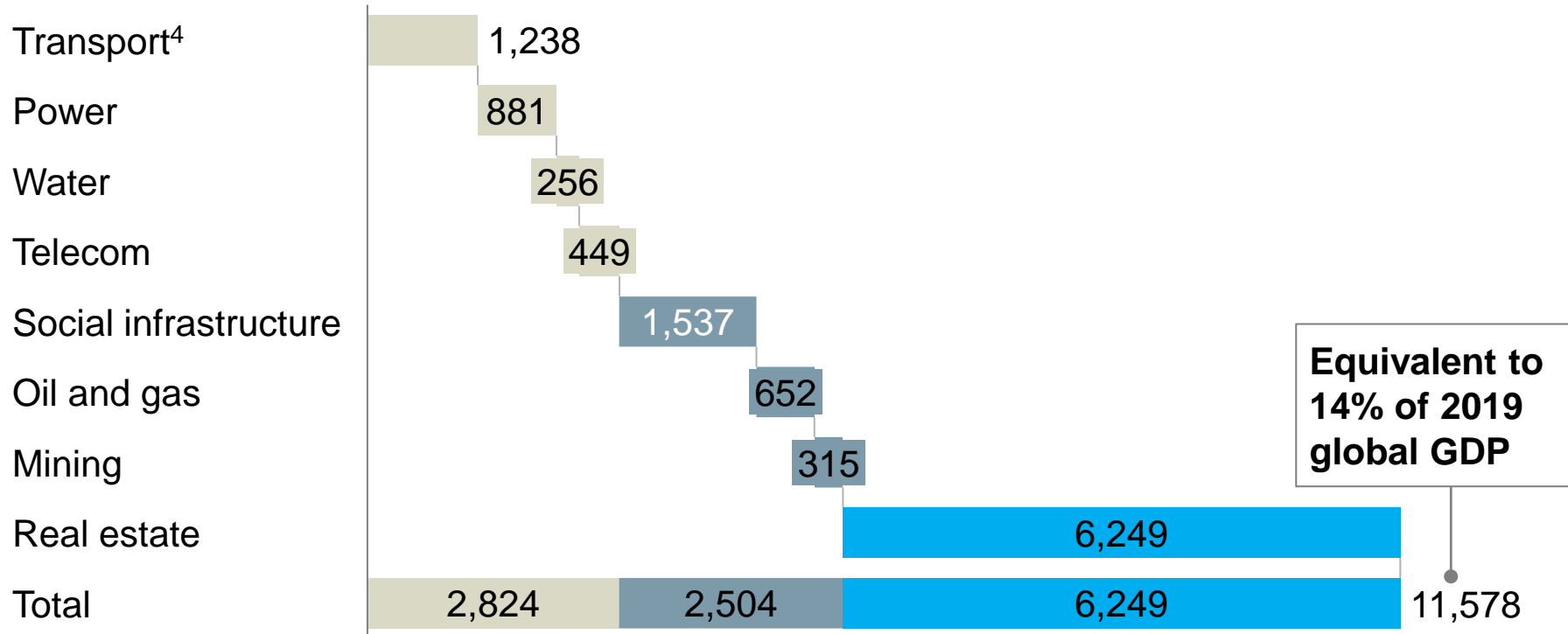


# Using the broadest definition of infrastructure, the world spent ~\$11.6 trillion on all types of asset classes in 2019

## Infrastructure spending, 2019<sup>2</sup>

\$ billion (nominal at market exchange rates)

### Asset classes<sup>1</sup>



1 The World Bank's definition of infrastructure includes utilities (gas and electricity, water supply, telecommunications, sewerage, and waste collection and disposal), public works (roads and major dam and canal works for irrigation and drainage), and other transport sectors (railways, ports, waterways, and airports; OECD includes public works in a country, state or region, including roads, utility lines and public buildings

2 Nominal investment in Infrastructure in 2019; Estimated based on actual reported data until 2017

3 Lower water capex due to changes in the exact category definitions applied and updates to estimates by Global Water Intelligence

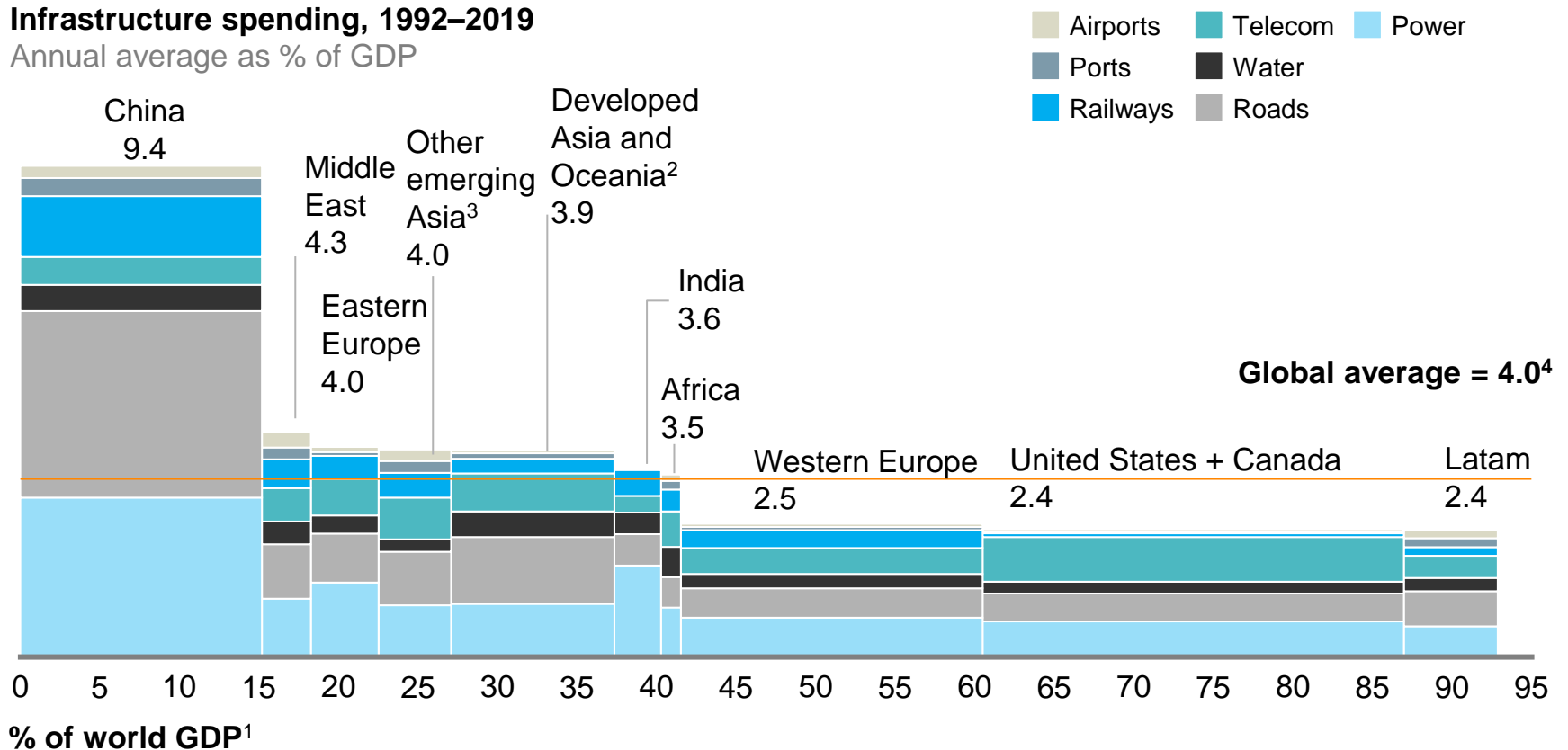
4. The data has been added for 26 additional countries that were missing earlier

SOURCE: IHS; Euroconstruct; IMF; World Bank; OECD; McKinsey Global Institute analysis

# China spends more on economic infrastructure annually than the United States and Western Europe combined

## Infrastructure spending, 1992–2019

Annual average as % of GDP



## Infrastructure spending, 2019<sup>5</sup>, \$ billion

1,284

315

475

Global total = 2,824

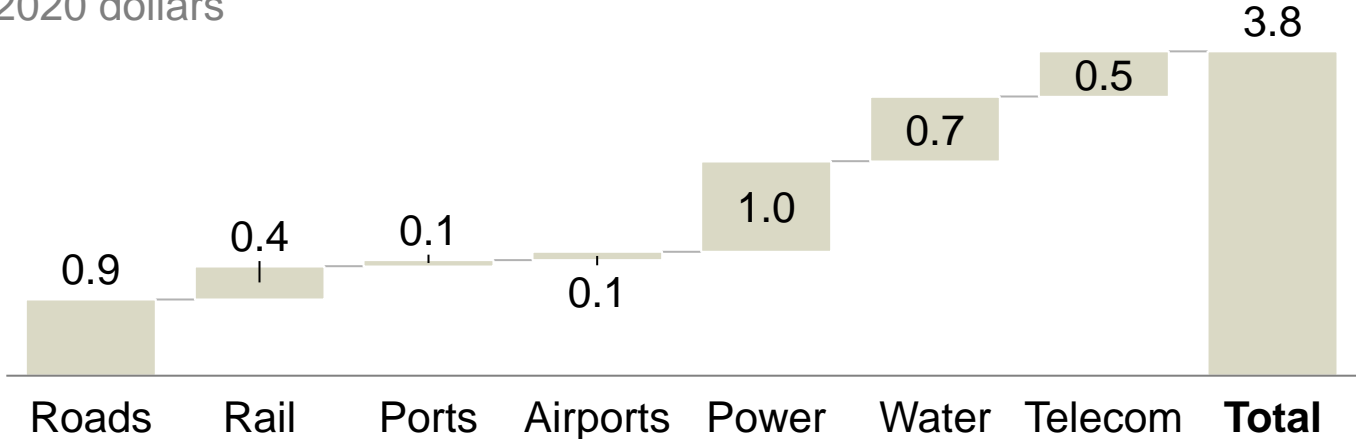
1 Percentage of world GDP generated by the 75 countries in our analysis for 2019  
 2 Includes Australia, Hong Kong, Japan, New Zealand, and Singapore  
 3 Includes Bangladesh, Indonesia, Malaysia, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam  
 4 The global average increased to 4.0% from 3.9% as of last update in 2018  
 5 Estimated based on actual reported data until 2017

SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis

# Going forward, the world needs to invest \$3.8 trillion in economic infrastructure annually through 2039 to keep pace with projected growth

## Average annual need, 2020–39

\$ trillion, constant 2020 dollars



Annual spending % of GDP	Roads	Rail	Ports	Airports	Power	Water	Telecom	Total
	0.8%	0.4%	0.1%	0.1%	1.0%	0.7%	0.5%	<b>3.4%<sup>2</sup></b>

Aggregate spending, 2020–39 \$ trillion	Roads	Rail	Ports	Airports	Power	Water	Telecom	Total
	17.6	7.7	1.4	2.0	20.9	15.0	10.5	<b>75.1<sup>1</sup></b>

- The estimated demand number has increased to \$75 trillion compared to our previous estimates due to following reasons:
  - Projections for 20 years (2020-2039) instead of 18 years (2018-35)
  - Base year prices have been revised from 2018 to 2020
  - GDP growth forecasts has been revised by Global Insight

2. Underlying GDP growth rate of 2.75% from 2018-2039

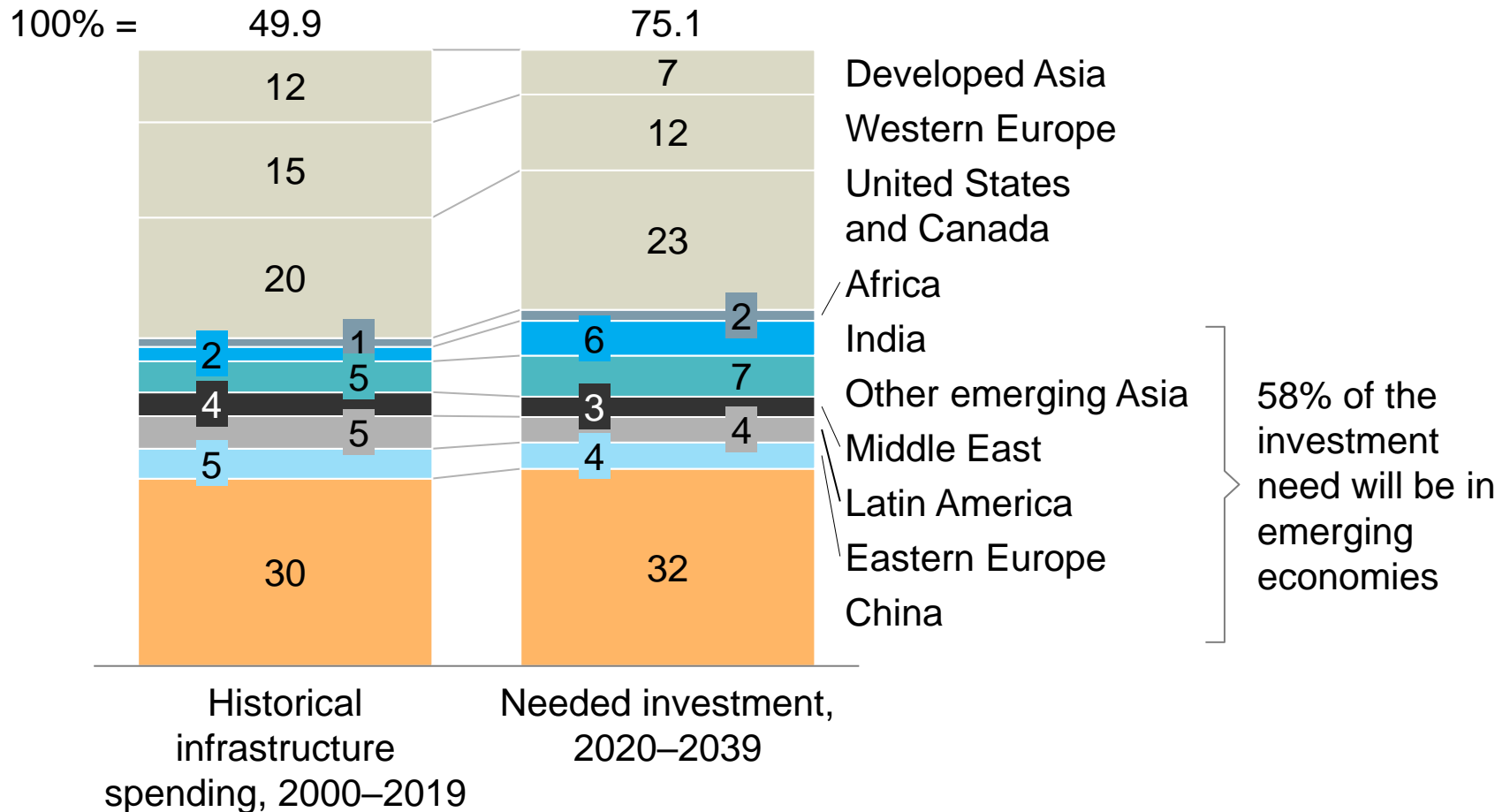
NOTE: Numbers may not sum due to rounding.

SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis

# Infrastructure investment needs have shifted to emerging markets

## Investment needs

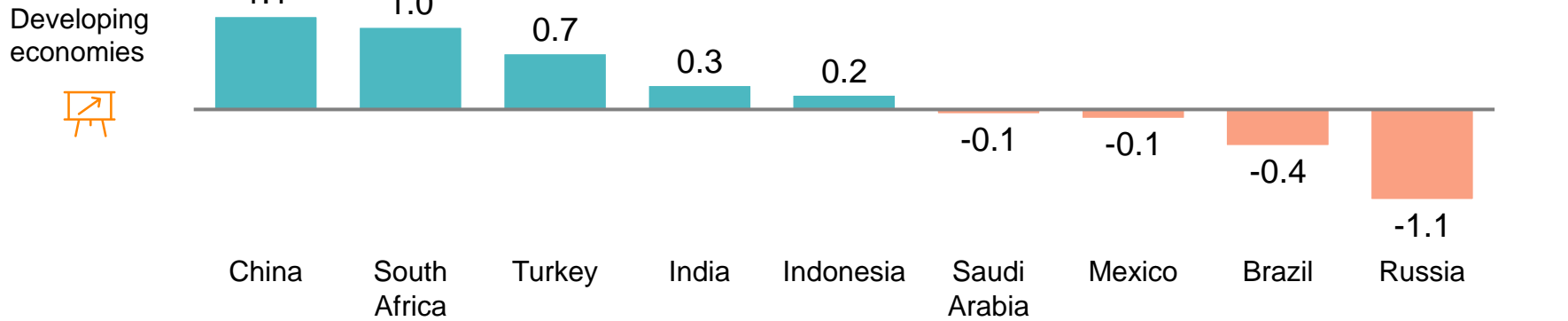
Economic infrastructure; %, \$ trillion (at constant 2020 prices)



SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis

# Regionally, investment trends have been mixed over the past decade

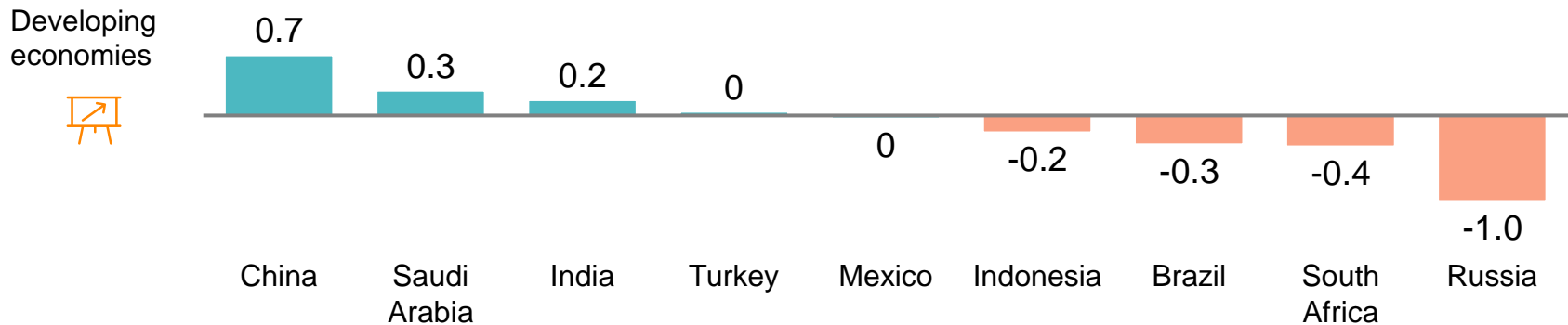
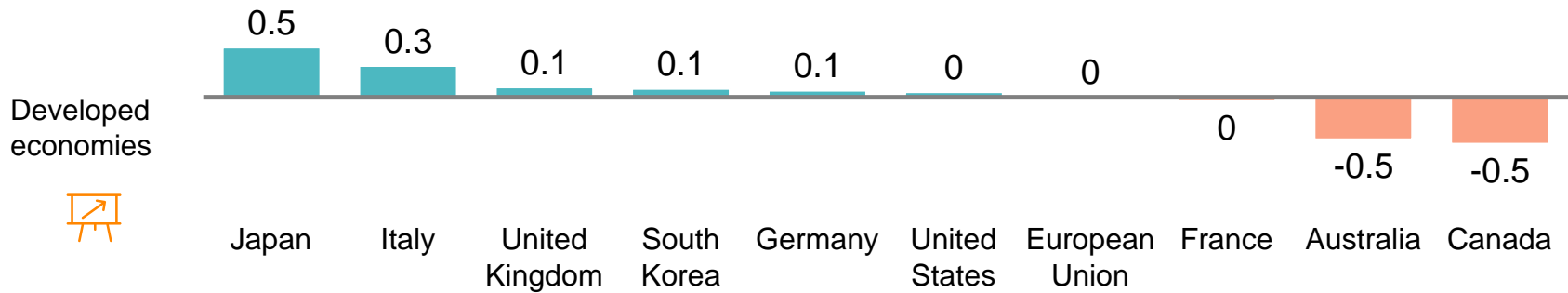
 **Change in economic infrastructure investment rate – G20 countries (2007 vs 2017)**  
Percentage points of country or region's GDP,



SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis

# Regionally, investment trends have been mixed over the past 3 years

 **Change in economic infrastructure investment rate – G20 countries (2014 vs 2017)**  
Percentage points of country or region's GDP,



SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis

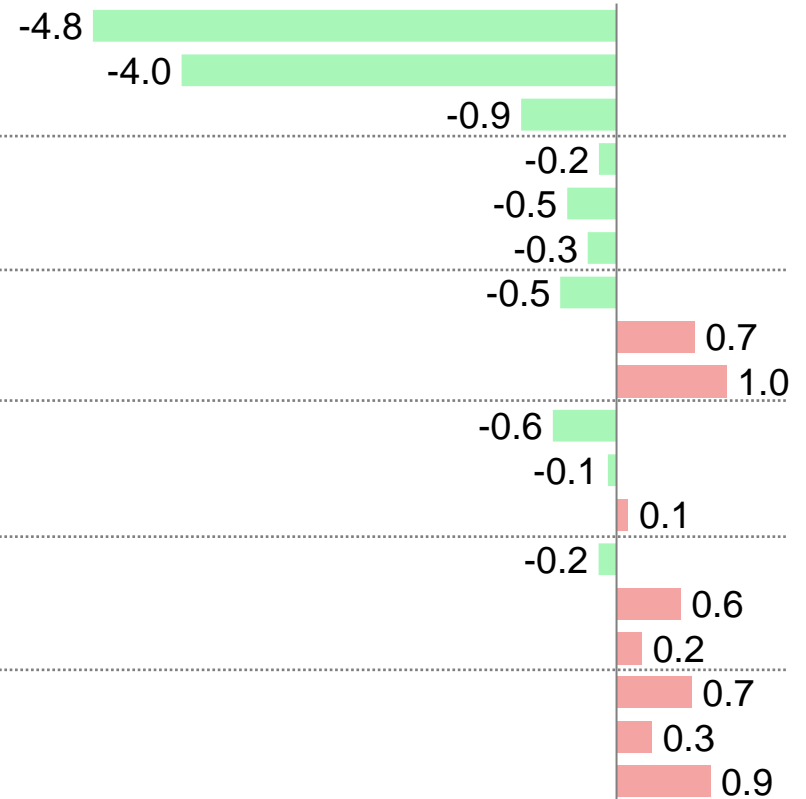
# Sizeable infrastructure investment gap still exist

Economic infrastructure; % of GDP

## Actual infrastructure spending, 2010–19



## Gap between spending and estimated infrastructure needs, 2020–39



**Global gap<sup>1</sup> = 0.3%, or \$6.2 trillion**

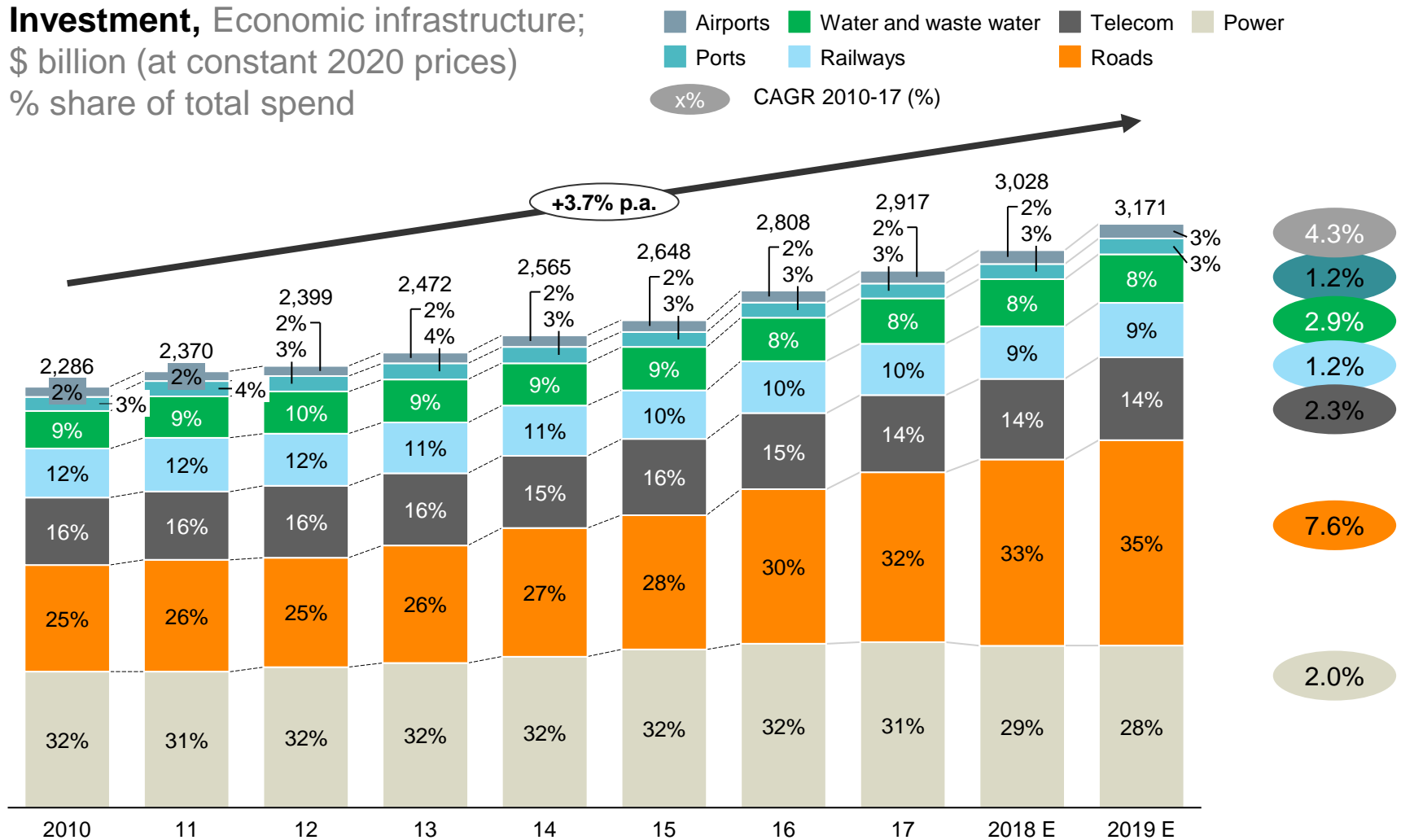
1 The global gap for 2020–39 as a share of GDP is calculated by adding negative values, converting to dollar terms, then dividing by cumulative world GDP. Without adjusting for positive gap, the value is 0.10 percent. This has been calculated from a set of 65 countries for which data are available for all sectors. This gap does not include additional investments needed to meet the UN Sustainable Development Goals

NOTE: Not to scale.

SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis

# Economic infrastructure has grown strong in past years

**Investment, Economic infrastructure;**  
 \$ billion (at constant 2020 prices)  
 % share of total spend



SOURCE: IHS Global Insight, ITF, GWI, National Statistics; McKinsey Global Institute analysis