Investment growth slowed in the past decade in all emerging market and developing economy (EMDE) regions, but most sharply in East Asia and Pacific (EAP) and the Middle East and North Africa (MNA). Meanwhile, pressing investment needs remain. All regions need to boost infrastructure investment and investment in mitigating and adapting to climate change and reversing pandemic-related learning losses. In other areas, investment needs vary by region. They include accommodating high and rising urbanization (EAP, Latin America and the Caribbean [LAC], and South Asia [SAR]); boosting productivity, especially in sectors that employ large proportions of the population (for example, agriculture in Sub-Saharan Africa [SSA]); rebuilding after conflict (Europe and Central Asia [ECA], MNA, and SSA); improving trade linkages (LAC); and preparing for future public health crises. Across all EMDE regions, policy priorities include strengthening the efficiency of public investment, boosting private investment (especially in ECA, LAC, and MNA), and expanding the availability of finance for investment (especially in LAC and SSA).

Introduction

Investment in human capital and high-quality infrastructure has multiple benefits. It supports the provision of basic services to households and market access for firms, helps the integration of domestic and international markets, and promotes advances in labor productivity and per capita incomes through capital deepening and technical progress. Investment in infrastructure can also support climate change mitigation and adaptation.

Investment growth was slower in the past decade (2011-21) than in the preceding one (2000-10) in all six EMDE regions.\(^1\) In all EMDE regions except EAP, investment fell in 2020 amid the outbreak of the coronavirus disease 2019 (COVID-19) pandemic and rebounded in 2021. In 2022, investment growth performance was mixed, and several regions now have a mediocre outlook for investment growth. This puts the spotlight on policies that could help meet the large and diverse investment needs across regions.

This chapter explores cross-regional differences by addressing three questions:

- How has investment growth evolved in the past two decades in each EMDE region?

\(^1\) Throughout this chapter, unless otherwise specified, “investment” is, for the sake of brevity, understood to indicate investment levels and refers to real gross fixed-capital formation (public and private combined). “Investment growth” is measured as the annual percent change in real investment. Annual investment growth rates for country groups are weighted by average 2010-19 investment levels.
• What are the current and prospective investment needs in each EMDE region?

• Which policies could help countries address their investment needs in each EMDE region?

**Contributions.** This chapter adds regional granularity to the analysis of global investment growth in chapter 3 and does so consistently across the EMDE regions. It draws on a rich body of regional studies that have examined the constraints on investment growth and possible policy solutions.

**Findings.** The chapter identifies several patterns in investment growth among the six EMDE regions: EAP, ECA, LAC, MNA, SAR, and SSA. First, investment growth slowed in the past decade in all regions, but most sharply in EAP and MNA. In EAP, a policy shift in China aimed at reducing reliance on credit-fueled investment and mitigating risks to financial stability was largely responsible for the slowdown. In MNA, an oil price slide in 2014-16, armed conflicts, and persistent policy uncertainty contributed to the slowdown.

Second, investment growth is projected to remain well below its 2000-21 average in the near term in EAP, ECA, LAC, and SAR but to be close to its two-decade average in MNA and SSA. Consensus long-term (five-year-ahead) forecasts for investment growth have been downgraded repeatedly. Annual investment growth in the 2020s is now forecast to be lower than in the 2010s in all regions except in LAC and SAR, where adverse shocks that depressed investment growth in the 2010s are not expected to recur.

Third, all regions have large needs to invest in physical and human capital, whether to mitigate and adapt to climate change and reverse pandemic-related learning losses (all regions); improve very low levels of infrastructure development (SAR and SSA); accommodate rising levels of urbanization (EAP, LAC, and SAR); support productivity growth, particularly in sectors that employ large proportions of the population (for example, agriculture in SSA); rebuild following conflicts (ECA, MNA and SSA); improve trade linkages (LAC); or prepare for future public health crises.

Fourth, a range of policies are needed to lift investment. Priorities include strengthening the efficiency of public investment (especially in SAR and SSA), boosting private investment (particularly in LAC and MNA), and expanding the availability of financing for investment (all regions).

**Investment trends**

The decade 2000-10 saw double-digit, or near double-digit, average annual investment growth in EAP, ECA, MNA, and SAR. In the subsequent decade, 2011-21, investment growth decreased sharply in all regions, although the magnitude and causes of the decline varied across regions. Commodity price movements, domestic policies,
uncertainty stemming from domestic conditions, and spillovers from key trading partners all played a role (Vashakmadze et al. 2018).

The sharpest slowdowns occurred in MNA and EAP, where investment growth averaged nearly 8 and 6 percentage points per year less, respectively, in 2011-21 than in 2000-10 (figure 4.1). In MNA, the oil price plunge of 2014-16, several armed conflicts, and persistent political uncertainty in some countries marked the decade 2011-21. Investment growth was negative in four of the six years of 2016-21. In EAP, the slowdown mostly reflected a policy shift in China aimed at reducing reliance for economic growth on credit-fueled investment and at managing risks to financial stability. Elsewhere in the region, investment growth weakened in commodity exporters, such as Indonesia, following commodity price declines in the middle of the decade, and in Thailand owing to policy uncertainty.

In three other regions—ECA, LAC, and SAR—average investment growth in 2011-21 was slower by more than 3 percentage points per year than in 2000-10. In ECA, investment was buffeted by spillovers from the euro area debt crisis, a domestic financial crisis in the Russian Federation, a middecade plunge in commodity prices, conflict in Eastern Europe and associated sanctions, and financial stress in Türkiye. In SAR, the slowdown, which mostly occurred in the first half of the decade, reflected excess manufacturing capacity in the face of sluggish external demand, financial sector stress, and uncertainties related to government policy. In LAC, slower investment growth in the 2010s mirrored a broader weakening of gross domestic product (GDP) growth, with severe recessions in the region’s largest economies. SSA experienced the mildest slowdown in investment growth among the six regions in the 2010s, with strong growth in public investment limiting the overall investment slowdown to less than 2 percentage points a year.

Changes in the regional composition of aggregate EMDE investment and average EMDE investment growth accompanied the slowdown in investment growth in EMDEs in 2011-21. Most notably, despite slower investment growth in EAP in 2011-21, EAP’s share of aggregate EMDE investment rose from half to more than three-fifths compared with that in 2000-10, while its share of EMDE investment growth jumped from about three-fifths to more than three-quarters (figure 4.2).

Investment growth is projected to remain well below its 2000-21 average in the near term in EAP, ECA, LAC, and SAR, but it is expected to be close to its two-decade average in MNA and SSA. Consensus long-term (five-year-ahead) forecasts for investment growth have been downgraded repeatedly. Annual average investment growth in 2022-30 is now forecast to be lower than in 2011-21 in all regions except in LAC and SAR, where adverse shocks that depressed investment growth in the 2010s are not expected to recur.

Medium- and long-term prospects for EMDE investment growth have deteriorated over the past decade. Five-year-ahead consensus forecasts have declined for all EMDE regions.
FIGURE 4.1 Average investment growth, by EMDE region

Investment growth was slower in 2011-21 than in 2000-10 in all EMDE regions and declined in 2020 in every region except East Asia and Pacific. After rebounding in 2021, investment growth is projected to be below long-term averages in 2022-23 in some regions.

A. EAP investment growth

Sources: Haver Analytics; World Bank, World Development Indicators database; World Bank.
Note: EAP = East Asia and Pacific; ECA = Europe and Central Asia; EMDEs = emerging market and developing economies; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa.
A.-F. Investment growth rates are estimates for 2022 and forecasts for 2023. Regional investment growth rates are calculated using real annual fixed investment in constant U.S. dollars as weights. Growth rates for 2000-10, 2011-21, and 2000-21 are geometric averages of rates of regional annual investment growth. Sample includes 11 EAP, 13 ECA, 20 LAC, 11 MNA, 5 SAR, and 38 SSA economies.
FIGURE 4.2 Regional contributions to EMDE investment and investment growth

*East Asia and Pacific* accounted for the majority of EMDE investment and investment growth in the 2010s.

A. Share of EMDE investment

<table>
<thead>
<tr>
<th>Percent</th>
<th>EAP</th>
<th>ECA</th>
<th>LAC</th>
<th>MNA</th>
<th>SAR</th>
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<td>2000-10</td>
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<td>2022-23</td>
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B. Contribution to EMDE investment growth

<table>
<thead>
<tr>
<th>Percentage points</th>
<th>EAP</th>
<th>ECA</th>
<th>LAC</th>
<th>MNA</th>
<th>SAR</th>
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Sources: Haver Analytics; World Bank, World Development Indicators database; World Bank.

Note: EAP = East Asia and Pacific; ECA = Europe and Central Asia; EMDEs = emerging market and developing economies; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa. 2022-23 data are forecasts.

A.B. Investment growth rates are estimates for 2022 and forecasts for 2023. Regional investment growth rates are calculated using real annual fixed investment in constant U.S. dollars as weights. Shares for 2000-10, 2011-21, and 2022-23 are simple averages of regional annual investment growth. Sample includes 11 EAP, 13 ECA, 20 LAC, 11 MNA, 5 SAR, and 38 SSA economies.

for which data are available, and the 10-year-ahead projections are well below the actual growth rates of the 2010s (figure 4.3).

**Investment needs**

All EMDE regions continue to have substantial investment needs, reflecting several major challenges and policy priorities. All regions will need to invest heavily in infrastructure, whether to mitigate and adapt to climate change (all regions); reverse pandemic-related learning losses (all regions); improve very low levels of infrastructure development (SAR and SSA); accommodate high and rising levels of urbanization (EAP, LAC, and SAR); support productivity growth, particularly in sectors that employ large proportions of the population (for example, agriculture in SSA); rebuild following armed conflicts (ECA and MNA); improve trade linkages (LAC); or prepare for future public health crises (all regions). All regions will also need to address a likely widening of investment gaps during the pandemic, as governments redirected public spending to high-priority social safety nets and health care, even as the regions prepare their health and education systems for future crises.

**Basic infrastructure.** Despite some remarkable successes, providing essential public services (water, sanitation, electricity, and transport), which support health and safety and enable participation in economic activity, remains a challenge in many EMDEs, especially in SSA, but also in parts of other regions. About 775 million people worldwide lack access to clean water, 1.7 billion people do not have adequate sanitation, 2.4 billion people still cook their food with solid fuels (such as wood), and 1 billion people live more than two kilometers from an all-weather road.
Climate change mitigation and adaptation. In large EMDEs with globally significant emissions of greenhouse gases, investment in climate-smart infrastructure and technologies by both public and private sectors is an urgent priority, and that investment will ideally be combined with other actions such as measures to improve energy efficiency. In smaller EMDEs, adaptation to climate change necessitates investment in new and retrofitted infrastructure, the maintenance of which will also require resources.

For EAP (for example, Vietnam), the World Bank recently estimated additional financing needs for adaptation measures at 4.5-5.4 percent of GDP per year (World Bank 2022k). Small island states in EAP and LAC have particularly large needs for investment to strengthen their resilience to the rising frequency of severe weather events and to address challenges from rising sea levels.

SAR and SSA are particularly vulnerable to climate-induced increases in poverty, disease, child mortality, and food prices. Half of SAR’s population lives in areas expected to become climate hot spots and agriculture is a critical source of employment in those areas (Amarnath et al. 2017; Hallegatte et al. 2016; Jafino et al. 2020; Mani et al. 2018). Fragile states in SSA are particularly at risk because their governments often lack the institutional capacity needed to respond effectively to climate challenges (Maino and Emrullah 2022).

Rebuilding following conflict. The war following Russia’s invasion of Ukraine in early 2022 has dramatically expanded investment needs in ECA. Preliminary assessments for recovery and reconstruction needs in Ukraine across social, productive, and
infrastructure sectors total $349 billion—more than 1.5 times the country’s 2021 GDP (World Bank 2022j). The conflict has also dramatically worsened near-term prospects for investment in Belarus and Russia, in part because of international sanctions. MNA has a continued need to replace private and public capital destroyed during wars in Iraq, the Syrian Arab Republic, and the Republic of Yemen. Gobat and Kostial (2016) estimated the cost of rebuilding damaged or destroyed infrastructure in Syria to be in the range of $100-200 billion—more than 10 times the country’s 2015 GDP. Iraq too faces large infrastructure investment needs, increased by conflict. It has been estimated that the country would need some $200 billion in 2018 prices to restore “hard” infrastructure to pre-ISIS levels, almost equal to its 2018 GDP (Gunter 2018). In the Republic of Yemen, recovery and reconstruction costs are estimated at $20-25 billion cumulatively over a five-year period, equivalent to 1.1-1.3 times the country’s 2020 GDP (World Bank 2020g).

Education and health investment. Beyond investment in infrastructure and physical capital, the COVID-19 pandemic has underscored the need to invest in health and education. This is especially urgent in SSA, as it remains well behind other regions in human capital development. However, it is also essential in ECA, LAC, and MNA to ensure that education systems provide the skills needed for productive employment.

LAC spends more as a proportion of GDP on education and health care than any other EMDE region, but outcomes suggest that these investments could yield greater value. Educational attainment is highly unequal across income levels, and the region on average attains only mediocre Programme for International Student Assessment (PISA) scores.

In ECA, despite above-average levels of education, learning outcomes, as measured by PISA scores, have deteriorated over the past decade in some economies. There have also been substantial learning losses from the pandemic. With regard to health care, since 2000 such measures as the proportion of the population covered for essential services and maternal mortality rates have improved more slowly in ECA than in other regions.

MNA has the lowest share of human capital in total wealth among EMDE regions. It also has the lowest returns to education, reflecting in part low-quality education (Lange, Wodon, and Carey 2018; Montenegro and Patrinos 2014). With regard to health care, the fact that in 2021, the region shared with SAR the highest prevalence of diabetes among EMDE regions, at 12.1 percent of the adult population, indicates the level of inadequacies.

SAR also suffers from poor health care and health outcomes. Apart from the high prevalence of diabetes, SAR has the lowest number of hospital beds per capita among EMDE regions, and among the most burdensome out-of-pocket health care expenses. These issues result largely from low public health spending; at only 2 percent of GDP, it is well below those in all other EMDE regions. Urgent investment is required in health care to help address these challenges. Taxation that would bring health benefits, such as sugar taxes, has been suggested as one funding option to meet growing needs and help
address morbidity (Kurowski et al. 2021). SAR also faces significant air pollution that imposes heavy health costs, and mitigation of that will require major investment.

SSA has especially urgent needs for investment in health and education considering the scale of human capital losses caused by the pandemic. The region remains one of the most vulnerable to public health risks, with many of its countries remaining ill-equipped to respond effectively to outbreaks of infectious diseases. Meanwhile, the region’s educational outcomes are among the poorest in the world. Thus, just 10 percent of lower secondary students achieve minimum proficiency in mathematics, reflecting the lack of access to quality schooling, especially for the poor (UNESCO 2019).

**Transport infrastructure.** SSA has large transport infrastructure needs, especially to reap the full potential of the African Continental Free Trade Agreement (chapter 6). In many SSA countries, only a small proportion of the road network is paved, and railway development is broadly inadequate, often because of damage from wars or natural disasters or poor maintenance. In SAR also, the quantity and quality of transport infrastructure fall well behind those in most other regions, contributing to the region’s lack of global integration. Transport infrastructure upgrades are also needed in EAP, ECA, and LAC to deepen the integration of remote parts of some countries and strengthen the resilience of regional value chains. EAP, LAC, and SAR need infrastructure investment, combined with effective land use regulation, to accommodate high and rising urbanization. The annual cost of traffic congestion is already estimated to be more than 1 percent of GDP in several major cities in LAC (Buenos Aires, São Paulo, Montevideo, and Santiago; Calatayud et al. 2021).

**Digital connectivity.** In EAP, on account of the presence of many small remote island states, and in ECA, where digitization falls well behind that in its main trading partners, increased public sector investment in digital connectivity infrastructure is needed—particularly high-speed fiber-optic lines (“the middle mile”) and drop lines that allow individual homes to be connected (“the last mile”). The focus needs to be on reducing the digital divide by expanding international connectivity and local broadband service to remote islands and communities (chapter 7). The resilience of digital infrastructure to climate events and natural disasters also needs to be improved.

**Policies to boost investment**

Given current mediocre prospects for investment growth and the wide array of challenges that EMDEs face, policies to stimulate investment remain a priority. Although specific policy choices depend on national and regional circumstances, multi-pronged strategies are generally needed to boost growth in both public and private investment. The World Bank and other multilateral development institutions can help EMDEs design and implement these strategies.

**Improving the efficiency of public investment.** Increasing the efficiency of public investment is a priority for all EMDE regions, especially in lower-middle-income and low-income economies, on account of their limited resources. The efficiency of public
investment in SSA and SAR consistently lags behind that in other EMDE regions, while in ECA it substantially trails that of European Union (EU) peers. This low efficiency partly reflects weaknesses in public investment management, including poor project selection, weak enforcement of procurement procedures, and poor monitoring of project execution. Improvements in these areas are often key. Effective use of medium-term budgeting frameworks can help improve spending efficiency, by improving the predictability and transparency of spending, as can the introduction of independent spending evaluations. Better coordination between various levels of government can help reduce duplication and inconsistencies. Rules that protect capital expenditures during periods of fiscal consolidation can also improve public investment efficiency.

**Creating more fiscal space.** Additional domestic tax revenues could provide needed space for public investment in priority areas. SAR and SSA have particularly low revenue-to-GDP ratios. Improved revenue collection, enhanced tax administration, a broader tax base, higher tax rates, or reduced exemptions could yield additional revenues. For example, new tax reform legislation in Indonesia is expected to raise revenue by 1.2 percent of GDP in the medium term. Shifting expenditures away from items that do not promote economic growth or other policy objectives could also boost productive public investment. Periodic public expenditure reviews that assess all expenditures against policy objectives could identify expenditure priorities. For some large countries in LAC, this might require reforms to reduce budget rigidities (Herrera and Olaberria 2020).

**Promoting private investment.** Empirical studies show that increases in public investment tend to raise private investment, but that this crowding-in effect may be temporary (Kose et al. 2017). A favorable business environment—including stable macroeconomic conditions, predictable policies and regulations, robust competition, and limited barriers to entry and exit—is an important precondition for vigorous growth in private investment anywhere. In LAC, tax reforms could encourage investment (Acosta-Ormaechea, Pienknagura, and Pizzinelli 2022). Greater mobilization of domestic saving (LAC), broader access to formal financial services (SSA), and stronger banking systems (EAP and SAR) could increase funding for private investment. By increasing market size, regional integration can provide incentives for private investment (ECA, LAC, SAR, and SSA). Other EMDE regions have successfully applied public-private partnerships, which are less common in MNA and SSA than elsewhere, to numerous sectors, although the need for autonomous regulatory agencies to oversee the private agents is clear. Since the effective use of high-productivity technologies often requires complementary skilled human capital, better-quality education and health systems typically foster private investment.

The remainder of the chapter is presented in six sections, one on each of the six EMDE regions. Each section examines the evolution of investment growth since 2000 and the region-specific underlying factors. Regional investment needs and policy options are also reviewed.
After several decades of strong growth, investment in East Asia and Pacific (EAP) slowed significantly in 2011-21 mainly on account of China. Investment growth fell sharply in 2020, during the COVID-19 pandemic outbreak, but remained positive, unlike in other EMDE regions. It rebounded in 2021-22 thanks to pandemic-related stimulus spending. Investment in China is expected to resume its structural deceleration when policy support is withdrawn. In the region excluding China, investment growth, which was negative in 2020, is expected to continue its recovery in 2022-23, but at rates that will be insufficient to prevent a further widening of the gap between investment and its pre-pandemic trend. The prospect of weak investment growth in EAP over the medium term raises concerns about growth in the region’s potential output. Given the importance of investment in generating productivity and per capita income gains, it is important that the region reduce impediments to productive investment growth, including financial impediments.

Introduction

East Asia and Pacific accounted for 60 percent of EMDE investment during 2011-21. Investment growth in EAP slowed from 11.6 percent a year, on average, in 2000-08 to 6.4 percent a year in 2011-21. China, which represented 85 percent of EAP GDP and 90 percent of EAP investment in 2000-21, was the main contributor to this slowdown. In China, investment growth almost halved from 12.3 percent a year in 2000-08 to 6.6 percent a year in 2011-21. However, the decline in investment growth was not limited to China: in the region excluding China, investment growth also moderated, from 7.8 percent a year in 2000-08 to 4.7 percent a year in 2011-21.

In China, the slowdown in investment growth was policy-led and aimed at reducing the reliance of GDP growth on credit-fueled investment and at managing risks to financial stability. In the region excluding China, the moderation of investment growth, which started in the early 2010s, initially reflected the worsening terms of trade of large commodity exporters, including Indonesia and Malaysia, and increased policy uncertainty in Thailand. Investment growth in the region weakened further in 2018, partly reflecting increased global policy uncertainty related to the escalation in trade tensions between China and the United States. In 2020, investment growth fell sharply during the COVID-19 pandemic outbreak, turning negative in the region excluding China.

Investment growth rebounded in much of the region in 2021 and was robust in 2022. Nevertheless, in the region excluding China, where investment contracted by
7.6 percent in 2020, investment was still below its prepandemic level in mid-2022. In 2022-23, investment growth is expected to rise above its 2011-21 average rate, but not sufficiently to prevent a further widening of the gap between investment and its prepandemic trend. In China, after a couple of years of stimulus-fueled growth, investment is expected to resume its structural deceleration when policy support is withdrawn.

The prospect for weak investment growth in EAP over the medium term raises concerns about the effects on EAP’s growth in potential output—the growth rate that can be sustained at full employment and capacity utilization. The sustained weakening of investment growth during the 2010s, together with declining total factor productivity (TFP) growth, has already contributed to a slowdown in labor productivity growth in EAP and, as a result, slower convergence toward per capita income levels in advanced economies (Dieppe 2020). The COVID-19 pandemic could have a prolonged adverse effect on investment in EAP that the fallout from the war in Ukraine and heightened geopolitical tensions could compound.

Despite several decades of rapid investment growth, investment needs in the region remain significant. Given the importance of investment in generating growth of productivity and per capita income, it is important that the region reduce impediments to productive investment, including those related to financing. For many EAP countries, boosting well-targeted public investment can have particularly large benefits due to high multipliers (Izquierdo, Pessino, and Vuletin 2018). At the same time, improving business climates and reducing policy uncertainty are essential to supporting private investment.

Several possibilities could improve the regional investment outlook. The recovery from the pandemic might trigger a productivity-enhancing investment surge. A boost could materialize through renewed investment in digital technologies in sectors such as manufacturing, finance, and education or through the onshoring of production of some essential products (Dieppe 2020). A pickup in investment would also create opportunities to shift infrastructure spending toward more resilient and environmentally sustainable options, in turn raising productivity and supporting progress toward the Sustainable Development Goals (Hallegatte and Hammer 2020).

Evolution of regional investment

Investment growth in EAP declined from 11.6 percent a year on average in 2000-08 to 6.4 percent a year in 2011-21. But it has remained higher than average investment growth in all EMDEs (figure 4.4). Investment slowed in a particularly pronounced way in China, where it dropped from a peak of 24.1 percent in 2009 to below 5 percent in 2019. This slowdown was policy-led and aimed at reducing reliance on credit-fueled investment for GDP growth and at managing risks to financial stability. It was achieved largely through tighter macroprudential regulations and stricter oversight of shadow banking.

In the region excluding China, the moderation of investment growth initially reflected the worsening of terms of trade in large commodity-exporting economies like Indonesia.
and Malaysia during 2014-16 (Vashakmadze et al. 2018; World Bank 2017). In this period, virtually all EAP economies recorded investment growth below long-term averages, with the lower investment growth mainly reflecting weak private investment. Tight monetary, fiscal, and prudential policies designed to contain rapid credit growth also limited investment growth in these countries. In smaller, more heavily commodity-dependent economies, including Mongolia and Papua New Guinea, investment contracted in the mid-2010s as foreign direct investment (FDI) in mining sector projects declined and countries tightened domestic macroeconomic policies sharply in response to balance of payments stress. Among the region’s commodity-importing countries, investment weakness during the mid-2010s reflected policy uncertainty in the Philippines and Thailand, including delays in investment project approvals.
Investment growth in the region weakened further in early 2019, with the weakening partly reflecting increased global policy uncertainty amid the escalation in trade tensions between China and the United States. A short period of investment normalization in late 2019, supported by a stabilization of commodity prices and benign global financial conditions, was followed by a sharp weakening of investment growth at the onset of the pandemic in 2020. In EAP as a whole, investment growth in 2020 slowed to 3.2 percent. In China, stimulus policies moderated the weakening of investment growth, bringing it down to 4.4 percent. But in the rest of EAP, investment shrank by 7.6 percent. This decline, which occurred despite benign financial conditions, contrasts with the resilience of investment in the region excluding China during the 2009 global recession, when investment continued growing. However, investment in the region contracted less severely in 2020 than in 1999, after the Asian financial crisis, when investment in the region excluding China fell by almost 10 percent. The contraction in 2020 was sharpest in Malaysia, Mongolia, and the Philippines, where GDP also declined the most. Outside China, the decline in investment in 2020 was smallest in Vietnam, where a large fiscal stimulus program and resilient FDI inflows supported activity.

Investment growth rebounded in much of the region in 2021, led by stimulus-fueled public investment. However, private investment remained subdued, reflecting weak business confidence. In the region excluding China, investment growth is expected to accelerate in 2022 and 2023 before returning to its 2011-21 trend rate as policy support is unwound. Public investment is expected to play a smaller role in the near term. After the substantial fiscal stimulus of 2020, governments in the region have become more focused on safeguarding fiscal sustainability and containing debt-service costs. In China, investment is expected to resume its policy-guided deceleration once policy support begins to be withdrawn.

Uncertainty about the postpandemic economic landscape and the viability of existing production structures, as well as tightening financing conditions, will limit the growth of private investment. In 2020, investment contracted in about four-fifths of EAP economies. Investment rebounded in about two-thirds of EAP countries in 2021, but investment growth remained below its long-term average in almost all these cases, and investment declined further in the remaining one-third of countries (figure 4.5). Medium-term (five-year-ahead) private sector forecasts suggest continued weakness in investment growth, while sizable investment needs remain.

Regional investment needs

Infrastructure. Income and demographic shifts, urbanization, and climate change are the main forces driving investment needs in the region (figure 4.6). Rapid urbanization, large-scale migration, and population aging place heavy strains on urban infrastructure. In many East Asian countries, about one-third of the population lives in substandard housing. Meeting the growing demands that result from these trends while mitigating and adapting to climate change requires countries to strike a balance between economic growth and environmental protection. Estimates of the costs of the needed investment
FIGURE 4.5 EAP: Investment growth slowdown and investment needs

In 2020, investment fell in about four-fifths of EAP economies. In 2021, investment rebounded in about two-thirds of these economies, as the region began to recover from the downturn induced by coronavirus disease 2019 (COVID-19), but fell further in one-third. Medium-term private sector forecasts suggest continued weakness in investment growth in almost all EAP economies, despite sizable investment needs, especially in regard to infrastructure.

A. Share of countries with weak or negative investment growth

B. Contributions to investment growth

C. Five-year-ahead forecasts for investment growth

D. Infrastructure investment needs

Sources: Bhattacharyay (2012); Haver Analytics; Inderst (2016); International Monetary Fund, Investment and Capital Stock data set; Rozenberg and Fay (2019); World Bank.

Note: EAP = East Asia and Pacific.

A. Share of countries in EAP region with investment growth below the region’s long-term (2000-19) average or negative investment growth (“contracting”).

B. Weighted averages of growth rates of gross fixed-capital formation in the public and private sectors, respectively, in constant 2005 U.S. dollars. The sample includes nine EAP economies.

C. Five-year-ahead Consensus Economics forecasts made in the year denoted. Weighted averages.

D. Climate-adjusted estimated infrastructure investment needs.

vary widely (ADB 2017; ESCAP 2022; Hansen 2022; OECD 2019a), but EAP countries clearly need to invest more than 5 percent of their GDPs over the next decade to meet the infrastructure needs of their growing economies (ADB 2017).

The largest costs would involve upgrades to power and transport infrastructure, investment in telecommunications, and real estate development. The region has significant disparities, including those within countries, in the density and quality of transport networks, electricity provision, housing, water, and sanitation. The within-country gaps are largest in China, primarily because of its size; Indonesia; and the lower-income economies among member countries of the Association of Southeast Asian Nations (ASEAN) (figure 4.5). But other EAP economies, including Malaysia, the
Despite significant progress, many EAP economies face challenges in regard to providing adequate transport networks, power and water supplies, and other utilities. At the same time, environmental problems confronting the region threaten to undermine economic growth and regional stability. Many EAP economies have made great progress toward education and human development goals, including those related to child survival, nutrition, and education, but some still face significant shortfalls with respect to education and other human resources.
Philippines, and Thailand, also have substantial needs in the areas of upgrading and maintenance of infrastructure.

Despite some remarkable successes, providing adequate transport networks, power and water supplies, and other utilities remains a challenge across much of the region. Extensive construction activities are under way, with transport, especially rail, accounting for the largest share. The primary goal of these efforts is better integration of the region’s transport networks and support for urbanization.

China’s highway network more than doubled in size between 2010 and 2021, and the share of high-speed railways grew from 33 to 50 percent of total railway kilometers. However, transport density in China still falls far short of that in advanced economies. Infrastructure needs vary considerably across Chinese regions and range from establishing new high-speed railways to installing basic municipal infrastructure and pollution-reducing (or pollution-reversing) technologies.

Lack of adequate infrastructure is the main cause of Indonesia’s reduced but still-high logistics costs (about 15 percent of companies’ total expenditure), including high transport costs. Middle-income ASEAN countries, such as Malaysia and Thailand, are still investing heavily in rail and other public transport systems. In Malaysia, projects like the expansion of the public transport system in Kuala Lumpur and airport and port upgrades are expected to proceed through 2030, with a significant share of investment going toward renewable energy and green infrastructure. The Philippines ranks particularly low in regard to transport and trade-related infrastructure. Although the Philippines rose two places in the World Economic Forum’s 2022 global infrastructure rankings to 57th place, this remains the country’s lowest-ranked competitiveness factor. By contrast, the Philippines ranks quite high on measures of health and education infrastructure and the quality of its seaports and airports. In Cambodia and the Lao People’s Democratic Republic, investment in basic road infrastructure is a priority.

**Education and health care.** The region has made great progress in human development outcomes, including child survival, nutrition, and education, but still faces serious shortfalls in the area of human resources.

- **Health care.** EMDEs in EAP reduced their child mortality rates by an average of one-fourth between 2010 and 2020. However, Kiribati, Lao PDR, Myanmar, Papua New Guinea, and Timor-Leste still have child mortality rates well above global averages. The region has historically faced a high incidence of infectious diseases, some of which have spread globally (for example, Severe Acute Respiratory Syndrome, pandemic influenza, and COVID-19; Lee and Pang 2015). Rates of noncommunicable diseases are expected to rise, and infectious diseases are expected to remain a risk associated with high population mobility and environmental degradation (Anbumozhi and Intal 2015). Adjusting to these trends will require public investment in basic infrastructure, education, health, and environmental protection.

- **Education.** Although enrollment in primary education in the region is almost universal, there are deficiencies in student retention (Cambodia, Lao PDR, and
Myanmar), quality of education (Cambodia, Lao PDR, Malaysia, Thailand, and Vietnam), and literacy rates (Cambodia, Lao PDR, Papua New Guinea, and Timor-Leste). Extended school closures during the pandemic led to substantial further learning losses, especially for the poor (chapter 2).

Environmental challenges. Many countries in the region face environmental problems that threaten to undermine not only economic growth and stability, but also living standards, lives, and livelihoods. The main challenges include water management, deforestation and land degradation, air pollution, and climate change. According to the Verisk Maplecroft Global Risk Analytics Dataset, which ranks the world’s 576 largest urban centers on their exposure to a range of environmental and climate-related threats, 99 of the world’s 100 riskiest cities are in Asia, including 37 in China, where air and water pollution presents a growing health risk. The worst-performing city in the ranking, Jakarta, also suffers from severe air pollution, but added to this are perennial threats from seismic activity and flooding. These have prompted the government of Indonesia to initiate relocating the capital.

Regional policy priorities

Improving spending efficiency. In the wake of the COVID-19 pandemic, EAP countries have been struggling to reconcile spending on relief, recovery, and growth with shrinking fiscal space. With economic recoveries now under way, countries could better target fiscal policy support (World Bank 2021e). More efficient and better targeted support for households and firms, rather than universal transfers and price regulations, would create space for investment in infrastructure for trade, energy, and technology diffusion (World Bank 2022b). When curtailing spending or raising taxes is difficult in the short term, countries can commit to future fiscal restraint and efficiency-enhancing reforms. Committing to fiscal rules and future revenue and expenditure reforms would help reconcile future spending needs with tightening budget constraints amid growing debt. Countries could also improve public investment management, which is key for increasing social rates of return. In the longer term, additional domestic tax revenues could help create space for needed public investment. Efforts to remove exemptions, improve tax administration capacity, and broaden tax bases could help generate budgetary resources. For example, new tax reform legislation in Indonesia is expected to raise revenue by 1.2 percent of GDP per year in the medium term.

Private sector participation can help improve efficiency and at the same time provide funding. Developing countries in Asia with relatively low income levels face major challenges in implementing public-private partnerships (Cambodia and Myanmar), especially in the context of infrastructure development. Among these challenges are governance issues, institutional structure and capacity constraints, weak public-private partnership laws and policies, and weak country and sovereign risk ratings. Several reforms could help these countries realize the potential benefits of public-private partnerships. Governments could centralize agencies that coordinate national infrastructure, in cooperation with the private sector and multilateral agencies. Multilateral development banks could work with the private sector to provide assurances
in regard to quality and governance. A global “code of conduct” with a clear set of standards for businesses covering a regulatory framework, transparency principles, and a system for dispute resolution could enhance confidence in the private sector as a good partner.

**Encouraging private investment.** Confidence in the business environment is central to encouraging private investment (World Bank 2017). Measures to improve the environment could include cutting red tape where there are unnecessary regulations, clarifying laws and regulations, allowing greater market access to foreign companies, opening more investment areas to private enterprise (especially in services sectors), and cutting financing costs. Reforms to deepen capital markets and strengthen banking systems (for example, through faster and more effective insolvency procedures) can encourage private financing. (International Monetary Fund [IMF] country rankings for financial development in the region range widely, from 14th for Thailand to 170th for the Solomon Islands.) Measures and assistance to encourage diffusion of technology could support such reforms. Increased domestic and international competition could strengthen incentives for productivity-enhancing technological innovation, which improved access to finance and digital infrastructure could also promote. Eliminating domestic distortions, such as fossil fuel subsidies and local-content requirements, could encourage investment in and adoption of green technologies.

**Focusing on developing skills that are in demand in labor markets.** Primary and secondary education must focus on education quality, on learning outcomes, and on building effective and accountable educational systems. Higher education, vocational education, and job training can become more effective if institutions are given the right incentives to meet labor market demand. Efforts to help match job openings and the skills of prospective workers will also pay dividends, as will investments in “EdTech” (World Bank 2021d). The region’s countries must reverse the substantial learning losses resulting from the extended school closures during the pandemic to prevent lasting damage to student progress, human capital formation, and opportunities for productive work (chapter 2).

**Focusing on preventative health care.** In the area of health care, additional investment should favor less costly preventative care rather than hospital care. However, this will entail reforms to insurance regimes.

**Addressing environmental challenges.** Policy makers can use a number of instruments in this area: phasing out fossil fuel and energy subsidies; aligning carbon prices with environmental policy goals, including emissions targets; raising public investment in low-carbon innovation and infrastructure; and undertaking low-carbon policy reforms in key sectors, such as energy, transport, agriculture, land use, and urban planning. Most countries have recently increased fuel subsidies as a temporary crisis measure aimed at moderating increases in fuel prices. This runs counter to the efforts in major EAP countries in the last few years to reduce such subsidies (China and Indonesia). Production of fossil fuels such as coal is also being revived. These actions should not be
allowed to compromise the achievement of emission reduction commitments or perpetuate dependence on imported fossil fuels and the region’s vulnerability to future energy price shocks.

The costs associated with moving toward a low-carbon economy need to be equitably distributed. Countries can feed the revenues generated by carbon pricing, for example, back into their economies to help subsidize abatement costs, alleviate negative social impacts, or cut taxes (World Bank 2021e). To garner support for a low-carbon economy, policy makers must emphasize its widespread benefits and adopt a holistic approach to support implementation. They need to encourage stakeholder participation; commit to scientific and technological research; emphasize long-term planning; implement reforms to align resource and utility pricing with costs, including externalities; improve governance and general institutional capacity; and strengthen regionally coordinated approaches and international support.

Investment growth in EAP is unlikely to revert to the high rates of the first decade of the 2000s, given the structural slowdown in China. But investment needs in the region remain substantial, and governments and multilateral agencies will continue to be important providers of funding. Such funding should be directed toward projects with the highest social returns. Close coordination of local, regional, and global initiatives will be needed to help reduce duplication and inconsistencies in public investment projects.
Investment growth in Europe and Central Asia weakened from an average annual rate of 7.3 percent in 2000-10 to 3.1 percent a year in 2011-21. The slowdown resulted from overlapping crises and structural headwinds. Current and prospective investment needs are sizable across ECA. They are within reach in the EU member states, while Ukraine will face enormous reconstruction challenges. More broadly, increased investment is needed to support the green and digital transitions, improve social protection, foster private sector development, and close the gaps in living standards between ECA and the EU.

Introduction

Europe and Central Asia accounted for less than 10 percent of EMDE investment in 2011-21—down from 12.2 percent in 2000-10 (figures 4.7.A-4.7.D). The decline in ECA’s share of EMDE investment reflected a steep fall in investment growth in the region, from an average annual rate of 7.3 percent in 2000-10 to 3.1 percent over 2011-21. Compared with 2000-10, average annual investment growth during 2011-21 was lower by more than 6 percentage points in almost half of ECA’s economies.

The slowdown in investment growth over the past two decades has reflected several adverse shocks, including the global financial crisis of 2007-09, Russia’s domestic financial crisis of 2008-09, the European debt crisis of 2009-11, conflicts in Eastern Europe, the 2014-16 oil price plunge for ECA’s energy exporters, the COVID-19 pandemic, and intense financial pressures in Türkiye—the region’s second-largest economy after Russia. In addition, structural pressures have weighed on ECA investment, including those related to maturing global value chains and stalled economic reform progress in some countries.

ECA investment fell in 2019—mostly on account of a decline in Türkiye amid weak investor sentiment and high policy uncertainty. It contracted a further 1.4 percent in 2020 with the onset of the COVID-19 pandemic. Investment rebounded by 5.6 percent in 2021, but Russia’s invasion of Ukraine in February 2022 reversed the recovery. Investment in ECA is estimated to have shrunk by 3.2 percent in 2022 and is forecast to contract 1.6 percent in 2023—the sharpest fall projected for any EMDE region in 2023. In contrast to 2020, when the contraction in investment was widespread across ECA,

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2 Data are available for the following ECA economies: Albania, Armenia, Bulgaria, Belarus, Georgia, Hungary, North Macedonia, Moldova, Poland, Romania, Russia, Türkiye, and Ukraine.
FIGURE 4.7 ECA: Investment growth and needs

ECA suffered a sharp slowdown in output and investment growth in 2011-21, owing to several adverse shocks and structural changes. The recovery in 2021 that followed the pandemic-induced collapse in 2020 was short-lived because of the Russian Federation’s invasion of Ukraine. ECA has sizable investment needs, especially those related to reconstruction in Ukraine.

A. Investment growth in ECA

B. Investment growth in the Russian Federation and Türkiye

C. Investment growth in Central Europe and the Western Balkans

D. Investment growth in Central Europe and the Western Balkans

E. Estimated annual infrastructure investment to halve gap with euro area by 2030

F. Estimated reconstruction costs in Ukraine versus post-World War II Marshall Plan for Europe

Sources: Board of Governors of the Federal Reserve; European Investment Bank; Global Infrastructure Hub; Government of Ukraine; International Monetary Fund; Kyiv School of Economics; Three Seas Initiative; U.S. Bureau of Economic Analysis; World Bank.

Note: BLR = Belarus; CE = Central Europe; ECA = Europe and Central Asia; excl. = excluding; GDP = gross domestic product; RUS = Russian Federation; TUR = Türkiye; UKR = Ukraine. Data for 2023 are forecasts.

A-C.D. Sample includes 13 ECA countries (panel A), 2 Western Balkan and 4 Central European economies (panels C and D).

E. Estimates of infrastructure investment needed to halve the infrastructure gap between each region and the euro area by 2030. Estimates for ECA are from the Global Infrastructure Hub, IMF (2020), Rozenberg and Fay (2019), and the Three Seas Initiative. Central Europe, the Western Balkans, and the Russian Federation and Türkiye are as estimated by IMF (2020). Bars show median, and orange whiskers show minimum and maximum range.

F. Reconstruction costs are converted into real 2015 U.S. dollars using the U.S. Bureau of Economic Analysis GDP deflator series. Ukraine costs are based on July 2022 estimates by the European Investment Bank, Kyiv School of Economics, and Government of Ukraine. Under the Marshall Plan, the U.S. provided about $13.3 billion in aid, or close to $1.1 trillion in real 2015 U.S. dollars, with 16 economies signing up for assistance.
Belarus, Russia, and Ukraine account for most of the fall in 2022, reflecting the war and the impact of international sanctions. With those three countries excluded, investment growth in ECA is projected to recover to 1.4 percent in both 2022 and 2023.

ECA has sizable current and prospective investment needs to support the green and digital transitions, improve social protection, foster private sector development, and close ECA’s gaps with the European Union in living standards, although these gaps vary widely across ECA (figure 4.7.E). Over the remainder of this decade, the EU plans to step up lending and grants to Central Europe and the Western Balkans, partly meeting investment needs in these subregions. Eventually, Ukraine’s immense reconstruction needs will require funding, including from the international donor community (figure 4.7.F). In contrast, the international sanctions imposed in response to the invasion of Ukraine are currently curbing the ability to narrow investment gaps in Belarus and Russia, leaving both economies with limited external financing options. The invasion will also make filling sizable investment needs more difficult in neighboring ECA economies. In the economies of the South Caucasus and Central Asia, which are closely linked to Russia, weaker economic growth in Russia will likely dent investment prospects, through reduced inflows of foreign direct investment, among other avenues.

Across ECA’s economies, recent headwinds—including pandemic-related increases in government debt, negative spillovers from Russia’s invasion of Ukraine, and tightening global and domestic financing conditions, as well as lingering structural issues—mean that efforts to strengthen the growth of investment, public or private, face severe challenges. Reforms are needed to confront the shocks from the pandemic and the invasion, to address long-standing structural challenges, and to set the stage for sustained recovery.

**Evolution of regional investment**

In 2011-21, ECA experienced the second-sharpest slowdown in investment growth, relative to the preceding decade, among EMDE regions. Investment growth fell from an average annual rate of 7.3 percent in 2000-10 to 3.1 percent a year in 2011-21, with the pace of growth in the second decade weaker in most ECA economies. Weakening investment growth in large part reflected the effects of several adverse shocks, including the global financial crisis (2007-09), Russia’s domestic financial crisis (2008-09), spillovers from the European debt crisis (2009-11), Russia’s annexation of Crimea in 2014 and associated sanctions, the 2014-16 oil price plunge, the COVID-19 pandemic, and financial stress in Türkiye. As a result, investment had not recovered to the levels observed prior to the global financial crisis in 90 percent of the ECA sample by 2019. Related to the weakening of investment growth, net FDI inflows fell from nearly 5.5 percent of GDP in 2007 to 1.8 percent of GDP in 2018-19.

In the aftermath of the European debt crisis of 2009-11, prospects for economic growth weakened significantly in the EU, ECA’s largest trading partner. The associated
weakening of prospective growth in demand for ECA’s exports and in financial flows from the EU to ECA reduced prospective returns on investment in ECA and increased financing costs. As ECA countries rely heavily on financial flows from the EU (including for FDI), there were significant negative spillovers from deteriorating EU growth prospects to ECA investment (figure 4.8.A).\(^4\) Just as investment growth was starting to firm up after 2016, the external environment deteriorated again, as a spike in policy uncertainty around the United Kingdom’s exit from the EU weighed on trade growth and investor confidence in Europe. An escalation in trade tensions between China and the United States also dampened ECA’s trade and investment prospects, as several economies in the region are deeply integrated into global markets and trade, especially supply chains for automobiles.

For most of the decade preceding the pandemic, declines in private investment persisted following the global financial crisis as ECA economies experienced multiple adverse shocks in quick succession. Investment financing became difficult to obtain from domestic banking sectors that were still healing from the crisis and earlier credit booms. Even by 2019, private investment had not recovered to 2008 levels in six ECA economies (Albania, Armenia, Belarus, Bulgaria, Ukraine, and Romania).\(^5\) Central Europe and the Western Balkans made only weak recoveries between 2011 and 2016, in the aftermath of the European debt crisis, with the weakness reflecting disrupted financial intermediation and impaired banking systems and corporate sectors and accompanied by sharp increases in ratios of nonperforming loans (Bykova and Pindyuk 2019). Large amounts of foreign-currency-denominated debt amplified the damage to the banking sector (EBRD 2015). Following several years of rapid credit growth, Türkiye faced severe financial market pressures in 2018-19, prompting banking and corporate sector deleveraging, a deterioration in consumer and business confidence, and heightened policy uncertainty. As a result, private investment in Türkiye contracted in 2018 and 2019, the two years prior to the pandemic.

Long-term consensus forecasts for growth in private investment in Central Asia, Eastern Europe, and the South Caucasus also declined in the years leading up to the pandemic amid escalating geopolitical tensions and armed conflict (Eastern Europe and the South Caucasus) and sharp terms-of-trade shocks from falling commodity prices (Central Asia, Eastern Europe, and the South Caucasus; figures 4.8.B and 4.8.C). In the region’s energy exporters, private investment weakened alongside the sharp fall in oil prices in 2014-16. A steep rise in geopolitical tensions following Russia’s annexation of Crimea in 2014 also triggered a decline in investor confidence, with private investment in Eastern Europe contracting by double-digit percentages in both 2014 and 2015. The oil price plunge, combined with international sanctions that heavily restricted access to external finance in Russia, caused private investment in Russia to shrink in 2014-15. FDI

\(^4\) Data are available for the following ECA economies: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyz Republic, Moldova, Montenegro, North Macedonia, Poland, Romania, Russia, Serbia, Tajikistan, Türkiye, and Ukraine.

\(^5\) For five other ECA economies—Bosnia and Herzegovina, Hungary, Montenegro, Russia, and Serbia—private investment reached 2008 levels between 2016 and 2018.
The Russian Federation’s invasion of Ukraine has reversed the 2021 investment recovery in ECA and exacerbated the economic slowdown in the EU, ECA’s largest trading partner. Long-standing structural issues, including stalled improvements in governance, are also weighing on investment.

**A. Foreign direct investment liabilities, by source, 2019-20**

<table>
<thead>
<tr>
<th>Source</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian Federation</td>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>EU</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
</table>

**B. Political risk in 15 ECA countries and policy uncertainty in Poland and the Russian Federation**

<table>
<thead>
<tr>
<th>Year</th>
<th>Economic policy uncertainty</th>
<th>Political risk (right scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>2013</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>2014</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>2015</td>
<td>65</td>
<td>85</td>
</tr>
<tr>
<td>2016</td>
<td>70</td>
<td>90</td>
</tr>
<tr>
<td>2017</td>
<td>75</td>
<td>95</td>
</tr>
<tr>
<td>2018</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>2019</td>
<td>85</td>
<td>105</td>
</tr>
<tr>
<td>2020</td>
<td>90</td>
<td>110</td>
</tr>
<tr>
<td>2021</td>
<td>95</td>
<td>115</td>
</tr>
</tbody>
</table>

**C. Investment growth, 2010-21, and 2022 forecasts for 2022-27**

<table>
<thead>
<tr>
<th>Year</th>
<th>ECA</th>
<th>Minimum-maximum range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>-20</td>
<td>-30</td>
</tr>
<tr>
<td>2012</td>
<td>-15</td>
<td>-25</td>
</tr>
<tr>
<td>2014</td>
<td>-10</td>
<td>-20</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>2018</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>2020</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>2022</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>2025</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>2027</td>
<td>25</td>
<td>35</td>
</tr>
</tbody>
</table>

**D. “Well-governed transition” indicator (EBRD assessment)**

<table>
<thead>
<tr>
<th>Score</th>
<th>2016</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECA</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>CA</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>CE</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>EE</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>WBK</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SCC</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**E. ECA countries’ dependence on imports from the Russian Federation**

<table>
<thead>
<tr>
<th>Percent of partner’s total imports</th>
<th>Total</th>
<th>Fuels</th>
<th>Wood</th>
<th>Metals</th>
<th>Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interquartile range</td>
<td>40</td>
<td>30</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Average</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

**F. Deviation of investment from prepandemic projections**

<table>
<thead>
<tr>
<th>Percent</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECA</td>
<td>-15</td>
<td>-10</td>
<td>-5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>ECA excl. BLR, RUS, UKR</td>
<td>-10</td>
<td>-5</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

**Sources:** Baker, Bloom, and Davis (2016); Consensus Economics; European Bank for Reconstruction and Development (EBRD); Haver Analytics; International Monetary Fund; national sources; PRS Group, International Country Risk Guide (ICRG); Winkler, Wuester, and Knight (2022); World Bank.

**Note:** BLR = Belarus; CA = Central Asia; CE = Central Europe; ECA = Europe and Central Asia; EE = Eastern Europe; EU = European Union; excl. = excluding; FDI = foreign direct investment; GDP = gross domestic product; RUS = Russian Federation; SCC = South Caucasus; UKR = Ukraine; WBK = Western Balkans.

A. Unweighted 2019-20 averages.

B. Unweighted averages. Higher values indicate greater political stability risk and/or economic policy uncertainty. Political stability risk includes 15 ECA economies, as measured by the ICRG. Economic policy uncertainty for ECA is an average of values for Poland and the Russian Federation, as measured by national sources and Baker, Bloom, and Davis (2016).

C. Data prior to 2022 reflect actual investment growth. Shaded areas are based on the January 2023 Consensus Forecasts survey. Sample includes seven ECA countries. Solid line uses 2019 real U.S. GDP weights. Dashed lines show the minimum and maximum range.

D. The EBRD’s “well-governed transition” indicator measures the quality of institutions and the processes that they support. Scores range from 1 to 10, with 10 representing a synthetic frontier corresponding to the standards of a sustainable market economy.

inflows to Russia fell by more than three-quarters immediately following the imposition of international sanctions in 2014 and remained nearly 45 percent lower in subsequent years (UNCTAD 2022). Throughout the remainder of the decade, investment growth in Russia was tepid, reflecting subdued extractive investment, steep capital outflows, and persistent FDI losses. As a result, private investment in 2019 was lower than that in 2014. Neighboring countries suffered from spillover effects, including weaker trade, remittances, and FDI.

Public investment, accounting for about a quarter of total investment in ECA, was also constrained prior to the pandemic, as many governments faced falls in commodity revenues amid the sustained decline in commodity prices over 2011-16. Over the decade, most ECA countries implemented significant fiscal consolidations, with structural deficits narrowing or turning into surpluses in about two-thirds of the ECA economies for which there are data. In the region’s energy exporters, fiscal adjustment needs grew in the second half of the decade. To ensure fiscal sustainability, these countries had to realign spending with lower revenues. The need for fiscal consolidation, in the wake of the European debt crisis, added to the woes of ECA’s EU members (Central Europe) and candidate partners (Western Balkans). In Central Europe, fiscal consolidation over the 2010s proceeded gradually in Poland—ECA’s third-largest economy—and eased somewhat in the other economies in the second half of the decade, especially in Romania. The absorption of sizable EU structural funds in the second half of the decade helped to ease fiscal constraints and bolster public investment.

Structural factors also played a role in the slowdown of investment growth in 2011-21. Weak governance and shortcomings in the transition to market-based economies presented challenges to effectively implementing public investment, strengthening spending efficiency, and supporting growth in private investment (figure 4.8.D). ECA’s investment growth weakened alongside stalling progress with reforms and a weakening of other drivers of economic growth. After a reform boost from the EU accession process, governance reform efforts slowed in many of the new member states in Central Europe, while reform progress sputtered in some candidate economies in the Western Balkans. In some ECA countries, reform progress backtracked, weakening the business environment. In some cases, pervasive corruption and large informal sectors continue to be formidable constraints on the ability of private firms to invest, innovate, and close the productivity gap with the EU. Deterioration of the business environment, combined with shortcomings in the transition to market-based economies and weaker governance, are all likely to have contributed to slowing investment growth. Structural change at the global level also likely played a role, as global value chains—a major driver of productivity-enhancing investment and technology transfer—appeared to mature (Lakatos and Ohnsorge 2017).

Following a decade of weak growth, ECA investment fell by 1.4 percent in 2020, the first year of the COVID-19 pandemic. Of the five EMDE regions where investment declined in 2020—it continued to grow in East Asia and Pacific—ECA experienced the shallowest contraction, partly thanks to large fiscal support packages, with buoyant public investment offsetting sharp falls in private investment. The shallowness of the
contraction also reflected positive output and investment growth in Türkiye, as financial pressures in that country abated somewhat from 2018-19. For many ECA economies, however, investment plunged in 2020 amid substantial portfolio outflows, with private investment falling by double-digit percentages in some economies in the South Caucasus and Western Balkans. FDI inflows collapsed more severely in ECA than in other EMDE regions in 2020, falling to a near 20-year low as large energy exporters, especially Russia, grappled with declines in extractive investment (UNCTAD 2021).

Following the pandemic-induced recession in 2020, ECA investment grew by 5.6 percent in 2021—a slightly stronger growth rate than the 2000-21 average of 5.2 percent, and one that was strong enough to bring investment in the year to within 4 percent of its pre-pandemic projection. This improvement was not region-wide, however, amid rising borrowing costs and elevated political tensions and policy uncertainty, with investment contracting in 2021 in Belarus, Bulgaria, Georgia, Kyrgyz Republic, and Montenegro (World Bank 2022e). As a result, investment in 2021 was at least 10 percent below pre-pandemic projections in some economies in Central Europe, Eastern Europe, the South Caucasus, and the Western Balkans.

Russia’s invasion of Ukraine in February 2022 halted the economic recovery. The ensuing war has had far-reaching consequences for investment in ECA and regional supply chains, given many countries’ economic linkages with Russia and Ukraine (figure 4.8.E). The invasion has caused a fresh plunge in investor confidence, as well as capital outflows, tighter financing conditions, higher inflation, and currency depreciations. The war has also dampened regional trade and investment by weighing on external demand from the euro area, as well as Russia. FDI inflows, which recovered to some extent in 2021 in many ECA economies, have become more muted and are likely to remain so (UNCTAD 2022). Although FDI inflows are largely from the EU, some countries in Central Asia, Eastern Europe, and the South Caucasus have relied heavily on Russia as a financing source.6

Russia’s invasion of Ukraine has thus hit investment through multiple channels. Regional value chains have been interrupted, as many ECA economies depend heavily on both Russia and Ukraine for imports of key commodities and intermediate goods (Winkler, Wuester, and Knight 2022). The war has also pushed up inflation, prompting policy rate hikes in advanced economies and in most of ECA’s economies and driving global and domestic borrowing costs higher. Moreover, limited fiscal space, which was narrowed by policies to support activity during the pandemic and the resulting increases in government debt, has made it more difficult to take countercyclical policy action and maintain public investment plans.

As a result of the invasion and associated sanctions, investment in ECA is estimated to have contracted by 3.2 percent in 2022 and projected to continue shrinking at 1.6

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6Russia accounts for about one-third of FDI inflows into Armenia and Belarus and about one-fifth of FDI inflows into the Kyrgyz Republic and Moldova.
percent in 2023. While the contraction in 2022 was only about one-fifth as steep as that during the global financial crisis, it was far steeper than the pandemic-induced contraction of 2020. Unlike what happened in 2020, when the fall in investment was region-wide, Belarus, Russia, and Ukraine accounted for most of the contraction in 2022. Investment growth in ECA excluding these three countries is estimated to have remained positive in 2022, at 1.4 percent, and is projected to remain at that pace in 2023. In 2023, investment is projected to be nearly 15 percent below pre-pandemic projections in ECA and nearly 9 percent below these projections in ECA excluding Belarus, Russia, and Ukraine (figure 4.8.F). Regional investment is expected to pick up beyond 2023, owing to reconstruction efforts in Türkiye following two devastating earthquakes in February 2023.

**Regional investment needs**

Even before the COVID-19 pandemic, Russia’s invasion of Ukraine, and the 2023 earthquakes in Türkiye, meeting ECA’s sizable investment needs was expected to be a challenge, as prospects for investment growth trailed those in other EMDE regions amid heightened policy uncertainty and elevated geopolitical tensions. Public and private debt issuance in ECA also slowed from 2012-13 peaks in the decade prior to the pandemic, despite wide investment gaps (figure 4.9.A).

The pandemic, as a well as the war, is likely to have widened investment gaps in ECA by further eroding medium- to long-term investment prospects. The European Commission (2020a) estimated the gap in investment in Central Europe—which generally has lower investment needs than the rest of ECA—to have widened from about 4 percent of GDP in 2019 to 6 percent of GDP in 2020-21, with needs related to the green and digital transitions excluded. In Belarus and Russia—which are under international sanctions related to the invasion of Ukraine—investment in 2022 is estimated to have been at least 10 percent below pre-pandemic projections and, in Russia, by nearly 18 percent in 2023 (World Bank 2022e). Under the assumption that international sanctions remain, investment gaps in these countries are likely to remain wide, with investment increasingly relying on the public sector.

In Türkiye, the earthquakes in early February 2023 have affected about 13.5 million people—or more than 15 percent of Türkiye’s 2021 population—with natural gas and electricity cut off in many areas and hundreds of buildings destroyed, based on early needs assessments. Natural disaster experience from other ECA countries suggests the economic cost and investment needs could become sizable for Türkiye. In Croatia, the two earthquakes in 2020 (which, although devastating, were smaller in magnitude and resulted in less than 10 deaths, in sharp contrast to what took place in Türkiye) inflicted economic losses of 8.7 percent of 2019 GDP.

**Infrastructure.** Gaps in infrastructure between ECA and the euro area remain large, including those in relation to roads, railways, air transport, power generation capacity, internet, and fixed and mobile telephone density. Closing half of these gaps by 2030
FIGURE 4.9 ECA: Financing needs and constraints

Tighter financing conditions could weigh on debt issuance in ECA. In many ECA economies, inefficiencies in public spending and weak absorption capacity are holding back dividends from public investment, which could stall the catching up of per capita incomes with those in the EU. Incomplete reforms to state-owned enterprises, a growing state footprint, and weak rule of law weigh on private investment.

A. Bond issuance and yield spreads

B. Efficiency gaps in public investment in infrastructure

C. GDP per capita relative to EU-27

D. Cumulative absorption rates, 2014-20 EU spending program

E. Planned EU investments in transport and green projects in the Western Balkans

F. State-owned enterprise activity and assets, 2014-16

Sources: Bartlett, Bonomi, and Uvalic (2022); Dealogic; EBRD (2020); Eurostat; IMF (2021a); World Bank.

Note: CE = Central Europe; ECA = Europe and Central Asia; EU = European Union; GDP = gross domestic product; SOE = state-owned enterprise; TUR = Türkiye; WBK = Western Balkans.

A. Unweighted average for an unbalanced sample of 16 ECA economies for bond issuance and 11 ECA economies for bond spread.

B. An “efficiency gap” is the percent difference between a country’s spending efficiency and that of the best performers. Higher values indicate greater inefficiency. Infrastructure spending efficiency is calculated using the volume and quality of infrastructure as the output and public capital stock and GDP per capita as the input, as estimated in IMF (2021a). Orange diamonds indicate medians, and bars show the minimum-maximum range. Sample size includes 15 economies in ECA and 16 in the euro area.

C. GDP per capita at current market prices in percent of the 27 European Union member states (EU-27) total per capita (based on purchasing-power standards). Aggregates are calculated using real U.S. dollar GDP at average 2010-19 prices and market exchange rates. Sample size includes 8 ECA economies.

D. Rates of absorption of EU funds reflect total net payments divided by planned EU spending for the 2014-20 EU spending program. “Best absorber” indicates the EU-27 country that achieved the highest rate of absorption of EU funds.

E. Investments in transport and green projects in percent of Western Balkans GDP.
would require infrastructure investment of between 3.0 and 8.5 percent of GDP a year (IMF 2020).\(^7\) Infrastructure investment to meet the Sustainable Development Goals and limit climate change to 2 degrees Celsius would cost, on average, 4.2 percent of GDP a year in ECA (Rozenberg and Fay 2019).

Such estimates for ECA as a whole mask considerable variation across subregions. In the Western Balkans and Eastern Europe excluding Ukraine, halving infrastructure gaps with the euro area by 2030 could cost 7-12 percent of GDP per year—4-9 percent of GDP per year more than current investment levels (IMF 2020). In contrast, in Central Europe, the investment needed to close half the gap is 3 percent of GDP a year or less, given the larger initial infrastructure stock (IMF 2020).

ECA’s sizable investment gaps are related partly to shortcomings in the efficiency of public investment in infrastructure relative to that of its EU peers (figure 4.9.B). In Bulgaria, for instance, the same public investment outcomes could have been achieved with considerably less investment spending (less by about 2 percent of GDP) if the efficiency of public investment and quality of infrastructure were closer to those of its peers (IMF 2022a).

**Education.** Although average years of education in ECA are among the highest of the EMDE regions, there is significant scope for increased investment, beyond gross fixed investment, to improve basic and tertiary education in ways that would raise labor productivity (World Bank 2020b). PISA scores and learning-adjusted years of schooling suggest that the ECA subregions and countries that most need improvements in the quality of basic education are Central Asia (Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan); the South Caucasus (Azerbaijan and Georgia); the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, and North Macedonia); Moldova; and, in Eastern Europe, Bulgaria and Romania. The latter two are among the EU countries that invest the least in education, including public expenditures on teachers and training, education infrastructure, digital learning, and equity and inclusion. Early childhood education is also important. On average, children who attend preschool stay in school nearly a year longer and are more likely to eventually be employed in high-skill jobs. High-quality interventions in the early years have a high benefit-to-cost ratio and can deliver annual returns of about 13 percent on investment (García et al. 2016).

In some economies in ECA, particularly Central Asia, inadequate investment in human capital has left parts of the workforce poorly equipped for rapid technological change (Flabbi and Gatti 2018). Low educational attainment among the workforce and inadequate skills have often been cited as constraints on doing business, job creation, and economic growth.

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\(^7\)This estimate is for total investment rather than additional investment needed over current investment. The sample includes ECA countries classified as EMDEs or advanced economies: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Kosovo, Latvia, Lithuania, Moldova, Montenegro, North Macedonia, Poland, Romania, Russia, Serbia, the Slovak Republic, Slovenia, Türkiye, and Ukraine.
and innovation in ECA (Brancatelli, Marguerie, and Brodmann 2020; World Bank 2019c). An aging workforce, a declining working-age share in the total population, and high emigration rates among young and skilled workers in ECA highlight the need for education, training, and retraining to help workers adapt to new job requirements and technologies (Aiyar, Ebeke, and Shao 2016; Hallward-Driemeier and Nayyar 2018). Access to retraining programs, particularly for workers in sectors that have been hit the hardest—whether as a result of the pandemic or automation—can play an important role in facilitating workers’ reemployment.

The COVID-19 pandemic underscored the critical need for investment in digital skills and technology to ensure educational continuity, as well as for resources to upgrade information and communications technology infrastructure to support virtual learning, particularly for more vulnerable households. Digital approaches to remote learning that were developed during the pandemic can be leveraged to broaden access to affordable education across EMDEs, including in ECA (Li and Lalani 2020). There is wide divergence in internet access, with some EU members having rates similar to those in euro area countries, while Central Asia lags even the EMDE average.

**Digitalization.** Investment in accelerating the digital transformation could support faster growth of productivity and output in ECA, while also strengthening economic resilience in times of crisis (Hallward-Driemeier et al. 2020; ITU 2020). During the pandemic, more than 50 percent of small and medium-sized enterprises surveyed by the Organisation for Economic Co-operation and Development (OECD) increased their use of digital tools to ensure business continuity in the wake of reduced mobility (OECD 2021b). Preliminary evidence also suggests that innovation and digitalization may have helped promote firm survival (Muzi et al. 2021).

Although ECA fares well relative to other EMDE regions on digital connectivity, weak investment in recent years has led to large infrastructure gaps in telecommunications, limiting the capacity for further regional integration (IMF 2014). Moreover, outdated technologies, lagging innovation, misallocation of labor to inefficient sectors, and market rigidities have weighed on productivity and contributed to divergences in TFP across countries and firms (Bahar and Santos 2018; Hallward-Driemeier et al. 2020; Syverson 2011). While the number of individuals using the internet in countries in Central Europe is on par with that in the rest of the EU, it is below the global average in several of ECA’s poorest EMDEs, hindering their ability to close the distance to the TFP frontier (Burunciuc 2021; UN 2020). The digital divide also extends to firms, with small and medium-sized enterprises trailing larger companies in digital connectivity and adoption, particularly in high-speed broadband and e-commerce tools, which makes narrowing productivity gaps with larger companies even more challenging (Hallward-Driemeier et al. 2020; OECD 2021b).

For many ECA countries, improving digital infrastructure and expanding access to high-quality digital connectivity will require boosting investment in communications infrastructure (Hallward-Driemeier et al. 2020). Liberalized telecommunications, coupled with regulatory independence, effective control of monopoly power, and efficient taxation of digital services, can catalyze private sector investment to lower the
cost of access to digital services and increase use of the internet, with positive spillovers to the rest of the economy (Arezki et al. 2021; Rodríguez-Castelán et al. 2021). Public investment can also play a role in supporting the digital transformation for firms, particularly finance-constrained small and medium-sized enterprises, by reducing cost barriers and accelerating digitalization.

**Regional policy priorities**

For ECA’s EU economies, private and public investment will benefit from the phasing in of projects financed by EU funds. The EU’s National Recovery and Resilience Plans, which are supported by the largest funding package ever approved by the EU, provide a unique opportunity to promote economic recovery as well as green and digital infrastructure and to help close investment and income gaps with more advanced EU members. In all, NextGenerationEU funds to support the plans amount to 9.3 percent of 2021 GDP in Bulgaria, 11.0 percent in Croatia, 6.3 percent in Poland, and 12.1 percent in Romania—much larger shares than the EU average of 5.6 percent. Since the passage of the plans, private investment prospects have also improved. In Bulgaria—the EU’s poorest economy, in which output per capita is only about 55 percent of the EU average—private sector forecasts for long-term (10-year-ahead) investment growth almost doubled, from 1.6 percent in January 2020 to 3.0 percent in July 2022 (figure 4.9.C). Even in Poland—where output per capita is about three-quarters of the EU average—long-term forecasts for investment growth rose from 1.9 percent in January 2020 to 3.1 percent in July 2022. Across EU and partner economies, however, low absorption of funds because of inadequate administrative capacity and governance could temper the boost to investment (figure 4.9.D).

Western Balkan countries are also expected to be large recipients of EU funding over the remainder of the decade, which should help to counter headwinds to investment growth in these economies. The EU’s Economic and Investment Plan for the Western Balkans aims at fostering integration of the Western Balkans with the EU and convergence of living standards in the Western Balkans with those in the EU, with financing over the next decade totaling more than 25 percent of Western Balkans GDP. The EU investments also include sizable funding for the green and digital transitions—a key priority given that Western Balkan economies are among those in ECA farthest from the green transition frontier and experiencing the highest levels of air pollution in Europe (Bartlett, Bonomi, and Uvalic 2022; European Fund for the Balkans 2021; OECD 2021a; Regional Cooperation Council 2018; UNEP 2019). The investments are largely in transport systems, which have long lacked sufficient investment, particularly in regard to logistics and maintenance (figure 4.9.E; European Commission 2021a, 2021b). Modernizing and improving transportation will promote climate goals, as currently less than half of railway networks in the Western Balkans are electrified, and most are powered by fossil fuels (European Commission 2020b).

In Ukraine, the focus will eventually turn to recovery and reconstruction. The World Bank (2022j) estimates that at least $349 billion (1.5 times 2021 GDP) will be needed, based on damage incurred as of June 1, 2022. Other estimates put total reconstruction costs in the range of $750 billion to $1.1 trillion, with infrastructure costs at about $190
billion (Arons 2022; Kyiv School of Economics 2022; Government of Ukraine 2022). Within about one month of Russia’s invasion, infrastructure damage alone had already exceeded Ukraine’s 2022 budget. Given these major reconstruction and investment needs, Ukraine’s recovery will be contingent on substantial external financing on concessional terms. Domestic reforms that strengthen institutional quality and transparency, address structural bottlenecks, and ensure that the financial sector is able to bolster private-sector-led growth could usefully accompany reconstruction efforts.

More broadly, several steps can be taken to improve the climate for private investment in ECA. A supportive environment would include stable policy frameworks, which reduce uncertainty for businesses, and an effective regulatory environment, in which environmental standards are effectively enforced and strong competition is ensured through control of monopoly power (Ambec et al. 2013). Reforms that could promote private sector investment include the removal of distortions and restrictions on competition—including nontransparent investment regulations, cumbersome tax compliance rules, and more favorable treatment for state-owned enterprises—as well as better targeting of policy support measures.

Lack of exposure to international competition—partly because of nontariff barriers and complex trade rules—as well as restrictive regulations governing product markets and services remain structural bottlenecks to domestic and foreign investment in the region (Shepotylo and Vakhitov 2015; World Bank 2016f). Low innovation rates—which partly stem from weak competition, inadequate control of corruption, and the dominance of state-owned enterprises—continue to dampen the business environment and hinder investment in the region, particularly in the absence of progress in regard to other reforms (figure 4.9.F; EBRD 2018, 2019).

Structural reforms that help to close investment gaps and promote FDI inflows and greater participation in global value chains, by boosting private sector development and transition to competitive and inclusive markets, could help increase productivity in the region, particularly in the economies outside the EU (EBRD 2014, 2018; Gould 2018; World Bank 2019b). Greater economic integration and regional coordination could also help spur innovation and competition and help unleash the region’s growth potential (Kunzel et al. 2019). The pace of future growth will largely depend on the successful implementation of structural reforms to improve the business environment, achieve debt sustainability, and restructure state-owned enterprises (Belarus, Kyrgyz Republic, Moldova, Ukraine, and Uzbekistan; EBRD 2017; Funke, Isakova, and Ivanya 2017).

Improvements in public investment, including those that result from better prioritizing public expenditures and enhancing the appraisal and review of public investment projects, need to complement measures to improve the climate for public investment. Even in ECA’s EU member states, public investment efficiency can be as much as 2 percent of GDP lower than in other EU countries. Sound policies with respect to infrastructure investment and improvements in governance, education, and public health might help countries become more integrated into global and regional value chains.
Over 2000-21, investment growth in Latin America and the Caribbean averaged 2.7 percent a year but was volatile, as commodity price swings and financial cycles buffeted investment. LAC had the lowest average investment-to-GDP ratio among EMDE regions, with a falling ratio of public investment to GDP, despite substantial unmet needs—shown, for example, in mediocre logistics networks and high levels of urban congestion. The region spends proportionally more on human capital formation—education and health care—than its peers but does not seem to have derived commensurate value, suggesting room for improved efficiency. Many policies could help raise physical and human capital investment and improve outcomes in terms of output and welfare. More public spending could be allocated to investment, and the region could upgrade its capacity for project preparation and delivery. On the private investment side, it could improve regulatory and competition frameworks and consider investment-friendly reforms. The region could harness significant green investment dividends from renewable energy and related electrification, but transitioning sustainably and equitably will be crucial. More fundamentally, without achieving higher domestic savings, LAC is unlikely to consistently reach the levels of investment needed to narrow substantially the income gap with advanced economies.

Introduction

Latin America and the Caribbean accounted for about 13 percent of EMDE investment during 2000-21. Investment growth over the period was volatile. Following subdued growth in the early 2000s, investment surged in the period up to 2011 (with a temporary interruption in 2009 because of the global financial crisis), followed by a long fallow period from 2012 to 2020 when annual investment growth was never above 3.5 percent and negative in five of the nine years.

Throughout the period, investment growth and commodity price changes, the major driver of changes in the terms of trade in LAC, comoved closely. Indeed, the marked decline in investment growth from 2010-16 was concentrated in South American commodity exporters such as Brazil, Chile, and Peru, while investment in Central America and the Caribbean was more resilient. Global financial conditions, and U.S. monetary policy in particular, are also important determinants of investment cycles in LAC. Following a strong rebound from the pandemic trough of 2020, investment is forecast to once again underperform in 2023 and 2024. Much of this expected weakness reflects the lagged effects of sharp and synchronous monetary tightening in both LAC and advanced economies in 2022.
LAC has sizable prospective investment needs, especially in regard to the provision of infrastructure and other public goods like health care and education. Investment in LAC also offers potential sources of commodity inputs crucial to a global green transition, but it is likely to reap a long-term green investment dividend only with conducive policy frameworks in place and only if policymakers can successfully leverage commodity windfalls to raise living standards. More broadly, consistently higher investment growth will be required if potential output, labor productivity, and real per capita incomes are to grow faster in LAC countries (chapter 2).

Evolution of regional investment

During 2000-21, annual average investment growth in LAC was 2.7 percent, significantly lower than the average for all EMDEs of 7 percent. The investment-to-GDP ratio averaged 19 percent in LAC in 2000-21, the lowest allocation to investment of any EMDE region and well below the aggregate EMDE average of 28 percent. From the start to the end of the period, LAC’s contribution to total EMDE investment declined from close to one-quarter in 2000 to less than one-tenth by the early 2020s. The public sector has shown particularly marked and pronounced weakness in investment since 2015, with that weakness reflecting fiscal constraints alongside the growth of spending related to government consumption. Indeed, in 2014, the stock of public capital per capita in LAC fell below the EMDE average, while the stock of private capital per capita remained at roughly twice the EMDE level (figure 4.10).

Fluctuations in LAC investment growth over the past two decades have broadly paralleled those in GDP growth. Regional investment grew healthily before the global financial crisis, as Argentina and Mexico emerged from recessions in 2003 and growth in Brazil picked up sharply from 2004 to 2008. Output and investment resumed steady expansions after the interruption of 2009 but faltered after 2011, and particularly in 2014-16, as commodity prices declined and the region’s countries began to withdraw monetary accommodation. By 2015-16, Brazil was in a deep recession, with consecutive years of double-digit negative investment growth. More years of anemic regional growth of output and investment followed, as Argentina slipped back into economic crisis and growth remained weak in Brazil while slowing markedly in other sizable regional economies like Chile and Colombia. While the sharpest slowdowns occurred in some of LAC’s largest economies, the weakness of investment growth in the late 2010s was widespread. Between 2016 and 2019, investment growth was consistently below its long-run regional average in more than half of the countries in LAC, and in 2016 and 2019 the proportion approached 70 percent.

The onset of the COVID-19 pandemic, immediately following the stagnation of the late 2010s, precipitated a collapse in investment by double-digit percentages in LAC in 2020 as lockdowns hit global demand and sent commodity prices plummeting. The decline was short-lived, however. In 2021, investment surged, underpinned by accommodative global financial conditions, a rapid recovery in commodity prices, and extensive fiscal stimulus by governments across the region. In Argentina and Brazil, investment-to-GDP
FIGURE 4.10 LAC: Investment growth

From 2014 to 2020, investment growth in LAC was below its post-2000 average. Weakening investment growth has been widespread across economies in the region and particularly pronounced in the public sector. Public capital stock per person in LAC fell below the level for EMDEs in aggregate in the late 2010s.

A. Investment growth

B. Countries with investment growth below its long-term average

C. Five-year-ahead forecasts for investment growth

D. Public and private capital stocks per capita

E. Investment growth by sector

F. Growth in public and private investment

Sources: Consensus Economics; Haver Analytics; Instituto de Pesquisa Econômica Aplicada; International Monetary Fund; national sources; World Bank.

Note: EMDEs = emerging market and developing economies; LAC = Latin America and the Caribbean; ppp = purchasing-power parity.

A. Average growth rates are weighted by investment levels. Includes 98 EMDEs, of which 20 are in LAC.

B. Economy coverage is the same as for panel A.

C. Five-year-ahead consensus forecasts for investment growth.

D. For Argentina, 2004 is excluded. For Brazil, construction and machinary investment are derived using indicators of gross fixed-capital formation from the Instituto de Pesquisa Econômica Aplicada as proxies.

E. Annual average growth rates of real gross fixed-capital formation in specified time periods, weighted by private and public investment levels. Sample includes 19 EMDEs in LAC. Private investment includes investment through public-private partnerships.
ratios increased by nearly 3 and 2 percentage points, respectively. Prospects for 2023 look substantially weaker, however. With central banks in LAC undertaking some of the sharpest monetary tightening cycles globally, elevated interest rates are likely to dampen investment. Moreover, the decline in commodity prices from mid-2022 and the weak outlook for global growth indicate a likely weakening in the region’s terms of trade. Historically, such weakening has been associated with slower investment growth.

Commodities remain the dominant category of exports from LAC, especially South America, and commodity price movements have been a key driver of investment growth fluctuations in the region (figure 4.11). The relationship between commodity price movements and investment growth in South America operates through multiple channels. Rising commodity prices, as seen in the mid-2000s, provide direct incentives for a supply response through higher investment in commodity production and auxiliary industries, which shows up most clearly in machinery investment. Regional terms of trade also improve, effectively transferring income to LAC from commodity importers, generally through real currency appreciation, among other mechanisms. Increased incomes and wealth feed broader increases in demand, to which investment also responds. Increasing fiscal revenues, which result from the prevalence of state-owned enterprises in key extractive sectors as well as the broader rise in economic activity, encourage increases in public investment (World Bank 2016a). Easier credit conditions strengthen these effects, reinforcing the cyclical alignment of credit and investment growth. When commodity prices subsequently reverse, as they did after 2012, the same channels operate in reverse. Monetary policy may also have exacerbated the volatility of investment, as underestimation of the cyclical components of growth may have led to underestimated positive output gaps during booms and therefore insufficiently restrictive policy (Ablerola et al. 2016).

External financial conditions, most notably in the United States, have had important spillovers onto investment in LAC (Araujo et al. 2016). The gradual tightening of U.S. monetary policy in 2015, coupled with falling commodity prices, saw South American currencies depreciate rapidly against the dollar, in some cases by as much as 30 percent. Concerns about the effects of depreciation on inflation led central banks, notably that in Brazil, to tighten policy despite weak demand, thus dampening investment. A spell of tighter financial conditions in the United States in 2016 further contributed to a period of tight financial conditions in Latin America that did not abate until 2017, when investment growth in the region again turned positive.

Beyond cyclical factors, low domestic saving and tax policies in LAC may have acted as structural headwinds to investment. Compared with OECD countries, LAC countries rely more on corporate income taxes, potentially generating disincentives to investment (Acosta-Ormaechea, Pienknagura, and Pizzinelli 2022). LAC countries also tend to have materially higher corporate taxes than other EMDEs. The average effective corporate tax rate in large LAC economies between 2017 and 2019 was about 29 percent, compared with the 23 percent average for all EMDEs.
Regional investment needs

Investment needs in the region remain significant, encompassing both gross fixed-capital formation for services like transportation and digital connectivity and, beyond gross fixed-capital formation, regarding investment in human capital formation through improved health care and education. Low-quality infrastructure, reflecting historically low investment, weighs on regional productivity and economic growth. Thus, infrastructure bottlenecks may be a key factor limiting agglomeration-related productivity gains that might otherwise be expected to accrue from the region’s high levels of urbanization (Gómez-Lobo et al. 2022). High degrees of inequality in income and wealth between and within countries contributes to highly variable performance on
health and education indicators. Even the region’s richer countries have pockets of significant need, despite higher spending on human development than in other EMDEs (World Bank 2022d). LAC economies could benefit substantially from a global green transition, but realizing this potential benefit will require greater investment in enabling industries, backed by conducive policy frameworks. More generally, only higher investment growth, including in the private sector, can likely achieve the increase in labor productivity needed to raise living standards across LAC.

**Infrastructure.** Surveys indicate that mediocre infrastructure is a key constraint holding back LAC’s development. In 2017, the average economy in LAC ranked 79th out of 136 countries on infrastructure quality, marginally better than the EMDE average but well below the averages for EAP, ECA, and MNA (World Economic Forum 2018). It has been estimated that meeting the infrastructure-related Sustainable Development Goals will require infrastructure investment in LAC of at least 4.5 percent of GDP annually (figure 4.12; World Bank 2019a). Based on extrapolations from data from 2008-15, roughly 70 percent of such needed infrastructure investment (more than 3 percent of GDP annually) is likely to be publicly funded. However, in the years leading up to the pandemic, public investment in infrastructure in LAC countries was about 1 percent of GDP, suggesting a sizable public investment gap (Infralatam, n.d.; Serebrisky et al. 2018). Past estimates of the gap in infrastructure investment in LAC are in the range of 3 to 4 percent of GDP (Brichetti et al. 2021; Kohli and Basil 2011).

Inadequate infrastructure provision is likely to be a key contributor to high levels of urban congestion. This is an important challenge, because LAC is projected to be the most urbanized EMDE region by 2050. Rising congestion costs may offset otherwise beneficial returns to scale in urban environments, representing one potential cause of an apparent lack of agglomeration benefits in productivity growth in LAC cities (Gómez-Lobo et al. 2022). The annual cost of traffic congestion alone is estimated to be worth more than 1 percent of production in Buenos Aires, São Paulo, Montevideo, and Santiago (Calatayud et al. 2021).

Improvements to telecommunications infrastructure can also boost connectivity and productivity, by facilitating expanded services trade, among other ways. LAC has greater mobile and broadband connectivity, on average, than other EMDE regions but lags substantially behind advanced economies. The need for a rapid switch to remote learning and work during the pandemic highlighted how digital connectivity can enhance social and economic resilience to crises (Bai et al. 2021; Strusani and Houngbonon 2020).

Recent country-level studies highlight the need for several countries in LAC to upgrade port infrastructure and transport connectivity in underserved potential export corridors (Argentina, Mexico, and the member countries of the Organization of Eastern Caribbean States; World Bank 2018a, 2018c, 2019d). Such investments should help reduce trade costs and facilitate diversification of trade in respect to products and partners.
FIGURE 4.12 LAC: Investment needs

Inadequate infrastructure impedes connectivity and productivity growth. Despite higher spending than in other EMDE regions, unequal access to education and health care holds back human capital formation in LAC. A global green transition promises opportunities, but higher levels of investment will be needed to realize them.

A. Annual infrastructure investment needs

B. Projected urban population share in 2050

C. Fixed investment and health and education spending

D. Broadband and mobile connectivity

E. Selected health and education indicators

F. Proportion of global commodity reserves in LAC

Sources: GSMA, Mobile Connectivity Index; Rozenberg and Fay (2019); UN Population Division; USGS (2022a, 2022c, 2022f); World Bank.

Note: AEs = advanced economies; EAP = East Asia and Pacific; ECA = Europe and Central Asia; EMDEs = emerging and developing economies; excl. = excluding; GDP = gross domestic product; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa.

A. Bars depict investment needs in LAC according to the “preferred investment scenario” (“ambitious goals, high efficiency”) from Rozenberg and Fay (2019).

B. Projections by the United Nations Population Division.

C. Capital investment is gross fixed-capital formation. Health spending is current health expenditure. Education spending is general government expenditure on education. Values are a weighted average for LAC from 2015 to 2019 and an average of weighted averages for other regions from 2015 to 2019.

D. All values are population-weighted averages. “Broadband connections” shows 2020 values. “Mobile connectivity” is the 2021 average of Infrastructure and Affordability enabler scores within the GSMA’s Mobile Connectivity Index.

E. AE, EMDE, and LAC values are simple averages of the latest available data across countries, excluding years before 2017. Sample includes 26 AEs and 109 EMDEs (23 in LAC) for pupil-teacher ratios; 31 AEs and 99 EMDEs (29 in LAC) for physicians; 36 AEs and 80 EMDEs (11 in LAC) for safe sanitation. “Safe sanitation” means facilities not shared with other households and with safe disposal.

F. Values are LAC proportions of total world reserves in 2022. “Lithium” includes Argentina, Brazil, and Chile. “Copper” includes Chile, Mexico, and Peru. “Rare earths” includes Brazil. Data availability limitations may result in slight underestimates.
**Education.** Beyond gross fixed-capital formation, LAC spends a significantly higher proportion of its GDP on education—about 5 percent—than any other EMDE region. However, LAC performs only moderately better than EMDE averages on measures of education quality, including pupil-teacher ratios and the proportion of trained teachers in primary education. This suggests there is scope to derive better value from education expenditures. On educational attainment, PISA scores in Chile, Colombia, Costa Rica, and Mexico register in the bottom quartile of those for OECD member countries, while most other LAC countries participating in PISA fall within the lower half of the rankings for countries that are not OECD members (OECD 2019b). Educational attainment in LAC mirrors the region’s high income inequality; the richest 20 percent of pupils are five times more likely than the poorest 20 percent to complete upper secondary education (UNESCO 2020).

Against this backdrop, the COVID-19 pandemic set back educational progress across LAC, with the poorest households worst affected. LAC had some of the longest school closures in the world, and early evidence suggests significant learning losses, concentrated among younger and socioeconomically disadvantaged children, as a result (World Bank 2022i). The digital divide was a key driver of the disparities: Only about 40 percent of primary schools and 60 percent of secondary schools in LAC had access to the internet for educational purposes (World Bank 2021a). Given the increasing importance of digital skills, further government efforts to universalize connectivity in schools could boost lifetime earnings and enhance social mobility. More generally, the remediation of pandemic-related learning losses and assurance of more equitable educational access are likely to require more effective, and in rural and low-income areas greater, investment in education. Specific needs identified in recent World Bank country reports include improved teacher training and professional development (Argentina and Ecuador), expanded and enhanced early childhood education (Bolivia and El Salvador), and a greater focus on ensuring that education systems develop the skills employers are seeking (the Dominican Republic, Mexico, and Paraguay; World Bank 2018a, 2018b, 2018c, 2018f, 2019d, 2021i, 2022b).

**Health care.** LAC had higher health spending as a proportion of output, at about 8 percent of GDP in 2015-19, than any other EMDE region, with per capita health spending higher only in ECA. Above-average spending has some clear beneficial outcomes: Life expectancy in LAC compares favorably to that in other EMDE regions, the region has about twice the number of physicians per capita of the average EMDE, and vaccination rates are generally high. Nonetheless, improvement has been slow in important areas. In 2017, ECA, EAP, and MNA all had lower maternal mortality rates, which have fallen only slowly in LAC since 2000. Similarly, while LAC had the highest proportion, among EMDE regions, of the population covered for essential health services in 2000, it has since shown the slowest improvement on this metric, and EAP and ECA have overtaken it. The COVID-19 pandemic laid bare shortcomings in regional health care systems, with LAC suffering a disproportionate death toll, likely reflecting inequitable health care access (Schwalb et al. 2022). The region also continues to lag in aspects of public health infrastructure; the proportion of the population with access to well-managed sanitation services is below the EMDE average.
Investing in improved public health infrastructure and services for low-income groups is likely to be a cost-effective way to improve health outcomes and boost human capital. Recent studies of countries including Bolivia, Ecuador, El Salvador, and Paraguay suggest that improving sanitation in rural and low-income communities should be a priority (World Bank 2018c, 2018f, 2021i, 2022c). Investments that raise the efficiency of health care provision could also free up resources for other sectors. This is likely to be important in coming decades, given low productivity growth and growing demand in the health care sector and the increasing prevalence of noncommunicable diseases. Indeed, model-based estimates indicate that per capita health spending in LAC is set to grow faster than GDP at least up to 2050 (Rao et al. 2022). The region can meet its future health care demands at lower cost by investing in primary care facilities and triage capacity (including telemedicine), preventative public health interventions, and better information and data systems—all of which would lessen the burdens on governments and households (Savedoff et al. 2022).

**Green transition.** LAC economies could benefit substantially from the global transition toward greener forms of energy and broader emissions reduction. The region is endowed with a large proportion of the known reserves of several minerals and metals needed for electrifying transport and scaling up renewable-energy technologies. For example, LAC has roughly half of the world’s lithium reserves (mainly in Argentina, Brazil, and Chile, though Bolivia has the largest known lithium resources in the world), more than a third of its copper reserves (Chile, Mexico, and Peru), and more than a fifth of its rare-earth reserves (Brazil), as well as significant amounts of nickel, manganese, and graphite (USGS 2022a, 2022b, 2022c, 2022d, 2022e, 2022f). However, the efficient extraction and processing of green minerals will require large-scale capital investment and improved technological methods to ensure sustainability. Chile is the only country in LAC that currently exports substantial amounts of lithium, and there are significant concerns that using water in the extraction of lithium from brine has the potential to strain water supplies (IEA 2022). In addition to sustainably expanding extractive capacity, which could further entrench LAC’s dominance in exports of primary commodities, several governments in the region have ambitions to foster domestic green industries down the value chain, including electric vehicle and battery manufacturing. Evidence suggests that these plans may be more likely to succeed if public policy assumes a role in nurturing such industries, as the auto sector tends otherwise to innovate incrementally on existing production techniques (Aghion et al. 2016). However, successfully implementing such plans would likely require substantial upgrades to regional research and development, development of complex manufacturing capacity, and significant upskilling of workforces.

**Regional policy priorities**

While policy priorities differ among countries, across LAC there is a clear need for improved infrastructure and for more equitable access to quality education and health care. Given limited fiscal space, increasing public spending will be challenging, and policy makers may need to focus on reprioritizing and improving the efficiency of expenditures within existing budgets. At the same time, increasing the growth of output...
and productivity in the region’s private sector will require stronger growth of business investment, beyond that focused on primary commodity extraction. This in turn will require more supportive environments for private enterprise.

Public investment. Estimates of infrastructure gaps in LAC indicate that the region underinvests in infrastructure, including that involved in the provision of transport, energy, telecommunications, and water. While some such services can be provided primarily by the private sector, LAC economies will likely need to materially increase public investment in infrastructure to reach the 2030 infrastructure-related Sustainable Development Goals. In some cases, public borrowing could fund projects that offer very high economic returns, but otherwise countries in LAC have limited fiscal space, particularly in the aftermath of the COVID-19 pandemic and prior years of weak growth. The first recourse for raising productive investment in public infrastructure could therefore be reprioritizing existing public expenditure away from unproductive uses. Public budgeting reviews could identify wasteful spending—estimated by one analysis to be as high as 4.4 percent of regional GDP (Izquierdo, Pessino, and Vuletin 2018). Some countries (Argentina, Bolivia, and Brazil) may need to institute reforms to reduce budget rigidities (Herrera and Olaberria 2020). Governments could also consider implementing fiscal rules that favor investment spending over consumption, though they would need to manage potential sustainability risks from poor-quality investment (Blanco et al. 2020). Measures that broaden the tax base, limit distorting tax expenditures, and improve tax compliance can help policy makers seeking to fund investment through raising additional revenues avert negative impacts on growth. Governments could also consider increasing consumption taxes on goods such as alcohol, tobacco, and sugar, which could raise revenue while helping combat chronic illnesses that are bad for both general welfare and the public purse (Estevão and Essl 2022).

Even absent broader fiscal reforms, LAC has substantial scope for improving infrastructure by raising the efficacy of public investment. One study estimated that by operating at the efficient frontier, LAC could double its output in infrastructure services with the same inputs (Suárez-Alemán, Serebrisky, and Perelman 2019). The region could derive substantial efficiency gains, for example, from improvements in project selection, planning, management, and procurement (Fay et al. 2017). In some cases, additional use of public-private partnerships may improve risk allocation in the financing of infrastructure projects, smooth budget outlays, and augment state capacity in project delivery and maintenance (Garcia-Kilroy and Rudolph 2017). Policy makers could also consider establishing functionally independent advisory commissions (such as those in place in New Zealand and the United Kingdom) to aid in planning infrastructure expenditures and establishing priorities among them.

Private investment. To improve incentives for private investment, LAC countries could reform taxation frameworks to reduce the relatively high dependence on corporate income taxes. In this context, broadly applicable reforms such as increased investment expensing are likely to provide more effective and efficient incentives than complex
special tax regimes (Acosta-Ormaechea, Pienknagura, and Pizzinelli 2022). Countries could use carbon taxes to provide incentives for green investment and research (Aghion et al. 2016). Regulatory environments in LAC could be improved by, among other things, ensuring that regulators have technocratic governance and that regulatory frameworks are transparent. Processes should follow international best practices regarding, for example, policy consultations, impact assessments, and ex post evaluations (Querbach and Arndt 2017). Competition frameworks could be enhanced to reduce monopoly power, encourage innovation, and foster a level playing field among private firms as well as between private firms and state-owned enterprises. Upgrading the skills of the population through more effective utilization of education spending would increase the attractiveness of LAC as a destination for private investment. Policy makers could, for example, increase focus on educational attainment among students from low-income households while seeking efficiency improvements and better matching between skills that are in demand and subjects studied in higher education (Ferreyra et al. 2017). Combating corruption and reducing violence and social unrest would also bolster investor confidence (Keefer and Scartascini 2022).

**Raising domestic saving.** LAC has lower domestic saving rates than other EMDE regions, even after the influence of such factors as financial depth, demographics, and macroeconomic and political stability is accounted for (Becerra, Cavallo, and Noy 2015). Given historical long-term correlations between investment and domestic saving, it is unlikely that investment rates in LAC can durably increase without higher saving (Apergis and Tsoumas 2009). Policy makers therefore face a tension between increasing public investment and supporting higher national saving through government saving, sharpening the rationale for funding new investment out of existing fiscal envelopes. Evidence that public investment crowds out private investment in LAC is ambiguous, but mitigating this potential risk calls for governments to focus on investments that can raise total factor productivity, thereby increasing returns on private capital and creating incentives for private investment (Fernández, Imrohoroglu, and Tamayo 2017; Ramirez and Nazmi 2003; Santiago et al. 2020). Measures to increase financial access, trust in the banking system, and financial literacy (through early financial education, for example) could help raise household saving rates (Cavallo and Serebrisky 2016). In the absence of higher domestic savings, LAC will have to continue relying heavily on foreign savings to support growth of the region’s capital stock—an approach that may have contributed to low investment-to-output ratios over the last 20 years.
Investment growth has been anemic in the Middle East and North Africa in recent years. It was negative in 6 of the 11 years from 2011-21. Periods of declining oil prices, armed conflicts, political upheaval, and weak governance have constrained investment. Investment needs, while varying substantially between the wealthier countries of the Gulf Cooperation Council and countries marred by fragility and violence, remain generally sizable, especially in the transport and energy sectors. The COVID-19 pandemic and climate change call for immediate investment to prevent losses to lives and livelihoods. Policies to encourage investment include rationalizing the role of the state in economic activity, creating incentives for the private sector to invest, and diversifying fossil-fuel-reliant economies so that they are better positioned for the future.

Introduction

The Middle East and North Africa accounted for 6 percent of investment in EMDEs during 2011-21. Over the past two decades (2000-21), investment growth collapsed momentously in the region, from an average of 8.6 percent a year in 2000-10 to 0.5 percent a year in 2011-21. Foreign direct investment inflows halved over the two decades and were the lowest among EMDE regions in the 2010s, at 1 percent of GDP. In 2022, investment growth is estimated to have been 5.4 percent, just above the 1990-2021 annual average of 5.0 percent (figure 4.13).

The precipitous slowdown in investment in the past decade reflected violence and conflict, the impacts of the COVID-19 pandemic, the effects on oil exporters of a large drop in oil prices in the middle of the decade, and macroeconomic and political instability in many net oil importers. The oil price collapse in 2014-16 led to a significant slowdown in investment growth among oil exporters, from about 9.1 percent a year in 2000-10 to 0.3 percent a year in 2011-21. Oil importers in the region also saw a steep slowdown in average annual investment growth between the two decades, from 6.6 percent to 1.6 percent.

The pandemic led to a 6.5 percent decline in investment in the region in 2020, with the drop in oil-importing countries three times greater than that in oil exporters. The rebound in 2021 was tepid, with investment growth of 5.3 percent. Consequently, investment in 2021 remained about 12 percent below prepandemic projections, and even further below projections in oil importers than in oil exporters. Over 2022-24,
FIGURE 4.13 MNA: Investment growth and correlates

Investment growth in the Middle East and North Africa slowed in the last decade and was negative more than half the time. The slowdown reflects a severe deterioration in the terms of trade in oil exporters, armed conflict and its spillovers, and political uncertainty in several oil importers. The pandemic has led to a persistent gap between actual investment and prepandemic forecasts.

A. Investment growth

B. Economies with below-average or negative investment growth

C. Investment

D. Composition of investment growth

E. Terms of trade

F. Political stability

Note: EMDEs = emerging market and developing economies; MNA = Middle East and North Africa.
A. Averages weighted by investment levels. Sample includes 98 EMDEs and 11 from MNA.
B. Economy coverage is the same as for panel A. Share of countries in MNA region with investment growth below the long-term (2000-21) average or negative investment growth (“Contracting”). Orange line indicates 50 percent.
C. Investment level based on data and projections in the January 2020 and January 2023 Global Economic Prospects reports. Data for 2023 are forecasts.
D. Based on data from Bahrain, the Arab Republic of Egypt, the Islamic Republic of Iran, and Saudi Arabia. In Egypt, nominal investment is deflated using the gross capital formation deflator.
E. World Bank’s net barter terms-of-trade indexes. Investment-weighted averages. Oil exporters include Algeria, Kuwait, Oman, Saudi Arabia, and the United Arab Emirates. Oil importers include Egypt, Jordan, Lebanon, Morocco, and Tunisia.
F. Based on the Government Stability subindex of the International Country Risk Guide. Unweighted average for 102 EMDEs, including 10 MNA oil exporters and 6 MNA oil importers.
growth in investment in MNA is expected to approximately match the region’s longer-run (2000-21) average rate, with investment failing to catch up with its prepandemic trend.

Investment needs remain significant in MNA—especially among oil importers and economies suffering from fragility and conflict—including needs for investment in infrastructure and climate change adaptation and mitigation, as well as investment to address the legacy of the pandemic. But infrastructure needs vary widely across the region, from countries with some of the highest scores in the world for infrastructure quality—the United Arab Emirates is ranked fourth globally—to ones with some of the lowest (Lebanon and the Republic of Yemen). The region also needs to invest in preparing for a warmer and more volatile climate and a decarbonized future. A focus on green economic growth—promoting clean energy and ecofriendly investment—would yield greater economic returns by creating more jobs and averting environmental degradation. To meet the region’s investment needs, its governments can implement policies that decrease the size of the state, support new industries in diversifying production and exports, provide appropriate incentives for the private sector through improvements in governance and investor protections, and efficiently price fossil fuels.

Evolution of regional investment

Over the last two decades, armed conflicts in several countries, far-reaching political changes, the oil price plunge of 2014-16, and lately the pandemic and war in Ukraine have weighed down economic activity and investor sentiment in MNA. As growth prospects dimmed, especially among oil-exporting countries, investment growth slowed sharply, from an annual average of 8.6 percent in 2000-10 to 0.5 percent a year in 2011-21. Foreign direct investment inflows halved to 1 percent of GDP on average during 2011-20, the lowest rate among EMDE regions. Investment contracted in four of the six years from 2016 to 2021. At the height of the COVID-19 pandemic, in 2020, investment declined by 6.5 percent, before rebounding by 5.3 percent on average in 2021-22. Investment in 2022 is expected to remain about 12 percent below its prepandemic projections and below prepandemic forecasts in four-fifths of the region’s economies. While investment slowed for different reasons in the past decade in oil importers and exporters—the former battling external factors and the latter domestic policy uncertainty—the outcome has been anemic investment growth in both groups.

Investment in oil-exporting MNA economies

Investment growth in oil-exporting MNA economies—in which oil and gas account, on average, for four-tenths of output and most of fiscal revenues and goods exports—has evolved broadly in line with oil prices, which collapsed in 2014 and remained below averages for the 2010s until late 2021. The war in Ukraine raised oil prices again in 2022. While investment rebounded strongly in the first half of 2022, the future path of investment in the oil sector is unclear, given longer-term trends away from fossil fuels and high volatility and uncertainty in the oil market.
When the steep oil price decline began in mid-2014, governments in the region’s oil-exporting economies initially responded with fiscal stimulus, often in the form of public investment. As a result, investment growth rose by more than 7 percentage points in 2014 to 7.4 percent. But the collapse in oil prices proved enduring and led to sustained oil revenue losses. The resulting fiscal constraints contributed to declines in investment over 2015-19 averaging 1.5 percent a year, with investment contracting in three of the four largest oil exporters: the Islamic Republic of Iran, Saudi Arabia, and the United Arab Emirates. The average terms of trade of oil exporters only recently returned to pre-2014 levels.\(^8\)

The COVID-19 pandemic further depressed investment in these economies as they were hit by simultaneous shocks both to oil sectors and, because of mobility restrictions, to non-oil economic activity. In Saudi Arabia, investment collapsed by 10.4 percent in 2020, compared with the 4.5 percent average decline among oil exporters as a whole.

Growth averaging 5.8 percent across 2021 and 2022 followed the fall in investment in 2020. Investment in 2022 is estimated to have surpassed its 2019 level but to have remained 4 percent below prepandemic projections.

**Investment in oil-importing MNA economies**

Among oil-importing countries, investment contracted by 14 percent in 2020 following a decade of weak growth stemming from political tensions that began with the Arab Spring in 2011, spillovers from the euro area financial crisis of 2010-11, and domestic macroeconomic instability. During the 2010s, the only year of strong growth was 2016, when the Arab Republic of Egypt and Morocco, the two largest economies in the region that are net importers of oil, both ramped up infrastructure investment.

Since 2017, the public sector in Egypt has aggressively expanded investment, including investment in education and training. Gross capital formation grew by 36 percent between 2017 and 2020. Public investment has increased as part of a structural reform agenda, only partially completed, aimed at restoring the country’s macroeconomic stability and promoting sustainable economic growth. Reforms have included the introduction of a more flexible exchange rate; fiscal reforms, including reductions in energy subsidies and improvements in public financial management; improvements to the monetary policy framework; a new law to streamline customs and reduce nontariff barriers; a new banking law; and increased freedom for the private sector to participate in more sectors of the economy (IMF 2021a). These reforms aimed partly at improving the environment for private investment. Increased public investment as part of a response to the pandemic partly offset a sharp decline in private investment in 2020.

Investment growth of 2.9 percent in oil importers in 2021 was anemic given the 14 percent COVID-induced collapse in 2020. It was also too little to lift investment above its 2019 level, which the region’s oil importers are expected to surpass only in 2023.

\(^{8}\)Panel regression estimates suggest that the resulting terms-of-trade shock accounted for nearly all of the slowdown in investment growth during the initial oil price decline in 2014.
Investment in 2022 is now estimated to have been almost 30 percent below pre-pandemic forecasts.

**Regional investment needs**

MNA needs to ramp up investment in infrastructure, which could support the economic recovery from the pandemic (figure 4.14). Investment outlays would likely yield the greatest benefits if directed at addressing the consequences of the pandemic, meeting infrastructure needs, diversifying economies, and mitigating and adapting to climate change. A main focus on green economic growth—promoting clean energy and eco-friendly investment—could yield the largest economic returns, by creating more jobs and averting environmental degradation (Batini et al. 2021). Environmental degradation of skies (air pollution) and seas (plastics) costs the region 2 percent of GDP a year on average (Heger et al. 2022). Upgrading infrastructure can also save lives and livelihoods, with an estimated 5.5 percent of GDP lost annually in the region as a result of poor roads and related accidents (Um 2020). Just as the region’s challenges are diverse and complex, so are its needs for investment in infrastructure, education, health, and green technology.

**Responding to the pandemic.** The COVID-19 pandemic has highlighted inadequacies in the health and education sectors in MNA, and the urgent need to invest in them. Most MNA economies were ill-prepared for the pandemic, with public officials overconfident about health system capabilities (World Bank 2021g). Even prior to the pandemic, achieving universal health care coverage would have required countries globally to increase spending on primary health care by at least 1 percent of GDP (WHO 2019). Despite significant progress in MNA over the last two decades toward achieving universal health care—meaning access to health services, when and where needed, without financial hardship—the region still lags behind other EMDE regions and advanced economies in this regard. In some of the region’s economies, public spending on health care, per capita, is among the lowest in the world, resulting in limited access and large out-of-pocket expenses for citizens. Insufficient investment in health services, particularly in non-Gulf Cooperation Council economies means inadequate numbers of health care workers, insufficient hospital beds per capita, and limited ability to provide essential health services.

Scores on the World Bank’s Human Capital Index have risen over the past decade in almost 80 percent of MNA economies, with much of this gain coming from educational improvements. Nonetheless, a child born in MNA in 2020 was expected to achieve only 56 percent of his or her potential productivity on average, according to the index. The pandemic has reversed some of the gains to education, with pandemic-related school closures averaging 48 weeks in 2020-21 in MNA, above the global average of 38 weeks. The resulting outsized damage to human capital accumulation could significantly

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9 The Human Capital Index measures the amount of human capital (that is, the level of productivity) a child born in a given year could expect to attain by the age of 18, based on the risks to health and education that child is expected to face.
FIGURE 4.14 MNA: Infrastructure, health, and education indicators

MNA has high needs for investment in infrastructure, especially in regard to electricity and transport. While MNA performs well relative to other EMDE regions on basic health measures, its education indicators remain generally below EMDE averages.

A. Infrastructure investment needs

B. Quality of infrastructure

C. Universal health coverage

D. Health spending below EMDE median

E. Selected human capital indicators

F. Infrastructure investment needs

Sources: Group of Twenty (G20), Global Infrastructure Outlook; Rozenberg and Fay (2019); World Bank; World Economic Forum, Global Competitiveness Index; World Health Organization.

Note: EAP = East Asia and Pacific; ECA = Europe and Central Asia; EMDEs = emerging market and developing economies; GCC = Gulf Cooperation Council; GDP = gross domestic product; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa.

A. Investment needs in a “preferred investment scenario” as defined in Rozenberg and Fay (2019).

B. Unweighted averages of survey data from the World Economic Forum’s Global Competitiveness Index. Data were collected using the question: “How would you assess general infrastructure (for example, transport, telephony, energy) in your country? (1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world).” Oil importers include the Arab Republic of Egypt, Jordan, Lebanon, Morocco, and Tunisia. Non-GCC oil exporters include Algeria, the Islamic Republic of Iran, Libya, and the Republic of Yemen. GCC countries include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

C. Unweighted averages. Sample includes 138 EMDEs (16 from MNA).

D. Based on domestic general government health expenditure as a percentage of GDP. Sample includes 152 EMDEs (18 from MNA). Orange line indicates 50 percent.

E. Unweighted averages. Sample includes 138 EMDEs (16 from MNA).

F. Based on the G20’s Global Infrastructure Outlook.
impair the lifetime earnings of many (Azevedo et al. 2021). Returns to education in MNA are also the lowest of any EMDE region, reflecting in part the low quality of education (Montenegro and Patrinos 2014). Anemic economic growth and job creation in the region have also contributed to high rates of youth unemployment, and the lack of work experience for many is a further setback for human capital (Kheyfets et al. 2019).

**Responding to climate change.** MNA has already been feeling the effects of climate change, with natural disasters, including heat waves and floods, becoming more frequent (IMF 2022b; World Bank 2014). Rising risks to lives and livelihoods highlight the urgent need to invest in climate change mitigation and adaptation and to ensure that the recovery from the pandemic is green and inclusive (Acerbi et al. 2021; IMF 2022b). Risks are particularly acute among economies dependent on agriculture: Rising temperatures are expected to reduce growing areas and crop yields and exacerbate water scarcity, which will undermine food security, force migration, lower labor productivity, and raise the likelihood of conflict. In Morocco, for example, where droughts are already a major source of macroeconomic vulnerability, a continuation of recent trends could result in a rationing of water to various sectors of the economy that could decrease GDP by up to 6.5 percent by 2050 (with new infrastructure and improved efficiency only partly offsetting the decline) and prompt the migration of up to 1.9 million people, or 5.4 percent of the population (World Bank 2022f). For the region, crop yields could decline by up to 30 percent if temperatures were to rise by 1.5-2 degrees Celsius relative to preindustrial times (World Bank 2014).

Taking into account the indirect costs of action needed for climate resilience increases estimates of the costs of adapting to climate change. These estimates are also dependent on assumptions about the climate outlook and therefore vary widely. The World Bank (2014) estimated the cost to the region at about 7.3 percent of GDP on average per year from 2015 to 2030. The IMF has estimated individual-country costs to be as low as 0.1 percent of GDP in Bahrain, Jordan, and Saudi Arabia, but as high as 2 percent of GDP in Iraq over the next 10 years. Given the abundance of sunshine (radiant energy), much of the region can benefit from a shift to solar energy, the costs of which have decreased rapidly (IMF 2022b). Current generation capacity from renewables is only about one-tenth of total installed energy generation capacity in MNA (Um 2020).

**Broader infrastructure needs.** Investment needs in the region go beyond addressing climate change and the repercussions of the pandemic. Infrastructure needs are also important, although they vary widely across MNA. Infrastructure spending can create the foundation for strong private-sector-led growth and provide citizens with access to opportunities. Infrastructure investment in the region averaged 3 percent of GDP over the last decade, with that investment financed mainly by the public sector (Um 2020). This rate of investment will not be enough to meet infrastructure needs in the coming

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10 These estimates cover only adaptation to floods, storms, and rises in sea levels and do not address rising temperatures or droughts, an important risk for the region.
decade. If all MNA economies increased spending on roads by 1 percent of GDP per year, the share of the rural populations within reach of a primary or secondary road would still increase to only about one-half by 2030. Estimates suggest that infrastructure investment of about 7 percent of GDP will be needed to meet the Sustainable Development Goals by 2030 (figure 4.14.A). Increased investment in infrastructure could also help improve labor market conditions in MNA. Estache et al. (2013) estimated that each $1 billion of infrastructure investment has the potential to generate 110,000 infrastructure-related jobs, on average, in oil-importing MNA countries.

The region’s oil-importing countries and its oil-exporting countries that are not members of the Gulf Cooperation Council show significant underinvestment in transport (roads, in particular) and electricity. According to the Group of Twenty’s Global Infrastructure Outlook, Egypt will need to spend an average of 5.2 percent of GDP per year over the next decade to meet infrastructure needs, mainly in energy and telecommunications (Oxford Economics and Global Infrastructure Hub 2017). Egypt’s energy sector could benefit from expanding and diversifying energy supply, a shift toward renewable sources, and the modernization of the oil and gas sector (World Bank 2018d).

Over 2001-17, Morocco had one of the highest investment rates globally, with that rate varying between 25 and 38 percent of GDP. Most of this represented public sector investment in infrastructure. In the latest available (2017) survey, the country ranked 42nd in quality of infrastructure, having risen more than 20 spots in a decade. Despite this achievement, Morocco’s infrastructure investment needs remain large owing to growth in demand for infrastructure services arising from population growth and urbanization (World Bank 2020d). Over the next decade the country will need average infrastructure investment of 6.2 percent of GDP annually, mainly in the energy and transport sectors (Oxford Economics and Global Infrastructure Hub 2017).

Lebanon faces significant infrastructure deficiencies, including a dysfunctional electricity sector, water shortages, and inadequate waste and wastewater management (Harake and Kostopoulos 2018; Le Borgne and Jacobs 2016). The port explosion in Beirut in 2020 and the country’s ongoing economic crisis have highlighted the need for infrastructure investment. The explosion is estimated to have caused damage equivalent to 15-19 percent of the country’s 2020 GDP (World Bank, European Union, and United Nations 2020). Large numbers of Syrian refugees in Lebanon (and Jordan) have added to strains on the provision of public goods.

Countries involved in armed conflict are at risk of large-scale destruction of physical capital. In Syria, the war that began in 2011 has devastated the country’s economy: in 2019, income per capita was no higher than in the early 1990s (World Bank 2022h). The cost of rebuilding infrastructure damaged or destroyed by the conflict has been estimated to be in the range of $100-200 billion in 2015 prices, the lower bound being about 10 times the country’s 2015 GDP (Gobat and Kostial 2016). Iraq also faces large infrastructure investment needs, increased by conflict. It has been estimated that some
$200 billion in 2018 prices would be needed to restore “hard” infrastructure to levels prevailing before the Islamic State of Iraq and Syria became an active force in the country, an amount almost equal to Iraq’s 2018 GDP (Gunter 2018). In the Republic of Yemen, recovery and reconstruction costs are estimated at $20-25 billion, equivalent to 1.1-1.3 times the country’s 2020 GDP (World Bank 2020g).

Member countries of the Gulf Cooperation Council also have infrastructure needs, predominantly in regard to electricity generation, although the pandemic has highlighted the need to invest also in digital infrastructure. Saudi Arabia’s infrastructure investment needs over the next decade are estimated at 2.8 percent of GDP, mainly in the areas of energy and road transport. With higher income levels, these countries’ plans for public spending on infrastructure in the medium term generally track with their needs.

Regional policy priorities

Policy priorities differ across the region. In most of MNA, policy priorities include addressing low-quality education, reducing youth unemployment, improving governance, and decreasing the state’s economic footprint. In agriculture-dependent economies and those with large populations along coastlines, adaptation to climate change is a priority. In economies that have faced conflict, a priority is to restore essential services and infrastructure. Among oil-dependent economies, priorities include diversification of production and exports and empowering the private sector.

**Increasing public and private investment.** Across the region, the scaling back of subsidies since 2014 has created some space for increased public spending on investment in infrastructure, health, and education, but more is needed (Parry, Black, and Vernon 2021). Several policies can raise the volume and efficiency of public and private investment. Countries with insufficient fiscal space to raise public investment to meet their needs could focus on creating incentives for private sector investment and increasing the efficiency of existing public spending. Improving the business climate by reforming governance and regulatory frameworks and enhancing investor protection could promote private sector investment, as could increased use of public-private partnerships (as has been undertaken, for example, in Morocco; EBRD 2015). In 2010-21, MNA accounted for only 2 percent of EMDEs’ infrastructure projects with private participation. Public-private partnerships can improve the efficiency of investment, facilitate technology and skills transfer, and reduce the burden on public budgets (OECD 2019c).

Increasing the role of the private sector in economic activity is vital for most MNA economies. In some oil importers, the electricity sector would benefit from additional privatization (Lebanon) or a larger private sector contribution to electricity generation (Egypt). Egypt has helpfully amended laws to allow the private sector to participate in projects involving infrastructure, public services, and public utilities. Improved security conditions in the region are also essential for a sustained pickup in private investment.
Economies with large external and domestic imbalances should also make restoring macroeconomic stability a priority. Fiscal crises in several economies, which originated in poor economic management, were largely responsible for the weakening of investment growth among oil importers over the past decade. To promote macroeconomic stability, countries could act to improve monetary policy frameworks, introduce fiscal rules to decrease the procyclicality of government spending, implement measures to improve debt management, and undertake rigorous reviews of public spending to promote more productive outcomes.

**Addressing education weaknesses.** The region has the lowest share of human capital in total wealth globally, and returns to education are also the lowest of any EMDE region, reflecting in part low-quality education (Lange, Wodon, and Carey 2018; Montenegro and Patrinos 2014; World Bank 2018e). Policies to address weak educational outcomes include updating stagnant education systems to meet the needs of the twenty-first century—by adopting suitable technology, modernizing teaching methods, introducing vocational training for teachers, increasing learning assessments, and promoting the education of girls.

**Addressing health care issues.** Subnational governments responsible for providing health care services need predictable transfers from national governments. Effective spending reviews are also needed to reprioritize spending and accurately model the impact of spending choices on human capital outcomes. Prohealth taxation (for example, sugar taxes) could raise funding to meet growing needs and help reduce morbidity (Kurowski et al. 2021). In 2021, the region had the second-highest prevalence of diabetes among EMDE regions, only slightly behind that of SAR at 12.3 percent of the adult population.

**Climate policies.** Environmental degradation in the region remains a concern, with low environmental standards, subsidies that promote pollution, and a lack of comprehensive management plans, including plans for managing waste and coastal assets (Heger et al. 2022). Green initiatives, such as rationalizing energy subsidies and introducing carbon taxes, can help address these problems while also improving fiscal positions. Egypt was the first country in the region to issue a green bond, in 2020, to unlock finance for climate-smart projects. If adopted more broadly, bonds of this type could unlock significant sustainable finance. Empowering the broader public with information could be an important catalyst for change. Thus, governments could improve access to data on localized pollution, climate risk, and vulnerability to improve decision-making and investment design (World Bank 2021f).
Over 2000-21, investment in the South Asia region grew at the strong average rate of close to 8 percent a year, and the region’s infrastructure gaps narrowed. But since 2020, the COVID-19 pandemic and war in Ukraine have dented investment growth in the region. The demands of a rapidly growing population, often-weak education standards, poor health care coverage, and high vulnerability to climate change indicate the need for a resumption of sustained, rapid investment growth. Given limited fiscal space in the region’s economies to increase public investment, policies that provide incentives for private sector investment, increase social as well as private returns to investment, and promote greener growth would make filling these investment needs easier.

Introduction

South Asia accounted for 8 percent of EMDE investment, on average, over 2011-21. Investment grew by 7.4 percent annually, on average, in 2000-21, which was above the EMDE average.

Rapid investment growth in the early 2000s was followed by two periods of weakness in the 2010s that reflected weak output growth, excess manufacturing capacity in the face of sluggish external demand, and policy uncertainty in several countries. Then, in 2020, investment fell by about 10 percent as measures to restrict the spread of COVID-19 and reduced in-person interaction led to a collapse in economic activity and increased policy uncertainty. Fiscal support boosted public investment, but not by enough to offset the drop in investment in the private sector. In 2021, investment rebounded by 15 percent as the rollout of vaccines and a surge in goods demand boosted activity. Investment growth slowed from about 9 percent a year, on average, in 2000-10 to just over half that rate in 2011-21. Much of that slowdown was due to the private sector, which accounted for four-fifths of total investment in the region on average during 2000-21. Investment growth declined most steeply in India over the two decades ending in 2021, while in Nepal investment growth increased.

The rebound of investment growth in SAR in 2021 continued in 2022, at a rate of 8.4 percent. Nevertheless, investment in 2022 remained 7 percent below prepandemic projections. The outlook for investment growth in SAR is highly uncertain, with significant downside risks due to soaring inflation, rapid increases in interest rates, several economies in crisis, and rising risks of a global recession.
FALLING LONG-TERM GROWTH PROSPECTS

SAR had large investment needs before the pandemic, and they have only increased since. They include addressing poor health care coverage; raising still-low rates of school completion and improving poor-quality education; addressing mounting infrastructure needs to increase the integration of the region’s economies into the global economy and to provide for the region’s population—which accounts for a quarter of the world’s population; addressing shortcomings highlighted and damage done by the pandemic; and adjusting to, and contributing to the alleviation of, climate change. Governments can help directly by increasing public investment, but limited fiscal space may make this challenging. They have other options, however, including increasing the efficiency of public investment, mobilizing private sector funds by boosting public-private partnerships, and improving the general business climate to promote private investment. Infrastructure investment can play an important role in improving the environment for business, raising labor productivity, and improving household incomes, as the recent launch of rapid transit systems in Pakistan and broader productivity gains made in the region have underscored (Bizimana et al. 2021; Mehar 2020).

Evolution of regional investment

Despite the strong average pace of investment growth in the region in the two decades to 2021, there have been two recent periods of weakness. The more recent one, related to the COVID-19 pandemic, resulted in a contraction in fixed investment by about 10 percent in 2020. Despite the strong rebound of 2021-22, investment in 2022 remained 7 percent below what it was forecast to be before the pandemic (figure 4.15). Nepal and Sri Lanka had particularly large investment shortfalls in 2022 with respect to prepandemic projections.

The earlier period of weak investment growth, in 2012-14, reflected a slowing of SAR’s consumption-driven expansion. Investment growth slowed sharply from 13 percent in 2010 and remained weak in the following few years; it was barely 3 percent in 2014. The slowdown reflected weakening growth in India (which accounts for more than three-quarters of the region’s total investment), only partially offset by pickups in Bhutan, Nepal, and Pakistan.

In India, structural bottlenecks, including unreliable power, poor road and rail networks, and arduous administrative requirements on business, have presented barriers to investment over the past decade, along with banking sector weaknesses that have constrained investment finance. A recent government investment drive recognizes the need to accelerate infrastructure development and remove impediments to private-sector-led growth. Investment growth in India slowed from an annual average of 10.5 percent in 2000-10 to 5.7 percent in 2011-21. In fiscal year (FY) 2013/14, private investment, which accounted for nine-tenths of total investment in the country, stagnated as global financial conditions tightened rapidly and capital outflows accelerated. Subsequent years saw continued muted investment growth relative to the preceding decade. The slowdown has been attributed to a range of factors, including excess capacity in manufacturing following the 2009 global recession, policy uncertainty, and reforms implemented by the Reserve Bank of India to address financial sector
FIGURE 4.15 SAR: Investment growth and correlates

Despite two periods of significant weakness, investment growth was higher in South Asia than in emerging market and developing economies as a whole over the last two decades. In recent years, most economies in the region have seen investment growth below long-term averages, in spite of improving terms of trade and political stability. The level of investment remains below the prepandemic trend as coronavirus disease 2019 (COVID-19) and the war in Ukraine undermine growth. The private sector drives most of the growth in investment in the region.

A. Investment growth

B. Share of SAR countries with weak investment growth

C. Investment

D. Contribution to investment growth

E. Terms of trade

F. Political stability

Sources: Haver Analytics; PRS Group, International Country Risk Guide; Ministry of Finance of Sri Lanka; Reserve Bank of India; World Bank.
Note: EMDEs = emerging market and developing economies; excl. = excluding; SAR = South Asia.
A. Weighted averages. Sample includes 98 EMDEs and 5 from SAR.
B. Share of SAR economies with investment growth below its long-term average or negative. Long-term averages are country-specific and refer to available data over 2000-21.
C. Based on projections in the January 2020 and January 2023 Global Economic Prospects reports. Data for 2023 are forecasts.
D. “SAR excl. India” is weighted average for Bangladesh, Nepal, and Pakistan.
E. Investment-weighted averages.
weaknesses, particularly among state-owned banks (Tokuoka 2012; World Bank 2016e). Stress in the financial sector came to the fore again a few years later and slowed private fixed investment abruptly in FY2019/20.

COVID-19 led to a 10.4 percent contraction in fixed investment in India in FY2020/21, but a robust recovery followed, assisted by the government’s investment drive. Thus in FY2021/22, investment rebounded by 15.8 percent, making the country’s shortfall with respect to the prepandemic trend among the smallest in SAR. The FY2022/23 budget is expected to expand public investment by one-third and also includes an incentive program to boost private investment. By boosting public investment during years of private sector weakness (2013-16, 2020) the government played an important counter-cyclical role.

Bangladesh, the region’s second-largest economy, experienced robust investment growth in 2000-21 at an annual average rate of 8.3 percent, without any slowing trend—unlike India. This robust growth reflects strong underlying GDP growth, fed partly by rapid urbanization; a rapidly growing, export-oriented ready-made garment sector; a high domestic saving rate; and high public investment. In fact, Bangladesh’s public-investment-to-GDP ratio, at 6.5 percent of GDP in 2011-20, was double India’s. Also, COVID-19 had a limited economic impact in Bangladesh: Investment slowed rather than contracted, growing by 4 percent in the fiscal year that ended in June 2020, with a rapid expansion of infrastructure-related public investment offsetting stagnating private investment. In the three fiscal years that ended in June 2022, public investment grew by 45 percent.

In Pakistan, investment has been subject to pronounced boom-bust cycles over the past two decades, with growth averaging only 3.1 percent a year in 2000-21, among the lowest average growth rates in SAR. In 2011-21, investment growth peaked in FY2014/15 at close to 16 percent and remained high for several years. The FY2014/15 surge mainly reflected the China-Pakistan Economic Corridor infrastructure project and the construction of a gas pipeline to Pakistan from the Islamic Republic of Iran. The former project is part of China’s Belt and Road Initiative and consists of a network of highways, railways, and pipelines to connect western China to the Arabian Sea through the Gwadar Port in Pakistan. Largely reflecting the impact of the pandemic, investment contracted by 17 percent in the two fiscal years that ended in June 2020, and the recovery since then has been anemic. Government estimates for FY2021/22 suggest that investment was still 11 percent below its FY2014/15 peak. Severe flooding in 2022 is forecast to set fixed investment back even further in the next two years.

In Sri Lanka, investment growth averaged about 5 percent a year in 2000-21, with rising external debt partly financing expanding infrastructure investment. A balance of payments crisis erupted in the country in mid-2022, and with international reserves down to a quarter of their prepandemic (end-of-2019) level, the country abandoned its exchange rate peg and ceased external debt repayments. With the currency depreciating rapidly, inflation surged. Recurring electricity blackouts and an inability to import
sufficient essentials, including food and energy, added to the country’s challenges. Debt restructuring will be necessary to start the process of fiscal rehabilitation and macroeconomic stabilization. The crisis has significantly impaired the outlook for investment, which is expected in 2023 to fall back to levels last seen over a decade ago.

Regional investment needs

South Asia is the second most densely populated region in the world, behind East Asia and Pacific, with large and pressing infrastructure investment needs (figure 4.16). Progress in meeting these needs can promote inclusive, sustainable economic growth and private sector activity. The effects of the COVID-19 pandemic, the food and energy security concerns that have arisen from the war in Ukraine, and the challenges of climate change have increased investment needs. There is an interplay between recovery from the pandemic and action on climate change. Investments aimed at promoting economic recovery from the pandemic and preparing for future pandemics can be aligned with better climate outcomes and help to decouple future growth from fossil fuels. This is particularly important given the region’s high emissions intensity and susceptibility to extreme weather events.

Responding to the pandemic. The pandemic has cost lives, raised morbidity, and reduced educational opportunities for millions of children. Reversing many of the pandemic’s effects will require a robust investment response. For example, Benedek et al. (2021) estimate that because of the pandemic, average additional (public and private) spending of 2.5 percent of GDP a year through 2030 is needed to meet several Sustainable Development Goals.

Pandemic-related school closures in SAR averaged 70 weeks through March 2022—much higher than the global average of 41 weeks—and kept nearly 400 million children out of school for significant periods (UNESCO and UNICEF 2021). The loss in educational opportunities is likely to undermine poverty reduction, significantly impair the lifetime earnings of those affected, and reduce social mobility across generations (UNESCO, UNICEF, and World Bank 2021; World Bank 2021j, 2022h). The pandemic had an especially severe impact on the informally employed, who accounted for 59 percent of the region’s total employment, on average, in 2010-18, significantly more than in other EMDE regions (Ohnsorge and Yu 2021). Income losses were severe, given widespread informality in the services sector and the limited ability of informal firms to access government support (Apedo-Amah et al. 2020; World Bank 2020e). South Asia’s informal labor force consists predominantly of low-skilled, rural, female, or young workers.

The education crisis caused by the pandemic calls for an urgent response to ensure that learning environments are safe and learners marginalized by the pandemic are identified and enabled to catch up. To achieve these objectives, investment could focus on providing adequate infrastructure to ensure access to clean water, sanitation, and hygiene facilities; improving communication and information sharing between health and education authorities; and establishing infrastructure, including that pertaining to
FIGURE 4.16 SAR: Investment needs

Despite improvements since 2010, SAR still has sizable investment needs in the areas of public infrastructure (energy, transport) and human capital development. Years of schooling in South Asia are about half of what advanced economies achieve. Agriculture in the region is vulnerable to climate change and remains a significant part of economic activity and employment. Increasing research and development spending in agriculture could reverse the region’s expected productivity losses from the changing climate.

A. Quality of infrastructure

Index, 1-7, 7 = best

B. Infrastructure investment needs

Percent of GDP

C. Public health expenditure

Percent of GDP

D. Human capital indicators

Index, 0-1, 1 = best

Learning-adjusted years of school (right scale)

E. Agriculture output

Percent of total output

F. Agriculture research spending

Percent of agriculture GDP

Sources: Agricultural Science and Technology Indicators; Haver Analytics; Rozenberg and Fay (2019); World Bank; World Health Organization.

Note: EMDEs = emerging market and developing economies; GDP = gross domestic product; SAR = South Asia.

B. Based on the “preferred investment scenario” in Rozenberg and Fay (2019).

C. Sample includes 152 EMDEs and 8 from SAR.

D. Sample includes 138 EMDEs (7 from SAR) and 35 advanced economies

F. Based on data for Bangladesh, India, Nepal, Pakistan, and Sri Lanka. “Range” reflects minimum and maximum values.
data and technology, to identify, target, and empower marginalized learners (UNESCO and UNICEF 2021; Van Cappelle, Chopra, and Ackers 2021; Van Cappelle et al. 2021).

By late 2022, the pandemic had officially led to over 600,000 deaths in SAR, about one-tenth of COVID-19 deaths globally. The pandemic undermined people’s ability to work, study, and care for families and stretched health care capacity. The region entered the pandemic with underfunded health care systems: The median public-health-expenditure-to-income ratio was less than half the average for all EMDEs, and there were only 0.6 hospital beds per 1,000 people, the lowest rate of all EMDE regions. Along with these challenges, medical and personal protective equipment and testing and tracing infrastructure remain inadequate. While many countries in SAR had emergency response plans in place before the pandemic, many of these plans were designed to address natural disasters. Investing in adequate preparedness, both in respect to fixed investment and beyond, for future pandemics remains vital.

Addressing climate change. The region is one of the most vulnerable to climate change-induced increases in poverty, disease, child mortality, and food prices, with half its population living in areas expected to become climate hot spots (Amarnath et al. 2017; Hallegatte et al. 2016; Jafino et al. 2020; Mani et al. 2018). Projected losses from climate change for SAR economies are above the global average—as high as 18 percent of GDP per capita for Bhutan (Kahn et al. 2021). Elevated vulnerability, combined with continuing high global emissions of greenhouse gases, makes investing in mitigation and adaptation key to ensuring long-term sustainable growth (Agarwal et al. 2021; World Bank 2022g). The International Finance Corporation (2017) identified $3.4 trillion in “climate-smart” investment opportunities in SAR from 2018 to 2030, including opportunities for investment in energy-efficient buildings, electric vehicles, and green transport infrastructure.

While the investment needed to achieve climate goals can be difficult to quantify precisely, the areas of investment needs are clear. Rising temperatures and increasingly erratic rainfall will exacerbate food and water shortages, lower agricultural productivity, and increase food price volatility. Agriculture is the sector most vulnerable to climate change, and it accounts for 40 percent of employment and 20 percent of output in SAR. To counter the climate risks to the sector, the region could focus on investing in more efficient growing methods, shifting to climate-smart agriculture to reduce water use and emissions of greenhouse gases, and increasing spending on agricultural research and development (Fuglie et al. 2020). In addition, forest restoration can act as a carbon sink to help offset emissions and create jobs, and countries in the region could adjust such policies as water and energy subsidies and grain price guarantees to improve resource allocation.

11 South Asia accounted for about 9 percent of emissions of greenhouse gases in 2018 (Friedlingstein et al. 2022).
Air pollution from burning fossil fuels remains a significant cause of climate change and is estimated to have contributed to more than 1 million premature deaths in SAR in 2018 (Myllyvirta 2020). Fossil fuels also form a large part of the region’s import bill. Greater investment in renewable energy sources would reduce air pollution and result in lower public health burdens, increased energy security, and reduced dependence on energy imports.

SAR’s rapid rate of urbanization—the second fastest among EMDE regions, into cities that are among the most exposed to climate risk—calls for investment in climate change adaptation. This includes improvements in land use and zoning policies, investment in resilient transport and building infrastructure, enhanced delivery of service, and improved disaster preparedness.

**Infrastructure investment needs.** Despite significant progress in expanding infrastructure in many SAR economies, both the quality and quantity of infrastructure in the region are still lower than in other EMDE regions (Bizimana et al. 2021). SAR is also one of the least economically integrated regions in the world, with inadequate transport and power infrastructure partly to blame (ADB 2009; World Bank 2016d). Rozenberg and Fay (2019) estimate that South Asia will need an average annual investment of 7.5 percent of GDP to meet infrastructure-related Sustainable Development Goals by 2030: the second-highest rate among EMDE regions. The Asian Development Bank (2017) has estimated that this rises to 8.8 percent of GDP if climate needs are included.

In India, the 2020 National Infrastructure Pipeline Task Force identified plans for investments amounting to the equivalent of about half of the country’s FY2021 GDP on infrastructure projects between FY2019 and FY2025. The investments are in roads, railways, air and seaports, energy, and other infrastructure. Investment in the power sector is needed to meet growing energy demands, with total installed capacity expected to increase by two-thirds by 2025. Investment is also needed to shift energy production to renewable sources, improve access, and increase the efficiency of the sector. Electricity distribution loss is 19 percent in India, more than double the global average.

Bangladesh’s infrastructure requires various improvements. Poor logistics currently hinder investment and international trade (World Bank 2021c). The World Bank (2021c) has estimated that logistic costs add 5-48 percent to production costs across sectors owing to congestion, poor reliability, poor quality, and widespread informality. While investment in the power sector has effectively met capacity needs over the last decade, further investment will help connect households to energy providers, diversify sources of power, and meet future needs (Government of Bangladesh 2020). The Government of Bangladesh (2020) has estimated that to meet demand for electricity through 2030, the country will need investment equivalent to 15 percent of FY2022 GDP in the coming years. In the transport sector, the road network remains inadequate, although investment in other modes of transport could reduce need in this area. Bangladesh’s Eighth Five Year Plan estimates that to achieve its goals, the country must increase investment by 5 percent of GDP between FY2020 and FY2025, mainly in the private sector and through foreign direct investment.
**Investment in human capital.** Investment needs in health and education go beyond addressing the damage inflicted by the pandemic. Many countries in the region perform poorly on achieving universal health coverage. The region suffers from too few health care professionals, low spending on public health—only 2 percent of GDP, below the rate in all other EMDE regions—and shortages of health care equipment (World Bank 2021j). The lack of adequate health care, together with high poverty levels and inadequate nutrition, means that about one-third of children in the region are stunted and 4 percent do not live past the age of five. In education, learning gaps remain wide, indicating a need for additional resources to empower teachers, address geographic inequalities, and facilitate adoption of new methods of teaching. Thus, countries in the region generally fall short in enabling citizens to meet their productive potential. A child born in SAR is expected to attain only 48 percent of his or her productive potential, the second-worst performance among EMDE regions. Sizable additional outlays for human capital investment could alleviate poverty and increase the productive potential of millions of citizens (Estache and Garsous 2012; Romer 2016).

**Regional policy priorities**

The region’s limited fiscal space will make it challenging to meet investment needs. Doing so will require reforms that reduce long-standing obstacles to the growth of productivity and investment, as well as more efficient spending. A targeted, multipronged policy strategy is needed that encourages investment by increasing returns on capital and by expanding sources of financing (Henckel and McKibbin 2017; Nataraj 2007).

**Public investment promoting private investment.** Under the right conditions, public investment can crowd in private investment (World Bank 2016e). For example, private firms may be able to reap the benefits of scale if public infrastructure facilitates market access (Calderón, Moral-Benito, and Servéna 2010). Literature on India appears to suggest a positive crowding-in effect (Bahal, Raissi, and Tulin 2015; Jesintha and Sathanapriya 2011; World Bank 2006).

**Efficiency of public investment.** On average, countries lose about one-third of public investment expenditures through inefficiencies, and the rate is highest among Asian economies (Baum, Mogues, and Verdier 2020). One way to boost the efficiency of public investment would be to reform weak public investment management practices (Vu, Bizimana, and Nozaki 2020). Reforms could include improving project appraisal (with better technical, economic, and financial analysis) and project selection (by centralizing project review and increasing transparency), increasing maintenance funding throughout projects’ life, and creating up-to-date and efficient registries to monitor public assets.

**Financing.** The region can expand public and private investment in several ways to help meet investment needs (ADB 2009, 2012, 2022; Andres, Biller, and Dappe 2014;

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12 Public investment could also crowd out private investment, as seen in Pakistan (World Bank 2016b).
Dobbs et al. 2013). First, public-private partnerships may offer gains in efficiency and cost-effectiveness (for example, by containing increases in public debt), raise economic growth, and at the same time alleviate fiscal pressures (Anadon and Surana 2015; Bizimana et al. 2021; Lee et al. 2018; Nataraj 2007). Such partnerships can draw private funding and expertise into socially desirable projects that the private sector would not undertake alone because of low private rates of return. The provision of water services and sanitation projects are good examples. Between 2010 and 2021, one-fifth of EMDE infrastructure projects with private participation were in South Asia.

Second, the region can better mobilize domestic savings, both by increasing access to the financial system (for example, by encouraging pension funds) and by broadening and raising government revenue collection. Goods and services taxes implemented in India in 2017, for example, doubled India’s tax base in four years. Other tax reforms could increase tax revenue by 3-4 percentage points of GDP and thus provide additional funding for investment (ADB 2022).

Third, the region can increase the lending capacity of its banks through action to strengthen their balance sheets and improve the efficiency of capital allocation by increasing the commercial orientation of banks, through privatization and governance reforms, among other methods.

Fourth, countries in the region can increase the commercial orientation of state-owned enterprises, through better regulation, privatization, or concessions to private investors, and thereby raise efficiency and increase investment.

Fifth, the region’s countries can reduce asset-liability mismatches in government accounts by tapping capital markets (for example, by issuing infrastructure bonds) rather than relying on bank lending for infrastructure-related projects.

Finally, the region can encourage FDI in infrastructure by removing regulatory obstacles to conducting business in restricted sectors (Kirkpatrick, Parker, and Zhang 2006; World Bank 2000). With FDI inflows in SAR averaging only 1.5 percent of GDP in 2000-21, tied with the Middle East and North Africa for the lowest rate among EMDE regions, there is scope to encourage further FDI inflows.

Reforms to foster an enabling environment for private investment. SAR’s business climate ranks just ahead of that in Sub-Saharan Africa, but behind those in other EMDE regions (Lopez-Acevedo, Medvedev, and Palmade 2016; World Bank 2016c). In Bangladesh, India, and Pakistan, entry and administrative barriers have hampered investment in construction, finance, retail and wholesale trade, telecommunications, and health care. In India, the burden of regulatory compliance, delays in utility connections, difficulties in obtaining permits to start and operate a business, high taxes, and rigid labor markets raise the cost of doing business and discourage investment (Pachouri and Sharma 2016; Shirke and Srija 2014). Additionally, investors in India cite restrictive labor laws as one of the factors that limit employment opportunities for women and
discourage the adoption of new technologies, thereby reducing productivity in manufacturing. During 2019-20, India consolidated, rationalized, and simplified several labor laws.

Reforms that promote international competitiveness and reduce barriers to international trade can encourage investment in export-oriented and import-competing sectors (Alfaro and Chari 2014). More generally, reforms to reduce regulations that are unnecessarily cumbersome (for example, those in certain aspects of land acquisition and environmental impact assessments) and to strengthen public-private partnership legislation (for example, consistent regulations and transparent bidding procedures) can foster investment. Strengthening processes for managing public investment, integrating infrastructure projects into budget cycles, and curbing corruption in infrastructure projects will not only improve the quality of infrastructure, but also increase the efficiency of government spending (Ali 2009; KPMG 2015). In several countries in the region, stalled reforms on land acquisition, including those in relation to compensation and environmental clearances, remain an impediment to infrastructure-related private investment.

Reforms to enhance the efficiency of the region’s labor markets—encouraging greater female labor market participation, facilitating hiring and redundancy procedures, promoting training and retraining, and reducing taxes on low-paid workers—would increase the mobility and flexibility of the workforce (Shirke and Srija 2014). Should profits and household incomes subsequently rise, businesses will have incentives to expand operations.

Regional integration. Trade within the SAR region is less than a third of its potential, limiting inflows of FDI as well as gains from trade (Kathuria, Yatawara, and Zhu 2021). Security challenges and geopolitical tensions remain obstacles to a more conducive investment climate, especially for cross-border projects that could increase regional economic integration (Dash, Nafaraj, and Sahoo 2014). To create an environment more conducive to higher investment, the region could relax restrictive and opaque regimes governing outward FDI. Decreasing dispute resolution times would also help, as would rationalizing land ownership and sector-specific restrictions. Economies in the region could also facilitate and promote inward FDI by improving cross-border networks and information sharing. This might lift intraregional inward FDI, which currently makes up less than 1 percent of total inward FDI. Finally, digitalization, streamlining border and customs procedures, investing in ports and connectivity, and promoting regional trade agreements could help bring down trade costs, which average the equivalent of 134 percent tariffs in SAR and are the highest among EMDE regions (Ohnsorge, Quaglietti, and Rastogi 2021).
Many countries in Sub-Saharan Africa experienced a sharp deceleration in investment following the commodity price collapse of 2014-16. The COVID-19 shock, which caused a significant decline in investment in 2020, halted the rebound that took place in 2018-19. The subsequent recovery has been tepid. SSA countries have some of the largest investment needs among EMDEs. The region needs to close infrastructure gaps, reverse the damage inflicted by the pandemic and the repercussions of the war in Ukraine, reduce vulnerabilities to climate change, and enhance food security. But without meaningful reforms and stronger international support, stronger investment growth will remain very challenging amid increasing public debt and tightening access to external financing.

Introduction

Sub-Saharan Africa accounted for about 3 percent of EMDE investment during 2011-21, with average annual investment growth of 3.3 percent. Following the commodity price collapse of 2014-16, SSA suffered the sharpest slowdown in investment growth among EMDE regions, from an average of 5.9 percent a year in 2011-14 to a decline of 0.3 percent a year in 2015-17, well below the region’s long-term (2000-21) average annual growth rate of 4.6 percent. Investment growth picked up to 6.3 percent a year during 2018-19, before the COVID-19 pandemic brought it to a halt. This triggered a 5.8 percent drop in investment in the region in 2020, much larger than the 1.5 percent decline in EMDEs as a whole. The subsequent recovery has been tepid.

Weakness in South Africa and the region’s oil exporters, especially Angola and, to a lesser extent, Nigeria, accounts for much of the slowdown in investment growth in SSA since 2014. Even by late 2021, investment in Nigeria and South Africa, the region’s two largest economies, was 3 percent and 20 percent lower, respectively, than in 2014. Investment declined in South Africa every year between 2016 and 2020 against the backdrop of a major deterioration in the country’s economic performance. In 2011, South Africa accounted for almost a quarter of all investment spending in SSA; by 2020, its share had fallen to about 16 percent. Elsewhere in SSA, investment growth slowed in commodity-dependent economies in the wake of the declines in commodity prices in 2014-16. For the region as a whole, slowdowns in investment growth reflected not only a sharp deterioration in the terms of trade, but also domestic political tensions and fiscal consolidation in several countries to stabilize public-debt-to-GDP ratios. Such increased fiscal stringency was a necessary reaction to the prior buildup of vulnerabilities during the rapid growth of the early 2010s. These included, in particular, rising public debt and
widening current account deficits that in part reflected debt-financed surges in public investment.

Since 2020, a rapid buildup of government debt because of the COVID-19 pandemic, renewed fiscal pressures arising from weaker revenue growth and the repercussions of Russia’s invasion of Ukraine, and the tightening of global financing conditions have constrained public investment in the region. Although investment is expected to grow at a rate close to its long-term trend in 2022-23, it will be insufficient to meet the region’s investment needs, which are the largest among EMDE regions and are estimated to be roughly four times recent infrastructure spending. SSA needs a substantial acceleration in investment, not only in infrastructure, but also in agriculture, health and education, and social protection. An acceleration in investment would also reinvigorate economic growth and reverse pandemic-induced increases in poverty and inequality. Given fiscal constraints, it has become urgent to mobilize alternative sources of funding, including those from the domestic private sector and the international community. Private sector participation in infrastructure projects in the region is growing but remains limited.

To boost both public and private investment, SSA governments need to take action on a wide range of policies. These include efforts to improve tax collection to generate revenue for public investment, improve spending efficiency, enhance frameworks for public-private partnerships to encourage more private sector involvement in infrastructure projects, strengthen the governance and efficiency of state-owned enterprises, advance efforts to deepen regional integration to open opportunities for growth-enhancing intraregional infrastructure projects, and improve the business environment to encourage private enterprise and growth in private investment.

Evolution of regional investment

Extractive industries—minerals, metals, oil, and gas—play an important role in many resource-intensive economies in SSA. The resulting exposure to fluctuations in the global prices of these commodities, combined with the lumpiness of the large capital outlays intrinsic to the exploration-to-production cycles in extractive industries, makes economic growth and investment particularly volatile across the region, especially in SSA’s less diversified economies. Foreign direct investment inflows into the region tend to be procyclical and concentrated in extractive sectors, with limited technology transfers or growth spillovers to nonresource sectors. Extractive industries are also a major source of fiscal revenues for many SSA governments, which often struggle to collect tax revenue from nonresource sectors. Surges in public investment, often financed by debt during periods of booming commodity prices, tend to fizzle out quickly when external conditions deteriorate.

For SSA as a whole, investment growth averaged 3.3 percent a year in 2011-21—almost half of its annual average in 2000-08 (figure 4.17.A). Rapid growth in public investment cooled after 2014, and private investment decelerated sharply. For example, investment growth in Ethiopia averaged almost 28 percent a year in 2008-14, driven by exceptionally rapid public investment in infrastructure (World Bank 2015). However,
FIGURE 4.17 SSA: Slowdown in investment growth


A. Investment growth

B. Share of SSA EMDEs with weak investment growth

C. Gross foreign direct investment inflows to SSA, excluding South Africa

D. General government debt in SSA

E. Chinese loans to SSA economies

F. International bond issuance by SSA governments

Sources: Boston University Global Development Policy Center; Dealogic; Haver Analytics; International Monetary Fund; United Nations Conference on Trade and Development; World Bank.

Note: EMDEs = emerging market and developing economies; GDP = gross domestic product; SSA = Sub-Saharan Africa.

A. Weighted averages. Includes 98 EMDEs, of which 38 are in SSA.

B. The orange line indicates 50 percent.

D. Median values. Dashed lines indicate interquartile range.

E. Commitments for loans to SSA governments and state-owned enterprises from Chinese commercial banks, government entities, companies, and other financing sources.

F. Last observation is July 2022.
investment growth slowed sharply, to just 9.3 percent, in 2015-21, because of elevated public sector debt, an unfavorable external environment, and rising insecurity. Severe economic slowdowns in the region’s two largest economies, Nigeria and South Africa, had adverse spillovers on investment across the region as well. In 2021, investment growth was below its 2000-21 average in almost half of SSA countries and negative in about 16 percent of countries (figure 4.17.B).

Investment fell by 0.7 percent per year, on average, in South Africa in 2011-21, compared with average annual growth of more than 9 percent in 2000-08. This decline reflected a sharp deterioration in the country’s economic fundamentals stemming from the lack of policies to tackle underlying structural constraints, including substantial inefficiencies in state-owned enterprises, high unemployment, and the energy crisis triggered by worsening power cuts. Investment by state-owned enterprises has played a major role in South Africa, representing almost 45 percent of all public sector capital expenditure in 2014-20, although this share has declined over time. Much of the recent weakness in public spending on investment can be attributed to Eskom. The latter, a public utility supplying electricity, accounts for about a half of all capital expenditure by state-owned enterprises in South Africa and has had significant governance and profitability problems (Statistics South Africa 2021).

Among oil exporters, investment growth also slowed significantly after 2014 in Angola, Chad, and Nigeria and turned negative in Equatorial Guinea, where oil production fell by nearly 60 percent from 2014 to 2021. Combinations of weak business environments, new capital and foreign exchange controls (Angola and Nigeria), austerity measures to offset falling commodity revenues (Angola, Chad, and Nigeria), and deteriorating security situations (Chad and Nigeria) exacerbated the effects of the sharp decline in oil prices in the mid-2010s. Together, these weighed heavily on investor sentiment. Falling capital spending in the SSA oil sector also reflected a secular decline in oil production because of aging oil fields and increasing production costs. Pandemic-related stoppages, supply chain problems, and maintenance delays further depressed investment in 2020 (Cherif and Matsumoto 2021). Fiscal space also diminished considerably for many of the region’s oil producers, with sharp declines in tax revenues from the oil sector, which constrained public investment. Even so, some countries (Cameroon and Gabon) continued large infrastructure investment programs, boosting investment growth despite declining oil industry investment.

Similar to what took place in SSA oil exporters, investment growth in other commodity-exporting countries slowed sharply in 2015-17. Rapidly rising economic imbalances, including increasing private and public sector indebtedness and widening current account deficits, had accompanied strong economic growth during 2011-14. Pressures arising from these imbalances contributed to a broad-based slowdown in investment growth when commodity prices fell during 2015-17. Other contributory factors included a weak economic recovery in the European Union, slowing growth in China, tightening global financial conditions, and a weakening of SSA currencies. China, the United States, and the EU are the region’s main sources of foreign investment, which
cooled appreciably over the period and accelerated the decline in capital spending. Namibia, which relies on exports of such commodities as gold, copper, and uranium, illustrates these trends. In the early 2010s, investment in Namibia accelerated amid a boom in mining and expansionary fiscal policy. But investment declined in every year between 2015 and 2021 as the government pursued fiscal consolidation to stabilize its debt-to-GDP ratio and as the growth of credit to the private sector slowed sharply (IMF 2019). As a result, investment in Namibia fell from about 36 percent of GDP in 2014 to just 14 percent of GDP in 2021.

Weakening FDI inflows to the region also held back private investment in SSA. FDI inflows to SSA excluding South Africa increased from 1.8 percent of GDP on average in 1990-99 to almost 3.0 percent of GDP in 2000-15. However, they fell back to 2.1 percent of GDP in 2016-20 as commodity prices declined. After falling sharply in 2020, FDI inflows recovered somewhat in 2021 on higher commodity prices and muted global risk aversion, but in relation to GDP, they remained at their lowest level in almost two decades. In U.S. dollar terms, FDI inflows to SSA excluding South Africa in 2021 were still nearly 30 percent lower than in 2015 (figure 4.17.C).

In addition to the unfavorable external environment, the slowdown in investment growth after 2014 also reflected weakening domestic macroeconomic fundamentals and policies and uncertainties related to poor institutional and legal frameworks in some countries. Deteriorating fiscal and external current account positions across the region limited the ability of policy makers in some countries to implement countercyclical policies to support economic activity. In parallel, rising vulnerabilities weighed on capital inflows. Large current account deficits coupled with declining capital inflows put pressure on exchange rates. In several commodity exporters, increases in inflation, in some cases reflecting deep currency depreciations, prompted central banks to tighten policy, making it more costly for firms to invest.

Many countries in the region, particularly those with resource-rich economies, have failed to implement basic reforms to improve the business environment and rule of law. Uncertainty about the enforcement of contracts and property rights and the direction of policies has added to weak capacity for investment planning and execution. These factors have played a significant role in depressing investment across the region.

On the fiscal side, debt-financed public spending on investment failed to sustain investment growth momentum when commodity prices collapsed. In the early 2010s, a favorable external environment, increased financial market access, and growing bilateral lending by China encouraged many SSA governments to scale up public investment to help close large infrastructure gaps. The resulting public investment booms temporarily supported growth in many countries but also resulted in sharp increases in public debt. Indeed, after declining significantly following the IMF and World Bank’s Heavily Indebted Poor Countries initiative and the IMF’s Multilateral Debt Relief Initiative, public debt in SSA began to rise again in 2013 (figure 4.17.D). As countries shifted toward nonconcessional borrowing, debt-servicing costs rose and currencies depreciated; in some countries, official development assistance declined (Agou et al. 2019).
The COVID-19 pandemic subsequently saw public debt-to-GDP ratios again rise sharply across the region, with many governments making current spending a priority over public investment. General government gross debt in SSA increased by more than 10 percentage points of GDP, on average, reaching 72 percent of GDP in 2020, well above the 64 percent of GDP recorded in other EMDEs. Surging food, fertilizer, and fuel prices, partly owing to Russia’s invasion of Ukraine, have heightened fiscal pressures in many countries, constraining the ability of governments to increase public investment. More recently, rising global borrowing costs, coupled with a drop in bilateral lending from China, have tightened access to external finance, posing further headwinds to investment (figure 4.17.E). Indeed, in 2022, international bond issuance by SSA countries fell by more than 60 percent (figure 4.17.F). Although this mirrors the overall trend of weak EMDE bond issuance, SSA had the second-steepest decline among EMDE regions, after the Middle East and North Africa.

Regional investment needs

SSA’s strategic priority objectives—to reinvigorate economic growth and reduce poverty—will require investments in agriculture, infrastructure, health and education, and social protection (World Bank 2022g). The COVID-19 pandemic has dealt a serious blow to SSA’s progress in the areas of poverty reduction and convergence of its incomes with those in advanced economies, hitting the region’s low-income countries particularly hard. Additional financing equivalent to 27-37 percent of SSA’s 2022 GDP may be needed by 2025 for SSA to return to its prepandemic path toward convergence of its incomes with those in advanced economies (IMF 2021b).

In agriculture, which provides a livelihood for almost two-thirds of SSA’s population, investment in both physical capital and technology is needed to raise labor productivity. Increasing investment in agricultural research and development is essential not only for boosting growth in the region, but also for accelerating the transformation of farming in SSA toward more productive and resilient food systems (Fuglie et al. 2020). Infrastructure investment is also needed to support growth in agricultural productivity and export diversification. This includes investment to build or improve irrigation, road, and storage infrastructure and to develop higher value chains in agriculture.

Infrastructure investment more broadly is a key driver of growth in SSA, where it has accounted for more than half of the improvements in economic growth in the last decade (AfDB 2020). Several countries in the region have made progress in improving their infrastructure. Ethiopia and Tanzania, for example, have increased public spending on large infrastructure projects and improved the quality of their existing infrastructure assets, which contributed to their strong prepandemic growth performance.

Across the region, advances in infrastructure for information and communications technology and connectivity, primarily reflecting an unprecedented increase in mobile phone subscriptions, have helped move millions of households out of extreme poverty, particularly in rural areas (Bahia et al. 2020; World Bank 2021b).
By contrast, progress in regard to power infrastructure in the region has been far more limited, with power shortages and blackouts continuing to constrain economic activity across the region, especially in South Africa. Only about one-half of households have access to electricity in SSA, compared with more than 90 percent worldwide. Deterioration in the quantity and quality of power infrastructure has increased the need for investment in renewable energy. This has the potential to improve access to electricity while addressing climate change challenges.

Transport infrastructure development in the region has also been limited. In many SSA countries, only a small proportion of the road network is paved, and railway development is broadly inadequate. Higher-quality transportation infrastructure will be key to boosting intra-Africa trade, fostering the development of regional supply chains, and enhancing SSA’s integration into the global economy. The African Continental Free Trade Agreement could catalyze the modernization of SSA transportation networks and facilitate cross-country cooperation on large intraregional transportation projects. For example, implementation of the agreement could increase demand for intra-Africa freight by more than a quarter, which would require substantial improvement to road and rail connectivity in SSA (UNECA 2022).

The region’s annual infrastructure investment needs are estimated at more than 9 percent of GDP—the highest level among all EMDE regions and nearly four times estimated current infrastructure spending in SSA (figure 4.18.A; Fay et al. 2019; Rozenberg and Fay 2019). The gap between needed and actual investment reflects insufficient funding for new projects, limited private sector participation, and inefficient spending on the operation and maintenance of infrastructure assets.

Many of the region’s economies rely on official external funding sources—multilateral and bilateral—to help finance investment in infrastructure. Official development finance, led by the World Bank and the African Development Bank, has increased appreciably and is supporting transport and water and sanitation investments in a number of countries in SSA. China has also emerged as a major bilateral source of infrastructure finance, increasingly so in the energy sector, particularly in hydropower-related projects.

Private sector participation in infrastructure investment has also increased recently following a large decline in the mid-2010s. Private participation accounted for nearly one-fourth of infrastructure funding commitments in 2020, compared with just 3 percent on average in 2016-17, with a large share of the investments going to the telecommunications, energy, and transport sectors (ICA 2022).

However, despite improved access to infrastructure financing in the late 2010s, bolstered by increased private sector participation, substantial infrastructure financing gaps remain (ICA 2018). The pandemic has widened these gaps further, while rising global fiscal pressures have decreased multilateral and bilateral lending to SSA. Lending from China has also weakened substantially on growing concerns about mounting public debt and increasing credit risks in SSA.
Across the region, investments are needed to raise the quality of education and skills, improve the health of populations, and expand access to basic public services, notably sanitation. Despite recent progress, SSA is behind other regions in human capital accumulation, partly because of insufficient spending on investment in education and health (figure 4.18.C and 4.18.D).
Finally, the COVID-19 pandemic has illustrated the importance of social safety nets as an effective tool for responding to crises. Investments in social protection could improve economic resilience, reduce poverty, and decrease income inequality across the region. Many SSA governments have achieved some progress in building more responsive, efficient, and inclusive social safety nets. However, population coverage remains low, partly because of the high prevalence of informality, leaving many vulnerable populations exposed to income and consumption shocks, such as those experienced during the recent surge in food and fuel prices.

**Regional policy priorities**

The COVID-19 pandemic and recent deterioration in the growth outlook for many SSA economies have created formidable challenges to the aim of strengthening the growth of investment, and particularly to the financing of infrastructure investment, in the region. In 2020, many countries diverted already-limited public resources from infrastructure projects to emergency spending on health and support for demand. Lockdowns, travel restrictions, supply chain disruptions, and higher input costs resulted in delays in project preparation and implementation. Since 2021, tightening global financing conditions and investment rating downgrades have raised borrowing costs and complicated access to international financial markets. As a result, funding commitments for infrastructure investment in SSA, after exceeding $100 billion in 2018 for the first time, have declined, leaving many untapped opportunities such as those in regard to renewable energy, climate resilience, digitalization, and agriculture, among others.

On a positive note, innovative solutions for financing infrastructure investment that mitigate key risk factors have been spreading rapidly in SSA. Tools such as blended finance, cofinancing between private investors and development finance institutions, public-private partnerships, and climate finance instruments are being deployed in countries across the region (AfDB 2022).

Nevertheless, financing investment projects in SSA remains challenging. Private investment has become more significant in a broad range of countries, albeit mainly in information and communications technology. Despite the rising importance of private finance (with private funding commitments for infrastructure investment having reached $19 billion in 2020, their highest ever level) and external finance, public sector budgets remain the primary source of funding for infrastructure investment in the region, accounting for more than 41 percent of all infrastructure spending commitments in 2020 (ICA 2022). Countries across the region finance about 65 percent of their infrastructure expenditures using domestic resources. In many of these countries, the fiscal space created by debt relief for heavily indebted poor countries, together with high commodity prices, facilitated these expenditures in the early 2010s. Other countries took advantage of improved access to markets and low interest rates to issue Eurobonds to finance infrastructure in the late 2010s. However, fiscal space has since diminished substantially across the region, both because of the rapid public debt buildup during the COVID-19 pandemic and more recently because of tightening global financing
conditions and budgetary pressures to offset surging living costs, especially in low-income countries.

The capacity of countries in the region to use resources effectively for infrastructure investment remains a critical issue as well. The efficiency of public investment in SSA lags that in other EMDEs, reflecting poor project selection; weak enforcement of procurement procedures; failure to complete long-term projects with greater impact; inadequate frameworks for infrastructure policy; and weak capacity to assess key technical, financial, and fiscal risks associated with large-scale projects. These shortcomings point to a need to increase the capacity to scale up investment in public infrastructure.

SSA’s infrastructure development faces major geographic and physical challenges, reflecting the region’s low population density, low urbanization, large number of landlocked countries, and substantial vulnerability to climate change (Rigaud et al. 2018). Also, the region’s sizable number of small countries have difficulty exploiting economies of scale. Adding to the challenges are inadequate trade logistics, which lag those in other EMDE regions. That said, large gains may still be possible through deeper regional integration of transportation and customs infrastructure, including simplification and standardization of regulations and procedures.

Reforms in several policy areas can help address investment needs and ensure sustainable financing:

- **Sustaining public investment.** Domestic fiscal resources—tax and nontax revenues—are likely to remain the dominant source of financing for infrastructure investment. However, the median ratio of tax revenues to GDP is just 12 percent in SSA, compared with 17 percent in other EMDEs. Enhancing domestic revenue mobilization would provide the most sustainable way of financing infrastructure investment. This would require improving tax collection as well as cost recovery. Without enhanced fiscal revenues, scaling up public spending on investment will entail challenging trade-offs to maintain debt sustainability, especially given that in many SSA countries public debt has increased over the past decade and that access to international borrowing has recently tightened substantially.

- **Encouraging greater private sector participation in infrastructure investment.** In 2021, commitments to investment in infrastructure with private participation stood at just 0.3 percent of GDP in SSA compared with almost 0.5 percent of GDP in Europe and Central Asia and Latin America and the Caribbean (World Bank 2021h). Considering SSA’s substantial infrastructure gaps, many countries need to expand the pipeline of projects that can attract private investors. Innovative funding and deal structures that employ novel guarantees and risk-sharing mechanisms can be developed. Blended-finance instruments can leverage private sector development financing. Public-private partnerships are a tested strategy that can be applied to numerous sectors. However, SSA has one of the lowest average scores across many
dimensions of preparation and management of, and enabling laws and regulations for, public-private partnerships (World Bank 2018g). The terms of public-private partnerships need to be monitored carefully to ensure such partnerships deliver competitive returns and to prevent abuse of market power in circumstances in which natural monopolies are the best way to deliver infrastructure services. Governments can establish autonomous regulatory agencies to oversee private agents accordingly.

- **Strengthening public investment management systems.** Increased capacity in public financial management is critical for scaling up infrastructure investment. Countries can strengthen technical capacity for project selection and appraisal and enhance the monitoring of project execution to minimize inefficiencies and overspending. The fiscal implications of public investment projects, including public-private partnerships, are often not adequately addressed. Fiscal expenditure frameworks need to incorporate contingent liabilities linked to public investments. Failure to do so could raise concerns about the sustainability of public debt. Operation and maintenance expenditures for existing infrastructure can be fully integrated into a medium-term expenditure framework to ensure adequate budgetary resources. Credible long-term national infrastructure strategies can provide signals that increase financing and supply chain capacity, improving delivery prospects. Regrettably, in some countries, policy uncertainties still lead to the selection of low-impact infrastructure projects because of short political cycles.

- **Promoting regional integration of infrastructure.** A regional approach to the provision of infrastructure services is needed to help overcome the region’s geographic and physical challenges, which poor transport infrastructure and nontariff barriers to trade often amplify (Gammadigbe 2021). Such an approach will require fostering effective regional institutions, setting shared regional investment priorities, harmonizing regulatory frameworks and administrative procedures, and facilitating cross-border infrastructure projects (Coulibaly, Kassa, and Zeufack 2022; World Bank 2020f). Further reductions in barriers to intraregional trade—both tariff and nontariff, as is intended by the establishment of the African Continental Free Trade Area—can help facilitate intra-Africa trade and provide incentives for stronger cooperation on large intra-SSA infrastructure projects (World Bank 2020a).
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