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POINT OF VIEW: Future prospects for emerging Asia's saving rate and implications for global imbalances

BY AKIKO TERADA-HAGIWARA AND CHARLES YUJI HORIOKA SPECIAL TO THE ASAHI SHIMBUN

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Emerging Asia has been characterized by high domestic saving rates almost across the board in recent years. These high domestic saving rates have not only made possible high levels of domestic investment but have also led to large capital outflows.

As Ben Bernanke, chairman of the Board of Governors of the U.S. Federal Reserve System and others have pointed out, the emerging economies of Asia have oversaved and underinvested, leading to large current account imbalances.

But will this trend continue in the coming decades?

The population of emerging Asia is expected to age rapidly, and this will presumably lead to a sharp decline in domestic saving rates. If so, the large current account surpluses will be reduced without any need for government intervention.

However, if other factors, such as culture or corporate saving, are the dominant determinants of domestic saving rates, it is possible that domestic saving rates will remain high in emerging Asia and cause global imbalances despite the rapid aging of these economies' populations.

Our recent research, conducted as part of an Asian Development Bank project, analyzed the determinants of the domestic saving rate in emerging Asia between 1966 and 2007. We also projected future trends in domestic saving rates in emerging Asia between 2011 and 2030.

Our sample includes 12 economies, which account for 95 percent of emerging Asia's GDP, namely mainland China, Hong Kong, Taiwan, India, Indonesia, South Korea, Malaysia, Pakistan, Philippines, Singapore, Thailand and Vietnam.

Three main factors influence saving rates

Trends over time vary substantially among the 12 economies we looked at, but most economies in the region have saved substantial amounts over the past 40 years.

South Korea, Singapore, Malaysia, Thailand and Taiwan are the best examples. The domestic saving rates in these five economies rose sharply during the 1970s and 80s, exceeding or coming close to 40 percent of gross domestic product (GDP) by the early 1990s. The domestic saving rates of the economies of emerging Asia declined in the late 1990s due to the Asian financial crisis, but they then resumed their upward climb in the 2000s, reaching a new high in all economies except the Philippines and Pakistan.

A less dramatic but steady upward trend in domestic saving rates was observed in mainland China and India between 1970 and 2000. Both countries experienced surges in their domestic saving rates after 2000, partially driven by soaring corporate savings. The sharp increase in domestic saving rates, particularly in mainland China, in the 2000s has been blamed for increasingly severe global current account imbalances and for the global financial crisis of 2008.

Meanwhile, a few economies in emerging Asia (such as Hong Kong, Indonesia and the Philippines) have shown a moderate downward trend in their domestic saving rates since the early 1980s.

Various factors affect domestic saving rates, but according to our estimation results, the age structure of the population, the degree of financial sector development, and income levels are the major determinants.

Looking first at the impact of the age structure of the population, we found that the aged dependency ratio (the ratio of the population aged 65 and older to the population aged 15-64) has a negative and

significant impact on the domestic saving rate, since the elderly finance their living expenses largely by drawing down their previously accumulated savings. This implies that the aging of a population will put downward pressure on domestic saving rates.

The aging of the population has been progressing rapidly in almost all economies in emerging Asia, with the exceptions of Pakistan and Vietnam, due in large part to rapid increases in life expectancy (from 53 in the early 1960s to 73 in the late 2000s for the sample as a whole), and it has been especially pronounced in Hong Kong, South Korea, Singapore, and Taiwan. This has put downward pressure on the domestic saving rate.

By contrast, the youth dependency rate (the ratio of the population aged 14 and under to the population aged 15-64), which would also be expected to put downward pressure on the domestic saving rate, has shown the opposite trend, declining in all of the economies in our sample, though to a lesser extent in Pakistan.

The degree of financial sector development would also be expected to influence domestic saving rates because people can be expected to do less precautionary saving if they know that they can borrow when the need arises.

Our estimation results show that the degree of financial sector development and the domestic saving rate have a nonlinear relationship. In other words, the domestic saving rate will not start declining until credit markets deepen to a certain level. Since the mid-1980s, the liberalization of financial markets has progressed steadily in emerging Asia, and most East Asian economies' credit markets have deepened to the point where the ratio of private credit to GDP exceeds 100 percent.

On the other hand, many countries in South Asia and Southeast Asia still have shallow credit markets. Thus, progress in financial sector development has put downward pressure on domestic saving rates in East Asia but upward pressure thereon in South Asia and Southeast Asia. These trends can be expected to continue for the next two decades.

Finally, we found that higher income levels increase domestic saving rates but in a nonlinear way. In other words, the extent to which increases in income levels boost domestic saving rates increases as income levels increase. Our results imply that rapid income growth has put upward pressure on domestic saving rates, especially after income exceeded a certain level.

Saving rate projections for 2011-2030

We projected future trends in domestic saving rates over the next 20 years based on our estimation results and on projected trends in the major factors influencing saving rates. We found significant differences among economies. For example, domestic saving rates are projected to fall by 5 to 13 percentage points in rapidly aging economies such as Hong Kong, Taiwan, South Korea and Singapore. On the other hand, domestic saving rates will either increase moderately or remain at the same level in economies where the aging of the population is slower, such as mainland China, Indonesia, India, Malaysia, Pakistan and the Philippines.

The dramatic differences in these projections are not surprising because there is a 40- to 50-year gap in the timing of population aging in the 12 economies in our sample. The fact that more than half (seven) of the economies in emerging Asia are projected to see their domestic saving rates increase suggests that the decline in domestic saving rates in emerging Asia as a whole will not materialize for the time being.

We projected future trends in domestic saving rates in the 12 economies as a whole, and found that the average saving rate in emerging Asia (weighted by real GDP) will increase from 29 percent in 2001-2007 to 32 percent in 2011-2020 and then to 33 percent in 2021-2030.

The population of emerging Asia is projected to age rapidly over the next 20 years, with the aged dependency ratio expected to climb from 11 percent in 2001-2007 to 19 percent in 2021-2030. However, the domestic saving rate of emerging Asia is expected to remain high despite the rapid aging of the population because the impact of other factors will more than offset the impact of population aging.

Implications for global imbalances

The current account surplus is defined as the gap between saving and investment. What are the prospects for capital accumulation and investment rates over the next 20 years?

A recent study by Professors Etsuro Shioji of Hitotsubashi University and Vu Tuan Khai of Seikei University analyzes past trends in investment rates in emerging Asia and projects future trends therein. According to their study, improvements in total factor productivity will cause capital accumulation to increase, while a fading out of the "catch-up effect" and a decrease in the working-age population will work in the opposite direction.

However, they find considerable variation from country to country. For example, mainland China and India, where capital accumulation is still low relative to, say, Singapore, can be expected to show a large "catch-up effect," whereas factors such as low total factor productivity and higher capital goods prices would be expected to act as a brake on capital accumulation.

The Shioji-Vu study concludes that emerging Asia will continue to show increases in per capita capital accumulation during the next 20 years but at a slower pace in some economies, such as mainland China, Vietnam, and South Korea.

The study also projects a decline in the domestic investment rate in mainland China and South Korea, which together comprise more than 60 percent of GDP in emerging Asia, and a more moderate decline in emerging Asia as a whole. Given our projection that the domestic saving rate will show a moderate increase over the next 20 years and Shioji-Vu's projection that the domestic investment rate will show a moderate decline over the same period, the current account surplus of emerging Asia can be expected to remain high and even increase over the next two decades.

The current global imbalances are unlikely to go away anytime soon.

It should be noted, however, that mainland China will account for more than 50 percent of the GDP of emerging Asia by 2020. The trajectory of

saving and investment rates in emerging Asia will therefore be heavily influenced by developments in mainland China.

For example, increases in expenditures on social insurance and pensions, reductions in corporate saving, etc., would reduce mainland China's domestic saving rate and therefore the saving rate of emerging Asia as a whole.

Similarly, domestic investment rates in mainland China and also in emerging Asia as a whole will increase rather than decrease if capital goods prices fall, total factor productivity increases, and/or the industrial sector expands. Hence, our predictions might need to be modified depending on what happens in mainland China.

To put it another way, decisive action by mainland China would help to rectify global imbalances.

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Akiko Terada-Hagiwara is an economist in the Economics and Research Department of the Asian Development Bank (ADB). She received her B.A. from Osaka University and her M.Phil. and Ph.D. degrees from George Washington University. Charles Yuji Horioka is a professor of economics at the Institute of Social and Economic Research, Osaka University. He received his B.A. and Ph.D. degrees from Harvard University.