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Risk and Avoidance: A Comparative Study of the Middle-income Trap in China, Malaysia and South Korea

Fu Hong Yan[a,b*], Shi Yu Jiang[b,c]

[a]*University Putra of Malaysia, Putra Business School, PhD, Malaysia*
[b]*Hebei University, China*
[c]*Faculty of economics and managent, University Putra of Malaysia*

*Corresponding author: fuhony@gmail.com

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Abstract

By comparing the practice of how Malaysia and Korea solving the middle-income trap, this paper analyses the Chinese economic condition and development trends; discusses how should China face the pending problems; and finally provides suggestions on avoiding the middle-income trap and successfully confronting this challenge.

Keywords: Middle-income trap; China; Malaysia; Republic of Korea

1.0 FOREWORD

International experiences indicate that when a country's GDP per capita reaches the level of US$ 3000-10000, this country has met its period of important opportunity to become a high income country as well as a time of contradictions(Wing Thye Woo, 2008). Once the country's economy stagnates, it may fall into the so called "middle-income trap". China has been the fastest economy since the reform and open policy and is now the second largest economic entity. With a current US$ 4400 GDP per capita, China has just joined the middle income country club. But in recent years, problems that accumulated during the fast growth start to be prominent. Also in 2012, China's economic growth showed an apparent decelerating trend which has led to the discussion of whether china will fall to the middle-income trap (Cai Fang 2007). To analyze the middle-income trap problem, Malaysia and the Republic of Korea's experience are most representative. By cultivate the middle class and switch to the knowledge-based economy, Korea successfully crossed the trap; whereas Malaysia possesses some basic characteristics of typical trapped country. By comparing the practice of how Malaysia and Korea coping the problem, this paper analyses the condition of Chinese economy; discusses how should China face the pending problems; and hopefully provides suggestions on avoiding the middle-income trap.

2.0 DEFINITION OF "MIDDLE-INCOME" AND FEATURE

Many east Asian countries have experienced fast development for decades, and stepped into middle income countries. But the following might be a trap. The World Bank East Asia Economic Development Report 2006 brought up the concept of "middle-income trap". The basic concepts includes: few countries successfully manage the transition from low to middle to high income; the middle-income trap refers to a situation whereby a middle-income country is failing to transition to a high-income economy. It can neither compete with a low-income country due to rising labor costs nor with a high-income country on cutting edge technology. One economy could not repeat or get rid of the development pattern of becoming a high- income country, so it's easy to stuck in stagnation and the GDP per capita couldn't break US 10000. In this period, contradictions start to erupt, the old increase mechanism and development pattern could not effectively cope with the systematic risks. There may be extreme economic fluctuation and stagnation. Many economies have been stuck in a middle-income trap and unable to become high-income countries(Allen, F., Qian, J., Qian, M. and Zhao, M, 2009).

The middle-income trap refers to a situation whereby a middle-income country is failing to transform the economic growth pattern and leads to a lack of drive of increase and reach a point of stagnation. According to the World Bank, China's GDP per capita reached US 4400 in 2010, which was above middle-income country level. Many developing countries in the world today have the so called "middle income trap" problem.

Countries like brazil, Argentina, Mexico, Chili and Malaysia stepped into middle-income since the 1970s, but up till 2007, their GDP per capita still struggling around 3000 to 5000 and without economic drive and hope(Haber, Stephen., and Aldo Musacchio. 2010).

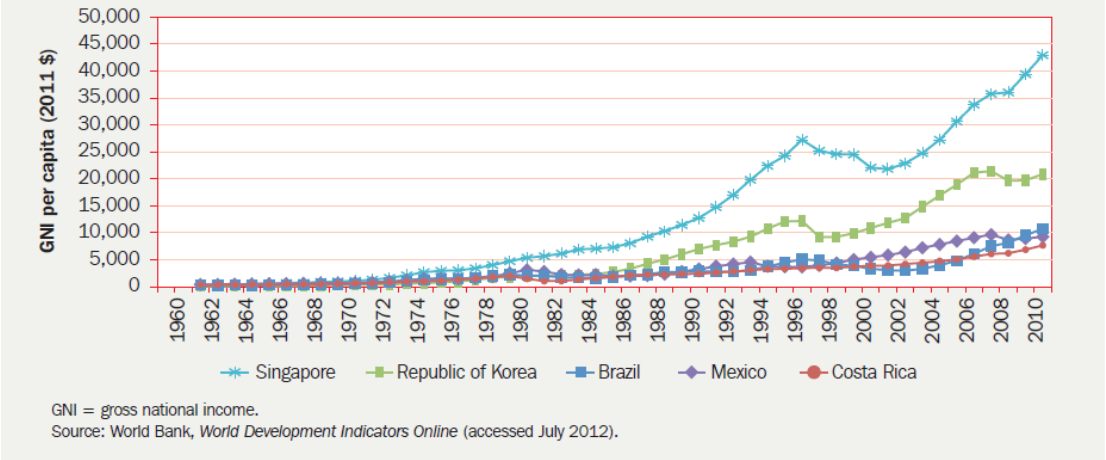

Figure 1 Middle-income trap: selected Asian and Latin American economies, 1960–2010

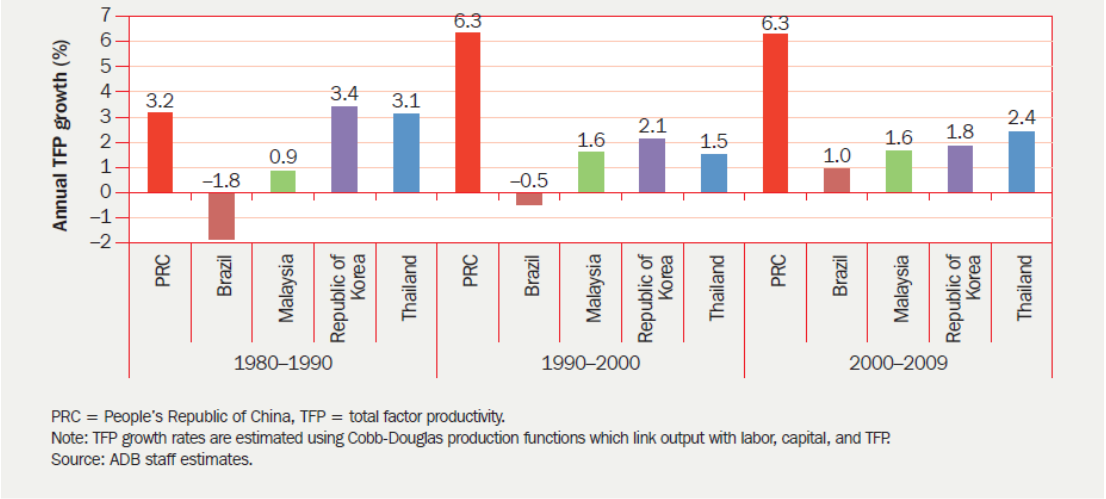

Figure 2 Aggregate total factor productivity growth, selected economies, 1980–2009

■3.0 ISSUES AND CHALLENGES FACING CHINA

Thirty years of reform and open has promised a fast and stable increase in economy and residents' income. China has developed from a low income country with GDP per capita less than 300 into a middle income one. With such achievement, china also faces the risk of stuck in the "middle income trap". However, such risk appears certain particularities in China.

3.1 Problems Facing China's Economic Development

First, China's increase of the income distribution gap accompany with the absolute revenue increase among social groups (such revenue increase depends on the super currency and inflation therefore the gap between rich and poor also increased) Since the reform and open police, the income distribution gap experienced a decrease and then increase trend; however, when the gap increases, the all social group revenue showing growth. The risks brought by income gap has been reduced by the overall revenue growth(Huang, Haizhou and Shulin Wang. 2004).

Second, the relatively slow pace of urbanization reduced some prominent urban problems. Due to the household registration system, China's urbanization is behind its economic level, so China has no urban slum problems like the Latin American countries do. Although the sluggish in urbanization costs some opportunities in development, it does provide sustainability to the urban economic growth. Also, there is a follow-up effect of economic growth in the unbalanced urbanization. From this point of view, the risks brought by the problems of urbanization are also reduced.

Besides, China's industrial restructuring breeds the greatest risk of economic development. Its comparative advantage industry is labor-intensive and resource-intensive industries while its industrial structure must be upgraded to meet the demand of further economic growth for rising labor costs and resource prices after entering the middle-income level. It is a huge challenge and the greatest risk for China to upgrade the industrial structure in this stage.

Last, the continuing expanded and deepened external economic relations results in the frequent shock to China on account of international economic fluctuations. After the reform and opening, the Chinese economy and the world economy are

becoming increasingly frequent and close(Luo, Yadong, Qiuzhi Xue, and Binjie Han. 2010). With the expansion and deepening of the external economic relations, the economic relations of China and the outside world turn to be more complex. At present, China has become the world's second-largest trading nation and the biggest exporter, which raises the dependence on external economies as well as produces increasing trade friction owing to the change in the status of the external economic relations.

3.2 China's Risk of "Middle-Income Trap"

First, the technical level of productivity of China has a large gap compared with developed countries. Despite its high-speed growth, China's labor productivity is only 10% of that in the U.S. in 2009. Although China is the world's largest exporter of technology products, 80%of its foreign trade is processing industry with low-added value(He, Wei and Marjorie A. Lyles. 2010). Industrial upgrading requires a large number of innovative enterprises, but the scale of Chinese private enterprises are relatively small and the incentive mechanism of state-owned production efficiency could be improved.

Next, China's low-cost advantage will reduce for rising wages and an aging of population. In recent years, the growth rate of China's real wages exceeds that of labor productivity. Coastal area begins to appear labor shortages and rising wages. China is entering the Lewis turning point and the demographic dividend gradually disappears because of aging population.

Furthermore, the sources of economic growth present an imbalance state: the residents' consumption lacks in demand aspect and the development of service industry lags relatively behind in supply aspect. The imbalanced economic structure largely reflects structural reform is not in place. For instance, factor price distortion leads to high rates of investment; over-investment of state-owned enterprises and local governments; delayed development of the service industry caused by market access restrictions and a low degree of urbanization; lack of exchange rate flexibility brings about China's continuous trade surplus, global imbalances and trade protectionism.

Finally, income gap is becoming wider. China's Gini coefficient was only about 30 at the beginning of reform and opening while it reached 43.4 in 2008, a higher than medium level in Asia. Although advances in technology and the global division of labor may lead to the widening income gap, the main reasons of China's problem are that the economic reforms are not in place: restriction of the household registration system, rent-seeking opportunities produced by a large number of administrative interventions in the allocation of resources and the lack of government public input and so on.

Therefore, the risk of "middle-income trap" that China confronts challenges future growth of Chinese economy thus must be sought a way to get rid of besides the different characteristics compared with other middle-income countries.

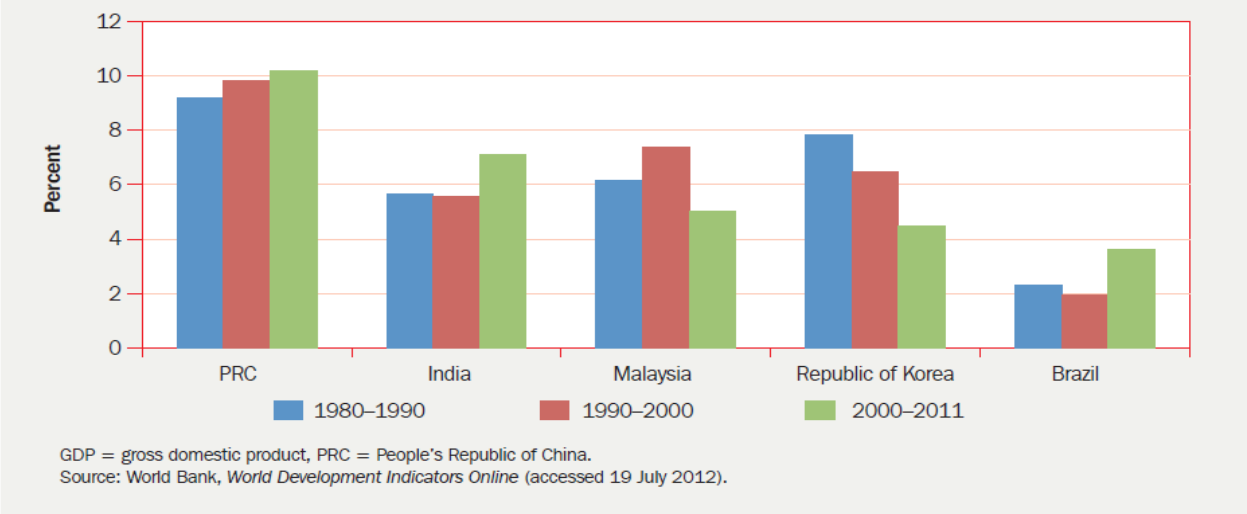

Figure 3 Average annual GDP growth, selected economies, 1980–2011

■4.0 PRACTICES AND EXPERIENCE OF SOUTH KOREA AND MALAYSIA

4.1 Successful Experience of South Korea to Deal with the "Middle-Income Trap"

South Korea has successfully crossed the "middle-income trap " by cultivating the middle class as well as transforming to the knowledge economy, said by a report entitled "Asia 2050: Asian Century" from the Asian Development Bank (ADB) on October 25, 2011. The report highly evaluates that the popularity rate of higher education in Korea is up to 95%, which surpasses that of the U.S, 82%; research and development expenses is taking 3.4% of GDP, ranking the third all around the world; economy surmounts the "catch-up development" and achieves the economic development oriented on entrepreneurship and technological innovation(Seoghoon Kang, 2002).

First, adjust the strategy timely to achieve sustainable development. In the late 1980s, South Korea put forward the policy objective of the "advanced industrial structure", accelerating changing from extensive development strategy relying on increased capital investment and maintenance of cheap labor into enhanced competitiveness relying heavily on increased research and development investment and improved industrial technology content while adhered to the export-oriented economic development strategy in accordance with the changes in the international environment and its economic development. Korea laid an important foundation to seize the initiative and achieve sustainable development in the global industrial restructuring process: it strived to develop technology

and knowledge-intensive industries with a core of electronics industry, rectified the low value-added industries such as textile, fiber and dyeing, gradually transferred industrial manufacturing engineering like automobile, shipbuilding, machinery, electronics, iron and steel to the developing countries and grasped front-end engineering like research and development and back-end high-value-added engineering like marketing and after-service.

Second, transform government functions and strengthen the role of the market. South Korea take a government-led market economic model and the government has played a leading role in promoting economic development which once known as the "Republic of Korea Co. Ltd." In the early 1980s, South Korea began gradually to transform government functions for some deep-seated problems after long-term economic growth in high-speed. In 1985, South Korea enacted "Industry Development Act" in order to emphasize the role of the market from the legal level and reduce the governmental interference towards industrial policy. During the period of 1987-1992, Korea had implemented the Sixth and the Seventh Five-Year Plan which have one of main content that is transforming government functions actively, reducing direct intervention in the economy and decreasing significantly the policies and regulations restricting enterprise development. In 1993, Kim Young-sam government came to power and implemented "the new economic five-year plan "to give up the government-led model and promote the participation of nationals.

Third, promote scientific and technological innovation and value personnel cultivation. In the late 1980s, South Korea proposed "basing the country on science and technology" to displace "basing the country on trade" and "heavy chemical industry strategy". It formulated "long-term plan of science and technology development for the 21st century", enacted "Five-Year Plan to improve industrial technology (1989-1993)", proposing the switching the main part of technology development from the government to enterprises, and laid down "five-year plan of cutting-edge industry development" aiming at focusing on promoting the research of seven industries including microelectronics and new materials. South Korea launched a ten-year "G7 Project" in order to catch up with the level of seven western countries in the 2l century. The contribution rate of technical progress on the economic growth of South Korea was 12.84% in the 1970s, up to 18.7% in the 1980s and 39.54% between 1990 and 2002, according to the research of the Korea Industrial Development Institute. Meanwhile, as a national strategy, South Korea attached great importance to the promotion of education. Its governmental education budget maintained the share of GDP at more than 4% for a long time and processed 20-30% of the total government budget. From the 1980s, South Korea regarded the education reform as "one of the four national policy indicators "and developed primary and secondary compulsory education into the universal education gradually. It strengthened the educational cooperation with enterprises, concentrated on the development of vocational education, and popularized higher education vigorously, resulting in gross enrollment rate increasing from 14.7% in 1980 to 52% in 1995 and encouraged university to transform from education-oriented to research-oriented(Hong Doo-Seung,Kim Byung-Jo,Jo Dong-Gi, 2007).

Fourth, narrow the wealth gap and boost the balanced development. In the early 1980s, the Korean "prefer growth to distribution "model of development is widely criticized and social contradictions turned to be prominent. South Korea altered the fifth "economic development plan" to the "economic and social development plan", created "national welfare pension" and established a sound social security system. In 1988, "minimum wage laws" was carried out to make the level of manufacturing workers wages increase by 20% and 25% in the current year and the following year respectively even 90% in the consecutive six years(Kharas Homi,Geoffrey Gertz, 2010). It strengthened efforts to support agriculture and farmers and stimulated the development of urbanization, resulting in the proportion of agricultural population decreasing rapidly from 28.9% in 1980 to less than 15% in the 1990s and the overall urban-rural income gap restricting from 1:1.5 to 1:2. By industrial park planning, South Korea constructed airports, railways and ports and prompt the development of central and western regions convincingly according to the issue of excessive concentration of population and over-centralized industry. The Gini coefficient decreased from 0.39 in 1980 to 0.263 in 1991.

Table 1 Comparative performance on human capital attainment, selected economies, various years

	Secondary enrolment (% gross)	**Tertiary enrolment** (% gross)	**Public spending on education** (% of GDP)	**Average year of total schooling, 2010**	**No. of scientists and engineers** (per 10,000 pop.)
Argentina	88.5 (2009)	71.2 (2009)	6.0 (2009)	9.3	–
Brazil	105.8 (2005)	25.6 (2005)	5.7 (2009)	7.5	–
Chile	87.9 (2009)	59.2 (2009)	4.5 (2009)	10.2	–
PRC	81.2 (2010)	25.9 (2010)	3.6 (2009)	8.2	14 (2005)
India	63.2 (2010)	17.9 (2010)	3.0 (2008)	5.1	–
Indonesia	77.2 (2010)	23.1 (2010)	3.0 (2010)	6.2	–
Japan	102. (2010)	59.7 (2010)	3.8 (2010)	11.6	102 (2004)
Republic of Korea	97.1 (2010)	103.1 (2010)	5.0 (2009)	11.8	76 (2005)
Malaysia	68.3 (2009)	40.2 (2009)	5.8 (2009)	10.1	–
Philippines	84.8 (2009)	28.9 (2008)	2.7 (2009)	9.0	–
Thailand	79.2 (2011)	47.7 (2011)	3.8 (2010)	7.5	–
US	96.0 (2010)	94.8 (2010)	5.4 (2009)	13.1	91 (2002)

"–" means data not available, GDP = gross domestic product, PRC = People's Republic of China, US = United States.
Sources: World Bank, *World Development Indicators Online*; Barro-Lee Educational Attainment dataset; NBS, *China Statistical Yearbook 2010* and NBS, *China Statistical Yearbook on Science and Technology 2007* (all accessed January 2012).

4.2 Malaysia's Efforts for Coping with "Middle-Income Trap"

As one of the representatives of post-WW Ⅱ emerging market countries, Malaysia has the characteristics of a typical middle-income trap country. After independence in 1957, Malaysia began to catch up with the developed countries in the economy field. In 1970, the government proposed a new economic policy: the economic growth from relying on the manufacturing sector to the primary products sector, and successfully step into the ranks of middle-income countries in the 1990s. However, from the beginning of 1992, especially after the Asian financial crisis, Malaysia's economic growth began to slow down, the economic growth rate fell from the average 9.1% per year (1990-1997) to the average 5.5% per year (2000-2008), the economic development encountered enormous difficulties(Wing Thye Woo, 2011).

Currently, Malaysia is facing many challenges, including the lack of dynamism of the private sector, the lack of independent research, inadequate investment in human resources and brain drain. In 2010, Morgan Stanley, "Now that foreign policy which once lead Malaysia to be successful may become an obstacle to the development of the country. And only their own capital has interest in their own innovative industry, foreign capital usually doesn't do that. Unfortunately, private domestic investment in Malaysia is even lower than the level before the financial crisis in 1997." Lack of vitality of the private sector is the important reason for Malaysia's bottleneck of the development and middle-income trap. As for lack of vitality of the private sector, primarily because of more administrative expenses but less developmental expenses, the limited developmental expenditure, and projects and bank loans mainly flow into a few enterprises which relates with government bigwigs. In addition, the private sector suffered multiple exploit, meanwhile operate cost is also an important reason.

Since Malaysia's new Prime Minister Najib took his office in 2009, he tried to regain "the leader" position in regional economic field before "Asian Financial Crisis" in 1997, and finally get rid of the "middle-income trap" which troubled Malaysia for almost 20 years. In a series of reform initiatives and programs, the most systematic program is the new economic model which enacted in 2010, this model epitomizes the basic policy objectives of the current government of Malaysia and the overall economic strategy, and it will become strategic guidance document for Malaysia's reforms and economic development in the future 10 years. Therefore, according to this model, under the circumstances of "middle-income trap", the economic development is facing 5 questions: First, because of small economies, higher degree of opening to the outside world caused external shocks to domestic economy; Second, after Asian financial crisis, the economy lack of long-term growth momentum; Third, with the long-term expansion of the total economy, the domestic gap between rich and poor continues to expand; Fourth, the growth gradually stagnate, and it is difficult to enter the ranks of high-income countries; Fifth, domestic economy and social problems gradually increase the difficulty of the reform(Haber, Stephen., and Aldo Musacchio. 2005.).

Table 2 GNP per capita, Korea, Malaysia, China, 2000, 2005, 2010

	2000年	2005年	2010年
Korea	10550	14649	23000
Malaysia	4530	4701	7775
China	856	1352	4400

Unit: dollar Source: World Bank, World Development Indicators Online

From the analysis in the "plan", the crux of Malaysia's domestic economic problem is mainly related to "Middle-income trap". But in fact, in a long time since being "Middle-income economies" in 1992, Malaysia's average GNP level has been hard to breakthrough "Global high-income line". The dilemma of "Middle-income trap" has been the biggest obstacle of Malaysia's future economic development. Thus, keeping "Middle-income trap" company for 20 years becomes the logical starting point of future reform and the breakthrough point of new economic pattern of Malaysia. As to other Asian countries which has been in or will fall into "Middle-income trap", this is also an appeal and encouragement. Therefore, in this sense, Malaysia's "new growth pattern" takes a heavy burden and has a long way to go; the way ahead the struggle between Asian economies and "Middle-income trap" is also very long.

■5.0 CONCLUSIONS AND SUGGESTIONS

In order to cope with these challenges, and to avoid falling into "Middle-income trap", China needs to keep a good economic and social environment, including steady macro-economy and perfect financial system, social harmony and compatibility, environmental sustainability and stable external economic environment; to surpass low-cost superiority, realize industrial upgrades through science and technology innovation, and push the development of knowledge-based economy; to further reform, including reform of the enterprises, production elements markets and financial system, and push the development of urbanization and service industry so as to advance the economic restructuring.

5.1 Pushing Equitable Distribution is Expected to be the Sticking Point to Cultivate New Basis for Sustainable Growth

China has accumulate comparatively large production capacity after 30 years' high-speed economic growth, and manufacturing even gain the title "World's workshop". Thus, Chinese economy's sustainable development has increasingly highlighted the status of demand particularly consumer demand, which has put forward new requirements for the income level and income distribution of resident, i.e. not only has China to promote the income level of resident, but also has to narrow the income gap. In terms of China, various internal and external economic imbalances emerged currently are all related to the income level and distribution gap of resident, and the promotion of income level and the narrowing of distribution gap of resident is the important foundation of the upgrading of industrial structure. More importantly, the sustainable growth of China's future economy needs stable environment for social development, which must be guaranteed by narrowing income distribution gap and realizing fair distribution. For this, the top choice of avoiding China falling into "Middle-income trap" is to rescale current national income distribution in nation, enterprise and resident, and reverse the trend of expansion of income

distribution gap till ultimately narrowing income distribution gap.

5.2 Promoting Industrial Structure is Expected to be the Sally Port to Construct New Drive Force for Economic Growth

The key point to step over "Middle-income trap" is to keep high-speed economic growth in a sustainable way, which needs to construct new drive force for growth. Although economic growth theory tells us that new drive force for economic growth derives from aspects such as technical progress or innovation, knowledge and human capital accumulation, as to middle-income economies, the most realistic and most direct drive force should be economic restructuring, especially upgrading of industrial structure. China's production capacity accumulated by vigorously developing labor intensive industry has more and more restrictions, and it's the high time for economic restructuring. If the upgrading of industrial structure can be smoothly realized in the future, there will be the motive force to step over "Middle-income trap".

5.3 Step-By-Step Urbanization Should Be the Basis to Form Continuing Support to Economic Growth

Rapid urbanization will bring about conflict between rapid increasing of urban population and lagging behind of urban infrastructure construction, thus cause high urbanization cost, which will greatly weaken the function that urbanization drives economic growth. Including this has the reason that Latin-American economies fall into "Middle-income trap". Therefore, China's future economic growth must well keep the balance between the carrying out of urbanization process and the rising of urbanization cost, ease the bursting out of urban problems through step-by-step carrying out, and constantly give play to the function that urbanization pushes economic growth.

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