ASIAN DEVELOPMENT OUTLOOK 2020

WHAT DRIVES INNOVATION IN ASIA?
Special Topic: The Impact of the Coronavirus Outbreak—An Update

ADO Theme Chapter:
What Drives Innovation in Asia?
Key messages

• Developing Asia needs innovation to sustain growth and improve quality of growth.

• There are five key drivers of innovation in Asia:
  - Education
  - Entrepreneurship
  - Strong institutions
  - Finance
  - Cities

• Building an innovative society is a long-term commitment requiring a lot of hard work.
Some Asian economies are rapidly closing the innovation gap ... but many others lag behind
Get the fundamentals right first—too many of Asia’s children aren’t getting proper basic education.

Learning poverty and GDP per capita in Asian economies

1 out of 3 ten-year-olds in developing Asia cannot read adequately.
To support innovation, focus on the “gazelles”—they generate the most jobs and innovation

A few baby businesses provide a disproportionate share of employment

Fewer than 1 in 6 entrepreneurs are involved in innovation activity

Note: Data cover businesses less than 42 months old, during 2006–2016, for Bangladesh; Georgia; Hong Kong, China; India; Indonesia; Kazakhstan; Malaysia; Pakistan; the PRC; the Philippines; the ROK; Singapore; Taipei, China; Thailand; Tonga; Vanuatu; and Viet Nam.
Different IPRs matter more for innovation at different stages of development

Registration of intellectual property rights in the Republic of Korea, 1970-2010

- 1971–1986: 63% Patents and Designs, 37% Trademarks and Utility Models
- 1987–1998: 56% Patents and Designs, 44% Trademarks and Utility Models
- 1999-2009: 56% Patents and Designs, 44% Trademarks and Utility Models
Financial markets have a bigger impact on innovation than banks
Dynamic cities with high-quality universities are hotbeds for innovation

Firm innovation near a top university
Power of entrepreneurial innovation: COVID vaccine

• The brains behind the Pfizer-BioNTech coronavirus vaccine are Dr. Ugur Sahin and Dr. Ozlem Tureci, two brilliant Turkish-German scientists.

• They also happen to be successful entrepreneurs who founded biotechnology firm BioNTech in Mainz, Germany in 2008.

• The vaccine uses a revolutionary technology called messenger mRNA.

• The profit incentive plays a role but.....

• .....perhaps the bigger driver is the common DNA of entrepreneurs and innovators.
Power of entrepreneurial innovation: cleaning up the Pacific Ocean

- Great Pacific Garbage Patch
  ➢ A gigantic flotsam of plastic garbage which is one and half time as big as the U.S.

- Boyan Slat is a 26-year-old Dutch entrepreneur and innovator.

- Using simple physics, he discovered an ingenious mechanism for the debris to collect themselves.

- Slat initially used crowdfunding to set up his startup The Ocean Cleanup.

- The firm is now extending its activities to cleaning up highly polluted rivers.
Key messages

• Developing Asia needs innovation to sustain growth and improve quality of growth

• There are five key drivers of innovation in Asia: Education, entrepreneurship, strong institutions, finance, cities

• Building an innovative society is a long-term commitment requiring a lot of hard work.

• Innovation is vital for tackling COVID-19 as well as a sustainable and inclusive post-COVID recovery

• Government policy and investments matter a lot for innovation, but innovative entrepreneurs do too.