



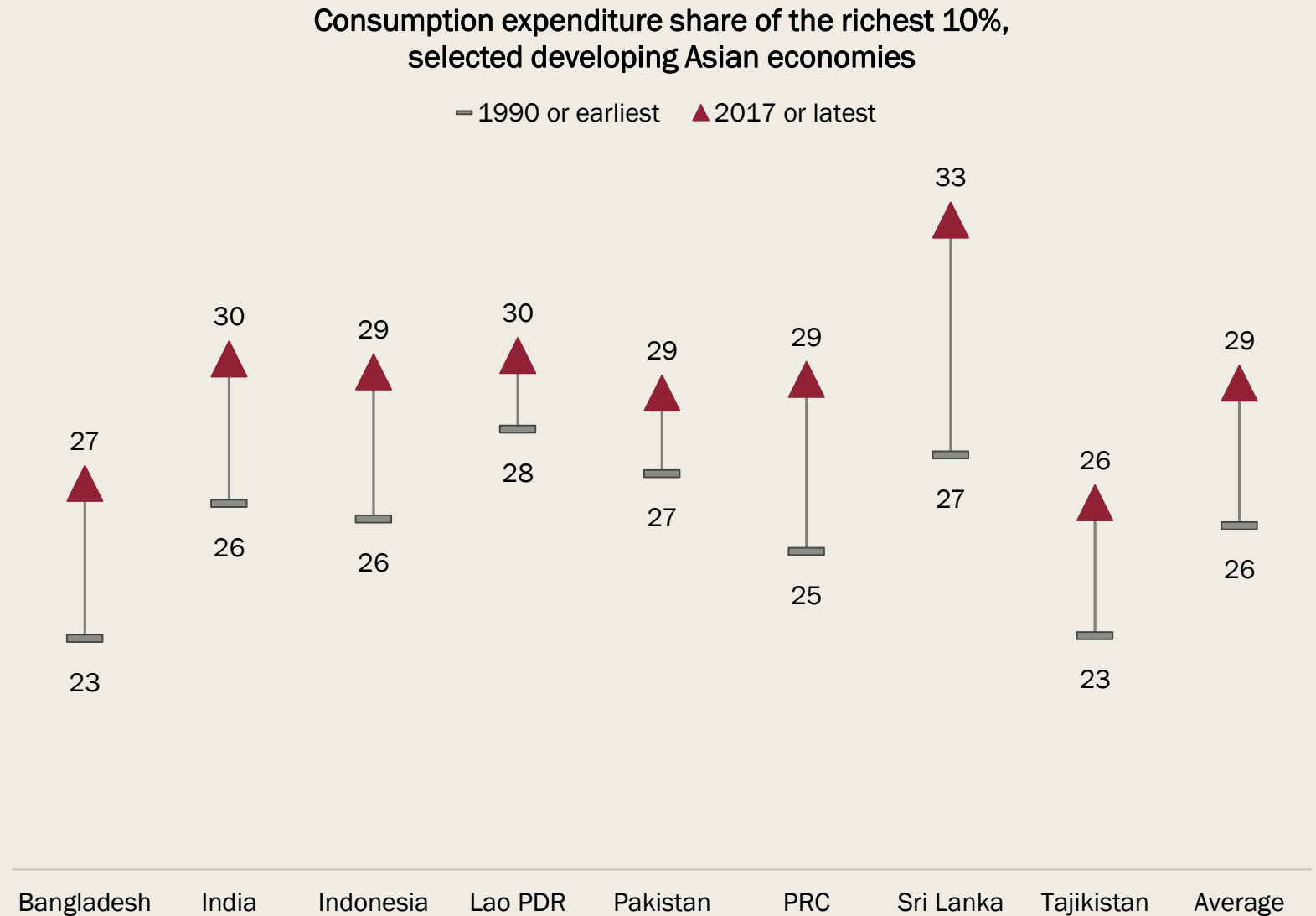
TECHNOLOGY AND INEQUALITY IN ASIA

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Anatomy of inequality in Asia

Inequality has widened in 8 of 28 economies with comparable data since 1990 to 2017, including the three most populous regional countries—the People's Republic of China (PRC), India, and Indonesia.



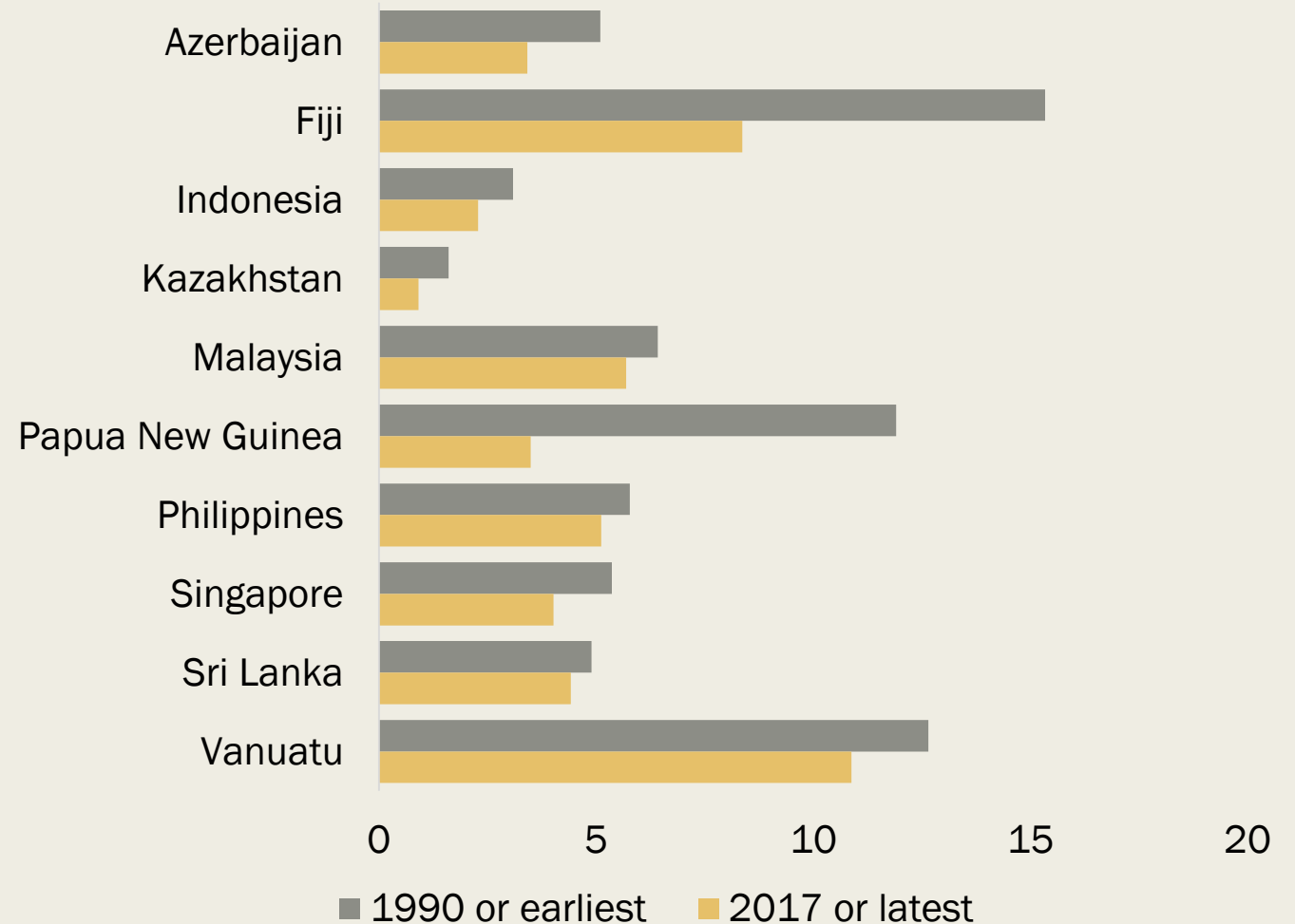
Why inequality matters

- Rising inequality dampens the poverty reduction impact of economic growth
 - *If inequality had remained stable in the economies where it increased, the same growth in 1990–2013 would have lifted an additional 165 million people out of extreme poverty—equivalent to 4.5% of the region's population in 2013*
- Rising inequality affects growth itself through:
 - *Misallocation of human capital*
 - *Damage to society and institutions*
 - *Political backlash*

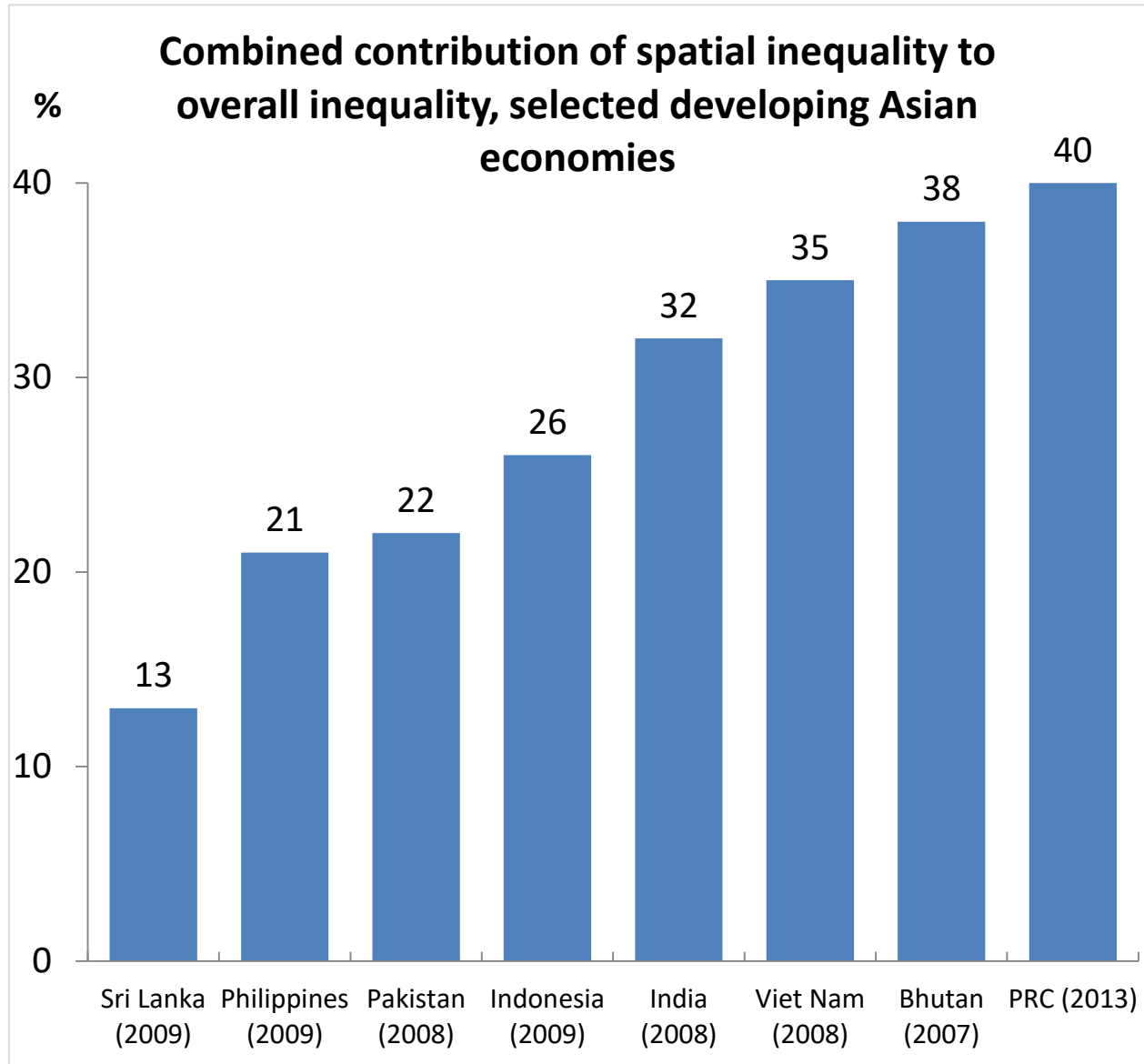
Drivers of inequality

- Technological progress, globalization, and market deregulation, the primary drivers of growth, are also contributing factors to rising inequality
 - *They favor skilled over unskilled labor, capital over labor, and urban and coastal areas over rural and inland regions*
- Population aging could be a further cause of rising inequality
 - *Older cohorts have a more unequal income distribution than younger cohorts; hence, aging, could increase overall inequality*

**Labor income share in GDP,
selected developing Asian economies**



In a number of developing Asian countries, the past few decades have seen a consistent decline in labor's share of national income against a corresponding rise in the share of capital



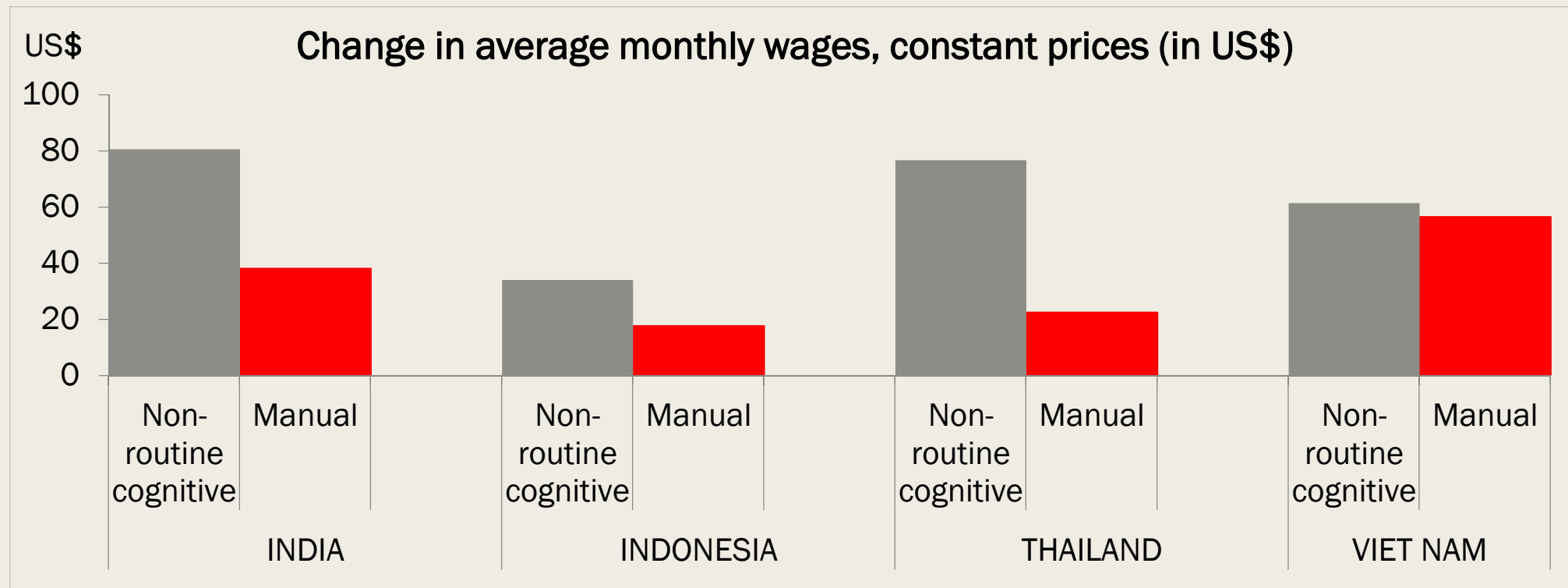
Spatial inequality—
income gaps
between urban
and rural areas
and between
prosperous and
lagging regions—
has been a key
driver of rising
income inequality

Focus on technology and inequality

- Advent of Fourth Industrial Revolution (4IR) has heightened automation anxiety – more and more tasks typically conducted by humans are being automated
- But job displacement by new technologies has always been accompanied by higher productivity, the emergence of new occupations and better-paying jobs, and non-diminishing work opportunities
- While there is growing concern that new technologies could lead to widespread job losses, there are compelling reasons to remain optimistic about developing Asia's job prospects
 - *New technologies often automate only some tasks of a job, not the whole job*
 - *Job automation goes ahead only where it is both technically and economically feasible*
 - *Rising demand offsets job displacement driven by automation*
 - *Technological change and economic growth create new occupations and industries*

- Nevertheless, new technologies alter the skills required of the workforce and may cause unemployment as some firms downsize or close.
- New jobs will appear, but they may require skills that such workers do not possess.
- Further, as firms and industries adjust to new ways of producing and distributing goods and services, the resulting disruptions along existing supply chains may cause unemployment.
- In addition to more job losses, routine and manual workers will likely experience lower wage growth, worsening income inequality.

Over the past decade, wages have grown faster in nonroutine/cognitive types of jobs. Given these trends, without adequate skills development or retraining, workers with weaker foundational skills face hurdles in seizing the opportunities that new technologies provide



Policy responses

■ General responses

- *Efficient fiscal policy*
- *Interventions to address lagging regions*
- *More employment-friendly growth*
- *Governance reforms to equalize opportunities*

■ Specific responses to 4IR

- *Technology and its effects: education and training; favorable labor regulation; social protection; tax policies*
- *Use of technology: skills development and job matching; public goods and services*
- *Support for technological change: investment in ICT infrastructure; antitrust and consumer protection; innovation and technology adoption*