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CHAPTER 1

What Is the "Middle Income Trap"?

1.1 Proposition of the "Middle Income Trap"

In 2007, Indermit Gill and Homi Kharas (2007), two World Bank economists, published a report titled *An East Asian Renaissance: Ideas for Economic Growth*,¹ which suggested that East Asia would soon develop into a middle-income region and proposed the concept of the "middle income trap". It should be noted that the report did not provide an indepth interpretation of the concept, nor did it offer a clear income range for the "middle income trap". In 2011, Homi Kharas and Harinder Kohli (2011) further elaborated on the concept,² specifying that when a country escapes the poverty trap in the low-income development stage and enters into the middle-income development phase, the country may face growth stagnation and inability to further move up the ladder into the high-income range.

Why does the "middle income trap" phenomenon exist? They emphasized the need for different growth strategies after reaching the middle-income status through comparing the long-term performance of Latin American economies and East Asian economies. In the latter case,

¹Indermit Gill and Homi Kharas (2007). An East Asian Renaissance: Ideas for Economic Growth, The World Bank.

²Homi Kharas and Harinder Kohli (2011). What Is the Middle-Income Trap, Why do Countries Fall into It, and How Can It Be Avoided? *Global Journal of Emerging Market Economies*, 3(3) 281–289.

countries successfully shifted their growth strategies after achieving the middle-income status and adopted new growth strategies to sustain economic growth. However, economies from Latin America failed to achieve the shift.

Generally, one fundamental reason for low-income economies to break away from the poverty trap lies in the ability to create jobs for the abundant and cheap labor which promotes labor transfer from the lowproductivity agricultural sector to the high-productivity sector. The structural change of labor force allocation is the key factor in sufficiently mobilizing economic potentials. However, when a country enters into the middle-income status from the low-income development stage, it loses the comparative advantages of cheaper labor cost and becomes less competitive in manufacturing exports against low-income and low-wage countries due to rising labor costs. If the country does not achieve substantial progress in technological innovation, its ability to compete with developed economies in the arena of high-tech and innovation products would be hampered, resulting in the loss of export competitiveness. Thus, the country may fall into the predicament of declining economic growth or even experience economic regression, causing the country to be trapped in the middle-income status and lose the ability to stride toward the highincome status.

After its proposal, the concept of the "middle income trap" which provided a new perspective for understanding the economic growth in developing countries, received immediate media and academia attention. In the wake of the 2008 global financial crisis, the investment-driven and exportled growth model of China faces great challenges due to the domestic structural adjustments and external demand shocks. Whether the Chinese economy could maintain its high-speed growth has raised substantial concerns.

In 2010, China surpassed Japan in gross domestic product (GDP) for the first time to become the world's second largest economy. The 2012 World Development Report listed China as a middle-income country for the first time on the basis of 2010 per capita income in China. In this sense, 2010 marked an important juncture in the course of China's economic development. Subsequently, China began the implementation of its 12th Five-Year Plan. As the world was reeling from the global financial crisis, China's economic performance came into the spotlight. Being the world's second largest economy, China's economic growth undoubtedly affects global growth, especially for countries that have China as their

main trade partner. In the long run, questions of whether China can maintain a relatively high growth rate and join the ranks of high-income countries call for particular attention.

The subject of the "middle income trap" has drawn consideration attention from Chinese scholars and has provided an important perspective for understanding the prospect of China's economic growth. The number of academic papers exploring the theme of the "middle income trap" in Chinese academic journals has witnessed rapid growth in recent years. However, an examination of international academic journals reveals that the majority of research on the "middle income trap" materialized in the form of working papers with only a few published in international journals. Among existing published textbooks on development economics, the "middle income trap" has yet to be clearly defined and discussed as a coherent notion. How to understand the "middle income trap" remains an important and much contemplated subject matter in academia.

1.2 Definition of the "Middle Income Trap"

1.2.1 Absolute Criteria

Since 1978, the World Bank has been publishing the World Development Report annually (biennially on a few occasions). Although the subject of the World Development Report varies from year to year, the World Bank would consistently release data reflecting the development of each country's economy, population, education and health outcomes. In particular, the World Bank classifies all countries into different income groups based on per capita income calculated with the *Atlas* method.³ In the 1978 World Development Report, the World Bank categorized countries into low-income countries (GNP per capita equal to or lower than \$250 by *Atlas* method in 1976), middle-income countries (GNP per capita higher than \$250), industrialized countries, capital-surplus oil-exporting

³The *Atlas* method employed by the World Bank calculates the dollar value of per capita income based on the *Atlas* conversion factor. The *Atlas* conversion factor is obtained through the synthetic exchange rate method by averaging a country's exchange rates in past three years and taking into account the changes in the country's GDP deflator relative to a weighted GDP deflator of these countries with Special Drawing Right (SDR). The advantage of the method in calculating the per capita income of a country lies in its ability to cushion the effect of exchange rate fluctuations on per capita income calculation.

countries, central-planning countries and so on. Since then, the World Bank's classification of income groups has been adjusted several times. For example, countries were classified into low-income, middle-income, industrialized market economies, capital-surplus oil-exporting countries and industrialized non-market economies in 1981; Then in 1989, with the disintegration of the socialist camp in Eastern Europe, countries were classified into low-income, middle-income (including lower-middle and upper-middle) and high-income countries. Thus far, the classification of countries through per capita income by the World Bank has solidified into four categories, that is, low-income, lower-middle income, upper-middle income and high-income countries.

Currently, the World Bank classifies countries by income level based on per capita national income (GNI) calculated through the *Atlas* method.⁵ Since this is calculated on the basis of the current price of dollars, the criteria for income group classification vary annually. The threshold for each income group also undergoes adjustments regularly according to changes in inflation rates and exchange rates of countries with Special Drawing Right (SDR).⁶

Although the thresholds are adjusted according to the changes in exchange rates and inflation rates, the per capita GNI thresholds calculated through the *Atlas* method can be presumed to be relatively fixed or regarded as absolute income criteria, because the adjustments of nominal value take the real value of income level of countries with SDR as the

⁴In the 1978 World Development Report, China's per capita GNP was 410 US dollars. By that measure, China should have already belonged to the club of middle-income countries which would be an apparent misrepresentation. The main reason was that at the very beginning of China's "reform and opening up", it had yet to regain its membership in the World Bank. Thus, China had yet to fully cooperate on data sharing with the World Bank. When China resumed its membership in the World Bank in 1980, the 1980 World Development Report published China's per capita GNP was 230 US dollars, based on part of official information provided by Chinese authorities.

⁵Gross national income (GNI) is equal to the sum of the gross domestic product of a country and the net inflow of such income as rent, profits and remuneration earned by residents of the country abroad. The World Bank converts the GNI, as measured by national currencies, into GNI expressed in US dollars using the exchange rate average over the last three years for the sake of eliminating the effects of exchange rate fluctuations.

⁶Since 1987, the World Bank has adjusted the income thresholds annually. For instance, the threshold for high-income countries stood at 6000 US dollars in 1987, compared to 7620 US dollars in 1990 and 9265 US dollars in 2000. Since 1996, the World Bank has announced the adjusted thresholds on July 1 every year.

Income group	1995	2000	2005	2010	2015
Low-income countries	<= 765	<= 755	<= 875	<= 1005	<= 1025
Lower-middle-income countries	766–3035	756–2995	876–3465	1006–3975	1026–4035
Upper-middle- income countries	3036–9385	2996–9265	3466-10,725	3976–12,275	4036–12,475
High-income countries	> 9385	> 9265	> 10,725	> 12,275	> 12,475

Table 1.1 Classification by income group in selected years (1995–2015)

Source: The World Bank

benchmark. In this sense, if a country can maintain a positive rate of real economic growth and keep the exchange rates relatively stable with countries with SDR, the country will eventually reach the threshold for high-income countries. Table 1.1 shows the thresholds of income group classifications.

According to the World Bank's income group classification of countries by the 2015 criteria, countries with a per capita GNI of more than 12,746 US dollars can be considered as high-income. Notably, high-income countries might not necessarily equate to what we commonly refer to as developed or advanced economies. According to the International Monetary Fund, there are 39 countries and regions in the world classified as developed economies. However, the World Bank listed as many as 79 countries in the high-income group in the report published on July 1, 2015.

In fact, according to the World Bank, among 154 countries in 1987, the numbers of high-income and middle-income countries were 41 and

⁷Including the U.S., 19 eurozone countries, Japan, the U.K., Canada and 16 other countries (Australia, South Korea, Singapore, the Czech Republic, Macau, Sweden, Denmark, New Zealand, Switzerland, Hong Kong, Norway, Taiwan, Iceland, Puerto Rico, Israel, San Marino). Source: IMF Advanced Economies List. World Economic Outlook, April 2016, p. 148.

⁸World Bank GNI per Capita Operational Guidelines & Analytical Classifications. http://siteresources.worldbank.org/DATASTATISTICS/Resources/OGHIST.xls accessed August 13, 2017.

74. Among 74 middle-income countries, the numbers of lower-middle-income and higher-income economies were 46 and 28; Among 217 economies in 2015, the numbers for high-income and middle-income countries were 79 and 107 and the numbers for lower-middle-income and higher-income economics were 52 and 55, respectively. For economies in the middle-income range in 1987, 19 of them advanced to the high-income category, accounting for one-fourth of the middle-income economies in 1987. In this sense, only a minority of middle-income countries succeeded in progressing to the club of high-income countries over time.

1.2.2 Relative Criteria

In 2012, the World Bank and the Development Research Center of the State Council of China conducted a joint study and published the book: China 2030: Building a Modern, Harmonious, and Creative High-Income Society. Through the Maddison Project database,9 the study classified countries into three income groups on the basis of each country's per capita GDP as a percentage of that of the United States (U.S.) (measured by purchasing power parity, PPP), that is, low-income, middle-income and high-income economies. Thereinto, the middle-income economies were defined as those with per capita GDP equivalent to 5%-40% of that of the U.S. Those that fell below this range were classified as low-income economies while those that exceeded the range were classified as highincome economies. Therefore, we can adopt this approach of classification as the relative criteria for classifying countries by income level, that is, per capita GDP (PPP method) relative to that of the U.S. On account of this criteria, the study classified countries into nine categories during the period of 1960-2008 through comparing their per capita GDP in 1960 and 2008 with those of the U.S. (see Fig. 1.1).

Some important findings can be found by looking at Fig. 1.1. First, only approximately one-third of the countries recognized as low-income economies in 1960 upgraded to the middle-income rank in 2008, and none of them developed into high-income economies. Second, among all of the 101 countries that were classified as middle-income in 1960, only 13 successfully joined the club of high-income economies during the

⁹ Maddison Historical Statistics https://www.rug.nl/ggdc/historicaldevelopment/maddison/

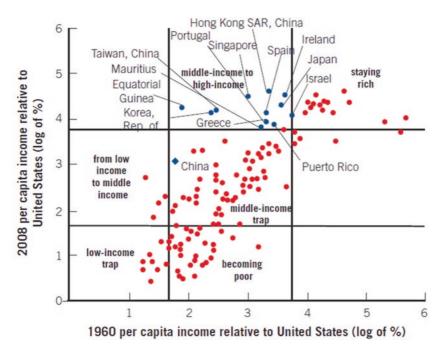


Fig. 1.1 Per capita income of countries relative to U.S. (1960–2008). (Source: World Bank 2012)

1960–2008 period.¹⁰ In addition, a considerable number of economies classified as middle-income in 1960 downgraded to the low-income status in 2008. This fact reveals that in nearly 50 years since 1960, only a limited number of middle-income countries advanced to the high-income rank while more have fallen back into the low-income category, a phenomenon thus termed the "middle income trap". Third, most countries recognized as high-income in 1960 had remained in the category by 2008.

Further analysis on these economies that have successfully overcome the "middle income trap" reveals that many of them are small countries or economies with populations of less than 10 million. For instance, Mauritius, with a population of 1.26 million in 2016, and an urbanization

¹⁰Including the six Asian countries of Japan, the Four Asian Tigers (Hong Kong, Taiwan, South Korea, Singapore) and Israel, the four European countries of Spain, Portugal, Greece and Ireland, the two African countries of Equatorial Guinea and Mauritius, and Puerto Rico.

rate of only 40% in 2016, is a representative of developing economies in multiple dimensions. In fact, according to the data of 2016, Mauritius cannot be classified as high-income country based on both the absolute and relative criteria.¹¹

Another case is Equatorial Guinea—with a population of only 0.82 million in 2016, the country was also excluded from high-income countries based on the two criteria. In particular, although its per capita GDP is much higher than that of many developing countries, its development indicators reveal extremely unsatisfactory performance in education and health. According to the Human Development Index (HDI) rankings compiled by the United Nations Development Programme, Equatorial Guinea is still a low-HDI country ranking only 135th among the 188 countries, signaling an extremely unbalanced development of economic and human development for this country. Is

Hong Kong and Singapore are typical small and open city economies, and their ascension to the high-income category is not representative of the broader section of middle-income countries or economies in 1960. It can be seen that with the exception of the aforementioned economies as well as China's Taiwan, the remaining countries are members of the Organisation for Economic Co-operation and Development (OECD), including Japan, South Korea, Israel, Portugal, Spain, Greece and Ireland. The vast majority of developing countries had yet to overcome the "middle income trap" in 2008 when judged based on the relative criteria. Therefore, the "middle income trap" has indeed been a common phenomenon hobbling the economic development of developing countries. The phenomenon is manifested in that the economic growth of a country is high when the country is in the low-income development stage, but the economic growth rate begins to decline, stagnate or even fall into recession once the country joins the middle-income rank, resulting in a failure to progress further into the high-income category. We can see from Fig. 1.1 that middle-income countries or economies with similar income

¹¹According to the World Bank, its GNI per capita (PPP) amounted to 36 percent of that of U.S. in 2016; its GNI per capita (Atlas method) was 9770 US dollars in 2016, below the threshold of high-income group.

 $^{^{12}}$ According to the World Bank, its GNI per capita (PPP) amounted to 38 percent of that of U.S. in 2016; its GNI per capita (Atlas method) was 7180 US dollars in 2016, below the threshold of high-income group.

 $^{^{13}}$ For example, life expectancy in 2015 was only 57.9 years and the average years of education received by people aged 25 and older was only 5.5 years.

levels in 1960 exhibited a high degree of dispersion relative to the U.S. in 2008, indicating that overcoming the middle-income trap is not easy and relies on sustaining a relative high growth rate in the long run.

Employing the relevant income criteria, we reclassified 191 countries and regions with the latest World Bank data. The basic statistical results are as follows: In 2015, 53 countries' per capita GDPs (PPP, 2011 international dollars) surpassed 40% of that of the U.S. and could be regarded as high-income countries. We could also further classify these 53 countries. Among them, 33 countries and regions were OECD members and 20 were non-OECD members. These non-OECD countries and regions included (population in parentheses): Qatar (2.24 million), Macao (0.59 million), Brunei (0.42 million), Singapore (5.54 million), Kuwait (4.40 million), Bermuda (0.065 million), United Arab Emirates (9.16 million), Hong Kong (7.31 million), Saudi Arabia (31.5 million), Oman (4.49 million), Bahrain (1.38 million), Malta (0.43 million), Cyprus (1.17 million), Equatorial Guinea (0.845 million), Trinidad and Tobago (1.36 million), Puerto Rico (3.47 million), Lithuania (2.91 million), Malaysia (30.33 million), Russia (144 million) and Kazakhstan (17.5 million). Among them, the population of five countries and regions stood at less than 1 million. For those non-OECD countries and regions with a population size greater than 1 million, most of them relied on resource extraction to varying degrees for economic development, including Qatar, Kuwait, United Arab Emirates, Saudi Arabia, Oman, Bahrain, Malaysia, Russia and Kazakhstan. The four countries with a population exceeding 10 million were Saudi Arabia, Malaysia, Russia and Kazakhstan.

On the basis of 2015 per capita GDP data (PPP, 2011 international dollars), of the 191 countries with available data, 106 countries or regions belong to the category of middle-income economies (per capita GDP equivalent to 5%–40% of that of the U.S.) while the number of low-income countries stood at 32.

The above demonstrates only a classification of countries by income based on the relative criteria. Considering the disparity in population size among countries, we can narrow down the analysis of those countries with significant population scales. According to the 2015 World Bank demographic statistics, there were 59 countries with a population of more than 20 million in the world, together accounting for 90.31% of the world's population. Among them, 14 countries were classified as high-income economies, accounting for 15.42% of the world's population and 17.07% of the gross population of countries with more than 20 million people.

Among these 14 high-income countries, only Malaysia and Saudi Arabia are non-OECD members. Besides the G8 countries, the 12 OECD countries also included South Korea, Spain, Poland and Australia. It should be noted that Saudi Arabia is an oil-exporting country whose high-income hinges heavily upon the export of resources. Malaysia's per capita GDP (PPP) surpassed 40% of that of the U.S. in 2010 for the first time. However, in terms of absolute criteria, Malaysia's per capita GDP (*Atlas* method) in 2015 stood at 10,548 US dollars, which was still below the threshold for high-income countries in 2015 (12,745 US dollars).

1.3 Overcoming the "Middle Income Trap": A Comparison of East Asia and Latin America

The above analysis reveals that only a few countries or regions such as Japan and the Four Asian Tigers among East Asian economies have successfully escaped the "middle income trap" and entered into the ranks of developed countries or regions. However, the vast majority of countries in Latin America and South-East Asia are still mired in the trap. Therefore, these East Asian economies' experiences in tackling the "middle income trap" stand in sharp contrast with that of their peers in Latin America, and a comparative analysis of the two categories of countries can provide important insight into understanding the "middle income trap".

1.3.1 A Comparative Analysis of Countries and Regions in Asia in Overcoming the "Middle Income Trap"

Among the East Asian economies, Japan and South Korea both stand out as relatively populous countries. According to the 2015 World Bank statistics, their populations stood at 127 million and 50.62 million, respectively; Taiwan, Hong Kong and Singapore claimed much smaller populations and belonged to the category of small and open economies. Among them, Japan and South Korea's experiences in overcoming the "middle income trap" prove to be more instructive for China. According to the Maddison Project database, Japan's per capita GDP reached to 5668 US dollars (1990 international dollars) in 1964, equivalent to 40.1 percent of that of the U.S., and thus landing it in the category of high-income countries. In 1991, Japan's per capita GDP reached a historic high of 19,347 US dollars, equivalent to 84.7 percent of that of the

U.S. As Japan's economic bubble collapsed in the late 1990s, its per capita GDP (PPP) witnessed a significant diminution in relation to that of the U.S., to roughly 74% by the year 2000 and 10 percentage points lower than in the early 1990s. Since then, Japan's per capita GDP has remained relatively stable during the period between 2000 and 2015, fluctuating in the range of 72–74%.

South Korea's per capita GDP reached 9446 US dollars (1990 international dollars) in 1991, surpassing 40% of that of the U.S. for the first time (41.4%) and thus landing it within the category of high-income countries; it continued to gain on the U.S., reaching 71.2% of the U.S. level in 2010 and roughly matching Japan's level in 2010. Overall, Japan's per capita GDP relative to that of the U.S. rose from 20.1% in 1950 to 40.1% in 1962 within a 12-year span; South Korea's per capita GDP relative to that of the U.S. grew from 20.5% in 1976 to 41.4% in 1991 within a 15-year span.

It should be duly noted that the above data are calculated on the basis of Maddison's per capita GDP estimates (PPP, 1990 international dollars). If the World Bank's per capita GDP data (2011 PPP, international dollars) are used alternatively, discrepancies in South Korea's levels relative to that of the U.S. may surface. For instance, South Korea's per capita GDP would surpass 40% of that of the U.S. for the first time in 1995, reach 60.3% of that of the U.S. in 2010 and 64.7% in 2015, pointing to a longer time frame than if calculated with the Maddison Project database. Japan's per capita GDP relative to that of the U.S. remains fundamentally consistent across the two sources of data. In particular, we can see that after Japan and South Korea's per capita GDP exceeded 40% of that of the U.S., they then further narrowed the gap with the U.S. In a sense, only by further narrowing the gap can a country solidify its stead in the ranks of high-income countries and securely avoid the "middle income trap" (Fig. 1.2).

With reference to the relative criteria, China's per capita GDP surpassed 20% of that of the U.S. for the first time in 2008, on par with Japan's level in 1950, indicating that there still exists substantial room for catch-up in the future for China. India's per capital GDP relative to that of the U.S. was comparable to China's in the mid-1970s, but the country's economic growth lagged far behind that of China thereafter, and it failed to catch up to the U.S. with the momentum that China displayed. India's per capita GDP relative to that of the U.S. stood at only 10.5% by 2010, on par only with China's level in 1995 (Fig. 1.3).



Fig. 1.2 Japan and South Korea's per capita GDP relative to the U.S. level (1950–2010). (Source: The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version)

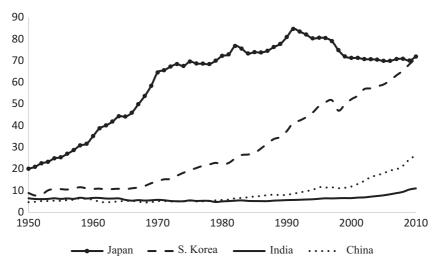


Fig. 1.3 Per capita GDP of some East Asian countries relative to the U.S. level (1950–2010). (Source: The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version)

In addition to the East Asian countries, a number of Southeast Asian countries also performed exceptionally well in terms of economic growth, with Thailand, Malaysia, Indonesia and others being a few examples. Among them, Thailand, Malaysia and Indonesia experienced relatively rapid growth in the 20 years during 1976–1996. The average economic growth rates of the three countries during this period reached 6%, 4.6% and 5%, respectively. Although these countries experienced periods of rapid growth, their economic growth lacked sustainability and as a result failed to make the leap from middle to high-income countries.

Due to the fact that the Asian financial crisis first began in Thailand, the analysis of Thailand also provides clarity in understanding how countries hit hard by the financial crisis lost the opportunity to overcome the "middle income trap". Before the Asian financial crisis, Thailand had maintained rapid economic growth for ten consecutive years, registering an average annual per capita GDP growth rate of around 8% during 1986-1996 and witnessing an increase in per capita GDP from 1727 US dollars to 3705 US dollars (in real 2010 dollar terms). By contrast, China claimed a per capita GDP of 1335 US dollars in 1996, only 36% of that of Thailand in the same period. However, the Asian financial crisis ended Thailand's economic boom and ushered in a period of recession that hobbled its economy until 2002 when it returned to its pre-crisis level. In 2015, Thailand's per capita GDP stood at 5775 US dollars (in real 2010 dollar terms), significantly lower than that of China (6497 US dollars). After reeling from the impact of the Asian financial crisis, the Thai economy has not been able to return to a high growth trajectory with its economic growth rate at a mere 3.4% during 2000-2015 if calculated on the basis of constant real dollars.

According to the relative criteria, Thailand's per capita GDP in 1990 (PPP, 2011 international dollars) equated to 17.6% of that of the U.S. and 23.5% in 1996. With the onset of the Asian financial crisis in Thailand, the percentage plummeted first and then gradually rose again, eventually recapturing 1996 levels in 2007. If Thailand had been able to maintain its pace of catching up with the U.S. during 1990–1996, it would have reached the ranks of high-income countries in 2012 (Fig. 1.4).

Another Southeast Asian country worthy of note is the Philippines, whose population surpassed 100 million in 2015. In 1960, the per capita GDP of the Philippines stood at 1059 US dollars, roughly twice that of Thailand. However, the Philippines is particularly representative of countries that have experienced low growth for an extended period of time,

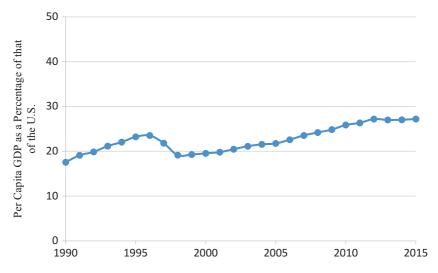


Fig. 1.4 Thailand's per capita GDP relative to the U.S. level (1990–2015). (Source: The World Bank, 2017 World Development Index. Note: per capita GDP percentage in PPP terms on the basis of 2011 constant prices is used)

registering a growth rate of approximately 1% during the period 1960–1986 and a mere 2.2% during 1986–2015. It claimed a per capita GDP of 2640 US dollars (in constant 2010 US dollar prices) in 2015, equivalent to only 40% of that of China. In 1960, the per capita GDP of the Philippines was more than five times that of China.

Why did the Southeast Asian countries, which had sustained rapid growth for two decades, faltered into an economic and social quagmire in the face of the financial crisis? A fundamental reason is that these countries did not investigate the objective reality of their own economic development and took for granted the notion that the neoliberal economic model could serve as the optimal recipe for their own economic development instead of proactively seeking solutions to the structural contradictions of their economies through deepening reforms and applying remedies accordingly. As a result, this led to the continual accretion of various fragilities in their economies, and eventually evolved into the drastic devaluation of currencies, turmoil in the capital markets, massive bankruptcy of enterprises and sharp deterioration of unemployment and inflation, which all constituted triggers for social instability.

In addition, before the financial crisis swept through these countries, there already existed severe social problems and conflicts. However, the governments of the said countries neglected the importance of social progress and overlooked the development of a social safety net in the process of promoting economic growth, leading to an increasing level of vulnerabilities in terms of social stability. Therefore, once the financial crisis plunged the economies into recession, the poor were hit first and the standard of living of the underprivileged deteriorated markedly, resulting in social discontent, questioning of the state leaders' ability to govern and even of the governments' political legitimacy. Eventually, widespread social discontent would continue to gather steam, and the economic crisis would transform into social turmoil and riots. The original political system would collapse and political power would exchange hands frequently, resulting in a vicious cycle of political instability and economic crisis.

The Southeast Asian financial crisis in 1997, generally speaking, resulted in such Southeast Asian countries as Thailand and Malaysia losing their opportunity to overcome the "middle income trap". We can see in Fig. 1.5

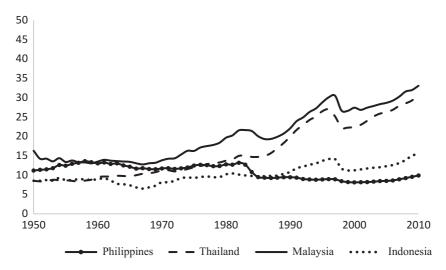


Fig. 1.5 Four Southeast Asian countries' per capita GDP (PPP) relative to the U.S. level (1950–2010). (Source: The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version)

that the per capita income levels of these Southeast Asian countries had already exceeded 8% of that of the U.S. in 1950, but in the following six decades from 1950–2010, they were not able to follow in the footsteps of South Korea to overcome the "middle income trap". The relative level of economic development in South Korea in 1950 was comparable to that of the Southeast Asian countries.

1.3.2 Latin American Countries Ensnared by the "Middle Income Trap"

Latin American countries are also representative of those caught in the "middle income trap" and stand in stark contrast to the above-mentioned East Asian countries. Historically speaking, Argentina's per capita GDP already reached to 52.2% of that of the U.S. in 1950, landing it firmly in the category of high-income countries by the relative criteria. However, during the 1950-1980 period, not only did Argentina fail to catch up with the U.S. in terms of per capita GDP, the gap between the two actually widened, with Argentina's per capita GDP only equating to 44.2% of that of the U.S. by 1980. After the 1980s, the per capita GDP of Argentina slid rapidly against that of the U.S. to 27.7% in 1990 and has hovered around that level thereafter. It should be noted that Argentina was once one of the wealthiest countries in the world. Calculated on the basis of the constant dollar price of 2010, the per capita GDP of Argentina already reached 5620 US dollars in 1960, but only witnessed a slight increase to 5956 US dollars in 1990 during a 30-year span. Since then, per capita income in Argentina has reached \$8205 in 2000 and \$10,514 in 2015, but still falling short of the rank of high-income countries. Argentina's average per capita GDP growth rate stood at a mere 1.1% during the period of 1960-2015 at constant dollar prices. When viewed within the entire time frame, this rate of growth could only be characterized as a low rate of growth that resulted in Argentina's failure to escape the "middle income trap".

Argentina's overall low economic growth has been characterized by wide fluctuations in growth rate. During the period of 1960–2015, the country experienced 21 years of negative growth in per capita GDP. There were 12 years that the economic growth of Argentina exceeded 7% and there were 11 years that the economic growth was lower than -3%,

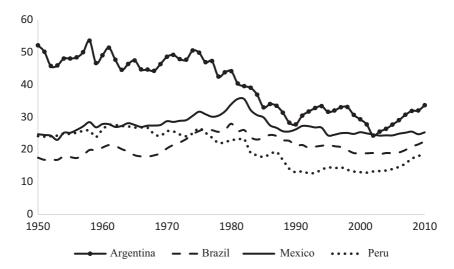


Fig. 1.6 Four Latin American countries' per capita GDP relative to the U.S. average (1950–2010). (Source: The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version)

exhibiting a lack of stability in the country's economic growth. Although the country experienced periods of rapid growth, they often could not be sustained. The example of Argentina indicates to us that developing countries need not only relatively high rates of economic growth but also stable economic growth in order to overcome the "middle income trap". In this sense, only when "walking steadily" can one "walk far" (Fig. 1.6).

According to the World Bank's classification of countries by income, Argentina remained an upper-middle-income country in 2015. According to the country's average per capita GDP (PPP) as that of the U.S., Argentina's average per capita GDP fluctuated between 35%–37% of that of the U.S. from 2010 to 2015 and declined further in the recent two years, resembling a typical country caught in the "middle income trap". In the same vein, Brazil, Peru and Mexico have long remained in the ranks of middle-income countries and their per capita GDP also exhibited sharp declines relative to that of the U.S. in the 1980s. To date, no Latin American country has succeeded in making the leap from a middle-income to a high-income country.

1.3.3 A Comparison of the Two Groups of Countries

Fundamentally speaking, the promise of entering into the ranks of highincome countries from middle-income countries is the sustained and rapid economic growth. According to the method of economic growth accounting, economic growth rates are the results of growth in factor input (including labor and capital), growth of human capital and growth of total factor productivity (TFP). A close examination of the growth accounting for the East Asian economies reveals that the growth of total factor productivity constituted a crucial factor in their ability to maintain relatively high rates of economic growth since 1970. According to estimates by the International Monetary Fund, China claimed the highest average economic growth rate and total factor productivity growth rate in this period, and half of the growth experienced in the former could be attributed to growth in the latter. The same could be said about South Korea. Hong Kong, Taiwan and Singapore also observed their total factor productivity growth contributing to more than one third of the growth in the economic growth rate. In contrast, India witnessed much less contribution to economic growth from TFP growth (see Fig. 1.7).

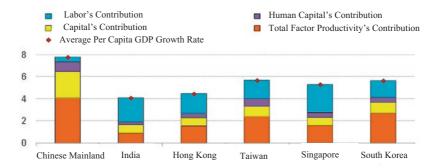


Fig. 1.7 Growth accounting for six Asian countries and regions (1970–2009). (Source: Shekhar Aiyar, Romain Duval, Damien Puy, Yiqun Wu and Longmei Zhang, Growth Slowdowns and the Middle-Income Trap, *IMF working paper*, WP/13/71, 2013. Note: The estimates for the Chinese mainland, Hong Kong, Taiwan, Singapore and South Korea are sourced from the period between 1970 and 2009; the estimates for India are sourced from the period between 1980 and 2009)

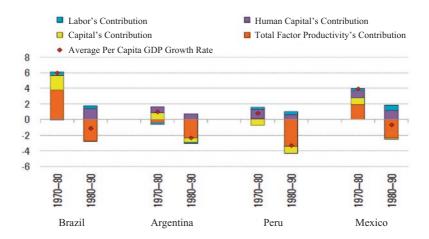


Fig. 1.8 Growth accounting for four Latin American countries (1970–1990). (Source: Shekhar Aiyar, Romain Duval, Damien Puy, Yiqun Wu and Longmei Zhang, Growth Slowdowns and the Middle-Income Trap, *IMF working paper*, WP/13/71, 2013)

Figure 1.8 depicts the economic growth rates of the four Latin American countries during the 1970s and 1980s and corresponding contributions by the four growth factors. A comparison of the two periods reveals that economic growth in the four countries observed drastic declines. In the 1970s, all four countries experienced positive per capita GDP growth, with an average growth rate of 6% in Brazil, 4% in Mexico and less than 2% in Argentina and Peru. By the 1980s, economic growth in the four countries all fell into the negative territory, with Peru's economy diminishing at a rate of 3.5% in size. An examination of the various contributing factors that determine economic growth reveals that all four countries experienced a significant diminution in total factor productivity, indicating that the decline in total factor productivity constituted a major factor in the decline of economic growth in the four countries. In addition, we can also see that the contribution of capital to economic growth in the four Latin American countries in the 1980s also dipped into the negative territory. The reason for this is that the decline in total factor productivity dampened investment and led to a negative growth in capital stock. By contrast, the contribution of capital to economic growth has remained positive in the six Asian countries and regions mentioned above which demonstrates that growth in total factor productivity can bolster investment, which in turn leads to the continuous growth of capital stock.

In comparing the aforementioned two groups of countries, we can draw the following conclusions: concerning economic growth accounting, the sustained growth of total factor productivity represents the key to maintaining economic growth and creates the major impetus for middle-income countries to develop into high-income countries. We could go one step further by stating that for middle-income countries, eventually navigating over the "middle income trap" is the inevitable result of long-term, stable and high-quality growth, which is evident in the contribution and importance of total factor productivity to economic growth.

1.4 Why Does the "Middle Income Trap" Emerge?

The above statistical and comparative study of the "middle income trap" raises a major theoretical and practical question: why is it that after 250 years of global industrialization, only a handful of more than 200 countries and regions in the world have achieved the status of developed economies? Why weren't many developing countries able to further progress into developed economies? Alternatively, why have many middle-income countries lingered in the middle-income phase for so long without joining the ranks of high-income countries with some even slipping into economic stagnation or regression? For instance, Latin America and Southeast Asia are two such representative cases. Countries in these regions failed to extricate themselves from the "middle income trap" for decades while, on the other hand, a number of East Asian countries and regions successfully overcame the trap and attained high-income status.

International experience indicates that the transformation of the economic growth model of a region typically undergoes three stages of development. The first phase involves the progression from low-income to lower-middle or middle-income status and can be characterized as the stage of "economic take-off". Generally speaking, a traditional model of economic development, which manifests as high factor input, low clustering of industries, low value-added trade, high consumption of natural resources and environmental pollution, dominates this phase. The second phase involves the progression from lower-middle to upper-middle-income status and can be characterized as a period of transition (see Fig. 1.9). Three possibilities exist during this time: if the transition proves to be successful, the economy will continue to grow or take off, landing it

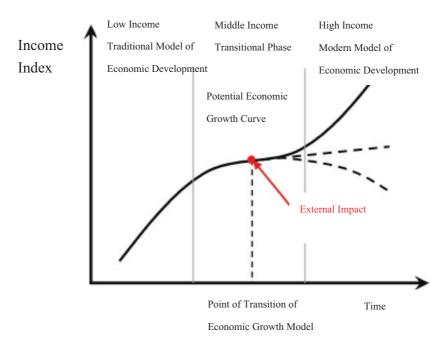


Fig. 1.9 The theoretical model for the "Middle Income Trap". (Note: formulated by the authors)

in the category of middle-income countries; if the transition does not prove to be successful, stasis ensues; or if the transition fails, the economic "take-off" is interrupted and the economy falls into the "middle income trap", resulting in a sharp dive in potential economic growth rate and stagnation. This period marks a time of anguish for economic restructuring, but also a time of strategic opportunity for the transformation of the economic growth model.

The third phase of development depends on the outcomes of the second phase of economic restructuring. If the second phase of transition proves to be successful, the country in question will proceed further to obtain the high-income or developed economy status. This phase of development is characterized by innovation, high spatial agglomeration, high value-added trade, harmonious development between man and nature, and social harmony. If the second phase of transformation fails, the country will then remain in the middle-income stage and fall into the "middle

income trap". In addition, the stagnation of economic growth will inevitably compound various conflicts and lead to the exacerbation of political instability, rendering it impossible for the country to rise above the "vicious cycle" of development.

Generally speaking, total factor productivity growth constitutes a necessary condition for developing countries to overcome the "middle income trap" if their economic development does not depend upon the export of resources (some Middle Eastern countries for instance). The contribution rate of total factor productivity to economic growth or, to put it differently, whether or not total factor productivity can undergo sustained growth, to a great extent, can reflect the efficiency of resource allocation and the degree of contribution of innovation to economic growth. In the empirical study of economic growth, total factor productivity can generally be bifurcated into technical efficiency and technological progress. Technological progress refers to the progress of a country's technological frontier and can be regarded as the crystallization of innovation. Technical efficiency refers to efficiency displayed by a country in allocating input factors under given technological conditions and can be considered an outcome of market mechanisms. Both economic and non-economic factors may affect the two components mentioned above. We can conduct analysis from the economic, political, social and international dimensions.

From an economic point of view, the efficiency of a country's resource allocation is often predicated on its economic system. For instance, the former Soviet Union began implementing a planned economic system when Stalin came to power which was later referred to as the "Stalin model" or "Soviet model". This planned economic system is actually a product of the highly centralized political system of the former Soviet Union. Under the single ownership system, the Soviet model essentially represents a command economy. During a given period, this model promoted the industrialization of the Soviet Union and made it the linchpin of the anti-fascist campaign in World War II. After World War II, as the world entered into the Cold War era characterized by proxy conflicts between the U.S. and the Soviet Union, the latter poured its resources into developing heavy industries and neglected the development of agriculture and light industries, eventually resulting in severe imbalances in its industrial structure and the faltering living standards of its citizens, and in turn served as a key factor in galvanizing social discontent and ultimately leading to the dissolution of the Soviet Union. In a sense, a fundamental problem with the former Soviet Union's economic system is that it was designed principally for seeking world hegemony instead of raising people's living standards. This stands in stark contrast to the phase of development experienced in China after the implementation of reform and opening-up.

The failures in economic development strategization also constitute a crucial factor in the stagnation of total factor productivity growth. For example, Argentina used to belong to the rank of high-income countries, and according to Maddison's estimates, the country's per capita GDP (PPP, 1990 international dollars) was higher than that of the U.S. in 1896. Since then, Argentina's per capita GDP as a percentage of that of the U.S. had been on a downward trend and fell to 52% in 1950 despite Argentina still being considered as a high-income country according to the relative criteria. However, after 1950, Argentina failed to seize the opportunity for industrialized development following World War II. The country had long relied on the export of primary products and failed to effectively reconfigure its industrial structure and enhance its competitive edge. At the same time, against the backdrop of domestic political instability, it introduced neoliberal economic policies that led to macroeconomic instability, debt crisis and hyperinflation, which in turn undermined the foundation for economic growth. By 2002, Argentina's per capita GDP relative to that of the U.S. fell to a record low of 24.3%. It can be said that Argentina is representative of countries that have stumbled back into the middle-income group from the high-income one and would remain ensnared in the "middle income trap" for a long time. According to World Bank statistics (PPP, 2011 international dollars), Argentina's per capita GDP equated to 35% of that of the U.S. in 2015, even lower than the level in 2011. It can be argued that the country still faces tremendous challenges in overcoming the "middle income trap". In fact, other Latin American countries also share Argentina's experience. In the past six decades, the Latin American economies vacillated between the import substitution strategy and the neoliberal strategy. By contrast, the East Asian countries adapted themselves to the objective demands of economic globalization and succeeded in implementing export-oriented economic policies, responding effectively to new trends and challenges brought by globalization, continuously nurturing new competitive advantages and enhancing their global competitiveness.

In the long run, technological progress serves as the fundamental engine for the continuous growth of total factor productivity. Without technological progress, total factor productivity growth will eventually enter into stasis as resource allocation becomes optimized. The technological progress of a country either relies on the introduction of foreign technology with the purpose of promoting domestic technological advancement or its own capacity for independent indigenous innovation. Innovation plays a critical role in the growth of total factor productivity especially when a country's technological capabilities already lead the rest of the world. Among the world's high-income countries, excluding those that had established themselves as capitalist developed economies early on and the resource-exporting countries, innovation has been the key ingredient of success for those that joined the ranks of high-income countries later on.

The capacity for innovation of a country or region depends on two aspects of innovation investment, one being capital investment and the other being talent supply. In terms of capital investment, the intensity of a nation's investment in innovation is generally measured through the ratio of R&D expenditure to GDP. Let us compare South Korea with countries that have fallen into the "middle income trap". For example, in terms of investment in innovation (R&D expenditure as a percentage of GDP), South Korea registered at 2.64% in 2003, ranking seventh globally, compared to 0.69% and 0.41% in Malaysia and Argentina, respectively, both of which failed to enter the top 40 ranks. With respect to the supply of innovation talents, in 2006, the number of R&D personnel per 1000 people in South Korea stood at 4.8, while that of Malaysia and Argentina stood at a mere 0.42 and 1.1, respectively. The pool of innovation talents South Korea could tap into was 11.4 times and 4.4 times that of Malaysia and Argentina, respectively. As for the quality of their labor force, 35% of the workforce in South Korea claimed an undergraduate or higher education background in 2007, compared with 20.3% and 29.5% in Malaysia and Argentina, respectively. South Korea also displayed a clear advantage in this regard.

From another point of view, when a country has entered the middle-income stage, maintaining sustained total factor productivity growth can prove to be challenging without the capacity for innovation. This is due to the fact that during the middle-income stage of development (especially the upper-middle-income stage), with the growth of per capita income comes the rising costs of a variety of factors of production, diminishing marginal returns on capital investment and waning comparative advantages in the labor-intensive economy. These developments also actively and objectively call for economic restructuring, that is, realizing the

transformation of the economic growth model through innovation. If this transformation cannot be attained, the economic growth will lose its momentum and the potential growth rate may plunge and even remain in a dismal state, making entry into the ranks of high-income countries a distant reality.

From international experience, the middle-income stage of development is also characterized by a polarization of the social structure. As the social structure is transformed in a dramatic fashion, the interests of each social stratum grow entrenched and social problems are exacerbated as a result. For example, at the turn of the nineteenth and early twentieth centuries, the U.S. economic take-off was both coined a "progressive era" and the "worst era", during which economic crises happened in a cyclical manner, the gap between the rich and poor grew ever wider, political corruption became widespread and class conflicts worsened. An examination of the history of earlier capitalist countries such as the U.K., France and Germany reveals similar developments.

The surge in social instability is both a product of and an impact on a country's economic development. This is because in the process of economic development and especially during the period of rapid development, wide arrays of imbalances tend to emerge, inevitably resulting in a widening income gap among different groups of people and thereby causing social conflicts. Countries in the middle-income stage of development will also see their chances of overcoming the "middle income gap" diminish if the issue of unfair distribution of income is not addressed. Existing empirical studies reveal that income inequality hinders economic growth, especially for countries that have yet to enter the stage of high-income development.¹⁴ Income inequality will negatively affect the economic growth of middle-income countries in at least two regards and further diminish their chances of navigating over the "middle income trap".

On the one hand, as a country enters the middle-income stage, the demand for human capital investment of its citizens will undoubtedly increase correspondingly, resulting in an upsurge in the demand for quality education across society and further hiking up the cost of education. However, due to the relatively slower income growth experienced by

¹⁴Relevant literature can be found: Robert J. Barro (2000). Inequality and Growth in a Panel of Countries, *Journal of Economic Growth*, 5: 5–32; Dierk Herzer, Sebastian Vollmer (2012). Inequality and Growth: Evidence from Panel Cointegration, *The Journal of Economic Inequality*, 10: 489–503.

low-income families, their ability to invest in their children's human capital is diminished which in turn constrains the possibilities for future development and ultimately results in the real human capital growth rate falling behind the potential growth rate. Consequently, the limited growth proves unable to effectively meet the demand by this stage of economic development on human capital.

On the other hand, during the middle-income stage, the widening of income gap will inevitably aggravate social polarization and put social cohesion at risk. This is due to the fact that interest groups that benefit from the existing paradigm of income distribution will seek to obstruct reform measures aiming at achieving a fairer distribution of income in order to protect their vested interests, which would eventually lead to the entrenchment of interest groups, lower inter-generational social mobility, hostility among the vested interests and ordinary folks as well as escalating social conflicts. Furthermore, the decrease in inter-generational social mobility also means that economically disadvantaged people cannot gain fair access to opportunities for development. In a sense, the degradation of the income distribution structure is often a result of the lack of institutional arrangements that can effectively contain unfair development in income structure and the alliance between power and capital.

Many Latin American countries experienced long-term stagnation or even negative growth during the 1970s and 1990s, and have yet to overcome the "middle income trap" to date. Their economic stagnation occurred in tandem with widening income gaps and severe social polarization, with the Gini coefficient reaching as high as 0.5–0.6. All these countries had endured periods of military dictatorship when crony capitalism prevailed and power and capital conspired together in plundering the society for wealth which then led to ever-widening income gaps, social conflicts and regime changes. At other times, left-wing governments took power and overcorrected the course of development by instituting egalitarianism and diminishing the role of the market. This flip-flopping in development and social unrest severely affected the countries' economic development.

Income inequality tends to work in unison with a series of other factors in threatening social stability. These factors are both causes for and products of income inequality. For instance, one critical factor that contributed to many middle-income countries' inability to overcome the "middle income gap" after the 1960s was a gridlock in social progress, manifested through such social problems as corruption, nepotism and injustices in the

administrative and judicial realms, which were in and of themselves causes for an unfair distribution of income. In addition, an unfair distribution of income will in turn diminish the government's capacity for redistribution, which is necessary for maintaining social stability. For example, a sharp rise in income disparity leads to an increase in the demand for government public service expenditures, but with a given amount of available budgetary revenue, the ever-expanding public service demand will result in a shortage of public services. The direct consequence of leaving such issues as growing polarization between the rich and the poor, lack of social mobility and shortage of public services unaddressed is a growing sense of distrust in society toward the government, absence of faith, distorted public sentiment, build-up of social discontent, the spread of populism and various radical ideologies (religious or secular). These issues will evolve into direct triggers for the eruption of social conflicts. Without sound social policies designed to resolve these issues, the problems will further aggravate the vulnerabilities of social development and lead to social or even political crises. Eventually, investment will be negatively affected, leading to economic stagnation or even regression, which could intertwine and interact with each other in a vicious cycle to eventually plunge the economy into the "middle income trap".

As the widening gap between the rich and the poor intensifies existing social polarization and conflicts, the aggravation of social conflicts in turn provokes social unrest, political division and confrontations between governments and ordinary people. Ultimately, initial rallies and protests on the streets transform into violent anti-government movements, resulting in regime change or even collapse. In fact, not only does a widening income gap pose a threat to the social stability and political structure of middle-income countries, it also produces the same effect on developed economies. As a matter of fact, one important factor that contributed to Donald Trump's winning the U.S. presidency was the dissatisfaction with the long-term deterioration of income inequality within the country's low-income populations (especially Caucasian blue-collar workers), who threw their support behind a candidate that advocated anti-illegal immigration and anti-free-trade policies.

From a political point of view, the middle-income stage is not only characterized by drastic changes in various economic variables and social structures, but also by drastic changes in the reorganization of political structures. A complex mechanism dictates the interactions among the three. Long-term economic stagnation leads to a buildup of discontent

among the people and results in political instability, which in turn contributes to the exacerbation of economic and social problems. Conversely, if political stability is maintained, governments will have a better chance of addressing economic and social problems; while political disarray could only lead to the exacerbation of existing challenges. In this sense, a stable political environment constitutes the single most important public good, which in itself is the most crucial prerequisite for countries in overcoming the "middle income trap". According to the International Country Risk Guide (ICRG) database, in 1990 among the East Asian economies, Japan, Taiwan, Singapore and South Korea scored 7.25, 8.92, 8.08 and 8.67 respectively on Government Stability, significantly higher than the Latin American economies beset by the "middle income trap" (Ex. Argentina 6.58, Peru 4.00). A stable political structure sets the cornerstone for overcoming the "middle income trap".

The extreme form of political instability is manifested in a change of government or national disintegration. Generally speaking, the consequences of a change of government or national disintegration are not limited to short-term setbacks in economic growth and can lead to a direct fall into the "middle income trap". In the late 1980s and early 1990s, following the dissolution of the Soviet Union, socialist countries in Eastern Europe reverted to adopting a capitalist market economic model, which led to economic stagnation or even negative growth of their economies. Russia's per capita GDP (PPP, 2011 international dollars) amounted to 55.1% of that of the U.S. before the collapse of the Soviet Union in 1990, commensurate with other high-income countries by the relative criteria. After the disintegration of the Soviet Union, the ratio continued to decline and fell to the lowest level (26.4%) in 1998. Afterward, it saw gradual increases and surpassed 40% for the first time in 2007 after being in the "middle income trap" for more than 20 years (1993–2006). Furthermore, the ratio fluctuated between 43%-47% during the period of 2007-2015, with no apparent signs of a further upward trend. The country's per capita GDP relative to that of the U.S. experienced a steep decline after 2012 as a result of its economic performance being highly dependent on energy price movements. The global commodities crunch since 2012 has also caused sluggish economic growth in Russia. The above data indicate that from the end of 1991 when the Soviet Union dissolved up to the current time, Russia has yet to recover to its pre-dissolution levels in terms of economic development relative to that of the U.S.

A recent example of a country downgrading to the middle-income status from high-income is Libya. Toward the end of 2010, the wave of revolutions termed the "Arab Spring" had swept across the Middle East, resulting in civil wars and change of governments in countries such as Tunisia, Egypt, Libya and Syria. Among them, the wars in Libya and Syria have persisted to this day and led to a severe erosion of economic development and the standard of living of their people. Libya, for instance, claimed a per capita GDP (PPP, 2011 international dollars) that amounted to 49% of that of the U.S. in 2003, landing it in the category of high-income countries. Moreover, with the lifting of the 11-year sanctions in 2003 that had been imposed on Libya by the United Nations due to the Lockerbie plane crash in 1988 and the 1989 UTA Flight 772 bombing, the country's economy experienced some degree of growth during the 2003–2010 period, with its per capita GDP reaching 58% of that of the U.S. in 2010. However, the Libyan civil war that broke out in 2011 directly led to the collapse of the country's economy and its per capita GDP as a percentage of that of the U.S., plummeting to 21.8% in 2011. On the whole, as Libya entered a so-called post-Qaddafi era after 2011, the country has remained divided and spawned, together with Syria, a massive refugee crisis in Europe.

In addition to the aforementioned economic, social and political issues, external factors also figure substantially in whether or not a country may fall into the "middle income trap". One typical example is the impact of the 1997 Asian financial crisis on emerging economies in Southeast Asia. We can see in Fig. 1.5 that the financial crisis derailed the Southeast Asian economies from their path of economic growth and cost them the opportunity to overcome the "middle income trap". Moreover, the financial crisis evolved directly into an economic crisis, which in turn led to serious social and political upheavals that manifested as soaring unemployment, surge in the number of impoverished people, considerable declines in personal income, surge in crimes and violence and compromised confidence in society's prospects and in government.

In this sense, economic globalization, in and of itself, is a double-edged sword. The crisis in one country will affect its neighbors and the crisis in a major economy will have global implications. The 2008 global financial crisis triggered by the sub-prime mortgage crisis in the U.S. was considered a "once-in-a-century" event with repercussions for the global economic and financial systems. Its negative impact spread to all corners of the world. For many developing and emerging economies, the financial

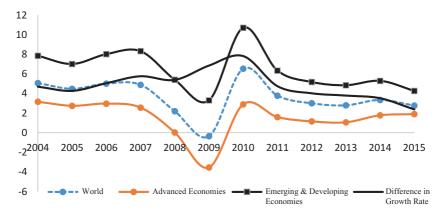


Fig. 1.10 Global economic growth before and after the global financial crisis (2004–2015). (Source: IMF)

crisis triggered by the sub-prime mortgage in the U.S. created massive negative externalities and delivered an external shock to the economic development of these countries. As the Chinese saying goes, "when the city gate catches fire, the fish in the moat suffer from it". When the U.S. sub-prime mortgage disaster evolved into a global financial crisis, it ended the momentum of rapid economic growth for some emerging economies. According to the relative criteria, a middle-income country will not be able to overcome the "middle income trap" as long as its per capita GDP growth rate falls short of that of the U.S. Since 2004, the world economy has dropped from a growth rate of nearly 5% during the pre-crisis period (2006–2007) to roughly 3% in recent years (2014–2015). Among the world's economies, the average growth rate of emerging and developing economies declined from 8% to 4.3% in 2015, while the difference in the rate of economic growth between developing and developed economies slid from 5.76% in 2007 to 2.37% in 2015. Although the momentum of catch-up with the developed world remained, it has weakened significantly (Fig. 1.10).15

Although nearly ten years have passed since the global financial crisis broke out in 2008, its impact has yet to run its full course and the global

 $^{^{15}}$ Among them, Brazil and Russia suffered heavy economic losses, with growth rates dipping into the negative territory in a number of years during the 2009–2015 period.

economy remains in a process of profound adjustment. In particular, in response to the financial crisis, the U.S. Federal Reserve implemented four rounds of "quantitative easing" from November 2008 to the end of 2012 which helped stabilize the U.S. financial system and stimulate the country's economic growth. However, as the U.S. economy recovered ahead of other advanced economies, the Federal Reserve began to gradually roll back its "quantitative easing" policies in early 2014 which delivered a substantial impact to the global financial market and aggravated capital market volatilities in the emerging economies. This, to a certain extent, also led to the pressure of capital flight, which has evolved into a hidden danger to the global economy in the post-crisis era. In this sense, the U.S. first brought on the global financial crisis of 2008 with its subprime mortgage crisis and then recovered its economic growth through "quantitative easing". As the country withdraws from quantitative easing policies and the Federal Reserve introduces benchmark interest rate hikes, uncertainties in the global financial market and especially the capital markets of developing countries will grow which in turn will affect the economic recovery of emerging economies.

We can draw the following conclusions based on previous discussions: a country does not necessarily or naturally enter the high-income ranks from the middle-income ranks. The "middle income trap" occurs as the combined result of a series of economic, social, political and international factors. Judging from the economic growth in developing countries after World War II, no country was able to maintain long-term and stable growth with a single unchanging economic growth model. The models of economic growth are characterized by the peculiarities of various stages of development. During the different stages of income, their basic conditions for economic development (including advantages and constraints) vary, and so do the opportunities and challenges. Therefore, the model of economic development should be adjusted accordingly. For developing countries mired in the "middle income trap", if they are not able to adapt their models of economic development to changing internal and external conditions, the latent risks existing in the original model will accrue and escalate, eventually leading to economic, political and social crises and even a vicious cycle of the three, plunging the economy into permanent stagnation and recession.

Alternatively, even if a country is in a period of rapid economic growth, without properly addressing the social problems that may arise in the course of economic development and maintaining political stability, its

internal political and social crises may very well put the brakes on its economic development. In this sense, overcoming the "middle income trap" is not merely an economic issue, as non-economic factors often constitute the direct causes of a country's entrapment in the "middle income trap". In other words, economic downturns merely reflect the surface under which lie such fundamental issues as how to tackle the various internal and external challenges that hamper growth and cause economic instability.

The above analysis and summaries of international experiences and lessons provide us with critical information and reference in understanding such questions as what the "middle income trap" is, why countries fall into the trap and how countries can avoid and overcome the trap. Valuable lessons can be learned from the experiences of other countries particularly through studying their setbacks and mistakes. The crucial issue is, of course, how China can innovate and create its own path of development. By following Deng Xiaoping's strategic concept of modernizing China in "three steps", the country has not only succeeded in overcoming the "poverty trap", but will also be able to avoid the "middle income trap" in the future, move toward high-income status and achieve its "two centenary goals".

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