



Press Conference for Launching the APO Productivity Databook 2014,
hosted by Asian Productivity Organization (APO) and Keio Economic Observatory, Keio University, October 17, 2014, 15:00-16:00.



Asian Economic Growth and Productivity : Past Four Decades and The Next Two

— Highlights of the *APO Productivity Databook 2014* and Forecast

Koji NOMURA

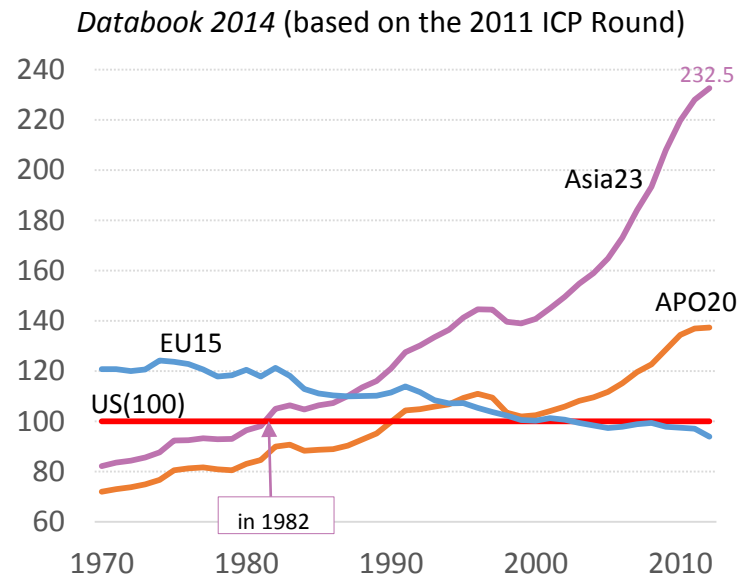
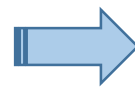
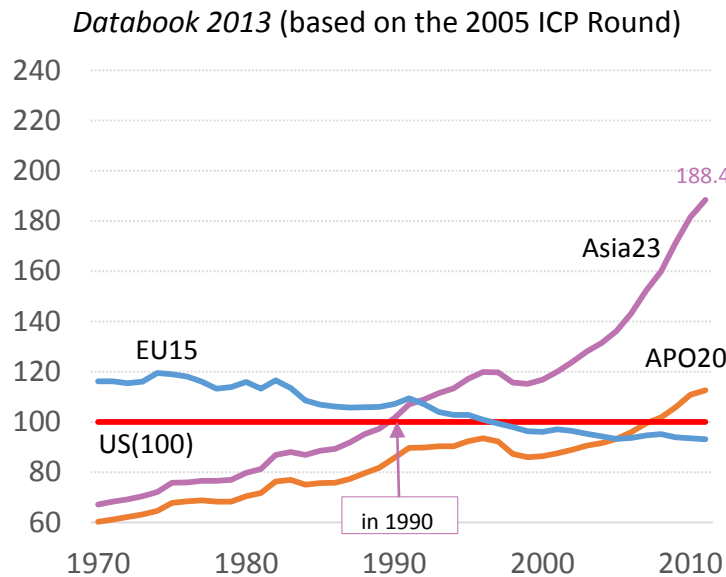
Chief Expert, APO Productivity Databook project
Associate Professor, KEO, Keio University

at Conference Room, Keio Economic Observatory, Keio University

Revision in Size of the Asian Economy

— New estimates of PPP revised the sizes of regional economies.

- Regional GDP Sizes of Asia, EU, and the US, 1970-2012
 - Regional GDP sizes are revised in the *Databook 2014*, mainly due to the revision of PPPs from the 2005 ICP Round to the 2011 ICP Round.
 - By this revision, the relative size of Asian23 economy increased by 21% in 2011.
 - The Asian economy overtaken the US economy in 1982 (revised from 1990 in the past estimates).
 - The Asian economy is 2.3 times larger than the US economy in 2012 (revised from 1.9 times in 2011).

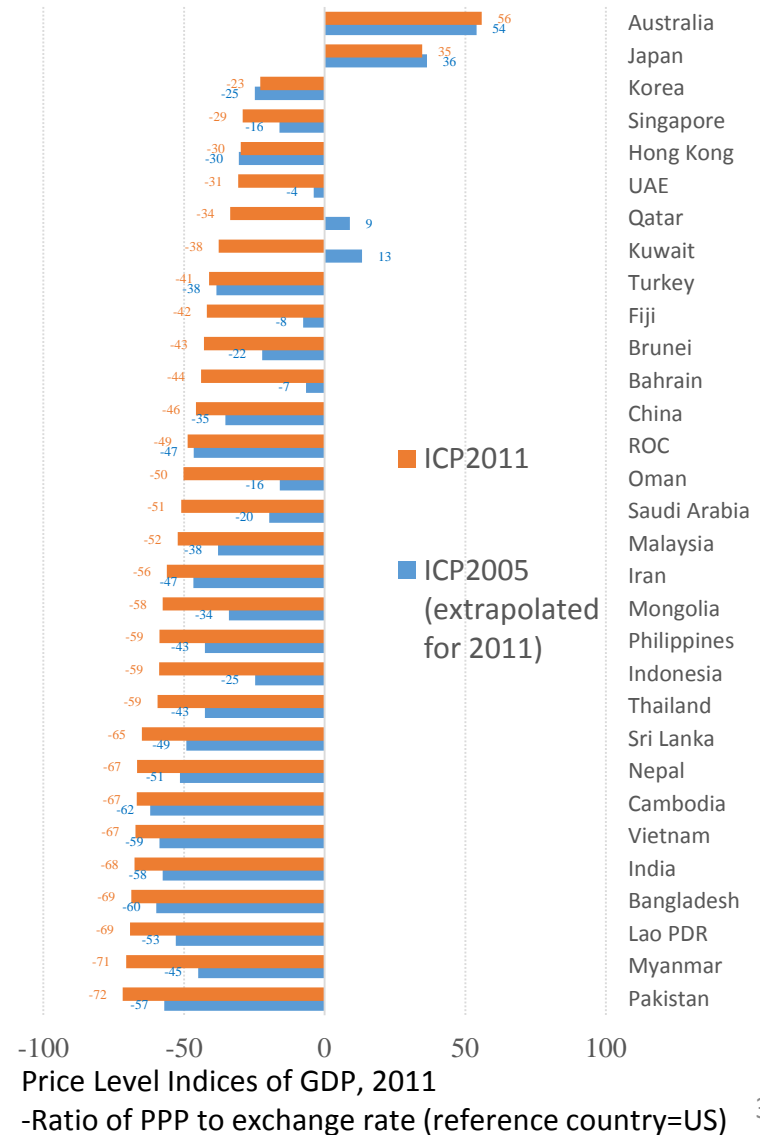


Revision in Price Levels of Asian Countries

—The exchange rates under-represent the relative purchasing power.

• Price Level Indices in 2011

- The new benchmark PPPs for most of the Asian countries are lower than the PPPs suggested by their extrapolated equivalents from the 2005 ICP.
- This revision resulted in raising the relative sizes of the economy; e.g. Myanmar (47%), Indonesia (45%), Mongolia (36%), Lao PDR (35%), Pakistan (34%), Nepal (31%), Sri Lanka (31%), India (24%), China (16%), and so on.
- Impact of the revisions in the mature Asian economies (Japan, Hong Kong, ROC Korea) are minor, except Singapore (increased by 16%).

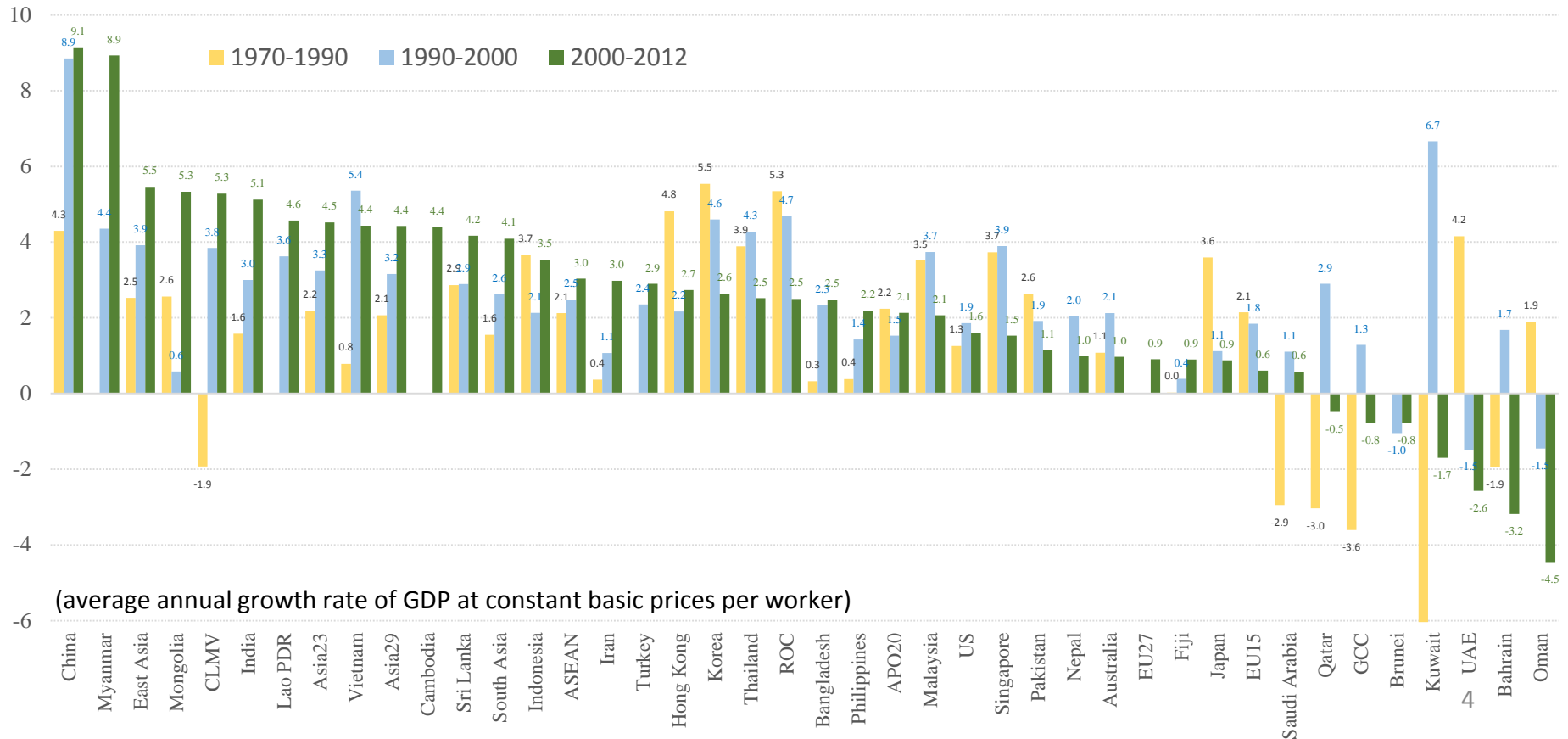


Labor Productivity Performances: Past Four Decades

—Asia’s productivity growth has been accelerated in the 1990s and the 2000s.

• Per-Worker Labor Productivity Growths, 1970–1990, 1990–2000, and 2000–2012

- Asia23’s ALP growth records 4.5% annually in 2000–12, compared to 3.3% in 90–2000 and 2.2% in 1970–70.
- ALP growths in ROC, Korea, and Hong Kong peaked in 1970–1990., then slowed down.
- ALP growths in Malaysia, Thailand, and Singapore peaked in the 1990s and were slowed down in 2000–12.
- Myanmar, Mongolia, Iran, and India changed gears in 2000–12.

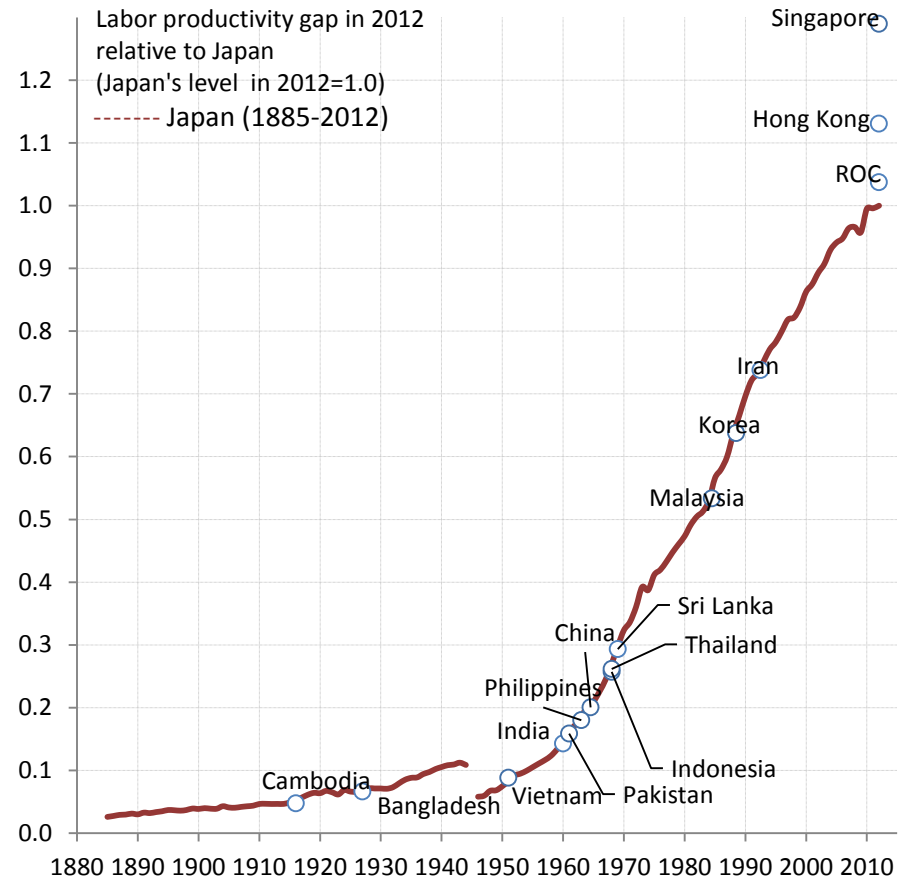
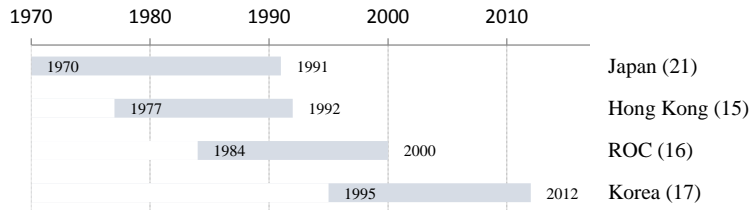


Labor Productivity Gap of Asian Countries

—There is ample room for catch-up for developing Asian countries.

• Per-Hour Labor Productivity Gap in 2012

- Most Asian countries are clustered around Japan's level in the 1950s and early 1970s (10%–30% of Japan's level today)
- There is ample room for catch-up and sound policies may enable them to increase a speed to catch up.
- What Japan had achieved in the 21 years from 1970 to 1991 (30–70% of Japan's level today), Hong Kong, the ROC, and Korea managed to achieve in 15, 16, and 17 years, respectively.



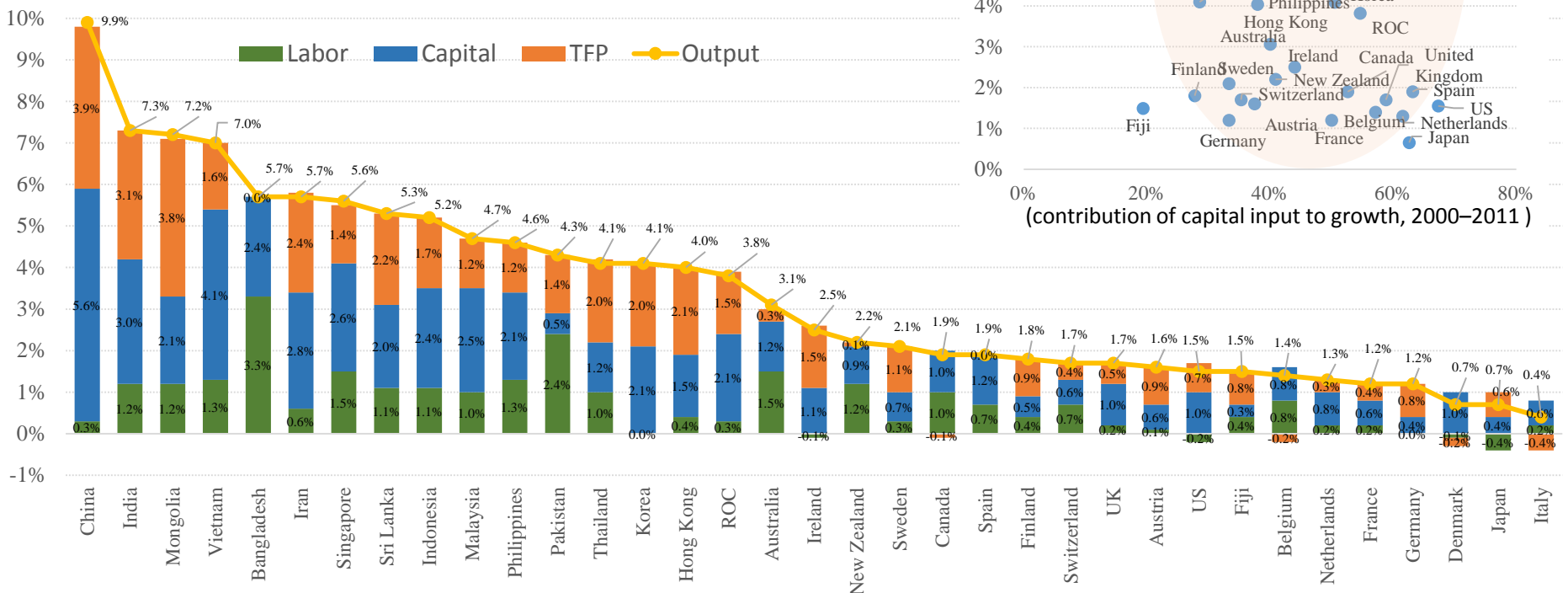
Sources: For historical data of Japan, the sources of GDP are Long-Term Economic Statistics by Ohkawa et al. (1974) during 1885–1954 and the JSNA by ESRI, Cabinet Office of Japan, during 1955–2012 (including author adjustments). Hours worked data is based on KEO Database during 1955–2012. During 1885–1954, the average hours worked per worker are assumed to be constant. For the labor productivity level of Asian countries in 2012, it is based on the APO Productivity Databook 2014 (ver.01).

Capital Input and Economic Growth

— Main engine of the economic growth is growth of capital input.

• Sources of Economic Growths in Asia and OECD Countries, 2000–2011

- Contributions of capital input are the most significant not only in developing Asian economies, but also in mature Asian and OECD countries. (see the right figure)
- Asian countries could gain much higher TFP growths: 3.9% in China, 3.8% in Mongolia, 3.1% in India.



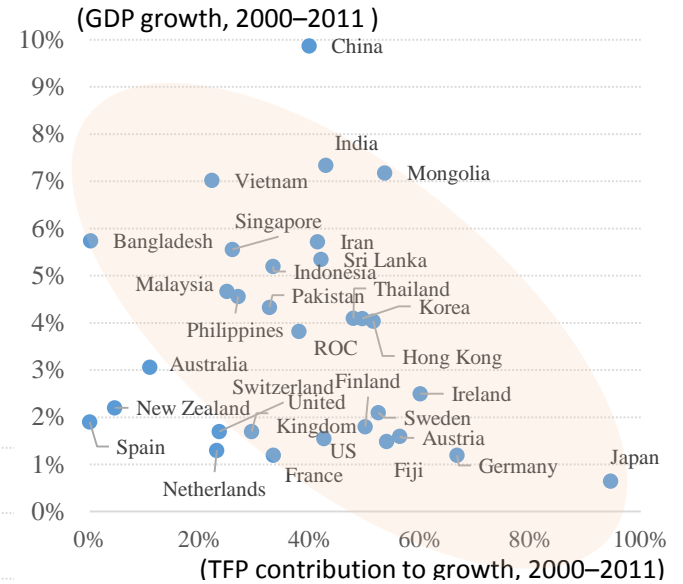
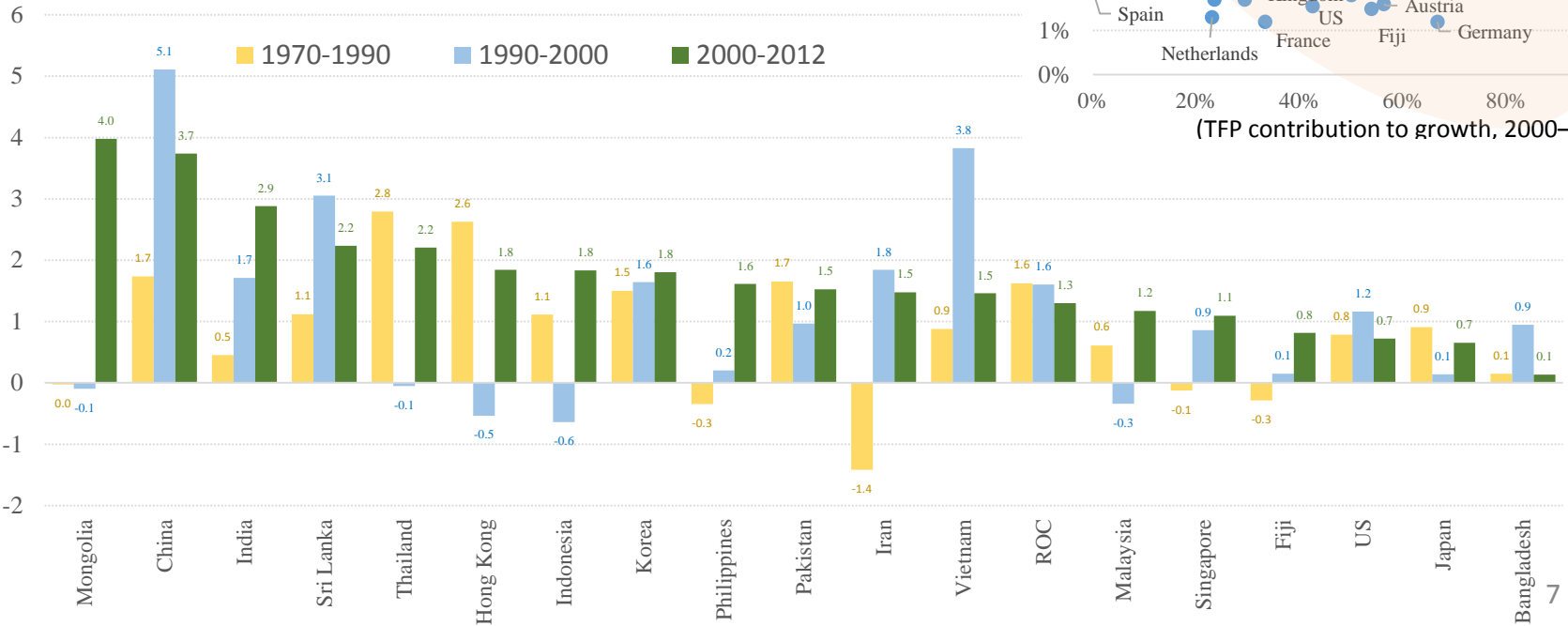
Sources: APO Productivity Database 2014 (ver01) for APO member countries and China and the US; OECD Stat for OECD countries (except Japan and Korea). The ending years are different: Australia and Portugal are until 2010 and the UK is until 2009.

TFP growth

—Asian countries could gain higher TFP growths in the 2000s.

• TFP growths, 1970–1990, 1990–2000, and 2000–2012

- Improved in 12 countries from the 1990s to the 2000s: e.g. Mongolia(-0.1%→4.0%), India(1.7%→2.9%), Thailand(-0.1%→2.2%), Indonesia(-0.6%→1.8%)
- Deteriorated: China(5.1%→3.7%), Vietnam(3.8% →1.5%), Sri Lanka(3.1% →2.2%)
- Role of TFP growth is more important in the growths of more economically developed countries.



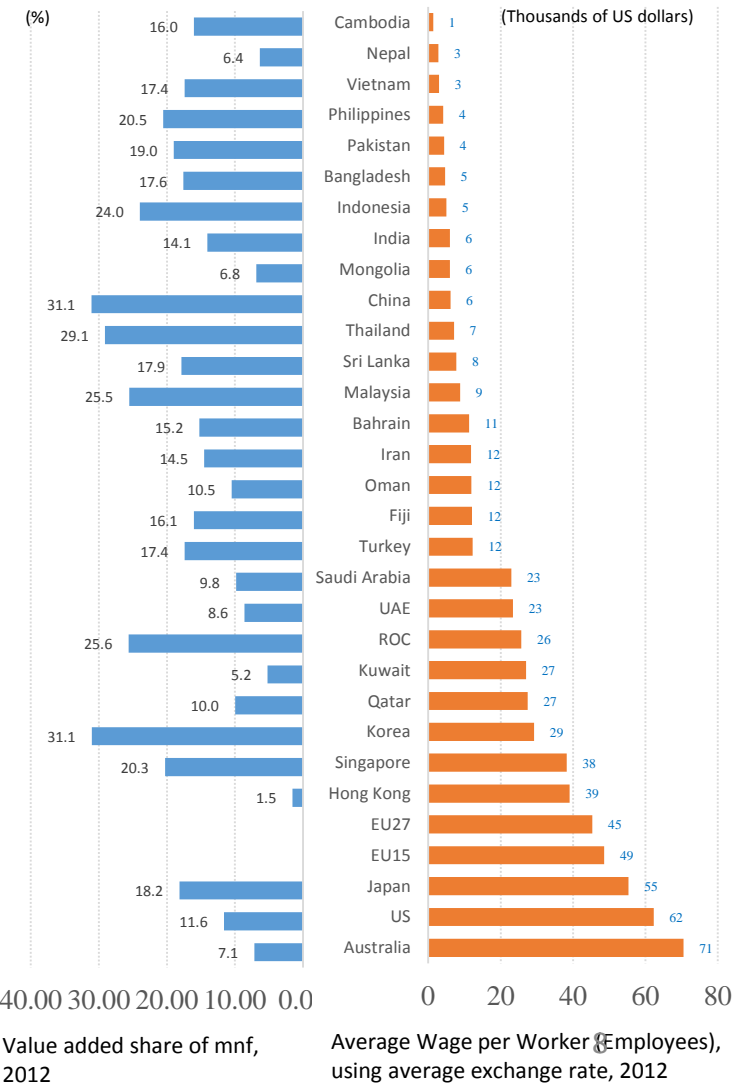
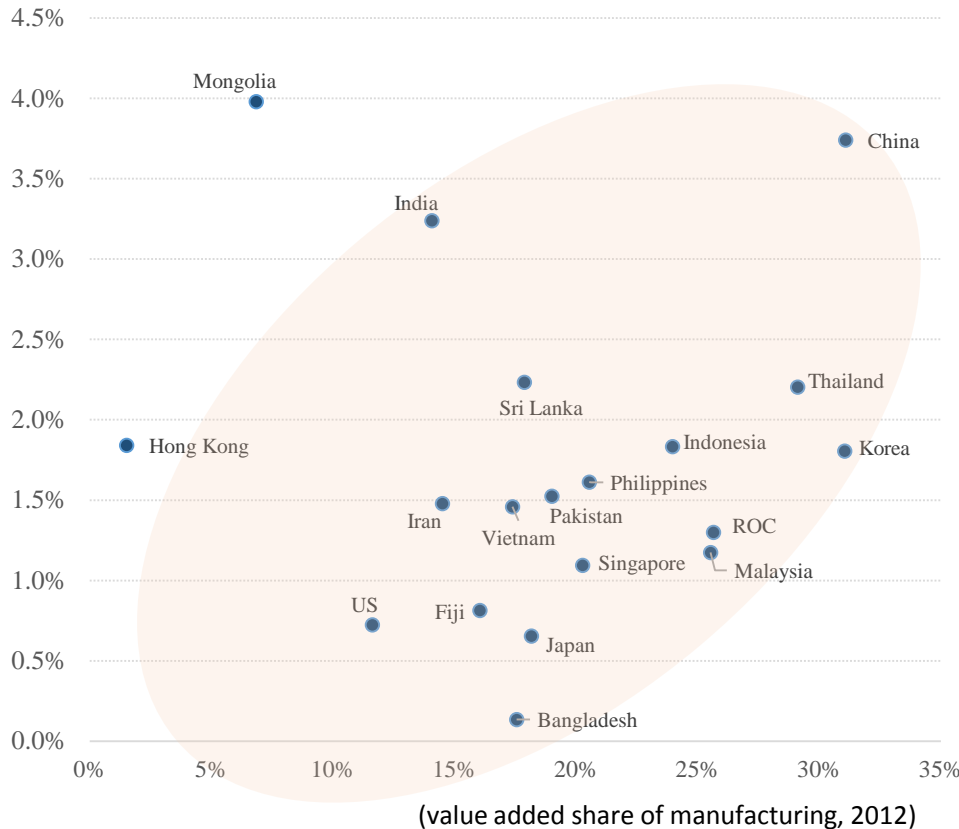
Role of Manufacturing in TFP Growth

— Positive correlation between TFP growth and manufacturing’s share in GDP.

- TFP growth during 2000–2012 and the value-added share of manufacturing in 2012.

- Mnf-share in most Asian countries ranges 15–30% in 2012.
- Higher share of manufacturing caused higher TFP growth.
- Large potential to take TFP’s benefit in lower wage countries.

(TFP growth, 2000–2012)

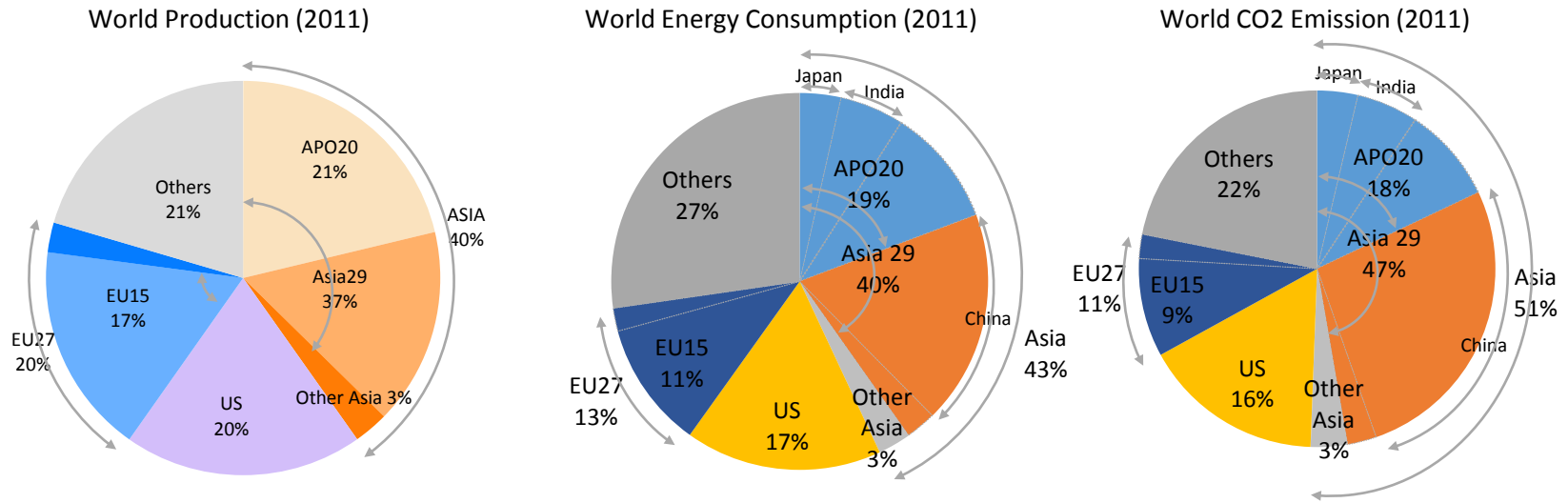


Production, Energy, and CO2 Emission

—To produce 40%, more than half of World CO2 is emitted in Asia.

- Shares of Asia in the World Production, Energy Consumption, and CO2 Emission, 2011.

- In Asia, 40% of production, 43% of energy consumption, and 51% of CO2 emission.
- In US, 20% of production, 17% of energy consumption, and 16% of CO2 emission.
- In EU, 20% of production, 13% of energy consumption, and 11% of CO2 emission.



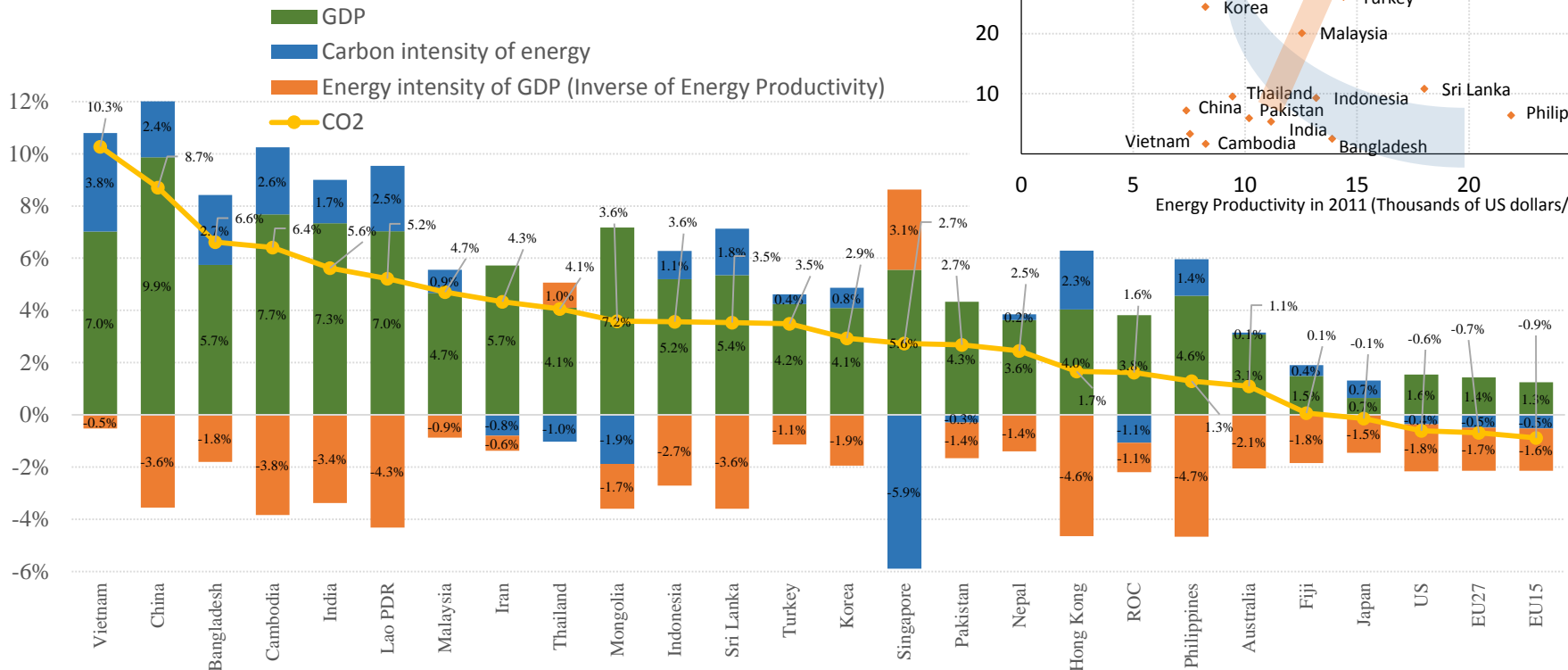
Sources: IMF, World Economic Outlook Database, April 2014; IEA, CO2 Emissions from Fuel Combustion 2013; IEA, Energy Balances of OECD Countries 2013; IEA, Energy Balances of non-OECD Countries 2013; APO, APO Productivity Databook 2014.

Energy Productivity

— Improving energy productivity is required for sustainably expanding the Asian economy.

• Sources of CO2 emission growth in 2000–2011.

- Output expansion is a main cause of expansion of CO2 emission, but many countries could improve energy productivity (energy saving).
- However, increases in carbon intensity of energy were worsened in Vietnam, Bangladesh, Cambodia, Lao PDR, China..
- It is required to promote diffusion of energy-saving and low-carbon technologies, with improving labor productivity.

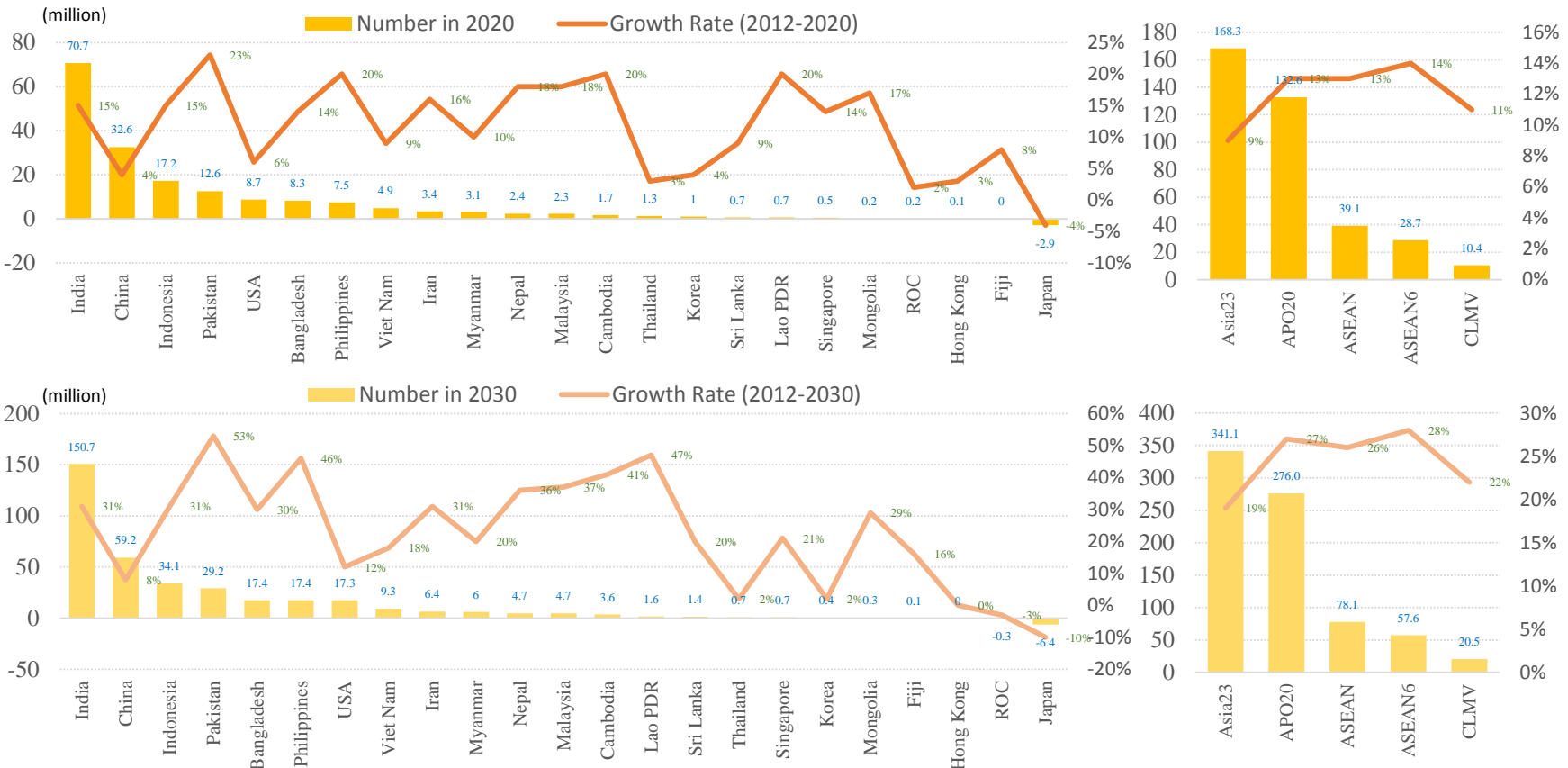


Forecast: Number of Employment

— Workers are expected to be increased by 168 million until 2020 in Asia.

• Forecasted Number of Employment in 2020 and 2030

- 42% of 168 million will be expanded in India, 10% in Indonesia, and 7.5% in Pakistan in 2020.
- 341 million workers are expected to be increased until 2030 in Asia.

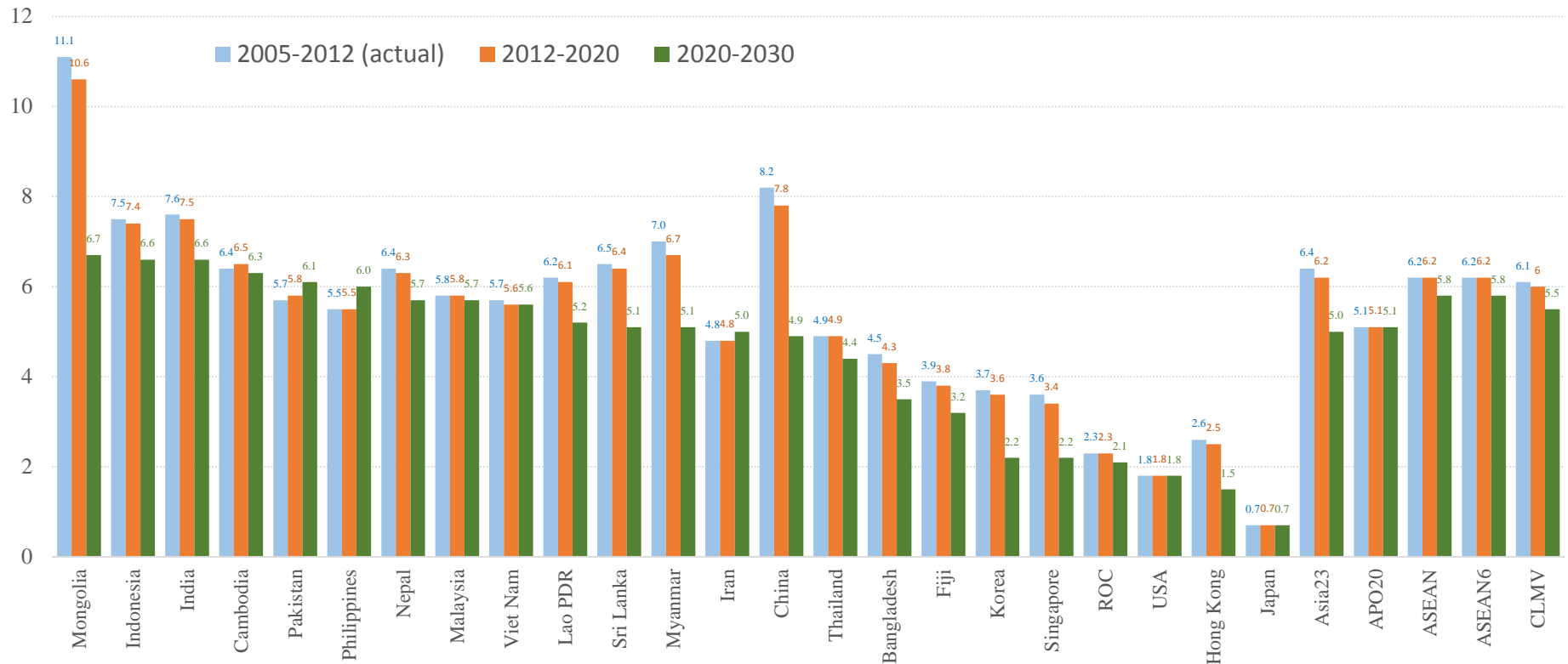


Forecast: Real GDP Growth

— The Asian economy is expected to continue to expand for the next two decades.

• Forecasted Economic Growths, 2012–2020 and 2020–2030

- The growth rate will be slightly decreased from 6.4% in 2005–12 to 6.2% in 2012–20.
- In 2020–30, it is expected to be slowed down to 5.0%, mainly reflecting the slowdown of China’s growth.
- Pakistan, Philippines, and Iran are expected to accelerate their growths in 2012–20 and 2020–30.



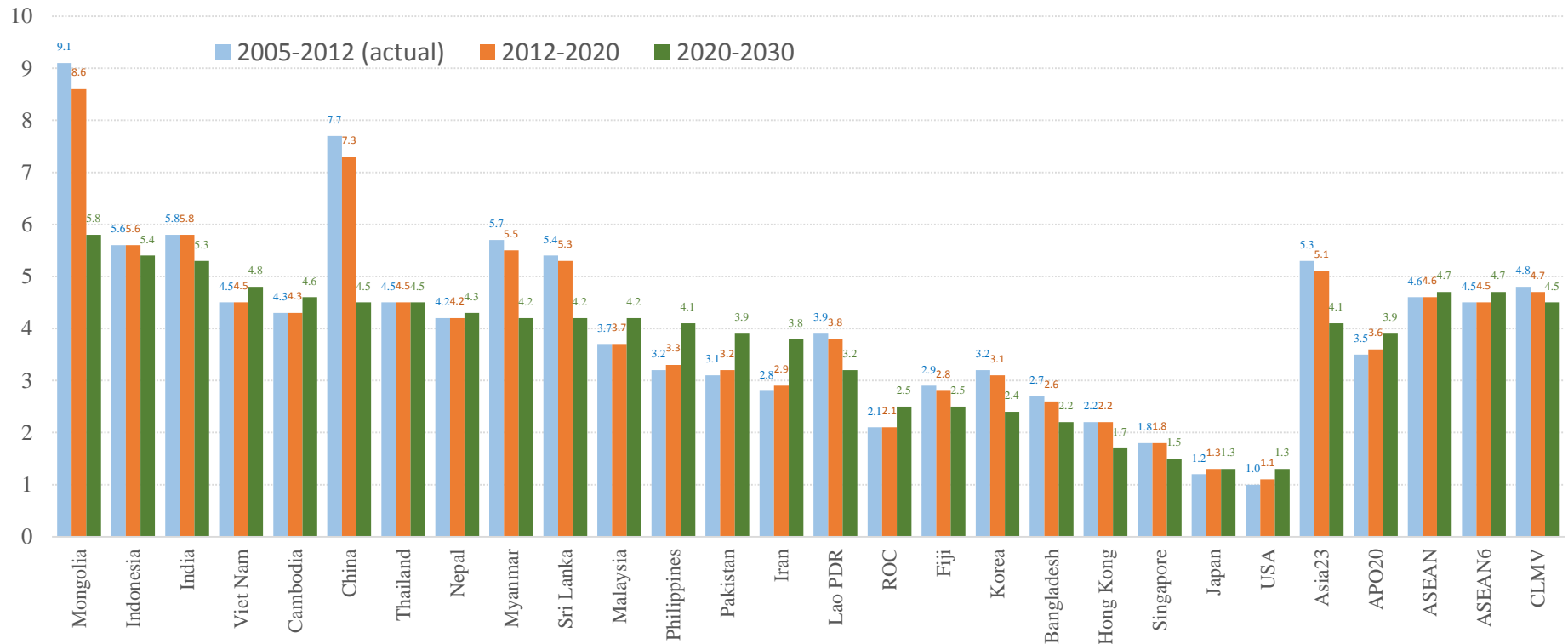
Sources: Author’s estimates (based on UN, *World Population Prospects: The 2012 Revision*; ROC National Development Council, *Population Projections for ROC 2014-2060*; APO, *APO Productivity Databook 2014*; Asia-QALI Database 2014 (under construction)).

Forecast: Labor Productivity Growth

— Strong improvement in labor productivity is expected to be sustained.

• Forecasted Growth Rate of Labor Productivity, 2012–2020 and 2020–2030

- Asia’s ALP will keep a similar speed of ALP growth (5.1%) in 2012–20, compared to 5.3% in 2005–12.
- In 2020–30, it is expected to be somewhat slowed down to 4.1%, from 5.1% in 2012–20.
- ASEAN is expected to sustain a sound growth of ALP even in 2020–30.



Sources: Author’s estimates (based on UN, *World Population Prospects: The 2012 Revision*; ROC National Development Council, *Population Projections for ROC 2014-2060*; APO, *APO Productivity Databook 2014*; Asia-QALI Database 2014 (under construction)).



Press Conference for Launching the APO Productivity Databook 2014,
hosted by Asian Productivity Organization (APO) and Keio Economic Observatory, Keio University, October 17, 2014, 15:00-16:00.



Thank you.

For further information, please contact

Koji NOMURA
Keio University, Tokyo
email: nomura@sanken.keio.ac.jp