

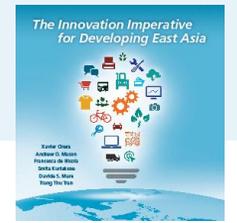
The Innovation Imperative for Developing East Asia

A World Bank Regional Report

February 23, 2021, Washington, D.C.

February 24, 2021, East Asia





Key messages

- Countries in developing East Asia face unprecedented challenges
- To sustain their economic performance, countries need to become more innovative
- Countries' innovation policies are not aligned with firms' capabilities and needs
- To spur innovation-led growth, policy makers need to
 - Reorient innovation policies
 - Strengthen complementary factors, and
 - Improve institutional capacity and governance

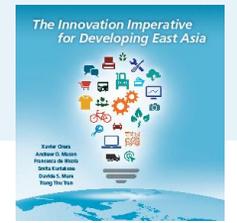


The Innovation Imperative



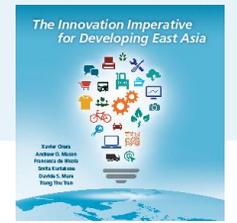
Unprecedented challenges threaten the region's growth model and require swift action

- Declining productivity growth
- Uncertainty in global trade
- Rapid technological change
- Climate change
- The COVID-19 pandemic



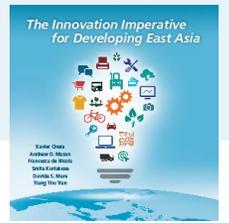
Addressing these challenges requires more innovation

- Declining productivity growth → Higher productivity
- Uncertainty in global trade → Greater competitiveness
- Rapid technological change → Faster convergence to the technological frontier
- Climate change → Cleaner, environmentally sustainable modes of production
- The COVID-19 pandemic → More flexible and digitally integrated production

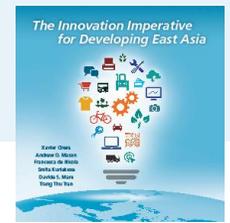


The report defines innovation broadly

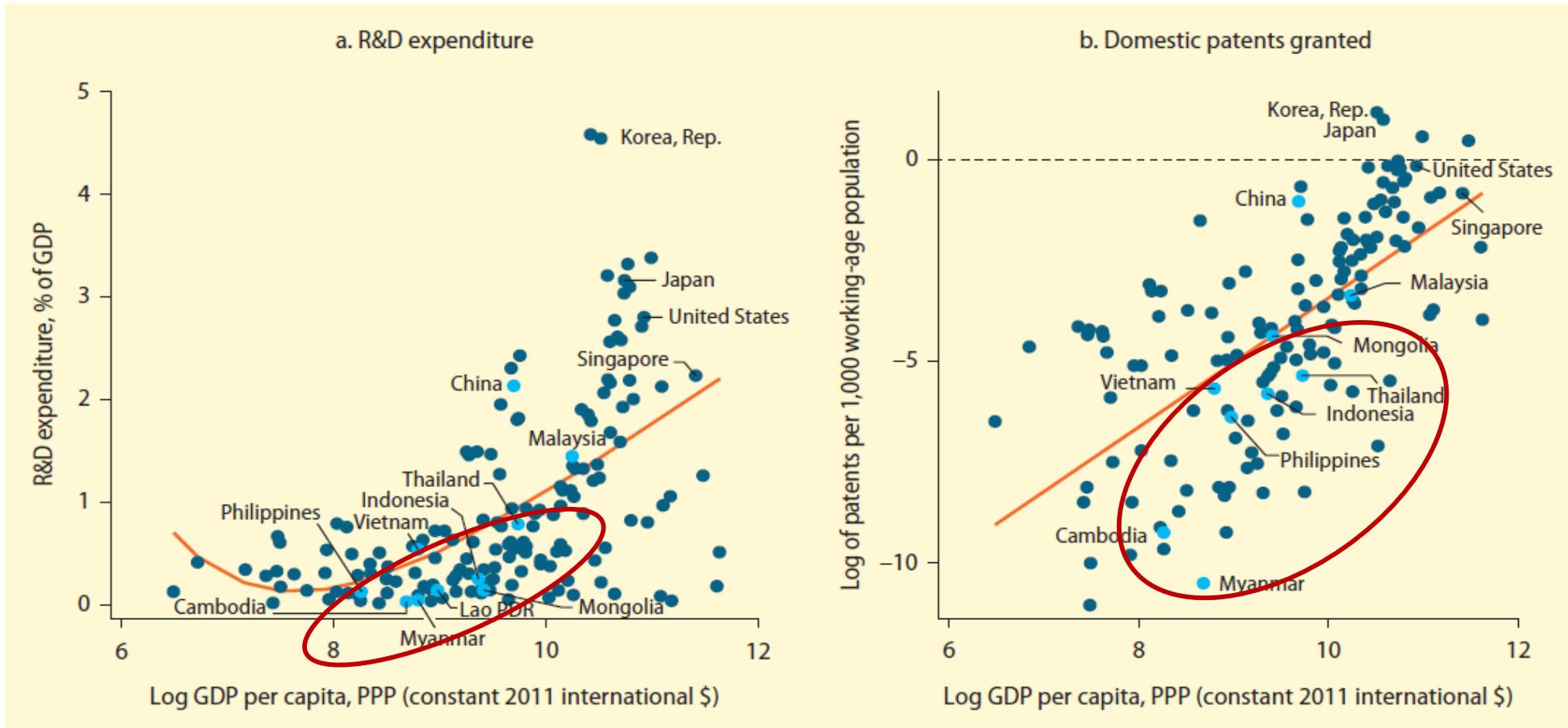
- ***Invention***
 - developments that push the technological frontier
- ***Diffusion*** and ***adoption*** of existing technologies and practices
 - that lead firms to novel ways of producing and acting



The State of Innovation in the Region

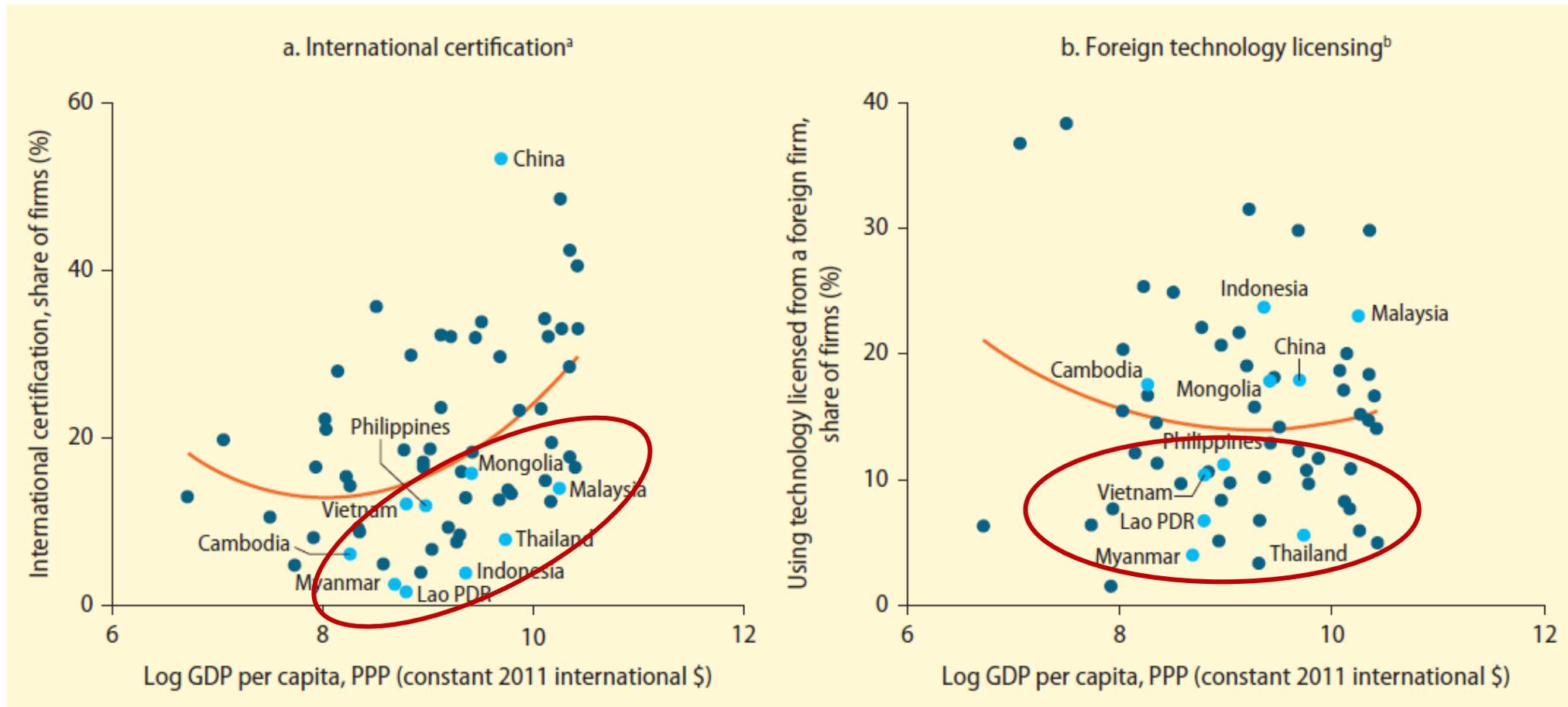


Most countries perform below predicted levels on key indicators of *invention*, e.g., R&D spending, patents

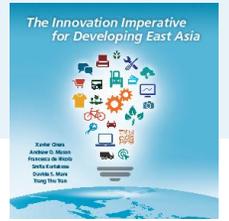




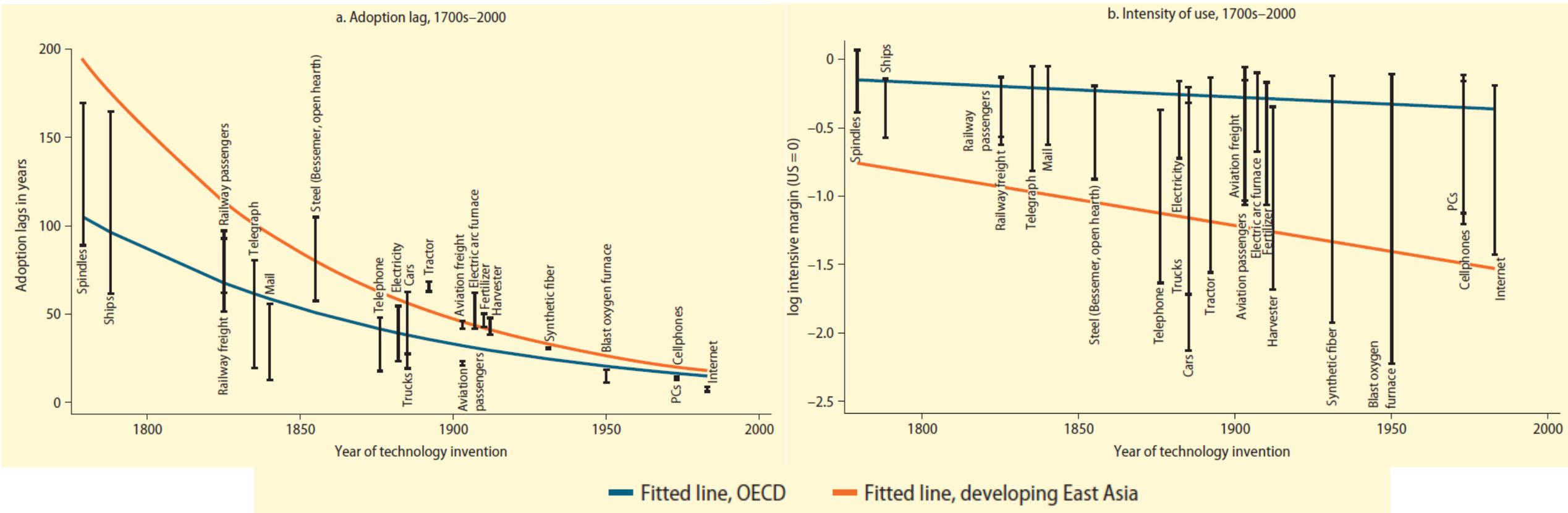
Many countries also perform poorly on key indicators of *diffusion*

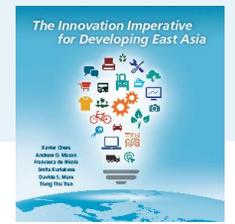


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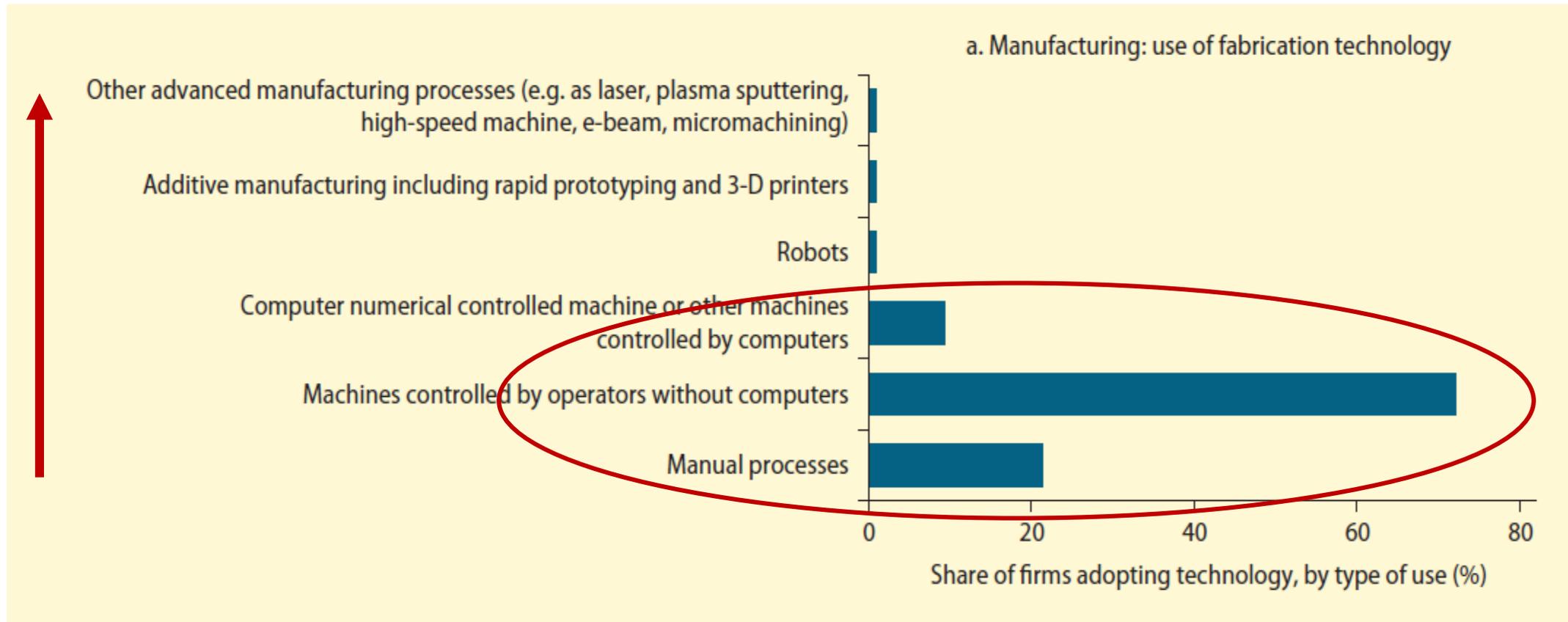
While lags in initial adoption of new technologies are closing, gaps in the intensity of technology use are growing

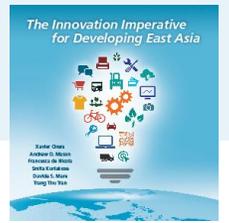




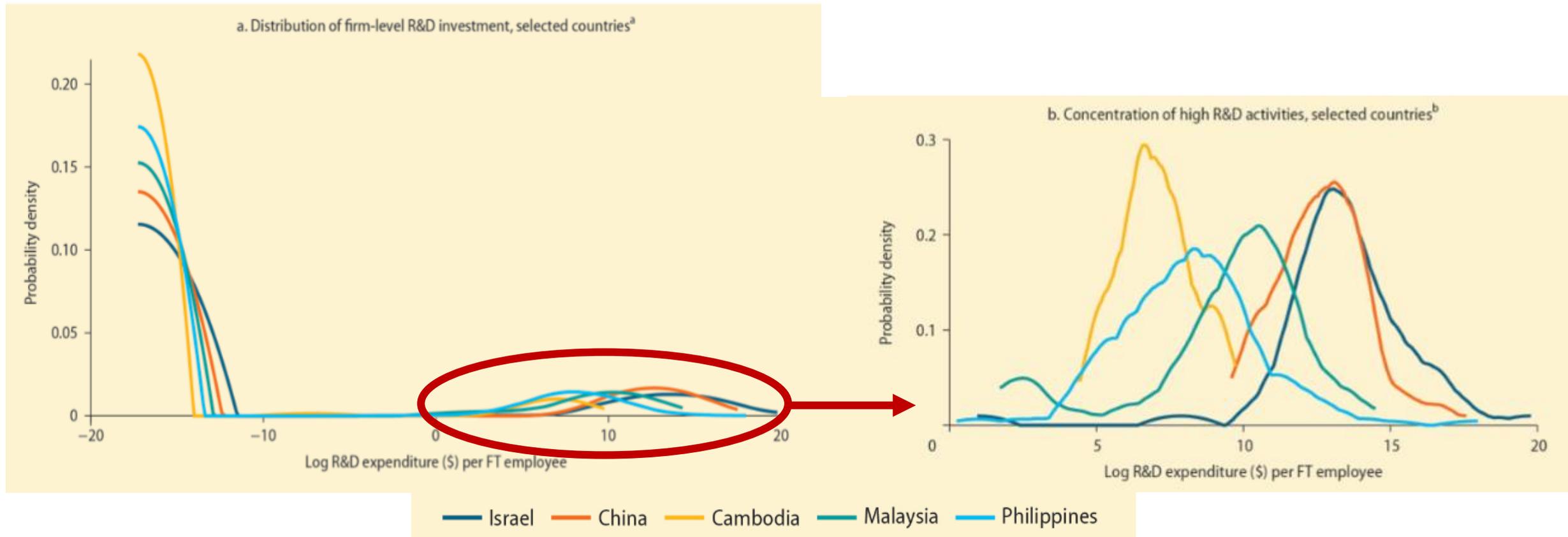
Most firms in the region are far from the technological frontier

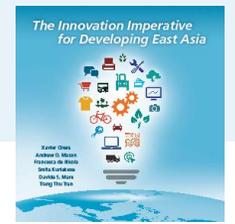
In Vietnam, firm use of cutting-edge technology in manufacturing (below), retail, and agriculture remains limited





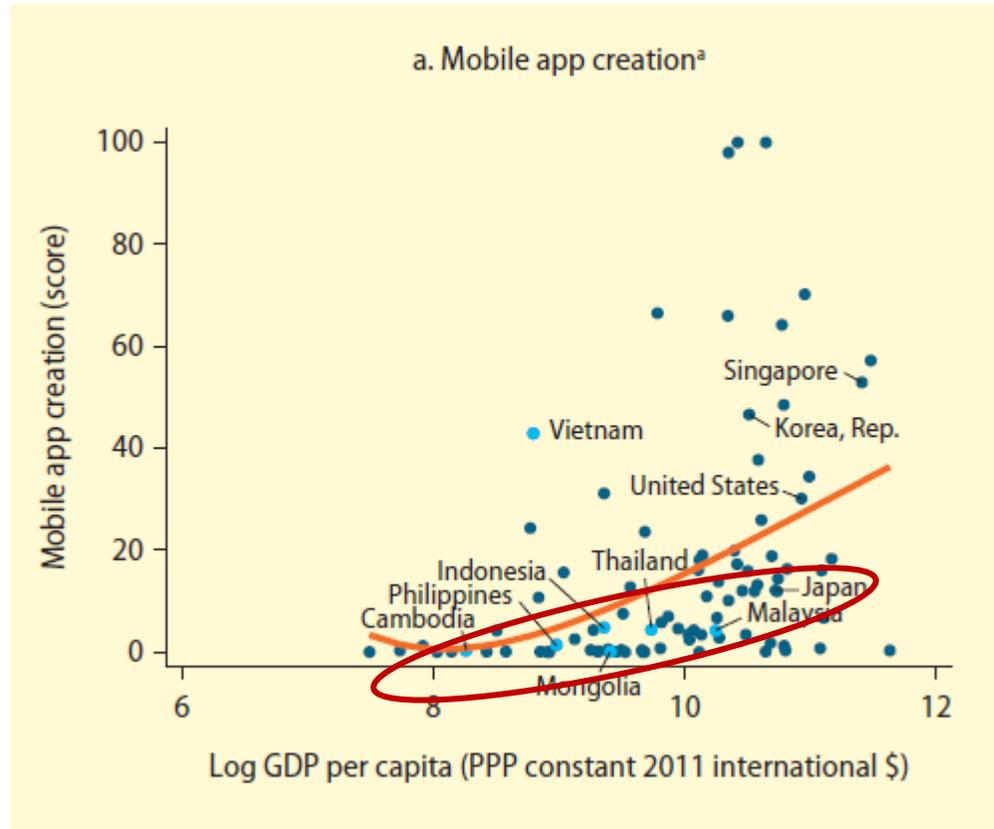
Only a small share of firms invests in research and development



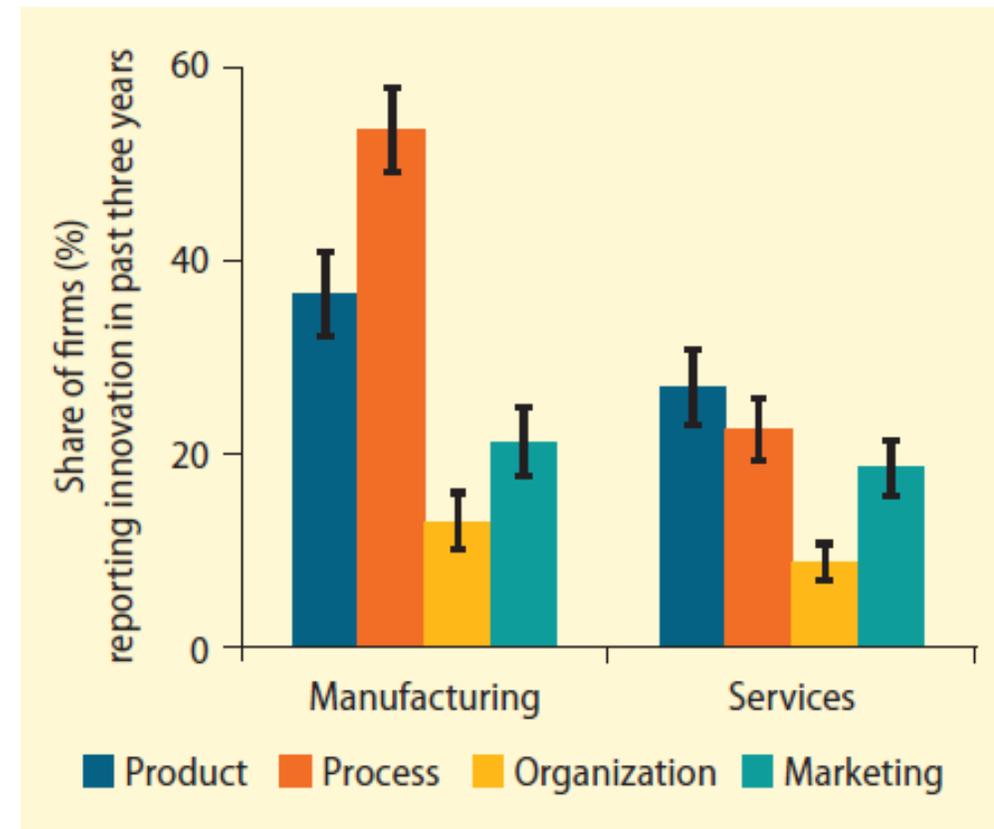


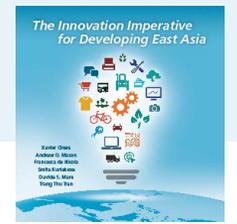
Countries face ongoing challenges with services innovation

Most countries fall below predicted levels on several indicators of service sector innovation



Firms report lower levels of innovation in services than in manufacturing





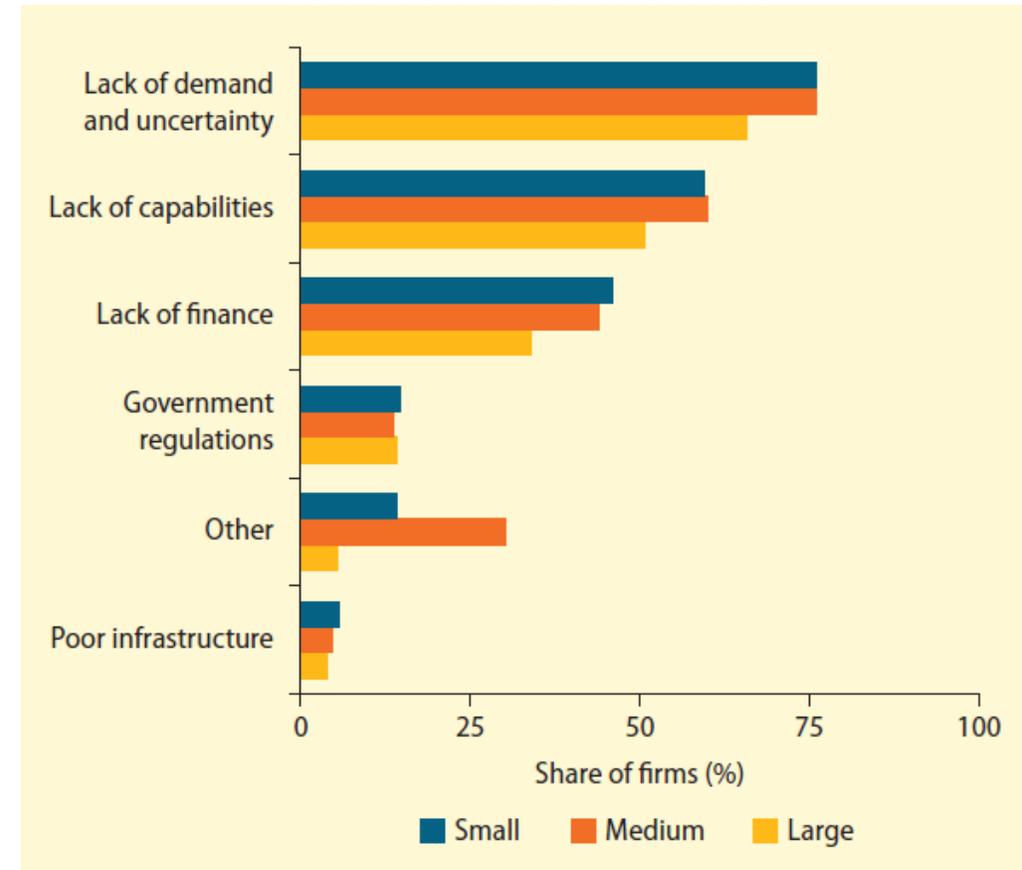
What Inhibits Innovation?

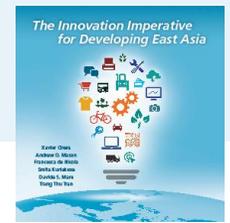


Several factors inhibit innovation activity, including ...

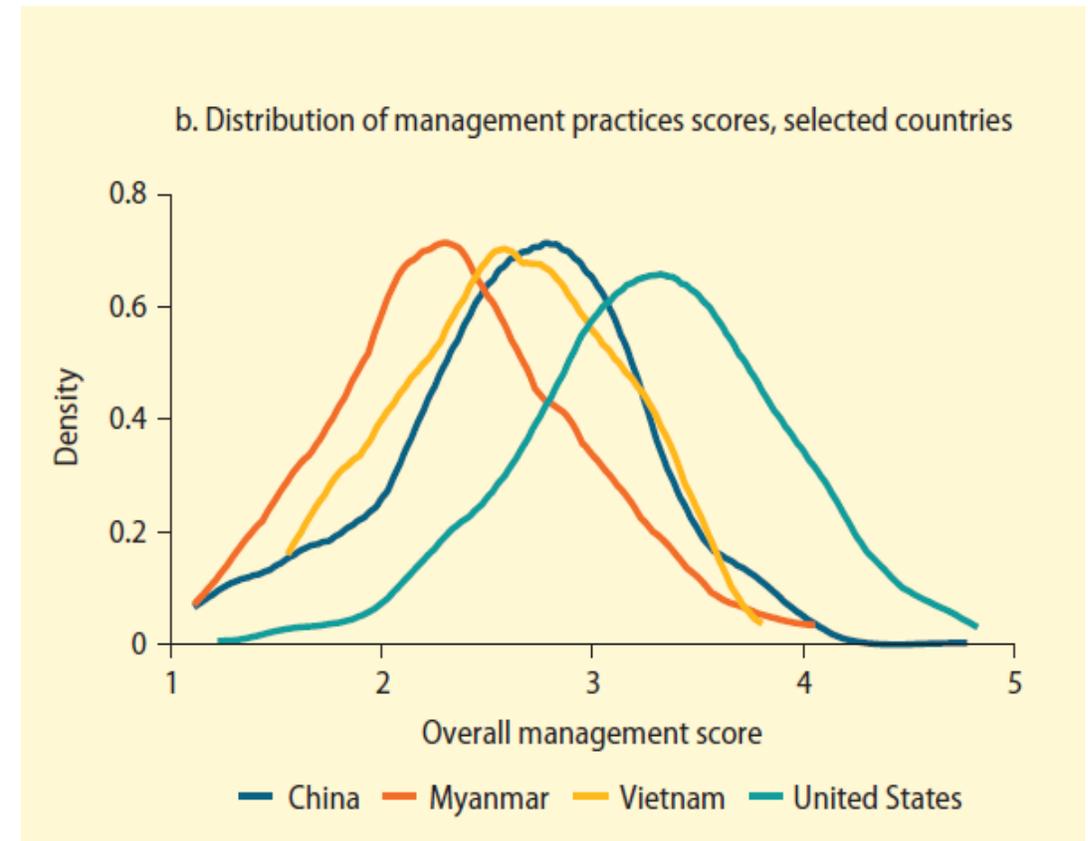
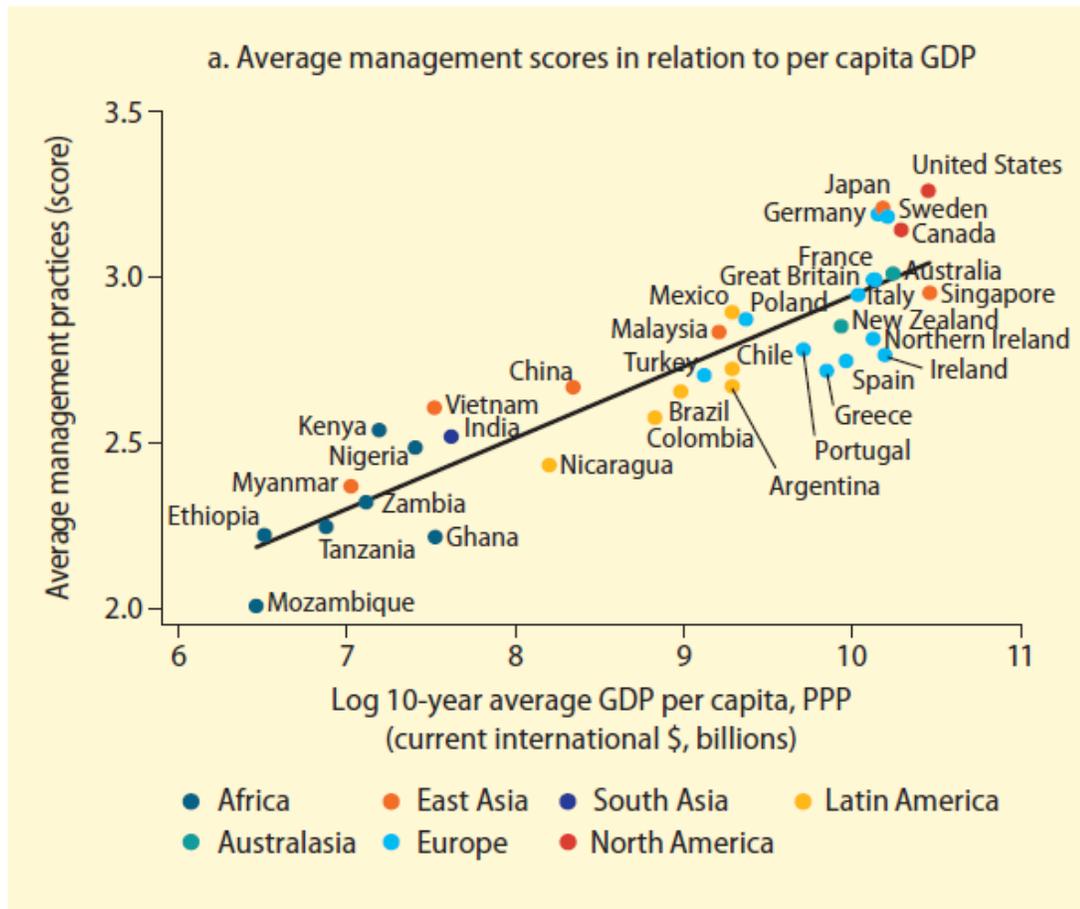
- lack of information, uncertainty about new technologies
- weak innovation capabilities
- limited options for financing innovation projects

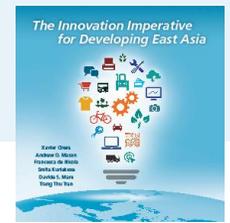
Vietnamese firms of all sizes report similar obstacles to innovation





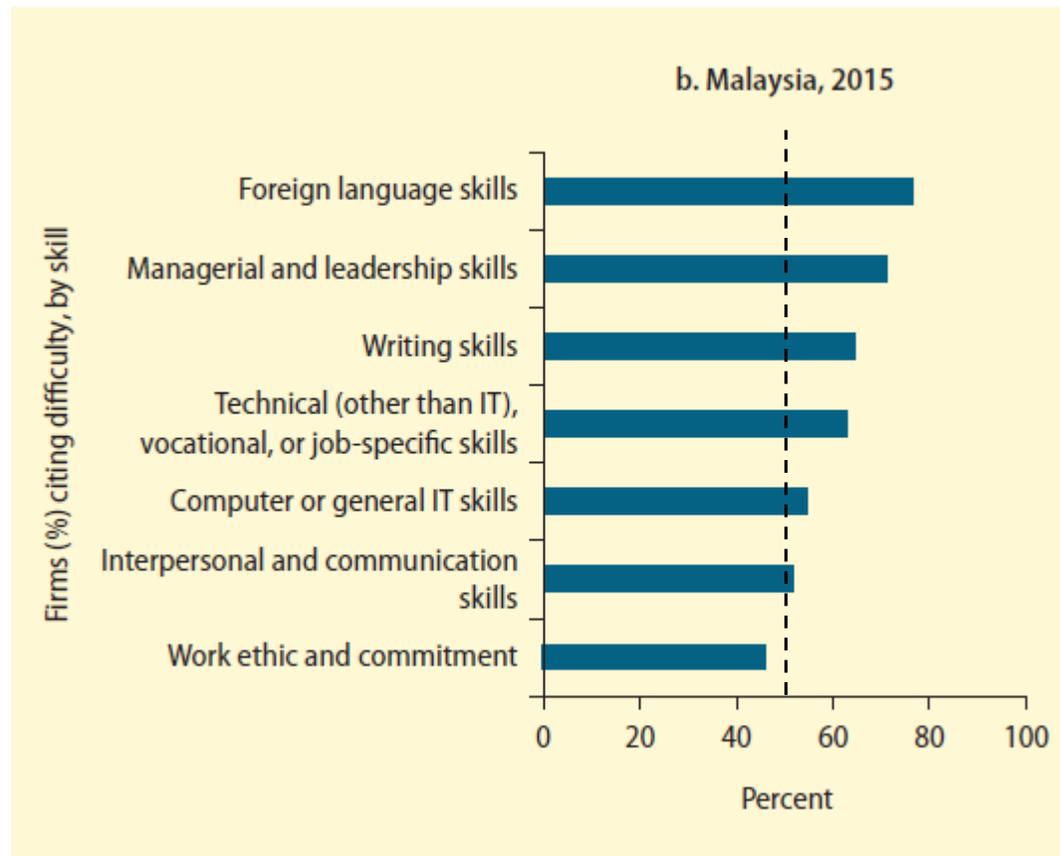
... insufficient management quality ...

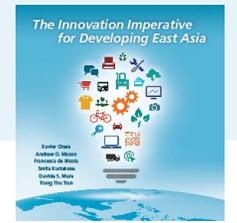




... and inadequate workforce skills

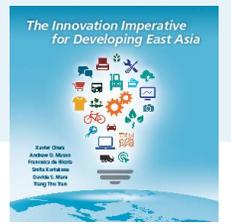
Difficulty hiring adequately skilled workers – across a range of skills



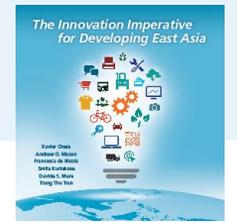


Country innovation policies and institutions are also often not fit for purpose

- Policies are not aligned with firm capabilities and needs
- The capacity to design and implement policies is often weak
- Needed coordination across agencies remains limited
- Links between national research institutions and industry – and incentives to collaborate – are inadequate

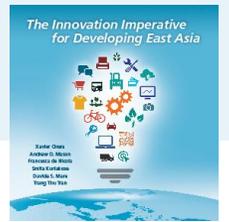


Directions for Policy

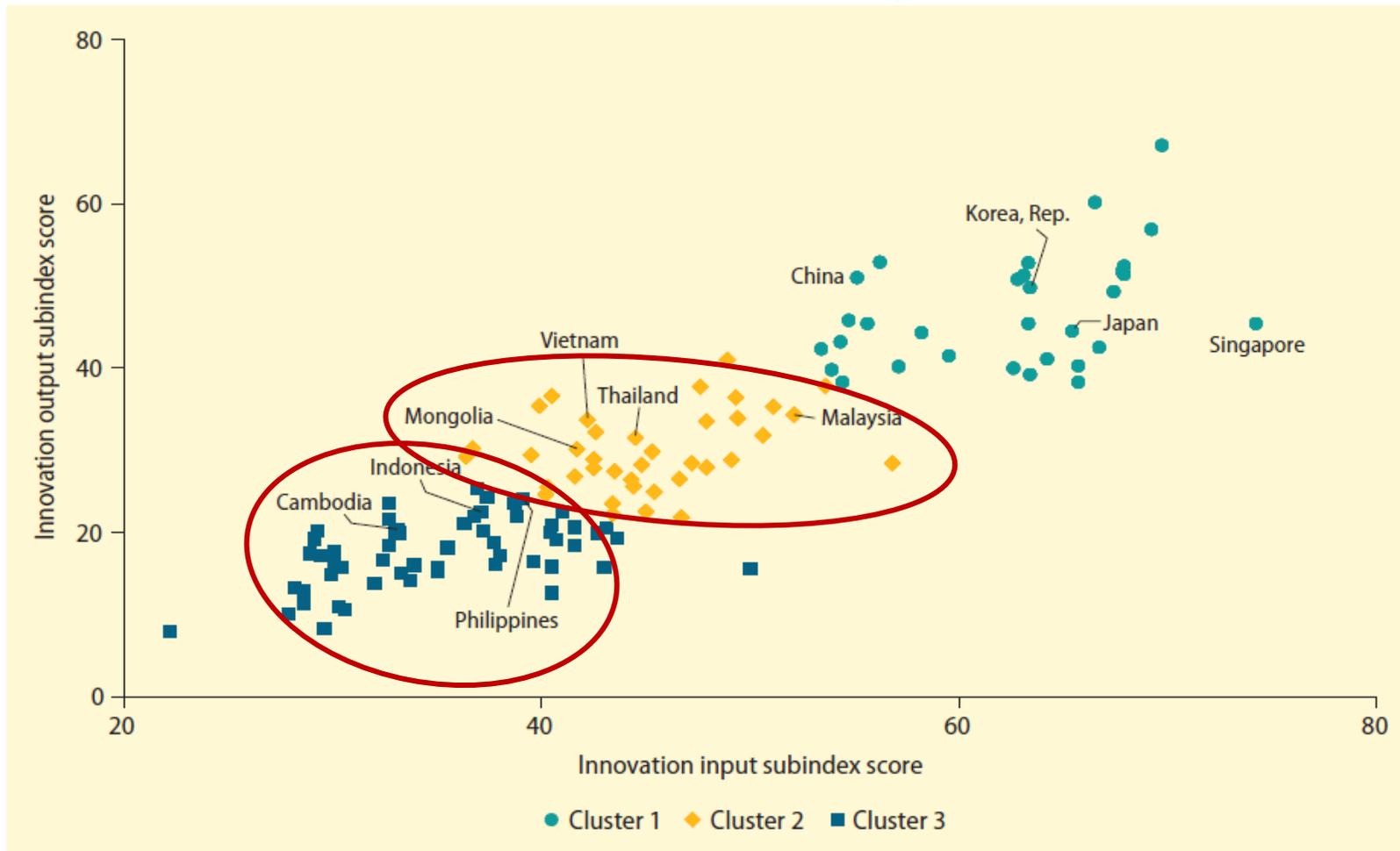


Spurring innovation-led growth in developing East Asia requires policy action

- *Reorient policy objectives* in a graduated manner to
 - Address constraints to innovation, recognizing heterogeneity in firms' capabilities
 - Remove biases against diffusion
 - Remove policy biases against services sector innovation
- *Strengthen complementary factors*
 - Management quality
 - Workers' Skills
 - Finance for innovation
- *Reform innovation institutions*, strengthening their capacity, incentives, and governance

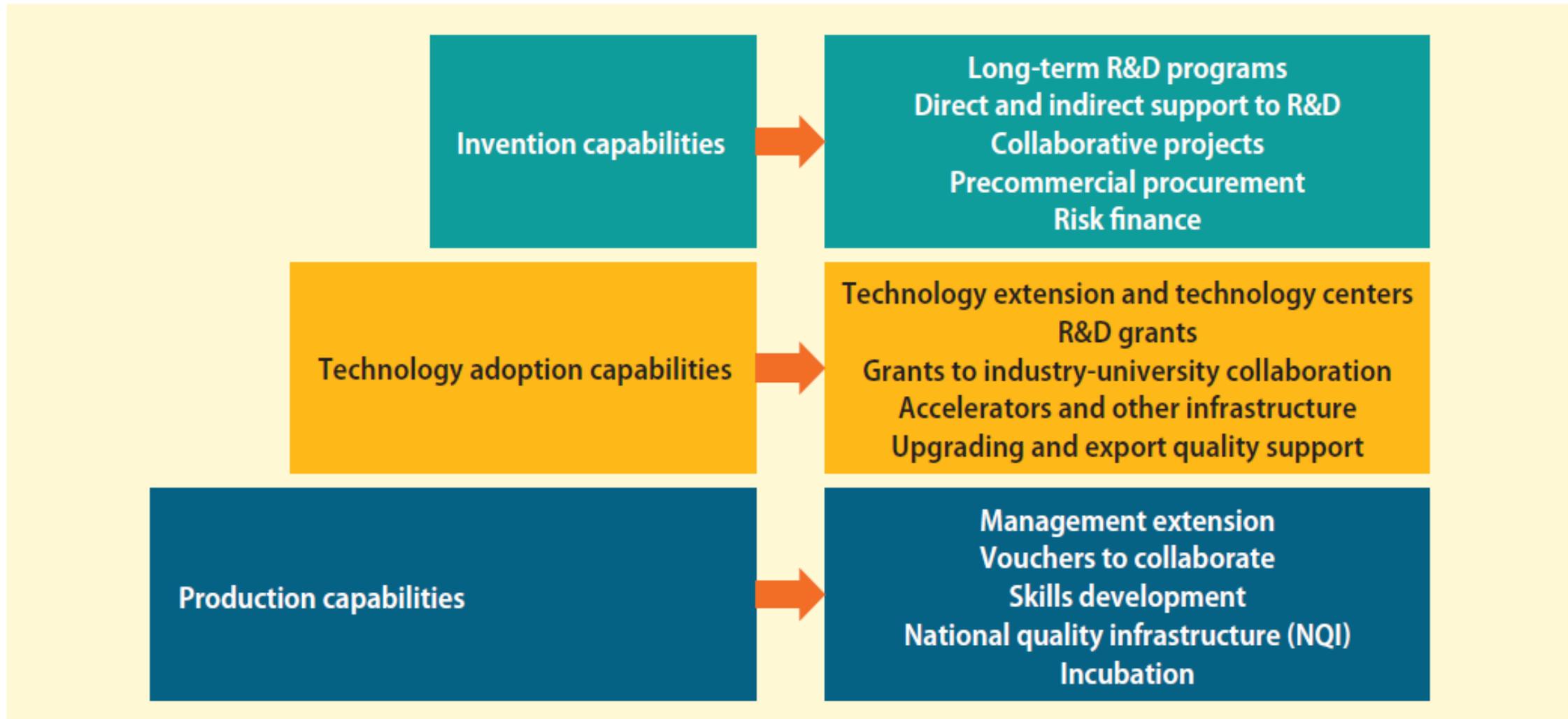


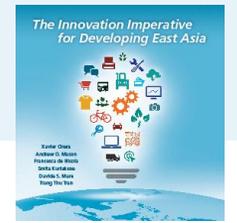
Appropriate policy instruments differ depending on countries' innovation capabilities





Policy priorities evolve over time as capabilities increase





Summing up

- Greater innovation is critical to developing East Asian countries surmounting the array of challenges they face
- Moving toward an innovation-led growth model will require a strengthening of policies and institutions, including greater focus on
 - diffusion and adoption of existing technologies, and
 - strengthening domestic innovation capabilities
- Immediate challenges, such as the COVID-19 pandemic, and longer-term challenges like climate change, increase the urgency of reform. The time for action is now

Thank you!

The Innovation Imperative for Developing East Asia



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