

# Thailand in a Middle-income Trap

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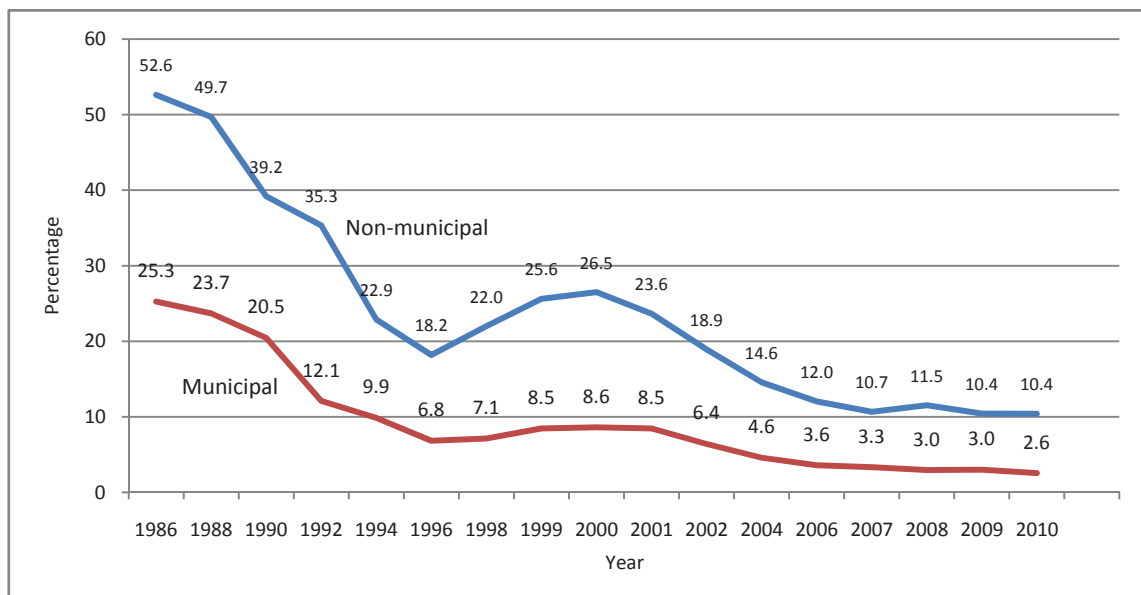
## 1. INTRODUCTION

On the first of July 2011, the World Bank announced that Thailand had moved up from being a lower-middle-income category economy to an upper-income one. To some, the upgrading was reassurance that this country is moving toward becoming a developed, high-income economy. This is even more reassuring if one looks back to the past half century (1952-2011), during which period the country enjoyed an average economic growth rate of 6.2 percent per annum in real terms. Indeed, this stellar performance has placed Thailand as one of the most successful economies after the Second World War. The economic progress has translated into many other achievements, such as a reduction in poverty—more than 40 percent of the Thai population were able to escape poverty in the past 25 years (see Figure 1)—improvements in well-being, and

greater access to public goods and services, to name only a few.

The recent performance of Thailand, however, has been quite the opposite from its long-term past. Economic growth rates have been on a roller-coaster ride, as shown in Figure 2, where annual growth tumbled from close to 10 percent in the early and mid-1990s to much lower rates afterward due to economic crises in 1997/98, 2001, and 2008/9. Since 1996, Thailand has never seen a growth rate above 8 percent. In years when growth rates exceeded 6 percent, the growth was achieved only during recovery from an earlier deep crisis. Figure 3 makes this point even clearer. Since 1997, Thailand's medium-term growth, as measured by an 11-year moving average of annual growth rates, has been only about 4 percent. This is a sharp decrease from the approximately 7 percent or higher that was the case during the period 1963-1993.

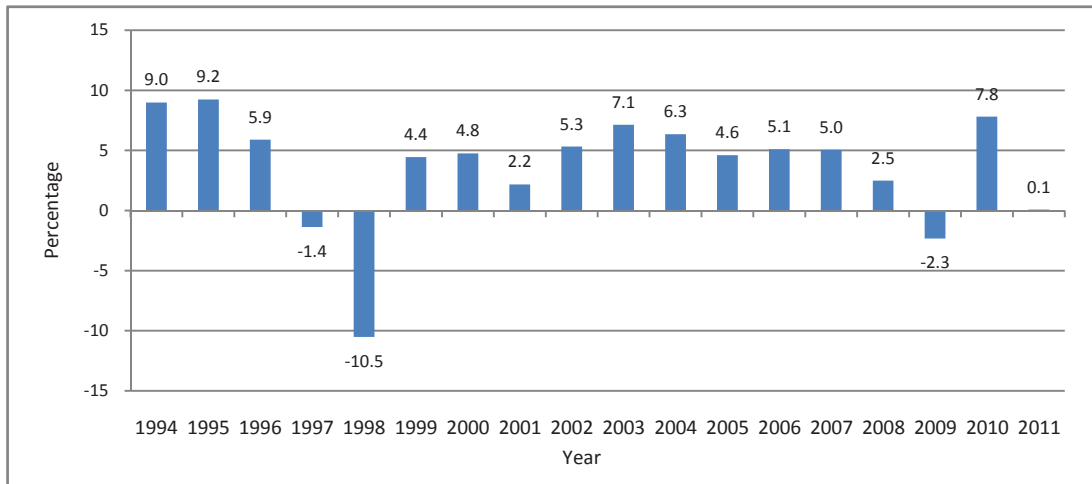
Figure 1 Poverty Headcount Ratio, 1986-2010



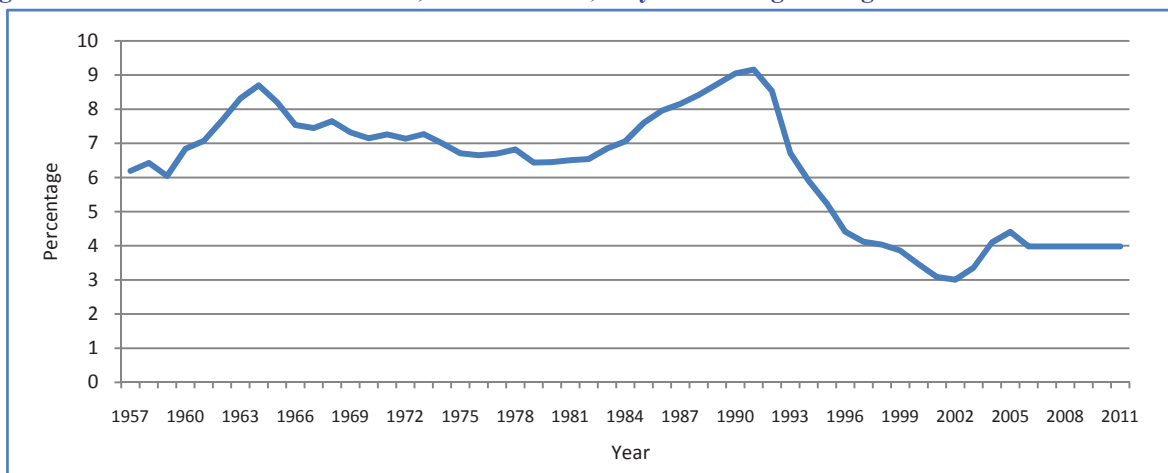
Note: A household is defined as poor if monthly consumption falls below the household-specific poverty line.

Source: Author's calculation using Socio-Economic Household Surveys (various years) from the National Statistical Office, Thailand.

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**Figure 2 Annual Real GDP Growth Rates, 1952-2011**

Source: National Income Statistics, Office of the National Economic and Social Development Board, Thailand (various years).

**Figure 3 Medium-term Growth Rates, 1950s-Present, 11-year Moving Average**

Note: The moving averages for the years 2006-2011 are calculated using 2001-2011 data.

Source: Calculated by the author using national income data from the Office of the National Economic and Social Development Board, Thailand.

## 2. MIDDLE-INCOME TRAP: IS THAILAND IN ONE?

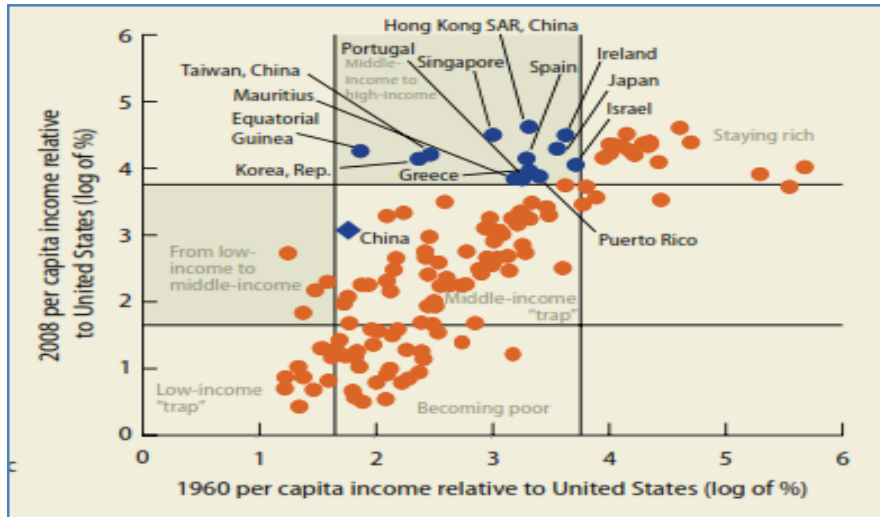
Increased growth uncertainly and, more importantly, the prospect of lower medium-term growth indicate fundamental problems with the country's current state of development. Specifically, these aspects raise the possibility that Thailand might now be falling into a middle-income trap.<sup>1</sup> A middle-income trap is commonly defined as a situation in which a country that is successful in lifting its economy from the status of being a least developed or low-income country to a middle-income one but remains at that level without much prospect of becoming an advanced, rich country. Although the general meaning of the term is clear, its operational definition is not. One problem arises from the fact that "middle-income country" can be either a relative or an absolute concept. If we use the relative concept, the phenomenon is perhaps best depicted by Figure 4. When economic performance is measured against the United States economy, only 13 countries

managed to close the gap with the United States in 1960 and 2008 in such a way that they rose from being "middle-income" compared with the United States in 1960 to become more or less equally rich as the United States in 2008. Many more countries remained in a relative middle-income position throughout the period (those in the middle box), including Thailand.

Figure 5 illustrates the absolute concept of the middle-income trap. Japan and the Republic of Korea were successful in raising their per capita income steadily during the period 1950-2008, leaving behind many other countries that had a similar income in 1950. Again, this indicates that Thailand is indeed in a middle-income trap.

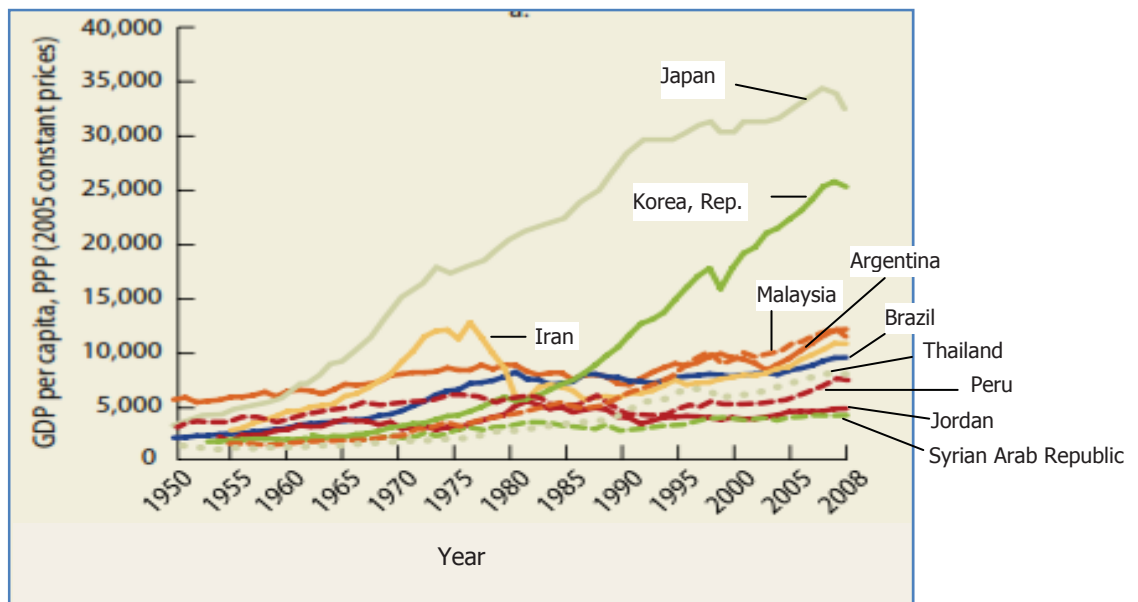
A simple methodology suggested by Eichengreen et al. (2011) can be used to determine when Thailand entered the middle-income trap. Somchai et al. (2012) applied such a method and found that Thailand is likely to have fallen into the trap around 1994-1995.

**Figure 4 Position of Countries in Relation to the United States Economy, 1960 and 2008**



Source: World Bank (2012), Box 1.

**Figure 5 Per Capita GDP of Selected Countries (2005 constant purchasing power parity)**



Source: World Bank (2012), Box 1.

**3. WHAT MADE THAILAND FALL INTO THE TRAP?**

There is no consensus yet as to what causes a country to fall into a middle-income trap. Casual comparisons with those countries that are never caught in such a trap seem to lead to the observation that economic dynamism perhaps plays an important role. The dynamism applies to both the dynamic adjustment of the private sector and the policy-making process of the public sector. The corollary of this observation is that a country is more likely to fall into such a trap if it fails to adjust its national economic model and policies to fit changing environments. Unfortunately, that corollary seems to be applicable to Thailand. The country continues to depend on the same model of

development that lifted it out of poverty—cheap labor, and low innovation, with technological acquisition mainly through technology importation. The old model does not work any more and will be increasingly limiting in the future, for the following reasons.

- Labor shortage. Thailand has experienced a shortage of both skilled and unskilled labor for many years. Future demographic changes will exacerbate the shortage in line with the increasing average age of workers. Relying on foreign workers is not a real alternative solution as doing so merely prolongs the “cheap-labor” development model, which is not sustainable. Besides, the current trend of rapid economic prosperity in neighboring countries will restrain the supply of foreign

workers, as they would rather work in their home country when their salary at home would potentially start to get closer to the amount they would earn working in Thailand.

- There seems to be an “incomplete market” in skills training as a public service in the sense that supply does not meet demand. This is particularly true for low-skilled workers who seek to obtain public training opportunities to make them more suitable to the market, as the existing training courses offered by the government are not demand driven. The problem is less acute for higher skills training, because modern firms are increasingly training their own employees to meet their needs more precisely.<sup>2</sup>
- Education. Thailand’s education system is unable to prepare graduates suitable for the labor market, which is increasingly facing global competition. Relevant skills such as those needed for information technology, communication, and leadership are all lacking. This situation partly forces investors, foreign and domestic, to eschew investing in production that makes use of highly skilled workers and employees. Investing in highly capital-intensive or high-tech industries is not widespread either, because they do not fit Thailand’s main export markets. In a sense, Thailand is caught between being a labor-intensive and capital-intensive economy. Unfortunately, we have been in this “transitional” period for far too long.
- Low level of research and development (R&D) activities and spending. The ratio of R&D spending to GDP has stagnated at around 0.2 percent annually for years. The Thai business sector might have been successful in making organizational and marketing innovations, as evinced by the previously mentioned high average long-term growth rates, but going upward to the next level of competition will need more product and process innovation.
- Spurring growth by depleting natural resources is also no longer an option, simply because their depletion is almost complete—there are not too many such resources left nowadays. On the contrary, demanding that businesses limit their environmentally harmful activities would add more costs. Until a realistic green technology is successfully developed and utilized, this situation will reduce future economic growth.
- It is more difficult to maintain macro-economic stability. In the past, stability was

linked to a fixed exchange rate and prudent fiscal policy. Under the current “managed flexible exchange rate system,” monetary stability hinges on the Bank of Thailand’s success in formulating policy according to an “inflation targeting” framework. Under such a framework, the Bank must command a high level of credibility and an appropriate level of independence. These two requirements are not met automatically, and become more questionable in the context of the current political situation. Political reality also poses a severe challenge to prudential fiscal policy; there appears a temptation to enter into a “political cycle of fiscal deficits,” most notably characterized by populist policies.

- The fiscal structure of Thailand is also a major obstacle to long-term growth. The country is collecting much less in the way of tax than it should according to international norms. Consequently, the Thai government does not have enough resources to invest either in developing infrastructure that would guide future long-term growth or in decent social welfare and social protection programs that would enhance the accumulation of human resources which, in turn, would also boost long-term growth.
- Monopolistic power still exists among state-owned enterprises, and there are regulations prohibiting full competition in some vital economic sectors, most notably the high-value service sectors, such as finance and those having to do with and capital, as well as telecommunications.
- The private sector, which has been at the forefront of economic growth in the past several decades, has been dichotomous in nature: while limited numbers of big firms are competing in global markets, vast numbers of small and medium-sized firms are locked into low levels of innovation. Failing to climb up the global product ladder is one of the reasons why private investment, along with public investment, has been quite subdued compared with the levels that existed in the 1990s.

Perhaps the most important obstacle to long-term growth is Thailand’s institutional weaknesses. All the above issues can be seen as failures on the part of those who are responsible for making crucial policy choices. For example, no governments in the past or present have ever had proactive innovation and R&D policies. There is simply no political will to make the country more innovative.

#### 4. HOW TO ESCAPE FROM THE MIDDLE-INCOME TRAP

Escaping from the middle-income trap requires strong institutions in both the public and private sectors. In this context Thailand needs a public sector that is visionary, transparent and efficient in implementation, and a private sector that is vibrant, innovative and well adaptive. A visionary public sector is important so that the strategic role of the public sector—in providing necessary public goods and public services that would boost the country's long-term competitiveness—would be clearly mapped out.

Transparency and efficiency are necessary to avoid rent-seeking activities and ensuring the least cost during the implementation of long-term strategies. Preventing rent-seeking behavior is particular important, as numerous examples show that excessive rent-seeking not only jeopardizes implementation but also deflects the overall path of development into a prolonged slump instead of high growth.

Long-term strategy must cover measures that avoid either the repetition of inaction and passivity or even the mistakes made since mid-1990s. We highlight four important areas that we believe are keys to ensuring high and sustained long-term economic growth.

##### 4.1 Proactive Policy on Innovation

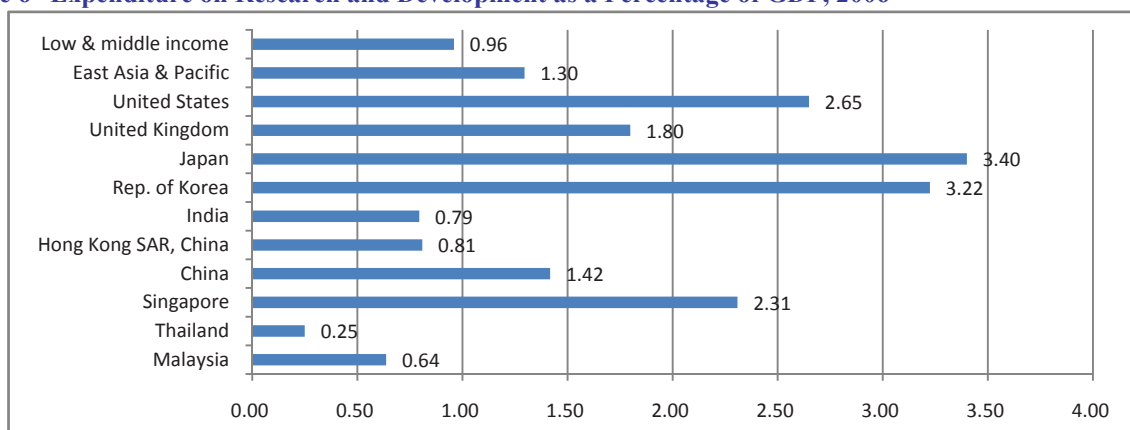
Innovation is almost always at the top of the list of factors that ensure high and sustainable long-term economic growth. An innovative economy will command high productivity, measured by total factor productivity (TFP) in growth accounting, and is thus competitive in the global market. Countries that have not been caught in a middle-income trap are commonly found to have high TFP growth spanning several decades, a phenomenon usually associated with their continued ascent in terms of the product cycle, from labor-intensive products to high technology ones. Thailand certainly does not fit such a profile.

This does not mean that Thailand lacks innovation, but rather the country might be focusing too

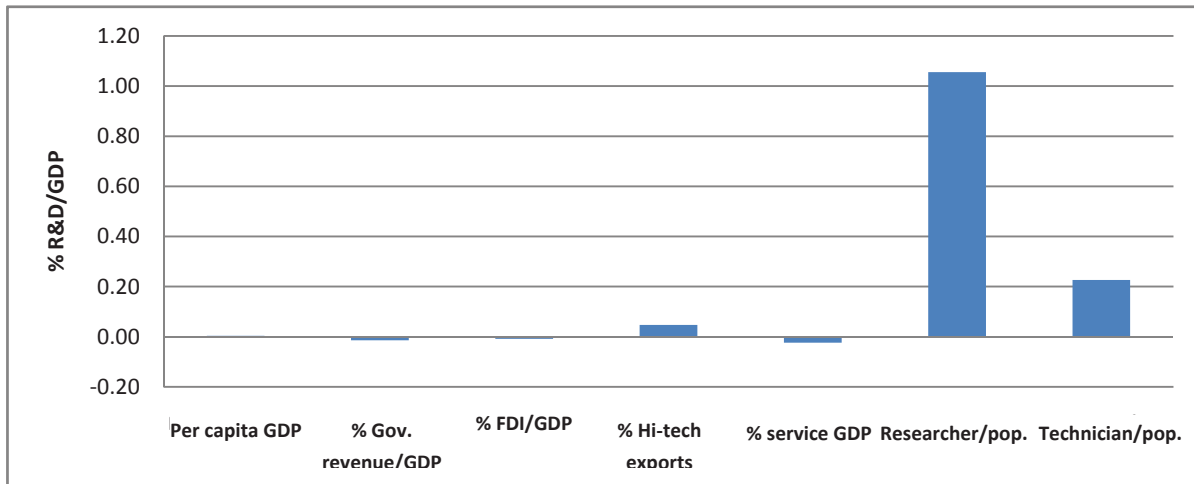
much on non-technological innovation, such as organizational and market innovations.<sup>3</sup> While such innovations lifted Thailand out of poverty, they are unlikely to push the country toward the production frontier that would enable it to earn a decent position in the global market. To excel in product and process innovation, a proactive policy on R&D is sorely needed. Thailand has been lagging behind many countries in the region in terms of R&D. Figure 6 shows that Thailand spent only 0.25 percent of its GDP on R&D, which is lower than countries with a lower per capita GDP, such as China and India. China spent almost six times as much on R&D as a percentage of GDP. Thus, lacking financial resources is not a good excuse for not spending sufficiently on R&D. The reason has more to do with the lack of political will in the public sector, and the lack of appropriate incentives in the private sector. In some developed countries, such as Denmark, the decision on how much to spend on R&D is the subject of a critical annual budget debate in parliament.

Many other factors have been cited as obstacles to increasing R&D. These factors include limited access to foreign technology (through foreign direct investment: FDI) and global market high-technology products and production structure (demand side), and insufficient research infrastructure. Using international regression, Somchai et al. (2011) found that research infrastructure, as represented by the number of researchers and technicians, is the key determinant of the percentage of R&D spending to GDP. Figure 7 shows the projected impacts on R&D of each factor when taking the value that is most plausible in the year 2020; an exception is made for researchers and technicians where values similar to those of the Republic of Korea in 2005/6 were used. The importance of the numbers of researchers and technicians is overwhelmingly clear; increasing the researchers to the level of the Republic of Korea (around 4,000 per one million population) would increase the country's spending on R&D by about 1 percent of GDP, or four times greater than the current level. The number of technicians is also important, although not as much as the number of researchers.

Figure 6 Expenditure on Research and Development as a Percentage of GDP, 2006



Source: Extracted from World Development Indicators (2011) database.

**Figure 7 Projected Impacts on R&D/GDP of Plausible Values of Determinants**

Source: Somchai et al. (2001).

The results by Somchai et al. (2011) support the notion that Thailand needs to develop its research capacity, especially by increasing the size of its pool of researchers and technicians. They also proposed that a separate budget should be allocated solely for creating new researchers, and showed that to reach in 10 years the current level of Korean researchers per population, such a separate budget equaling only 15 percent of the total research budget each year would need to be set up.

#### 4.2 Human Capital Accumulation and Improvement

An innovative economy needs innovative people, with creative and entrepreneurial minds. The development of human capital would thus be very important in helping Thailand escape the middle-income trap, and it is clearly an area badly in need of reform. Starting with education, it has been pointed out numerous times that Thailand's education system does not need more budget but rather management reform. TDRI (2012) argues that accountability in the education system would help increase the quality of education. It proposes that rewards/punishments should be introduced and linked to the students' performance.

The next question is what kind of "education quality" is most relevant in enhancing Thailand's potential economic growth. Acemoglu and Zilibotti (1999) argued that education must provide skills that are compatible with changes in technology in the modern world, in order to avoid the "technology-skill-mismatch" problem. Surveys of foreign firms operating in Thailand revealed that the type of skills they desire from their employees are foreign language skills, information technology skills, communication skills, problem-solving skills and leadership (Figure 8). The World Economic Forum (2009) suggested "entrepreneurship education" in which education must prepare students to

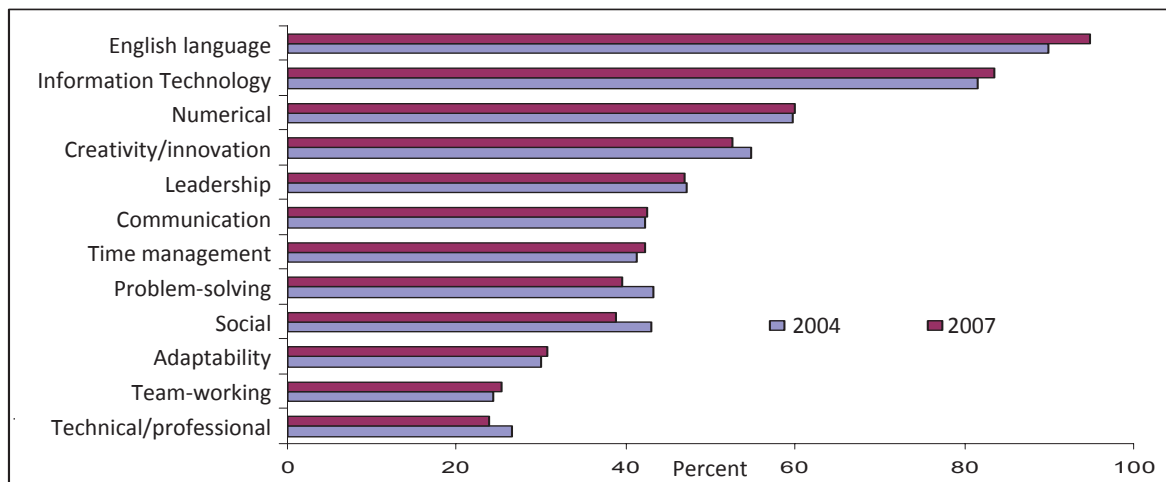
possess an entrepreneurial spirit and the ability to "think outside the box."

Education is not the only way to acquire skills, as shown in Figure 8. There are currently many channels through which Thai workers can obtain additional skills. The government provides skills training at no or low cost for both low-educated and highly-educated workers, through the Department of Skill Development under the Ministry of Labor, and also through various "centers of excellence." Private companies with more than 100 workers are also required by law to support skills training for their workers, either by themselves or by hiring external training services. A tax benefit is given as an incentive to such companies. Although access to skills training is much better now than it had been in the past, a problem remains in terms of the effectiveness of the trainings. Many trainees cannot use the skills they obtain to advance their career or increase their pay scale. Somchai et al. (2009) suggested that training programs should be demand driven, where workers and small firms can initiate the programs and ask for full financial support from the government.

#### 4.3 Physical Capital Accumulation and Improvement

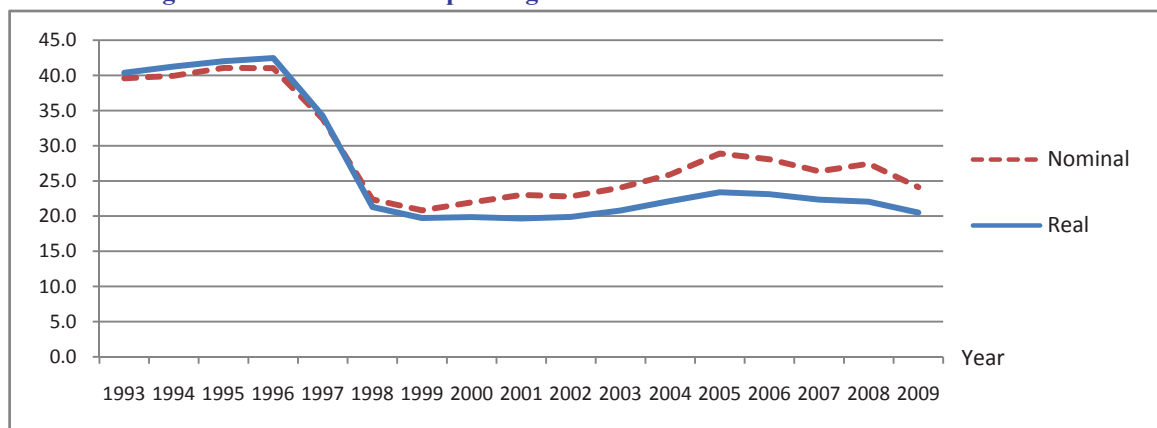
One of the reasons Thailand has performed much worse since the mid-1990s is the declining trend in investment (Figure 9). As is the case with overall economic growth, investment in Thailand has also been "trapped" at a low level, which translates into decelerating accumulation of physical capital. Getting the investment back to about 30-35 percent of GDP, a level between the "bubble" level of the early 1990s and the post-crisis level, should help boost the economy both in the short- and long-run. It will also make economic growth more balanced by increasing the role of domestic demand vis-à-vis external demand.

**Figure 8 Type of Skills Thai Workers Lack, as Reported by Foreign Investors in Thailand**



Source: World Bank (2008).

**Figure 9 Percentage Share of Investment Spending in GDP**



Source: National Income Statistics, Office of the National Economic and Social Development Board, Thailand (various years).

The contribution to growth of investment in GDP has been confirmed in numerous studies. A recent one by Somchai et al. (2012), using panel regression of 93 countries spanning the period 1960-2005, found a positive contribution of investment share to labor productivity.

The quality aspect of capital is also important. In the world of highly fluctuating capital flows, the movement of capital can be too rapid for the real sector to adjust accordingly. Although exchange rate risk management tools are steadily being developed, the country still needs a more elaborate plan to deal with capital flows.

**4.4 Making the Incentive System Right**

The theme of the present paper from the beginning is that good institutions will play vital roles in helping Thailand escape the middle-income trap. One such role would be to devise the right incentive system so that economic agents would want to pursue their own prosperity, which would also be instrumental in improving overall economic growth. Providing public research infrastructure and tax benefits for implementing innovation and R&D activities is an example. Another

critical issue is related to barriers to entry. Somchai (2011) pointed out that there are still restrictions on foreigners investing in some critical sectors, mostly high-value service ones, such as the financial sector, telecommunications, education, and aviation. This has resulted in stagnation of the share of the service sector to GDP in Thailand over the past five decades; meanwhile this share has gone up in countries that are not in a middle-income trap. We believe that the barriers to entry in high-value service sectors are the key explanation of why Thailand has to depend too much on exports, since exports are mostly manufactured goods for which the barriers to entry are much fewer.

Another wrong incentive policy is populist fiscal policy. Somchai (2012) argued that the current populist policy is not only expensively wasteful, but it also does not solve any of the country’s problems. Such policies are not redistributive, and unnecessarily interfere with the market mechanism. Unfortunately, these policies seem to be in a vicious cycle, similar to the spirit of Alesina and Tabellini (1987). Thailand needs to break out of this cycle so that resources can be allocated to promote long-term growth, such as investment in infrastructure and a decent social protection system.

#### 4.5 Taking Advantage of New Environments

One key property that makes countries that never fall into a middle-income trap stand out is their ability not only to adapt to, but also to take advantage of, new environments. Thailand must do the same in looking ahead to the future. The most notable new environment is perhaps regional integration among the countries of East Asia, Southeast Asia, and South Asia. Increased regionalization reflects the recent fall of the G-7's economic power, especially in countries of the West, a development that is likely to continue into the foreseeable future. For Southeast Asia, the full formation of the ASEAN Economic Community (AEC) is eagerly awaited by the private sector in most countries in the Association of Southeast Asian Nations (ASEAN), including Thailand. What remains to be done is for the public sector to catalyze the induced changes in order to maximize the benefits from this development.

Other new environments worth taking note of are climate change, alternative energy technology, and the increasing sense of democracy.

#### ENDNOTES

- <sup>1</sup> The term "middle-income trap" was first used by Gill et al. (2007).
- <sup>2</sup> This is perhaps one of the reasons why the adverse employment impact of the latest subprime crisis was minimal; firms that already invested in training wanted to keep their employees as long as they could.
- <sup>3</sup> For a complete classification of innovation activities, see OECD (2005).

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