APPO Productivity Databook 2015
and Recent Productivity Trends in Asia

The Asian Productivity Organization (APO) has published the APO Productivity Databook 2015.

In conjunction with this eighth edition of the databook, the APO is pleased to attach the paper Recent Productivity Trends in Asia by databook co-author Dr. Koji Nomura of Keio Economic Observatory, Keio University, Tokyo, on the analysis of APO productivity data.

The APO Productivity Databook 2015, along with Dr. Nomura’s document, will be useful a reference for members of the media covering a variety of socioeconomic topics. To find out more about the APO’s ongoing productivity measurement projects, its Productivity Database, and the newest edition of the databook, please visit our website (www.apo-tokyo.org).

A PDF of the databook is available for download free of charge at: www.apo-tokyo.org/publications/ebooks/apo-productivity-databook-2015.

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About the APO
The Asian Productivity Organization (APO) is the sole nonprofit international organization in the Asia-Pacific devoted to productivity enhancement. Established in 1961 as a regional intergovernmental organization, the APO contributes to the sustainable socioeconomic development of the Asia-Pacific through productivity enhancement. The current membership comprises 20 economies. Three strategic directions guide the APO: strengthen NPOs and promote the development of SMEs and communities; catalyze innovation-led productivity growth; and promote Green Productivity. The main activities of the APO are capacity building of institutions and human resources development.
In contrast to Europe’s pronounced sluggish recovery from the global financial crisis of 2007-2008—with average annual GDP growth of just 0.4% between 2010 and 2013—the US recorded 2.0% year-on-year growth for the same period and seems on track to achieve sustained long-term growth. Meanwhile, Asia, which has increased its level of economic independence from the US and Europe and contributed greatly to stabilizing the global economy during the global financial crisis, continued to grow at a stable average annual rate of 5.4% during the same period. In 2013, Asia accounted for 45% of total global production. However, compared to the late 2000s, the speed of Asia’s economic growth has slowed by one percentage point, the main reason being the end of China’s period of rapid economic growth, which has affected countries such as the Republic of China and the Republic of Korea that have become heavily reliant on the Chinese economy.

In the 2000s, China realized average annual economic growth of 10%. Growth accounting analysis suggests that the slowing of China’s growth rate to 7.4% in 2013 was largely due to a slump in TFP (total factor productivity). During the 2000s, the “latecomer’s advantage” that China enjoyed thanks to an economic growth model heavily reliant on expansion in the manufacturing sector was manifested in annual TFP growth of more than 4%, accounting for about 40% of China’s GDP growth. Today TFP growth in China has fallen by half, to about 2%, and about 70% of China’s economic growth now depends on capital accumulation. The trend in China toward a decline in investment efficiency, which accompanies increased reliance on capital accumulation to make up for the loss of high TFP growth, is similar to what Japan’s economy experienced from the 1960s through 1970s as it emerged from its own period of rapid economic growth. However, in China’s case there is widespread concern that over-investment on the part of both the public and private sectors will result in a hard landing for the Chinese economy; the recognition of the destabilizing effect that this would have on the still shaky global economy not only led to a sharp selloff in capital markets this past summer but is also beginning to impact the real economy.

In the Republic of China and the Republic of Korea, which have become heavily reliant on the Chinese economy, productivity has become especially sluggish in recent years. From 2005 to 2010, the Republic of China and the Republic of Korea recorded annual TFP growth of 2.2% and 2.5% respectively, the highest average figures for both countries in forty years. That strong TFP growth acted as an engine that pushed annual labor productivity growth to 3.9% for the Republic of China and 4.8% for the Republic of Korea. But from 2010 to 2013, both countries saw annual TFP growth fall to 0.7% and watched as labor productivity growth dropped to 1.1% in the Republic of China and 2.2% in the Republic of Korea. In the Republic of Korea in particular, the decline in the rate of return on capital has been especially pronounced, approaching levels seen in Japan since the early 1990s. Even Mongolia’s burgeoning economy, which thanks to a resources boom has seen annual growth of 12.9% since 2010, has experienced

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1 The portion of real GDP not explained by the amount of inputs used in production, such as labor and capital. According to the definition used by the APO Productivity Databook 2015, this includes improvements in the quality of labor inputs.
a rapid deceleration due to the slowdown in China’s economy.

In contrast to these downward trends, the productivity of the Japanese economy is headed toward recovery. From 2010 to 2013, TFP growth averaged 1.0%, the highest level seen since Japan’s long period of economic stagnation began (the so-called Two Lost Decades). This has been virtually the only engine of economic growth in Japan over the past twenty years, a period that has seen the volume of labor inputs decrease and capital accumulation stagnate. However, growth in labor productivity in Japan has not managed to rise above 0.8% due to a shallowing of capital, albeit a slight one. The past twenty years of economic stagnation has caused a decrease in nominal wages since the late 1990s, but that itself could become a driver of economic growth moving forward. Japan is now at a critical stage in terms of understanding whether Abenomics can deliver on its promise of increased productivity and investment.

The center of gravity in the Asia-Pacific region in terms of economic growth and productivity growth has begun to shift from Northeast Asia to the ASEAN nations. From 2010 to 2013, the Philippines achieved high annual TFP growth of 3.0%. This has been a major contributing factor to the huge improvement in labor productivity, which increased at an average annual rate of 3.7% in a country where capital deepening remains at low levels. Since the 1990s, income transfers (foreign remittances from Philippine workers residing abroad) has continued to increase, reaching 32% percent of GDP in 2013, propelling stable growth in domestic consumption. With concerns about whether demand-driven improvements in productivity can be sustained, the question of whether expansion in the industrial sector will translate into increased productivity continues to be an important issue in terms of creating a favorable investment climate.

Thailand’s economy, meanwhile, which suffered relatively badly during the Global Financial Crisis, recovered steadily between 2010 and 2013, with TFP growth of 2.3% per year and labor productivity increasing annually by 3.7%, the highest level of long-term productivity growth in that country’s history. Between now and 2020, Thailand will be enjoying the peak of its so-called demographic dividend. With stable growth driven by both supply and demand expected to continue into the future, Thailand looks well on its way to realizing its TFP growth target of 3% under the 11th National Economic and Social Development Plan (2012-2016). Similarly, Vietnam saw improvements in TFP and labor productivity of 1.1% and 4.3% respectively, from 2010 to 2013. TFP in particular has shown a dramatic recovery from its negative growth of the mid 2000s onwards, to the point where in recent years it has come to account for 20% of economic growth. The Vietnamese government has set a target of raising the contribution of TFP to economic growth to above 35% between 2015 and 2020, and is moving ahead with measures aimed at improving production processes and the quality of goods.

Since the mid 2000s, India, which in 2008 overtook Japan in terms of GDP as measured by production, has maintained high annual growth in labor productivity, averaging 6.6%. However, with per capita GDP still just 14% of Japan’s (as of 2013), job creation remains a top government policy priority, even at the cost of sacrificing a degree of growth in average annual labor productivity. For more than thirty years, the GDP of India’s manufacturing sector has been increasing.

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2 Capital deepening is an increase in the amount of capital in the economy relative to the amount of labor; capital shallowing is the reverse. In the APO Productivity Databook series, this is measured as the amount of capital service per hour worked.

3 A “demographic dividend” occurs when the percentage of people aged 15 to 64 is approximately twice that of the rest of the population (i.e. those 14 and younger, and those 65 and older).
grown by an annual rate of about 6%, but since 2000 this growth has had little effect on employment, and job growth remains extremely modest. The government’s “Make in India” initiative, aimed at promoting broader growth in the manufacturing sector, should lay the groundwork for India to make the most of its promised demographic dividend in the 2030s and 2040s.

Pakistan’s economy also saw TFP grow at an average annual rate of 1.9% from 2010 to 2013, marking a gradual return to long-term trends. The main issue the country faces in terms of economic growth is flagging capital accumulation. Whereas in India the expansion of capital inputs accounts for 60% of economic growth, in Pakistan that figure is below 10%. However, on a more positive note, the return on capital, which had fallen to about 5%, has recovered since 2010 to about 10%. It is hoped that an amelioration of the investment climate and consequent capital deepening in Pakistan will lead to increases in labor productivity, which was stuck at an average annual grow rate of 1.7% during the same three-year period.

In terms of Bangladesh’s economy, since the late 1990s TFP growth has hovered around zero or dipped into negative territory. Though the manufacturing sector’s share of Bangladesh’s economy is larger than in India, textile and apparel manufacturing accounts for about half of all industrial output, a sector in which productivity has actually been falling over the long term. However, since 2010, TFP growth has entered positive territory, averaging 0.8% annually, and labor productivity has also grown by an annual rate of 2.8%, double what it has been in the past over the long term. From the 1980s through the mid 1990s, capital investment as a share of Bangladesh’s GDP was just 17%, but by 2013 that figure had risen to nearly 30%, including investments in infrastructure. At present, both Bangladesh’s ratio of investment to GDP and per capita GDP have reached levels where India was in the mid 2000s, and it is therefore expected that the country will follow a future growth path similar to India’s over the past ten years. South India has enormous potential for growth as well as room for improvement in labor productivity.

The APO is currently considering a productivity target for its member countries and the entire Asia-Pacific economic region of improving average annual labor productivity 3.6% by the year 2020. Between 2010 and 2013, TFP growth among APO member countries and the region averaged 1.3% per year, while labor productivity increased by an annual average rate of 3.0%. It is to be hoped that the APO will continue its efforts on the microeconomic and macroeconomic levels to lift TFP growth above 2%.