whole lowered its inflation amid a weak global economy and falling international commodity prices.

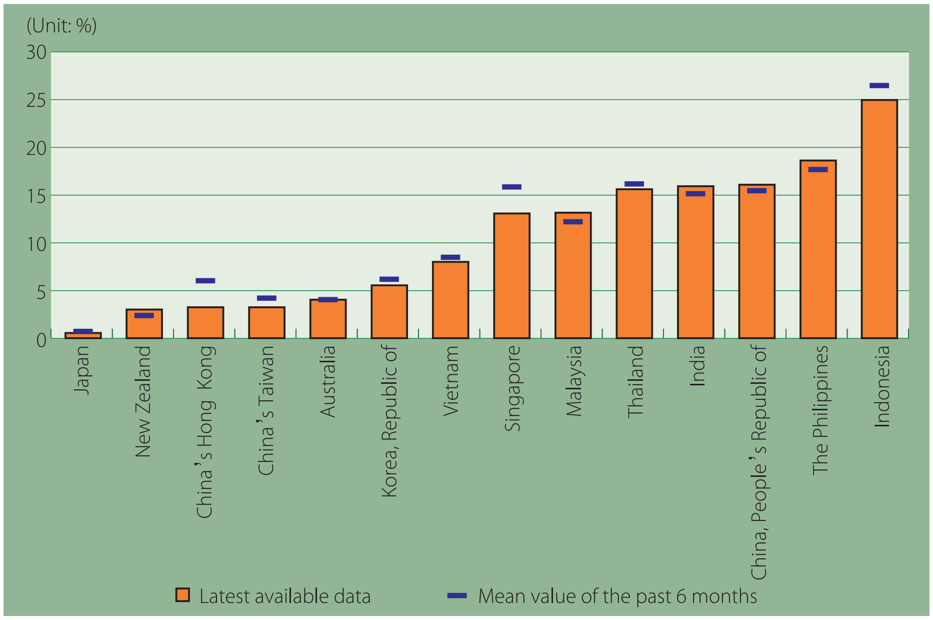

Figure 1.2 Private Sector Credit Growth of Asian Economies

Source: CEIC database.

Regarding the monetary policy and financing environment, Asian central banks kept their interest rate, or lowered the benchmark rate frequently. Overall easy-money policies, real policy interest rate and a lending rate 150 points less than before 2008, all contributed to the domestic demands. Asian economic growth will be slower than expected in coming years, but will continue to lead the world economy, with a 2% growth above the world average.

Port's cargo throughput measures the economic dynamite and exports of major Asian economies. In 2012, major Asian ports witnessed a sluggish cargo throughput, with some of which lapsing in negative growth in the third quarter and a drop of growth rate from 7% at midyear to 4.8% at yearend. The port's cargo throughput of Shanghai, Singapore and Guangzhou decreased by a sharp 0.3%, 0.9% and 2.77% year on year. Although the amount saw a slight rebound in the fourth quarter, it cannot turn around.

Regards to the employment situation, the global economic downturn worsened the unemployment problem. The Indian textile industry alone had an unemployment rate of 7% to 10%, with about 4.5 million people losing jobs in 2012. Japan had an unemployment rate of 4.2% in October, where 2.73 million people in a state of unemployment and people receiving basic living allowances rose in four successive months, a record high. A report from the International Labor Organization suggested despite the employment index in Singapore, Thailand and Republic of Korea was better than 2011, the number of Indonesia, Malaysia, the Philippines, Vietnam, China's Taiwan and China's Hong Kong was worse than the previous year. Meanwhile, low wages and lack of labor rights protection in Asian developing economies are still worrying. Two thirds of new jobs in Southeast Asia are not formal employment.

1.2.2 Capital Inflow to Asia

From the second half of 2011 to the first half of 2012, Asian economies faced a severe capital flight stress affected by the downside global economy and the worsening European debt crisis. Precisely, the problem was caused by the volatility of stock investment and equity capital. The Asian stock market attracting foreign investors indicated that the region's economic fundamentals were good, but lacked other safe investment tools. The stock market in emerging Asian economies attracted foreign capital of USD1.5-2 billion per month in the first quarter of 2012, but was followed by a one billion dollar outflow from the market in the second quarter. (See Figure 1.3) The third quarter saw a relief from capital flight due to the global monetary easing policy, a state of net capital inflow.

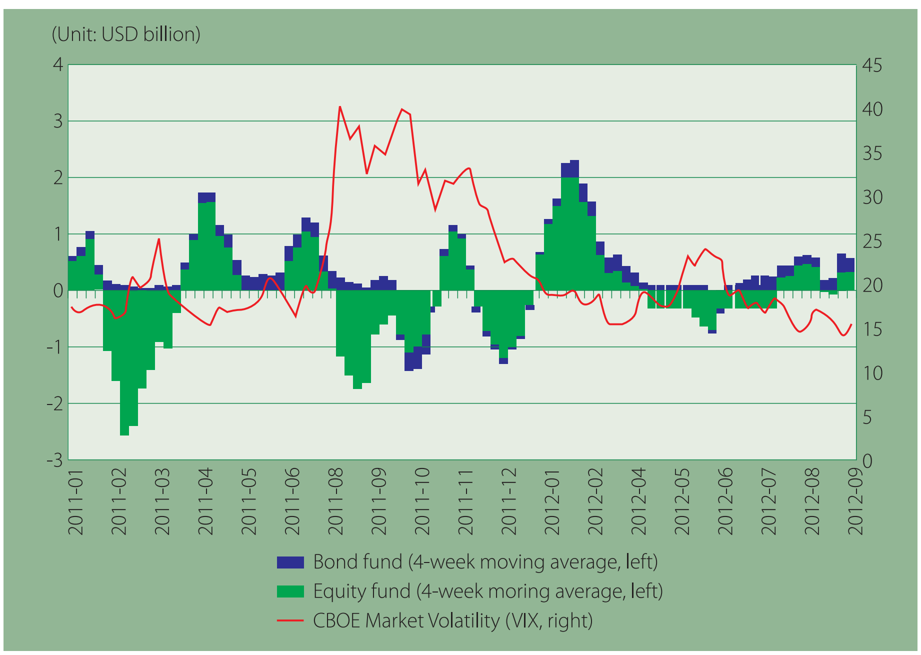

Figure 1.3 Asian Emerging Economies: Net Flow of Stock and Bond Funds

Source: www.imf.org

1.2.3 Asia Faces Gloomy Economic Outlook

Generally speaking, Asia is not likely to experience accelerated growth due to its worsened economic indices in recent periods. Despite its industrialized economies, the indices of small, emerging export-oriented economies don't seem optimistic. (See Table 1.1) Following an economic decline in 2011, Asia's growth is forecast to fall around 5.4% in

2012. In 2013, Asian economic growth will rise to 6% thanks to strengthened external demands and easing monetary policies in the region, but Japan will act as an exception because of its diminished restoration expenditure, which will overshadow its upward export. Low-income economies perform better than the Pacific Islands, which need to enhance their strength to deal with global and regional changes. However, if European and American policy makers can fulfill their commitments, the easing monetary situation could pose a threat of inflation to Asian economic growth. In the next year, there are two conditions of growing external demands: European financial pressure gradually reduced and America avoiding a "Fiscal Cliff."

Table 1.1 The Growth Outlook of Asian Economies (Unit: %)

	2010	2011	2012	2013
Industrialized Asian Economies	**4.1**	**–0.2**	**2.4**	**1.6**
Australia	2.5	2.1	3.3	3.0
Japan	4.5	–0.8	2.2	1.2
New Zealand	1.8	1.3	2.2	3.1
East Asian Economies	**9.9**	**8.2**	**6.8**	**7.4**
China, People's Republic of	10.4	9.2	7.8	8.2
China's Hong Kong	7.1	5.0	1.8	3.5
Korea, Republic of	6.3	3.6	2.7	3.6
China's Taiwan	10.7	4.0	1.3	3.9
South Asian Economies	**9.8**	**6.9**	**5.0**	**6.0**
Bangladesh	6.4	6.5	6.1	6.1
India	10.1	6.8	4.9	6.0
Sri Lanka	7.8	8.3	6.7	6.7
ASEAN Economies	**7.6**	**4.6**	**5.1**	**5.5**
Brunei	2.6	2.2	2.7	1.5
Cambodia	6.1	7.1	6.5	6.7
Indonesia	6.2	6.5	6.0	6.3
Lao PDR	8.1	8.0	8.3	8.0
Malaysia	7.2	5.1	4.4	4.7
Myanmar	5.3	5.5	6.2	6.3
The Philippines	7.6	3.9	4.8	4.8
Singapore	14.8	4.9	2.1	2.9
Thailand	7.8	0.1	5.6	6.0
Vietnam	6.8	5.9	5.1	5.9
Asian Emerging Economies	**9.6**	**7.4**	**6.1**	**6.8**
Pacific Islands	1.7	3.6	2.5	2.6
Asia	**8.4**	**5.9**	**5.4**	**5.9**

Note: Asian emerging economies include East Asian economies, India, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam. Data of 2012 and 2013 are forecast.
Source: www. imf.org

For Asia, China is still an influential country with slim chance of encountering a rough landing. Since China has become an engine of regional growth, any difficult landing would greatly affect the Asian economy. For those connected to China by supply chains, such as the Republic of Korea, Malaysia and China's Taiwan, their GDP would decease by 0.5% in a year if China were to lower its investment rate by 1%.

There are two disadvantages affecting Asian economic growth:

One is income gap and poverty. The overall level of Gink coefficient of Asian economies is not the highest on a global scale, but rises rapidly during the last 20 years. Gink coefficient of economies including China, Indonesia, the Philippines, Malaysia, Thailand and Vietnam all stay above 0.4. The income gap of India and Arabian economies in West Asia is widening. How to achieve an "inclusive growth" and improve the income distribution mechanism are tough tasks for Asian economies.

Another disadvantage is weak infrastructure in some less developed Asian economies. According to Asian Development Bank (ADB), Asia will spend USD 8 trillion in infrastructure in the next ten years, where India alone will need USD 1 trillion. The lack of roads, ports, power plants, irrigation and waste treatment systems have deterred the economic development in some Asian economies like India, Indonesia, Pakistan and the Philippines.

1.3 Sino-Japanese Relationship and Its Influence over Asian Economy

Since the 1990s, China and Japan have always had a close economic relationship, but cold ties in politics. Since in April 2012, Sino-Japanese economic ties hit an unknown trough. As the world's second and third biggest economy, China and Japan have strong economic interdependence. The relationship between the two countries will not only affect Sino-Japanese economic ties, but also Asian economic competitiveness and global economic growth outlook.

First of all, Japan's economy will have more direct impact. China's exports to Japan have decreased year by year, from 10% in 2006 down to the current 7%, while Japan's exports to China have increased from 11% to 20% during the same period. Now, China has become the biggest export destination for Japan. In 2011, Japan's export to China was USD194.6 billion, accounting for 23.6% of its total export and Japan's trade surplus to China was USD46.3 billion, making up 0.8% of Japan's GDP. Meanwhile, Japan's exports to China via Republic of Korea, China's Taiwan and China's Hong Kong were also vast, accounting for 10% of its total volume. As we can see, Japan is more dependent on China in trade. (See Figure 1.4) In addition, many of Japan's important raw industrial materials are imported from China, for example, the rare earth from China making up 90% of the total. Moreover, Sino-Japanese relationship has a direct and profound impact on Japan's tourism industry. For a long time, Japan has been a favorable destination for Chinese tourists. According to data from Japan's tourist administration, Chinese per capita spend two times more than tourists from other countries, up to 160,000 yen. However, since April 2012, Chinese tourism in Japan decreased dramatically. From October 1st to 8th, many tourist groups from China suspended their trips and more than 60,000 plane tickets were cancelled. Chinese became less willing to travel to Japan. In short, the cold Sino-Japanese economic ties will have a negative influence on Japan's economic growth, economic competitiveness and its domestic industrial enterprises.

Next, China must also endure trade shock. Japan is a prominent supplier for production equipment and semi-manufacturers in the globally advanced manufacturing industry. For example, Japan's electronic materials account for 70% of the global market share and 50% of semiconductor supply. The high-end and high-tech products make up the main exports from Japan to China. During recent years, Japan's export to China are mainly power motors, machinery, and metal/non-metal manufactured goods (like special steels), which are near 70% of China's total imports from Japan. At the same time, Japan's investment to China have increased continously. In 2011, Japan's direct investment to China was USD6.3 billion, surpassing America's USD2.4 billion, Korea's USD2.6 billion and inching closer to Germany's USD11 billion. So far, there are 20,000 Japanese enterprises in China, creating 10 million jobs, whether directly or indirectly. With the increasing production cost in China, some Japanese enterprises have shifted

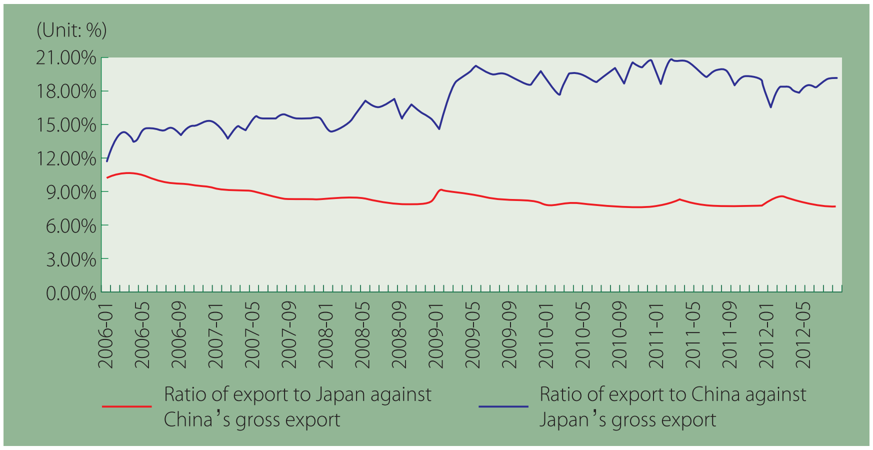

Figure 1.4 Japan's Export Dependence Was Higher Than That of China

Source: INXITE.

their investments to Vietnam, Indonesia and other Southeast Asian economies. The Sino-Japanese non-economic disputes accelerate the process. Statistics show that Japanese investment in other Asian economies like Vietnam and India was on a sudden rise. From January to August, Japan's investment in Vietnam accounted for USD4.3 billion, 51% of the total foreign investment in the country.

At last, Sino-Japanese relationship also affects Asian and global supply chains and the process of Asian economic cooperation. The Asian supply chain is key to global economic circulation. Most Asian economies have no end production of a specialized nature, but do have expertise in certain production links, making them closely connected and worthy of being named as an Asia factory moldel, where China and Japan are two important semi-product suppliers. If all links work well, this model can play an effective role in global labor division, specialized production and contribute to the world economy. If the Sino-Japanese relationship strain further, Japan will lessen its semi-production exports to China and thus shake China's status as Asia's core manufacturing economy.

East Asia, China, Japan and Korea are all in different economic development phases and are complementary in trade. Strengthening free trade is beneficial to the three countries and is important in trilateral concerns. The relationship of China, Japan and Korea will not only affect Asia's trade integration, putting off the China-Japan-Korea free trade zone process, but also have an impact on finance, capital flow, logistics, technology and industrial cooperation in Asia, harming its competitiveness.

Chapter 2

Introduction to Competitiveness Indices of Asian Economies

2.1 Purpose and Philosophy of Evaluation

The global economy struggled through a continuous recession in 2012. The advanced economies represented by the Europe and the US still sought measures to address high debt risk; thus, new rounds of quantitative easing stimulus were introduced and high unemployment rate became a key subject during the election year. The International Monetary Fund (IMF) predicted that the situation of economic growth of advanced economies in 2012 would be worse than 2011[1]. In particular, the euro zone badly affected by the sovereign debt crisis was likely to relapse into negative growth. Asian economies all risked an economic downturn despite prominent roles in the growth of the global economy as a whole. Due to the euro zone debt crisis and a weakened US economy, the export-oriented Asian economies were badly influenced. The IMF predicted the economic growth of Asian economies would drop in 2012, with their manufacturing industries unlikely to turn around.

Currently, the Asian economy may have weathered the most difficult period and overall is still in good form compared with those of other regions. Asia's price pressure remained mild despite new-rounds of quantitative easing measures introduced by the world's major central banks. Although the economic growth of emerging Asian economies will keep slowing for a longer time, their positive debt status and innovative activities will lead to a mild growth. Especially considering the financing risk of financial institutions, enterprises in the Asian market have a lower debt-to-equity ratio than Latin American and European peers. Recovering from the Asian Financial Crisis in 1990s, the Asian banks have developed sound balance sheets, which will shield them from the deleveraging pressure that banks in other regions encountered.

Since 2011, Asian economic issues such as their persistence as the engine of the global economy, their competitiveness, and improvements in commercial and administrative efficiency, infrastructure, social development level, human capital and innovation capability have all attracted worldwide attention. Based on the 2011 Annual Report of Competitiveness of Asian Economies, we continuously adopt the same index system to monitor and evaluate the competitiveness of Asian economies in 2012 to best reflect the future of Asian or global economy. We focus on analyzing the economic and social achievements of 37 Asian economies. The index system have five dimensions, including stock indicators such as commercial and administrative efficiency, overall economic strength, infrastructure, social development level, and incremental indicators such as economic growth rate, human capital and innovation capability.

2.2 Introduction to Competitiveness Indices of Asian Economies

The competitiveness indices of Asian economies include five dimensions: commercial and

1 International Monetary Fund (IMF). *World Economic Outlook: Coping with High Debt and Sluggish Growth.* October 2012.

administrative efficiency, infrastructure, overall economic strength, social development level, human capital and innovation capability. The index mainly assesses the future competitiveness of the 37 main economies of the Asia-Pacific and describes their competitiveness in the region with a view to help governments, enterprises and organizations identify disparity with benchmark economies and point out the proper direction to improving economic, social and government sectors. Specifically, the competitiveness indices of Asian economies mainly focus on the folllowing three aspects: making a comprehensive judgment on competitiveness ranking in Asia; judging the structural disparities among the economies in terms of economic, social and government development, and tracing efforts made by the economies and dynamic changes taking place in their economic and social development.

The competitiveness indices of Asian economies are designed to find gaps amongst major economies so as to promote their economic, social and government development. The data used by the evaluation model include macroeconomic data of various economies from the IMF, the World Bank, research findings from the World Economic Forum, tangible market databank and data from the experts. The model analyzes the competitiveness of each Asian economy from five dimensions: commercial and administrative efficiency, infrastructure, overall economic strength, social development level, human capital and innovation capability, and then adopts a weighted-average method to obtain the evaluation indicators, from which the overall ranking of major Asian economies is judged, and valuable information in this regard is supplied.

2.3 Introduction to Competitiveness Indicators of Asian Economies

The competitiveness indicators of Asian economies follow the 2011 model. Regarding indicator system design, we select the hard indicators that can best reflect the competitiveness of an economy. Indicators that could cause errors in questionnaires are not used. In addition, we introduce the background indicator set, in which the basic background indicator set includes the GDP per-capita of an economy and its contribution to the world economy. The basic background indicator set for weighting consists of GDP, population, GDP per-capita and GDP as a share of world GDP[1]. Among them, GDP reflects the economic gross of an economy; population is used for obtaining per-capita indicators; GDP per-capita mirrors the economic development of an economy vital for judging economic status; GDP as a share of world GDP singles an economy's status in the world economy and its economic contribution.

Precisely, the indicator set of the index system falls into five categories, each of the categories having different number of original indicators. (See Table 2.1) Among them, the indicator set of

1 Population, GDP, GDP per capita, GDP as a share of world GDP are still used as the key indicators of country analysis and stages of development analysis in Global Competitiveness Report 2012-2013 released by the World Economic Forum (WEF).

Table 2.1 Structure of Competitiveness Index System of Asian Economies

Primary Indicator	Secondary Indicator	Original Indicator
Commerical and Administrative Efficiency (4)	Efficiency of Commercial Approval (3)	Number of approval procedures for establishing enterprises
		Establishing period
		Enterprises' application cost
	Public Service Efficiency (1)	Number of procedures by commercial contrast
Infrastructure (11)	Transportation Facilities (2)	Seats on a flight
		Highway density (km/100sq.km)
	Communication Facilities (2)	Fixed lines LOA
		Mobile lines LOA

continued

Primary Indicator	Secondary Indicator	Original Indicator
Infrastructure (11)	Internet Infrastructure (4)	PC penetration rate
		Internet penetration rate
		Netizen population
		Bandwidth speed
	Electrical Utilities (1)	Per capita output
	Water Facilities (2)	Sewage service
		Safe drinking water
Overall Economic Strength (14)	Economic Contribution Index (2)	GDP/global GDP
		GDP Growth rate
	Economic Health Index (5)	Budget equalization/GDP
		Inflation
		Tax burden
		Unemployment rate
		Government debt/GDP
	Foreign Economic Ties (3)	Tariff rate
		Import volume/GDP
		Export volume/GDP
	Industry Structure (2)	Service value added
		Industrial value added
	Financial Environment (2)	Deposit and loan spreads
		National saving rate
Social Development Level(10)	Health (4)	Incidence of tuberculosis
		Incidence of AIDS
		Infancy mortality rate
		Life expectancy
	Medical Treatment (2)	Number of surgeons/1,000
		Hospital beds/10,000
	Education (3)	Enrollment rate of primary education
		Enrollment rate of secondary education
		Female employment rate
	Safety (1)	Traffic accident rate
Human Capital and Innovation Capability (5)	Human Capital (2)	Enrollment rate of higher education
		Public expenditure on education
	Innovation Capability (3)	Granted patents/1,000,000
		Creative industries export
		High-tech export

commercial and administrative efficiency has four original indicators; infrastructure indicator set has 11 indicators; overall economic strength, 14; social development level, 10; human capital and innovation capability, 5; plus a basic index for weighting, the total number of original indicators amounts to 47.

2.3.1 Commercial and Administrative Efficiency

The commercial and administrative efficiency indicator set consists of the number of approval procedures for establishing enterprises, establishing period, enterprise application cost and number of procedures by commercial contrast. If the administration for establishing new enterprises in an economy is efficient and the procedure is smooth, the economy is of vitality. Newly established enterprises can rapidly enter the market and grasp market opportunities. Likewise, if the legal environment is transparent and efficient, the commercial contract would be smoothly carried out and corporate exchange would be fast, which helps to improve corporate capital turnover and strengthen corporate profitability and risk-control capability.

2.3.2 Infrastructure

The infrastructure indicator set includes available seats on a flight, highway density, fixed phone lines LOA, mobile lines LOA,PC penetration rate, Internet penetration rate, Netizen population, Bandwidth speed, per capita output, sewage service and safe drinking water. These inidicators cover all aspects of infrastructure in an economy, including transportation facilities, communication facilities, Internet infrastructure, electrical utilities and water facilities. Infrastructure reflects efforts made by an economy on economic development and improving people's wellbeing.

2.3.3 Overall Economic Strength

The overall economic strength indicator set includes GDP/global GDP, GDP growth rate, budget equalization/GDP, inflation rate, Total tax burden/GDP, unemployment rate, government debt/GDP, tariff rate, import volume/GDP, export volume/GDP, service value added/GDP, industrial value added/GDP, deposit and loan spreads and national savings rate. These indicators basically reflect the economic development of an economy, covering both stock and incremental aspects, contribution to the world economy and health of an economy, as well as foreign economic ties, industry structure and financial environment.

2.3.4 Social Development Level

Social development level indicator set comprises of incidence of tuberculosis, incidence of AIDS, infancy mortality rate, life expectancy, number of surgeons per 1,000 people, hospital beds per 10,000 people, enrollment rate of primary education, enrollment rate of secondary education, female employment rate and traffic accident rate. These indicators can reflect the degree of human and social development of an economy, covering health, medical treatment, elementary education and traffic safety aspects.

2.3.5 Human Capital and Innovation Capability

Human capital and innovation capability indicator set includes enrollment rate of higher education, public expenditure on education, granted patents per 1,000,000 people, creative industries export and high-tech export. These indicators analyze human capital input and technology innovation output from the perspective of input and output. It can best reflect people's education situation, intellectual and capital output, such as granted patents, hi-tech industries and creative industries etc.

Chapter 3

Evaluation Report on Competitiveness of Asian Economies

3.1 Target Economies to Be Evaluated in 2012

Geographically, there are 51 economies in Asia, including China's Taiwan, China's Hong Kong and China's Macao. Because some economies are too small or difficult to obtain historical data, such as China's Macao, Afghanistan, Democratic People's Republic of Korea (DPRK), Brunei, Myanmar, Maldives, Lebanon, Palestine, Laos, Iraq, Bhutan, Yemen, Cyprus, Syria, Turkmenistan and Uzbekistan, those economies are excluded from the evaluation system. Therefore, we continue to use the evaluation targets of 2011 that contain 37 economies in the Asia-Pacific region, Australia and New Zealand in cluded (See Table 3.1).

Table 3.1 Target Economies to Be Evaluated in 2012 Report (Alphabetical Order)

No.	English Name	Chinese Name	No.	English Name	Chinese Name
1	Armenia	亚美尼亚	20	Malaysia	马来西亚
2	Australia	澳大利亚	21	Mongolia	蒙古
3	Azerbaijan	阿塞拜疆	22	Nepal	尼泊尔
4	Bahrain	巴林	23	New Zealand	新西兰
5	Bangladesh	孟加拉国	24	Oman	阿曼
6	Cambodia	柬埔寨	25	Pakistan	巴基斯坦
7	China, People's Republic of	中国	26	The Philippines	菲律宾
8	Georgia	格鲁吉亚	27	Qatar	卡塔尔
9	China's Hong Kong	中国香港	28	Saudi Arabia	沙特阿拉伯
10	India	印度	29	Singapore	新加坡
11	Indonesia	印尼	30	Sri Lanka	斯里兰卡
12	Iran	伊朗	31	China's Taiwan	中国台湾
13	Israel	以色列	32	Tajikistan	塔吉克斯坦
14	Japan	日本	33	Thailand	泰国
15	Jordan	约旦	34	Timor-Leste	东帝汶
16	Kazakhstan	哈萨克斯坦	35	Turkey	土耳其
17	Korea, Republic of	韩国	36	United Arab Emirates	阿联酋
18	Kuwait	科威特	37	Vietnam	越南
19	Kyrgyzstan	吉尔吉斯斯坦			

3.2 Final and Sub-item Ranking in 2012

According to the ranking results of the Asian Economies Competitiveness 2012 (See Table 3.2), the "East Asian Tigers" dominate the top four, namely China's Hong Kong, Singapore, China's Taiwan and Republic of Korea, followed by Australia, the United Arab Emirates, Bahrain, New Zealand and Japan. As for Japan, affected by the strong earthquake and tsunami, the country's energy cost grew and acted as a deterrent to its economy. With a weakened social investment, Japan's overall economic strength declined to 9th from 4th in the competitiveness ranking. China ranks 10th in a comprehensive ranking among 37 Asian economies, the same as in 2011. China's economic growth has slowed down since 2011, which was challenged by its domestic macroeconomic environment and social development. Following China, Israel dropped to 11th from the previous year's 6th affected by weak economic and social development in Iran and Syria. Qatar, Kuwait, Saudi Arabia and Kazakhstan ranked 12th to 15th as important oil export countries. For Southeast Asian emerging economies, Malaysia and Thailand descend to 16th and 19th, while Oman and Turkey come in between, ranking 17th and 18th, followed by Georgia, Jordan, Azerbaijan, Vietnam and Indonesia which rank 20th-24th. Armenia, the Philippines, Mongolia, Iran and Sri Lanka fill the lower positions from 25th to 29th. India jumped to 30th from 32nd. The bottom seven economies are Kyrgyzstan, Nepal, Bangladesh, Pakistan, Tajikistan, Timor-Leste and Cambodia.

Table 3.2 Rankings of Competitiveness Evaluation Index for Asian Economies 2012

Economy	2012/37		2011/37	Economy	2012/37		2011/37
	Ranking	Score	Ranking		Ranking	Score	Ranking
China's Hong Kong	1	63.83	3	Georgia	20	41.39	16
Singapore	2	63.09	1	Jordan	21	39.02	20
China's Taiwan	3	58.39	2	Azerbaijan	22	38.94	25
Korea, Republic of	4	58.09	5	Vietnam	23	37.63	24
Australia	5	57.67	8	Indonesia	24	36.79	30
United Arab Emirates	6	54.73	14	Armenia	25	36.40	22
Bahrain	7	54.50	9	The Philippines	26	36.35	27
New Zealand	8	54.24	7	Mongolia	27	36.23	28
Japan	9	54.10	4	Iran	28	35.56	19
China, People's Republic of	10	53.16	10	Sri Lanka	29	33.88	26
Israel	11	52.95	6	India	30	33.60	32
Qatar	12	52.47	12	Kyrgyzstan	31	32.85	29
Kuwait	13	51.49	21	Nepal	32	31.31	36
Saudi Arabia	14	49.72	15	Bangladesh	33	30.15	34
Kazakhstan	15	46.35	13	Pakistan	34	28.17	35
Malaysia	16	45.37	11	Tajikistan	35	27.62	31
Oman	17	44.43	23	Timor-Leste	36	26.93	33
Turkey	18	43.39	17	Cambodia	37	20.14	37
Thailand	19	43.05	18				

The rankings of commercial and administrative efficiency, infrastructure, overall economic strength, social development level, human capital and innovation capability are presented from Table 3.3 to Table 3.7 respectively.

Table 3.3 Rankings of Commercial and Administrative Efficiency Indicator for Asian Economies 2012

Economy	2012/37		2011/37	Economy	2012/37		2011/37
	Ranking	Score	Ranking		Ranking	Score	Ranking
Singapore	1	95.71	1	Sri Lanka	20	69.34	17
New Zealand	2	92.50	2	Jordan	21	69.24	18
Australia	3	91.91	3	Tajikistan	22	68.05	25
China's Hong Kong	4	91.32	4	Oman	23	65.46	23
Georgia	5	84.56	5	Qatar	24	64.65	22
Malaysia	6	83.11	14	Bahrain	25	64.60	21
Kyrgyzstan	7	80.93	6	Vietnam	26	61.84	27
Korea, Republic of	8	77.98	16	United Arab Emirates	27	61.65	28
Mongolia	9	76.50	7	Bangladesh	28	61.16	26
Saudi Arabia	10	75.75	9	Nepal	29	59.01	29
Turkey	11	74.85	8	Indonesia	30	56.79	32
Kazakhstan	12	73.93	12	China, People's Republic of	31	55.97	31
Azerbaijan	13	73.67	10	Pakistan	32	55.69	30
China's Taiwan	14	73.65	19	The Philippines	33	49.02	33
Iran	15	73.45	11	Kuwait	34	48.37	34
Japan	16	72.79	13	India	35	41.98	35
Israel	17	72.19	15	Timor-Leste	36	32.79	36
Thailand	18	72.13	20	Cambodia	37	20.96	37
Armenia	19	70.70	24				

Judging from Table 3.3, administration in Singapore, New Zealand, Australia, China's Hong Kong and Georgia are highly efficient, with less change in seats. Malaysia and the Republic of Korea make significant progress, respectively rising from 16th to 6th and from 16th to 8th, mainly because the two economies simplified their administrative procedures and shortened the period of establishing enterprises last year. China remains 31st, with no progress in ranking, which implies that it has not made much commercial and administrative improvement in 2011. India also performs badly in this respect, only coming before Timor-Leste and Cambodia.

Table 3.4 Rankings of Infrastructure Indicator for Asian Economies 2012

Economy	2012/37		2011/37	Economy	2012/37		2011/37
	Ranking	Score	Ranking		Ranking	Score	Ranking
China's Hong Kong	1	65.42	1	Iran	20	32.15	19
Singapore	2	65.27	2	Thailand	21	31.56	20
Japan	3	60.23	4	Jordan	22	30.73	21
Bahrain	4	59.96	3	Vietnam	23	29.92	23
China's Taiwan	5	58.38	6	Armenia	24	29.25	22
Australia	6	57.11	8	The Philippines	25	26.57	27
Korea, Republic of	7	56.45	7	Kyrgyzstan	26	25.96	26
United Arab Emirates	8	55.96	5	Azerbaijan	27	24.61	28
Qatar	9	55.24	11	Sri Lanka	28	24.55	25
Kuwait	10	54.14	10	Indonesia	29	23.24	30
Israel	11	51.79	12	India	30	20.31	31
New Zealand	12	50.52	9	Mongolia	31	19.67	33
Saudi Arabia	13	43.68	13	Pakistan	32	19.09	32
China, People's Republic of	14	37.89	18	Nepal	33	18.12	35
Kazakhstan	15	37.72	16	Bangladesh	34	13.88	34
Oman	16	36.48	15	Tajikistan	35	9.18	29
Turkey	17	36.31	17	Timor-Leste	36	5.15	36
Malaysia	18	33.74	14	Cambodia	37	2.72	37
Georgia	19	32.92	24				

From Table 3.4, China's Hong Kong, Singapore, Japan, Bahrain, China's Taiwan, Republic of Korea and the United Arab Emirates all rank top. As an important international transport center, China's Hong Kong and Singapore capture the top two positions amongst the 37 Asian economies for their continuous efforts in transportation construction and especially their high-performing electric, telecommunication and Internet facilities. Japan, Bahrain, China's Taiwan and Republic of Korea are developed economies with good information network construction. The United Arab Emirates improved its infrastructure construction somewhat, but its greatly reduced power supply pulled down its ranking. China continued its infrastructure construction effort, leaping to14th from 18th. India's infrastructure still falls behind despite certain improvements, coming in at 30th.

Table 3.5 Rankings of Overall Economic Strength Indicator for Asian Economies 2012

Economy	2012/37		2011/37	Economy	2012/37		2011/37
	Ranking	Score	Ranking		Ranking	Score	Ranking
China's Hong Kong	1	71.93	1	India	20	50.08	28
Singapore	2	65.68	2	The Philippines	21	49.75	25
United Arab Emirates	3	65.09	7	Timor-Leste	22	49.75	21
China, People's Republic of	4	63.60	3	Turkey	23	49.53	22
China's Taiwan	5	62.82	5	Jordan	24	49.15	19
Korea, Republic of	6	62.12	8	Azerbaijan	25	48.67	23
Bahrain	7	59.85	9	Vietnam	26	48.33	27
Australia	8	57.74	13	Georgia	27	45.66	24
Kazakhstan	9	57.29	17	Mongolia	28	45.59	29
Oman	10	57.18	10	Bangladesh	29	44.53	32
Malaysia	11	57.07	14	Sri Lanka	30	43.71	31
Kuwait	12	56.09	6	Armenia	31	40.58	30
Saudi Arabia	13	56.07	12	Tajikistan	32	36.58	33
Qatar	14	55.89	4	Nepal	33	35.62	37
Thailand	15	55.70	18	Iran	34	35.55	20
Japan	16	54.37	11	Pakistan	35	33.72	34
Israel	17	53.77	16	Cambodia	36	30.95	35
New Zealand	18	52.88	15	Kyrgyzstan	37	25.95	36
Indonesia	19	51.30	26				

From Table 3.5, China's Hong Kong, Singapore, the United Arab Emirates, China and China's Taiwan occupy the top five positions. Except the United Arab Emirates, the leading group has no major changes. China maintained a high economic growth, colossal economic aggregate and declining inflation rate. Its macroeconomic situation turned towards the good side. The financial risk in China was lowered due to its domestic enterprises' endeavor in upgrading as well as effect in real estate regulation policies. However, China's export witnessed a downturn affected by the European debt crisis and a slow recovery of US economy. Despite a continued growth of economic aggregate, China's economy was still lacking in vitality, which made it fail to replace China's Hong Kong and Singapore. China's Hong Kong and Singapore are two strong export-oriented economies both with a 5% economic growth in 2011, despite average economic aggregates. Both of them are healthy in government budget, unemployment rate, government debt, and are highly competitive in international economics and financial systems. It's worth mentioning that the United Arab Emirates' economy developed more productively compared with other oil-export west Asian countries, despite a mild 5.2% economic growth rate. Additionally, its inflation rate is only 0.88%, unemployment rate 4%and government debts to GDP ratio as low as 16.89%. With a stable industrial structure and low risky financial environment, the United Arab Emirates ranked high. Comparatively speaking, Japan's economy is not healthy. The economic growth was hindered by its high energy cost and energy trade deficit brought on by large LNG import, further deteriorated by long-term high national debts, showing a negative growth of 0.76% in 2011 and ranking the 16th. Although the economic growth of the Republic of Korea decreased to 3.6% in 2011, its inflation rate and unemployment rate were low, with a well-performed industrial structure and financial environment. Its ranking climbed to the 6th amid a large scale of economic downturn in other economies. Australia was also up to the 8th with low government debt and unemployment rate. In 2011, India's economy slowed compared with its double digital growth in 2010, and deceased to below 7%. But India's macroeconomic stability strengthened with inflation rate staying around 8.6%, unemployment rate at 4%. India's government debt

Table 3.6 Rankings of Social Development Level Indicator for Asian Economies 2012

Economy	2012/37		2011/37	Economy	2012/37		2011/37
	Ranking	Score	Ranking		Ranking	Score	Ranking
Japan	1	86.78	1	Nepal	20	56.17	29
Israel	2	82.34	2	Qatar	21	55.87	20
Australia	3	80.69	5	Sri Lanka	22	55.02	18
New Zealand	4	80.09	3	Oman	23	53.59	23
Singapore	5	78.11	6	Kyrgyzstan	24	50.02	22
China's Hong Kong	6	74.53	4	Indonesia	25	47.64	24
Korea, Republic of	7	74.27	7	Malaysia	26	47.60	26
Georgia	8	68.54	9	Bangladesh	27	46.04	27
Azerbaijan	9	68.12	8	The Philippines	28	45.42	25
China's Taiwan	10	66.83	10	Thailand	29	45.03	28
Armenia	11	66.52	11	Cambodia	30	43.97	34
Mongolia	12	61.64	14	Saudi Arabia	31	42.59	30
China, People's Republic of	13	61.38	13	United Arab Emirates	32	42.28	31
Bahrain	14	60.60	12	India	33	40.92	33
Turkey	15	59.71	19	Jordan	34	39.72	32
Tajikistan	16	57.99	15	Iran	35	37.29	35
Kuwait	17	57.79	17	Timor-Leste	36	34.94	36
Vietnam	18	57.68	21	Pakistan	37	23.94	37
Kazakhstan	19	56.54	16				

and national reserve rate remained at a relatively healthy level and made India's overall economic strength ranks 20 th among 37 economies, up 8 positions.

As shown in Table 3.6, Japan, Israel, Australia, New Zealand, Singapore and China's Hong Kong rank 1st-6th in the social development level, among which Australia improved much in medical care and moved 2 places in the ranking. They are followed by Republic of Korea, Georgia, Azerbaijan and China's Taiwan. These economies maintain well-performed medical systems, social safety, and additionally primary and secondary education. China continued to improve in social development, especially in the fields of infectious disease treatment, primary and secondary education and traffic accident control. But it still ranks 13th due to the smaller improvements compared with 2010. India's social development still stagnated ranking 33rd while its neighbor, Pakistan fills the bottom blank, Sri Lanka with limited improvements in social development is down to 22nd. We can therefore conclude the social development in South Asia still needs to be further improved, in particular more efforts are needed in dealing with infections disease, lowering infant mortality rate and maintaining medical treatment and health care service.

According to Table 3.7, China's Taiwan, Israel,

Table 3.7 Rankings of Human Capital and Innovation Capability Indicator for Asian Economies 2012

Economy	2012/37		2011/37	Economy	2012/37		2011/37
	Ranking	Score	Ranking		Ranking	Score	Ranking
China's Taiwan	1	66.82	1	Iran	20	20.79	19
Israel	2	54.06	3	Indonesia	21	17.80	31
New Zealand	3	53.65	6	Turkey	22	17.26	21
Korea, Republic of	4	52.08	2	Bahrain	23	16.86	18
Singapore	5	43.47	5	Oman	24	15.16	24
Australia	6	42.82	7	Armenia	25	12.39	22
Japan	7	38.73	4	India	26	11.83	26
China's Hong Kong	8	34.73	8	Vietnam	27	11.45	33
Saudi Arabia	9	33.50	14	Georgia	28	11.44	27
Kyrgyzstan	10	31.36	16	Nepal	29	10.30	36
Malaysia	11	31.31	10	Kuwait	30	9.49	29
China, People's Republic of	12	29.23	9	Azerbaijan	31	8.79	30
Jordan	13	29.05	17	Timor-Leste	32	7.89	11
Mongolia	14	28.99	15	Sri Lanka	33	2.87	32
Thailand	15	27.71	12	Bangladesh	34	1.58	35
Kazakhstan	16	26.49	23	Qatar	35	1.26	25
United Arab Emirates	17	26.37	20	Pakistan	36	0.73	34
Tajikistan	18	24.10	28	Cambodia	37	0.63	37
The Philippines	18	22.78	13				

New Zealand, Republic of Korea and Singapore perform better in human capital and innovation capability rankings. These economies continued to show high expenditure on education and high level higher education system, active patents application, hi-tech product export and technology innovation. After them, there are Australia, Japan, China's Hong Kong, Saudi Arabia and Kyrgyzstan, ranking 6th to 10th. Japan falls to 7th from 4th due to decreased strength in human capital input and the innovative product export. Its granted patent applications per 1,000,000 people and high-tech exports dropped. Kyrgyzstan leaps in the ranking due to improvement in education and international patent applications. India remained at 26th. But this doesn't necessarily mean that the country lacked efforts in this aspect. Actually it has made great progress in higher education, education expenditure, per-capita patent application and hi-tech product export. But due to its large population base, low social development level, and smaller improvement compared with other economies, its ranking of this aspect doesn't make an obvious change. It's also noted that China ranks 12th, down three positions, which was caused by declined high-tech exports under the influence of China's overall export slowdown.

3.3 Analysis of the Evaluation Results of Asian Economies Competitiveness 2012

3.3.1 Emerging Industrialized Economies

In the ranking of the competitiveness of Asian economies in 2012, four emerging industrialized economies, namely China's Hong Kong, Singapore, China's Taiwan and Republic of Korea, traditionally known as "Four Asian Tigers" are still in top four.

In 2011, although the Asian economic growth deceased to its lowest level since 2008, Asian economy remained the main engine of the global economic growth. As one of Asia's important transportation, finance and tourism centers, China's Hong Kong still has an special edge in commercial and administrative efficiency, infrastructure and social development level, though its economic growth has slowed down. Judging from the five dimensions of competitiveness evaluation, China's Hong Kong has first-class infrastructure and a stable macroeconomic environment that both rank first, as well as its high commercial and administrative efficiency (ranking the 4th). Meanwhile, social development level and innovation capability of China's Hong Kong is in the 6th and 8th position. From the aspect of overall economic strength, China's Hong Kong sustained strong economic growth, which generated jobs vacancies in various industries. With the number of the employed recorded new high, its unemployment rate after seasonal adjustment dropped to 3.2%, in the third quarter of 2011 the lowest level in 13 successive years. Furthermore, the labor wages and income achieved the biggest increase since the mid-1990s. In the view of economic health, China's Hong Kong's government debt to GDP ratio remains at a relatively low level of 33.86% and inflation rate a high level of 5.3% with signs of receding. As an international well-known free trade port, China's Hong Kong adopts zero tariff policy. The overall low taxation helps to enhance its role as an important international export-import and transit center. Both export to GDP ratio and import to GDP ratio are over 200%. Especially as an RMB offshore center, China's Hong Kong plays an important role in the transit trade of Chinese goods. All of the above factors account for the top position of China's Hong Kong in comprehensive rankings of Asian competitiveness. As in previous years, China's Hong Kong still appears insufficient in human capital and innovation capability. Compared with China's Taiwan, Israel, Singapore and Republic of Korea, the enrollment of higher education and education expenditure to revenue ratio of China's Hong Kong is relatively low, which may hamper its innovation industry. In 2012, the granted patents application per capita and high-tech exports improved much, but still lagged behind China's Taiwan, Singapore and Republic of Korea (See Figure 3.1).

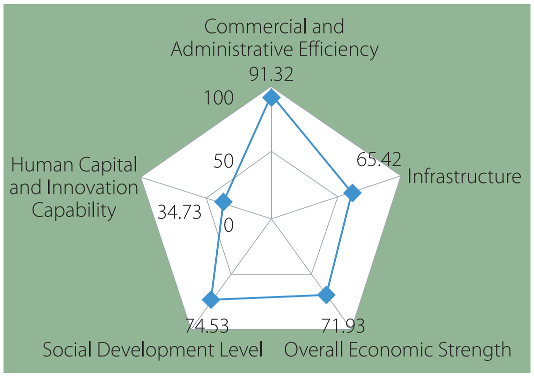

Figure 3.1 Radar Map of the Competitiveness of China's Hong Kong

Singapore remains the most dynamic economy in Southeast Asia. Despite being outstripped by China's Hong Kong by a minor 0.74 point in score, Singapore still ranks high in the five partial lists. First, Singapore has efficient commercial and administration sectors. It keeps its edge with straightforward procedures for corporate approval and establishment, which are clearer and cost less compared with other economies in Asia. Singapore is an important international port city, and has first-class infrastructure in highways, aviation, telecommunication and Internet facilities. In terms of overall economic strength, Singapore, like other export-oriented or transit-oriented economies, was badly affected by the global economic downturn, with a decreased growth rate of 4.9% in 2011. The IMF predicted that Singapore's economic growth would slow to 2% in 2012. However, the economy kept a low unemployment rate and total tax burden. Singapore's national savings rate stayed at 44.4%, a positive figure. Its industrial structure based on industry and services and open stable financial system also accounted for its second place ranking. Singapore's government faced high debt risks, with government debt accounting for 100% of GDP in 2011. From the social development aspect, Singapore continued to make a slight progress, especially in the fields of health service, elementary education and infectious disease treatment, which upped its ranking to 5th. Nevertheless, Singapore's hospital beds still appear insufficient compared with Japan and Australia. On the positive side, the country has an edge in higher education, patent application per capita and hi-tech output, which keep Singapore's human capital and innovation ranking at 5th (See Figure 3.2).

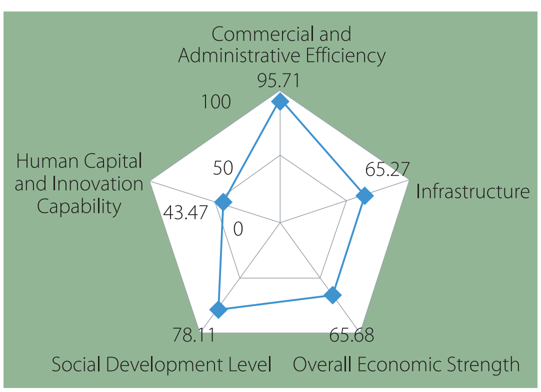

Figure 3.2 Radar Map of Singapore's Competitiveness

Distinguished from export-oriented China's Hong Kong and Singapore, the biggest advantage for China's Taiwan lies in manufacturing, especially the high-tech manufacturing industry. China's Taiwan benefits from its continuous efforts in advantaged education and innovation cultivation. It still tops the human capital and innovation capability ranking, with the enrollment rate of higher education above 80%, which is considered as the foundation of innovation vatality. Regarding utility patent application per capita, China's Taiwan is second to none. Although its high-tech exports reduced in 2012 due to the slowed world economy, China's Taiwan still outperformed other Asian economies in this same regard. The overall economic strength of China's Taiwan ranks 5th. In 2011, it maintained a stable economic growth rate of 4% against Asia's economic slowdown. Despite its growth increasing at a slow pace, the unemployment rate of China's Taiwan is at 4.4%, inflation rate 1.4% and government debt to GDP 40.8%, all being comforting signs. China's Taiwan is 5th in infrastructure. In social development level, it remains at 10th. It's worth mentioning that its commercial and administrative efficiency ranks 14th due to its simplified approval procedure for establishing enterprises (See Figure 3.3).

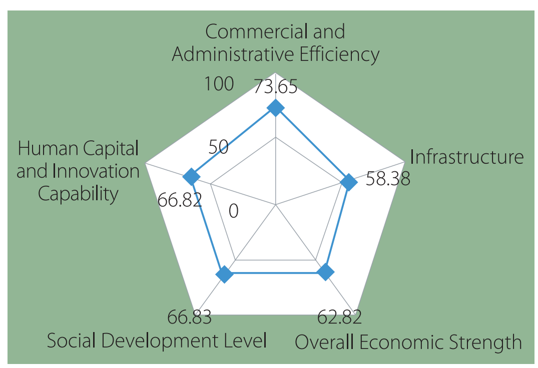

Figure 3.3 Radar Map of the Competitiveness of China's Taiwan

Republic of Korea retains the 4th position in the comprehensive ranking. It has the edge in human capital and innovation capability. On one hand, it has a sound higher education and training system, with high enrollment in higher education and annual public education expenditure over 4%. On the other hand, Republic of Korea has large science and technology development teams and prominent high-tech exports owing to its national policies on technology and other important industries. Its international patent numbers deceased, but is still strong as a whole. It's noted that Republic of Korea improved its commercial and administrative efficiency, with smaller cost and simpler procedures for establishing enterprises in the country. This invigorated its domestic enterprises and enabled it to stand at 8th in ranking. As for social development level, Republic of Korea ranks 7th, with sound performance in elementary education, infectious disease treatment and health services, despite insufficient surgeon service. Republic of Korea is in the 7th position in infrastructure, same as the previous year. In terms of overall economic strength, the economic growth rate of the Republic of Korea dropped to 3.6% in 2011 from 6.3% in 2010, and was predicted to slide to 2.7% in 2012. However, there are positive numbers in its inflation rate and unemployment rate staying at 4.0% and 3.4%, and a national savings rate at a medium 31.8%, all positive signs of a stable macroeconomic situation and lower overall risks. In all, Republic of Korea follows China's Taiwan closely and ranks 4th (See Figure 3.4).

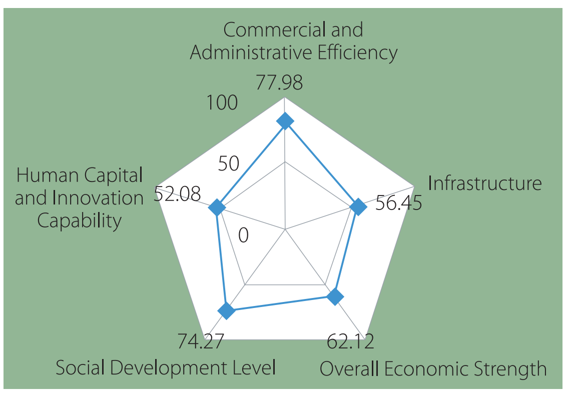

Figure 3.4 Radar Map of Republic of Korea's Competitiveness

3.3.2 Traditional Advanced Economies

Japan's economic growth rate dropped dramatically in 2011—the first negative growth since 2008. Despite long-term easy monetary policy, Japan still slumped into deflation. Meanwhile, Japanese government's public debt burden is serious and risks a crisis. The IMF predicted that Japan's economic growth rate would drop to 2.2% in 2012, owing to its post-earthquake and tsunami reconstruction. After demand recedes, Japan's economic growth rate will decline to 1.2% in 2013. Currently, the country is gearing up for easier monetary policies and higher consumption tax rate. These measures will support its economic growth and partly relieve deflation, but Japan still faces high economic operational risk. Therefore, Japan ranks 16th overall. As a traditional developed economy, Japan takes advantages in infrastructure and social development level, which respectively rank 3rd and 1st, and is especially outperformed in health service, infectious disease treatment and elementary education fields. Japan has solid higher education base, bringing up a great number of scientists and engineers, such as Kyoto University's professor Shinya Yamanaka, winner of the 2012 Nobel Prize for medicine, the 19th Nobel winner in Japan. So far, Japan has the most Nobel winners in Asia. From the perspective of human capital and innovation capability, Japanese enterprises value technology innovation and intensive research input against the economic slowdown. Japan's international patent application quantity leads the way in Asia. Its high-tech and creative industry exports have strong competitiveness, ranking 7th. Comparatively speaking, Japan's commercial and administrative efficiency appears inferior to Singapore and China's Hong Kong. Japan requires complex procedures for corporate approval and establishment, equating to more cost and time and ranking 16th in this index. We can say Japan's competitive weakness lies in overall economic strength and commercial and administrative efficiency. Japan dropped to 9th from 4th in the comprehensive ranking (See Figure 3.5).

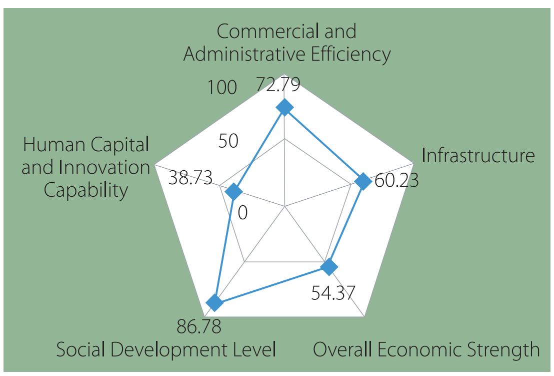

Figure 3.5 Radar Map of Japan's Competitiveness

Israel is known as an entrepreneurial country, where innovation is a universally accepted concept. This permeates into various industries in a country where people are encouraged to be innovative, without any notion of hierarchy. Intellectual property and patent application rights are best defended in Israel, riding high in high-tech and creative industry exports. With years of intensive education input, a great number of scientists and engineers are brought up who shape Israel's thriving economy and society and furthermore develop edges in agriculture, secondary industries, telecommunication, military and medical industries. Israel also ranks second in human capital and innovation capability. Despite its small territory, Israel is a worldwide tourism destination, equipped with good infrastructure, establishing its rise to 11th. Nevertheless, Israel's weak commercial and administrative efficiency and economic environment ranking fall to 17th from 15th, with no sign of optimization in enterprise approval procedures and time, despite slightly reduced cost. Comparatively speaking, Israel's disappointing economy was affected by global economic slowdown and regional issues, such as turmoil in Syria and Iran's nuclear program, as well as reduced exports to the European Union, the US and Asian economies. Israel's economic growth was stuck at 4.6% in 2011, and may slow to below 3% in 2012. In regards to the economic health, Israel's price pressure is relaxing, due to the declined economy and a reduced consumption demand. Its inflation rate maintained at 3.45% in 2011 and could keep decreasing in 2012. It's even possible that the inflation rate came between 1% and 3% within the year. The unemployment rate though, a bit higher, stood at 7% in 2011 and may worsen with the drooping economy in 2012. Israel ranks 17th in the overall economic strength, far behind its achievements in human capital and innovation capability. In the comprehensive ranking, Israel falls to 11th (See Figure 3.6).

Located in Oceania, both Australia and New Zealand are advanced economies, boasting efficient administration, good infrastructure and sound social and innovative environments. From the perspective of commercial and administrative efficiency, both Australia and New Zealand encourage business and attract investment, ranking 2nd and 3rd respectively. Approval procedures are fewer in the two countries, where less time and cost is needed to establish new enterprises. In infrastructure, Australia keeps its advantages and ranks 6th, while New Zealand

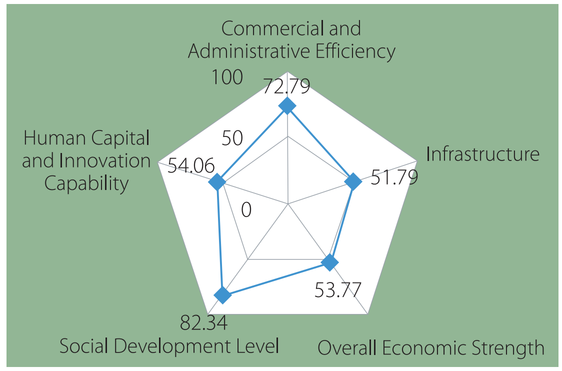

Figure 3.6 Radar Map of Israel's Competitiveness

drops to 12th from 9th, due to slow improvements, especially in terms of traffic facilities, electric utilities and telecommunication. In human capital, New Zealand enhanced its public education and lifted its higher education enrollment. As for innovation, apart from the great number of international patent applications, New Zealand is strong in high-tech exports and ranks 4th up from 6th. New Zealand also has traditional competitiveness in higher education, personnel training and innovation. Regarding social development level, both Australia and New Zealand performed well in infectious disease control, medical service, elementary education and traffic safety, ranking 3rd and 4th respectively. As a whole, Australia performed better than New Zealand in overall economic strength. Australia's economic growth rate was 2.1 and New Zealand 1.3% in 2011, both staying relatively low. However, the two countries have healthy economies, mild inflation and unemployment, low government debt and balanced foreign trades. The two countries' macroeconomic situations are recovering and the economic rates were expected to reach 3.3% and 2.2% in 2012. In comprehensive ranking, Australia is in 8th and New Zealand 18th (See Figure 3.7 and 3.8).

3.3.3 Asian BRIC Countries

In Asian economies, both China and India are BRIC members and often compared with each other. China's overall development has been faster than India in recent years, despite India has made remarkable improvements in certain areas. China's comprehensive ranking is 10th, while India jumps from 32nd to 30th. After China replaced Japan and became the world's second largest economy in 2010, its economic aggregate has remained on a stable increase, accounting for 14.2% of the global

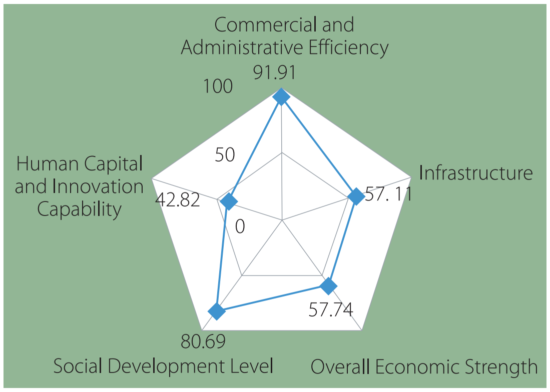

Figure 3.7 Radar Map of Australia's Competitiveness

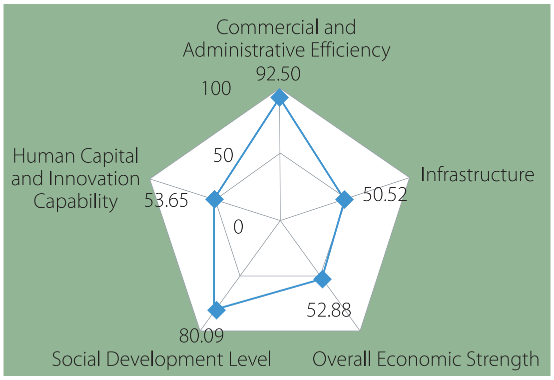

Figure 3.8 Radar Map of New Zealand's Competitiveness

GDP in 2011, up for 0.6%, which makes it a giant in Asia. However, affected by the continuous European debt crisis and weakened US economy, China's economic development slowed down in 2011, with its economy dropping to 9.2% from previous double-digit growth and would dropped to 7.8% in 2012. Apart from this reduced economic growth, China's annual inflation rising above the 3% limit stays at a high level of 5.4%. Despite local governments' debt risks, the total government debt is considered safe, only accounting for 25.8% of GDP. Sovereign debt crisis is not in sight. Coupled with a 51.3% national savings rate, China's economic growth potential is still optimistic with controlled risks. All count towards China's 4th position in the overall economic ranking. In recent years, infrastructure investment has played an important role in China's economic growth, especially the big-scale highway and aviation construction that greatly uplifts its ranking in this aspect, to the 14th position. Meanwhile, China put more effort into income distribution, housing, medical service and environment protection, and made huge progress. Despite many social contradictions, China remains at 13th among 37 Asian economies. As for human capital and innovation capability, China slides to 12th, mainly because of reduced exports of high-tech products (See Figure 3.9).

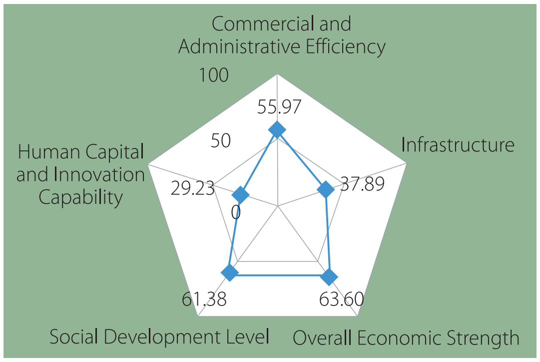

Figure 3.9 Radar Map of China's Competitiveness

India's economy is seeing quick growth in recent years and its economic growth reached 7% in 2011 against the economic slowdown in Asia. Although India's economic growth is not as strong as China's, it has still made remarkable development in Asia. Now India has a strong momentum of economic development and embraces a great future despite its small base. On the contrary, China's economic development is subjected to many restrictions. It can be reflected from the competitiveness ranking, where India makes a big leap, while China keeps its original position. In overall economic strength ranking, apart from the 8.6% high inflation rate, India's economy is comparatively healthy, with controllable government debt and a low unemployment rate of 4%. Its overall economic strength has risen to 17th. Due to less improvement in highway, aviation and electricity construction, India's infrastructure ranking is 30th, a result of India's low commercial and administrative efficiency, itself in the 35th position. Enterprise establishing approval procedure also requires hefty time and cost. India's human capital and innovation capability is strengthened as America's main information technology outsourcing country. Although India still ranks 30th in this aspect, it cannot conceal its progress in higher education enrollment and high-tech exports. An important weakness of India lies in social development level, ranking 33rd (See Figure 3.10).

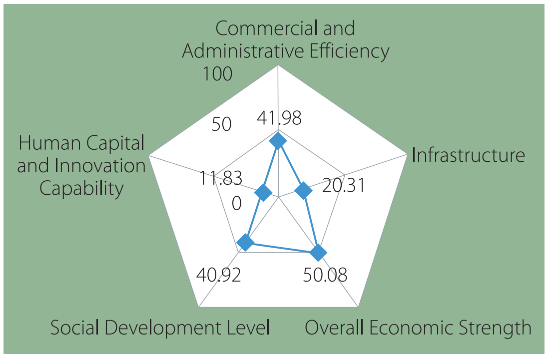

Figure 3.10 Radar Map of India's Competitiveness

3.3.4 ASEAN Emerging Markets

The ASEAN markets are suppressed by the global economic slowdown. Apart from Singapore, the competitiveness rankings of other ASEAN economies are diversified. Malaysia performed the best in 2012 in the "Little Four Tigers of Asia,"(Malaysia, Thailand, Indonesia and the Philippines) but its ranking still slides to 16th, and positions of Thailand, Indonesia and the Philippines are at 19th, 24th and 26th respectively. As for overall economic growth, the four "Tigers" are all relatively promising, with Malaysia in 11th, Thailand 15th, Indonesia 19th and the Philippines 21st. Both Malaysia and Thailand's disadvantages lie in infrastructure and social development level, the former rankings 18th, 21st in the two indicators and the latter 26th, 29th. Apart from economic development potential, Indonesia's competitiveness appears weak. Its commercial and administrative efficiency ranks 30th, infrastructure 29th, social development level 25th and human capital and innovation capability 21st. Except for human capital and innovation capability, the Philippines' commercial and administrative efficiency rank lowered to 33rd, infrastructure 25th and social development level 28th, which drive down its comprehensive competitiveness (See Figure 3.11-3.14).

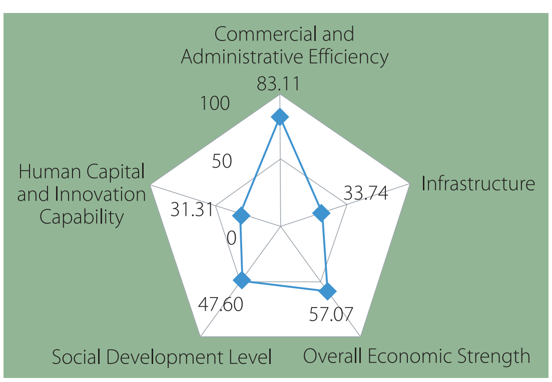

Figure 3.11 Radar Map of Malaysia's Competitiveness

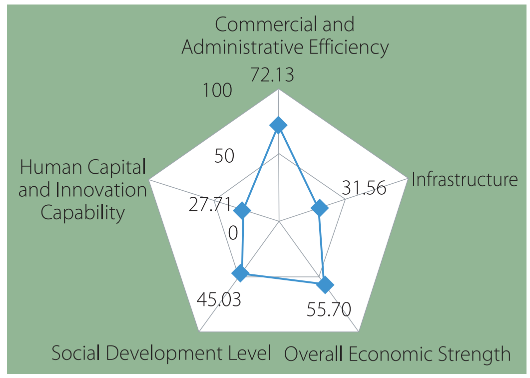

Figure 3.12 Radar Map of Thailand's Competitiveness

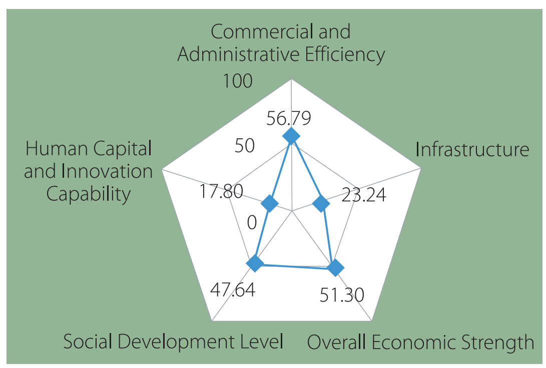

Figure 3.13 Radar Map of Indonesia's Competitiveness

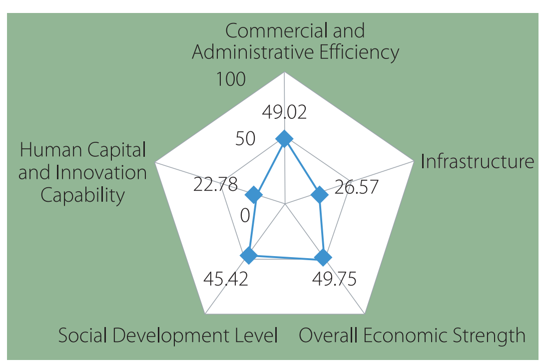

Figure 3.14 Radar Map of the Philippines' Competitiveness

Apart from the "Little Four Tigers of Asia" and Vietnam whose competitiveness ranks 23rd, other ASEAN members such as Bangladesh, Nepal and Cambodia all perform weak, ranking at 32nd, 33rd and 37th respectively. Central Asia's Tajikistan, South Asia's Pakistan and Southeast Asia's Timor-Leste also rank poorly, ranking respectively at 34th, 35th and 36th.

3.3.5 Resource-Export Economies in West and Central Asia

For ASEAN emerging economies, resource export economies in West and Central Asia excel in competitiveness rankings, especially for the United Arab Emirates at 6th, followed by Bahrain, Qatar, Kuwait, Saudi Arabia and Kazakhstan, ranking 12th-15th (See Figure 3.15-3.20). Oman and Turkey are in the 17th and 18th positions.

Middle Eastern and central Asian oil export countries benefited from the oil price hike in 2012. Based on data from BP, the global crude oil price rose to USD111.3 per barrel in 2012. The rise of oil prices contributed to the Middle East's oil export economies and pushed their rankings upwards. The rankings of the United Arab Emirates, Saudi Arabia, Bahrain, Qatar, Kuwait, and Kazakhstan outstripped

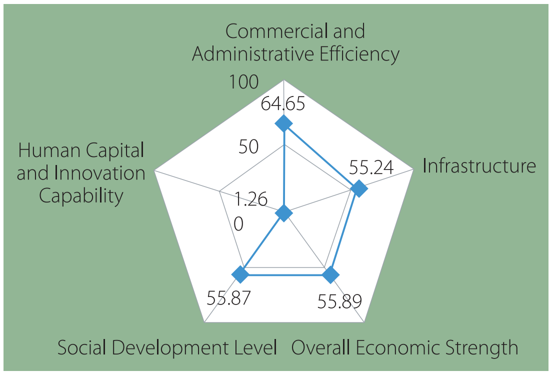

Figure 3.17 Radar Map of Qatar's Competitiveness

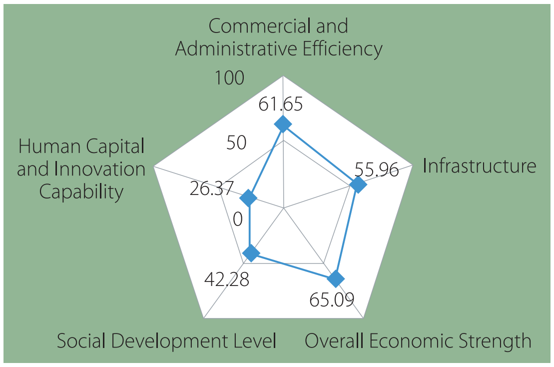

Figure 3.15 Radar Map of the United Arab Emirates' Competitiveness

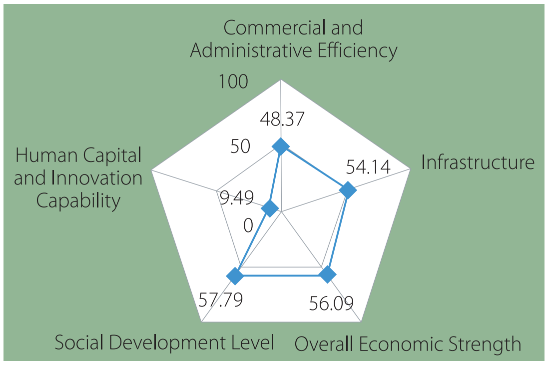

Figure 3.18 Radar Map of Kuwait's Competitiveness

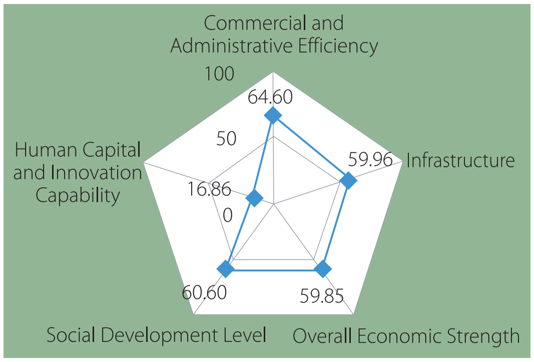

Figure 3.16 Radar Map of Bahrain's Competitiveness

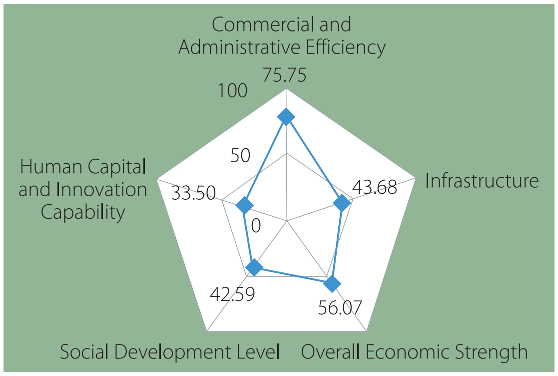

Figure 3.19 Radar Map of Saudi Arabia's Competitiveness

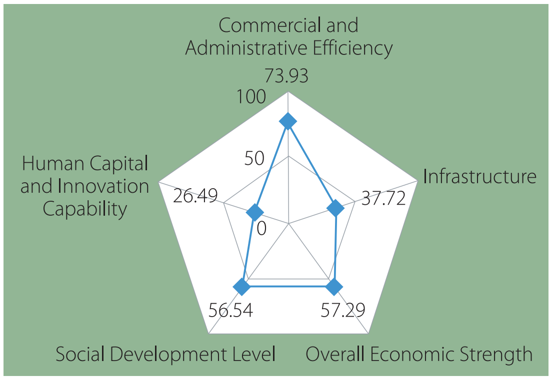

Figure 3.20 Radar Map of Kazakhstan's Competitiveness

ASEAN emerging economies. Especially the United Arab Emirates who come in at 6th thanks to its rapid economic development, healthy economic environment, low inflation and unemployment rate, a government debt to GDP standing at 16.9% and national savings over 30%. The United Arab Emirates' overall economic strength has surpassed China up to 3rd. Amongst other Middle Eastern and Central Asian resource-export economies, Bahrain ranks 7th, Kazakhstan 9th, Oman 10th and Kuwait, Saudi Arabia and Qatar from 12th-14th. Jordan performs poorly amongst Middle East economies at 24th.

Apart from sound economic development, Middle Eastern and Central Asian resource-export economies have good infrastructure, including high-quality traffic facilities, telecommunication, electricity and water supply. Bahrain ranks 4th in the infrastructure aspect, followed by the United Arab Emirates, Qatar and Kuwait ranking from 8th to 10th. Saudi Arabia, Kazakhstan and Oman are in the 13rd, 15th and 16thpositions followed by Turkey.

It should be noted that though the resource-export countries perform poorly in commercial and administrative efficiency, social development level, human capital and innovation capability. Take United Arab Emirates for example: it ranks 27th in commercial and administrative efficiency, 32nd in social development level and 17th in human capital and innovation. In commercial and administrative efficiency, Georgia and Kyrgyzstan rank higher, in the 5th and 7th positions. Among resource-export economies, Saudi Arabia and Kazakhstan rank 10th and 12th. In the aspect of social development level, Bahrainis ranks 14th, while Georgia, Azerbaijan and Armenia rank 8th, 9th and 11th.

Comparatively speaking, those economies' performances in human capital and innovation capability are better than in social development level. Saudi Arabia jumps to 9th and Kazakhstan climbs to 16th, followed by the United Arab Emirates, Bahrain and Oman, in the 23rd and 24th position. Kuwait and Qatar rank low, in the 30th and 35th positions. The countries' poor performance in this aspect also lowers their competitiveness. Those countries' economic growth are merely driven by oil export and are highly sensitive to the international petroleum price fluctuations. Especially considering their poor record in human capital and innovation capability, their competitiveness ranking will likely only change with their future resource-export capabilities.

It is worth mentioning that Iran, an oil export country in the Gulf, slides dramatically in the ranks due to Western countries' sanctions brought on by Iran's nuclear issues. The international sanctions not only slowed their economy by blocking oil export, but deteriorated its inflation and unemployment. Iran's inflation rate was 21.3% in 2011. Iranian rial depreciated greatly and Iran's unemployment rate was 12.3%. Despite Iran's relatively low government debt and high national savings, its economic strength was crippled and ranked 34th, coming only before Pakistan, Cambodia and Kyrgyzstan. A slowed economy, inflated risks and international sanctions account for Iran's low ranking in the social development level aspect, the 35th position, only before Timor-Leste and Pakistan. Due to its comparative strength in commercial and administrative efficiency, infrastructure, human capital and innovation capability, Iran's comprehensive competitiveness ranking drops to 28th.