

## Annex II. Public Infrastructure Investment in the MENAP and CCA Regions

*Infrastructure investment is an important precondition for economic growth. The GCC countries already invest massively in infrastructure, but non-GCC oil exporters and MENA oil importers invest considerably less than is warranted by their income levels. In the CCA, infrastructure investment is broadly consistent with fundamentals. The total identified shortfall in infrastructure investment is about US\$72 billion annually. Raising infrastructure investment toward desirable levels could boost growth in the short term by some 3 percentage points among non-GCC oil exporters and about 1½ percentage points among the MENA oil importers. To increase infrastructure investment and its economic impact, policymakers need to improve public investment management and availability of the needed labor skills and finance.*

MENA and CCA countries vary greatly in their infrastructure development, investment needs, and ability to meet attendant financing challenges. Most GCC countries have embarked on highly ambitious public infrastructure programs (Figure A2.1) with announced public investment projects that are multiples of annual economic output. In contrast, public investment has dropped sharply in non-GCC oil exporters and MENA oil importers—in some cases to half the peak values it reached during the 2000s. CCA public investment has been moderate but steady.

This annex considers estimates of infrastructure needs in MENA and CCA countries (including any reasons for differences across country groups), financing options, measures to increase public investment efficiency, and possible jobs and growth implications of higher public investment in underinvesting regions.

### Infrastructure Gaps

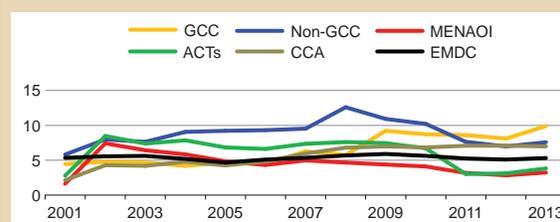
Infrastructure development is usually tightly linked to income level (Figure A2.2);<sup>1</sup> however, some countries

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<sup>1</sup> Infrastructure quality in Figure A2.2 is measured using the infrastructure component of the Global Competitiveness Index.

Figure A2.1

#### Public Capital Spending (Percent of GDP)

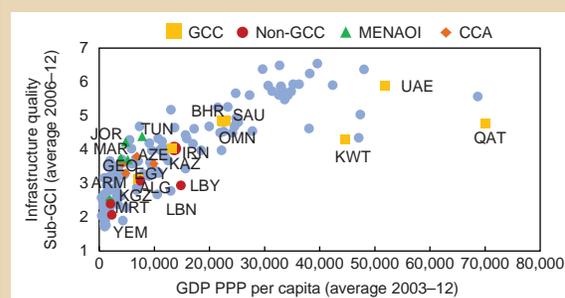


Source: IMF staff calculations.

Note: EMDC = emerging market and developing countries.

Figure A2.2

#### Infrastructure Quality and GDP per Capita<sup>1</sup>



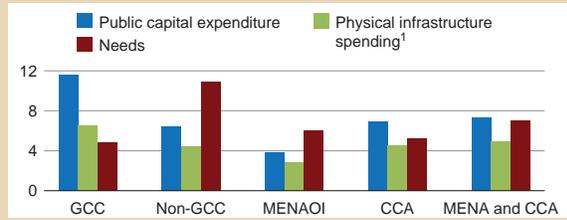
Source: Albino-War and others (forthcoming).

<sup>1</sup> Infrastructure quality is measured using the infrastructure component of the Global Competitiveness Index. See Albino-War and others (forthcoming) for details.

Note: GCI = Global Competitiveness Index.

Figure A2.3

### Public Investment and Physical Infrastructure Needs, 2014–19 (Percent of GDP)



Sources: IMF, World Economic Outlook database; Ianchovichina and others (2013); the Multilateral Development Bank Working Group on Infrastructure (2011); and IMF staff estimates.

<sup>1</sup>Estimates of infrastructure spending are based on the information from countries' budget laws, when available, and IMF staff assessment. In the absence of estimates for a country, regional averages of infrastructure spending to total public capital spending ratios were computed to obtain total infrastructure spending.

appear to suffer from infrastructure gaps, defined as the deviation of infrastructure capital stock from the level warranted by the stage of economic development and other country characteristics such as the sectoral composition of output.

Planned infrastructure expenditures in the GCC and CCA regions are broadly in line with infrastructure investment needs (Ianchovichina and others 2013). These estimates take into account additional country characteristics such as urbanization, technology, and a broader range of infrastructure subsectors; however, infrastructure investment plans lag behind in the MENA oil importers—including the Arab Countries in Transition—and particularly in the non-GCC oil exporters (Figure A2.3). The investment gap is estimated at 2 percent of GDP for the MENA and CCA countries as a whole, but most of this gap reflects the 6½ percent of GDP gap for non-GCC oil exporters and the 3 percent of GDP gap for MENA oil importers.<sup>2</sup> These infrastructure gaps opened up for a variety of reasons that include limited fiscal space,

<sup>2</sup>The magnitudes of estimated investment gaps are consistent with the estimates of Ianchovichina and others (2013).

crowding out of productive investment by high public sector wage bills and generalized subsidies (IMF 2014d), expectations of higher returns from financial assets than from infrastructure investment, and limited absorption capacity.<sup>3</sup> Accumulation of infrastructure gaps can also partly reflect legacies of the global financial crisis as lower-rated countries face persistently tighter external financing conditions and a weak external environment. In some cases, extensive infrastructure damage resulted from military conflicts and protracted periods of underinvestment.

## Jobs and Growth Implications of Higher Public Investment

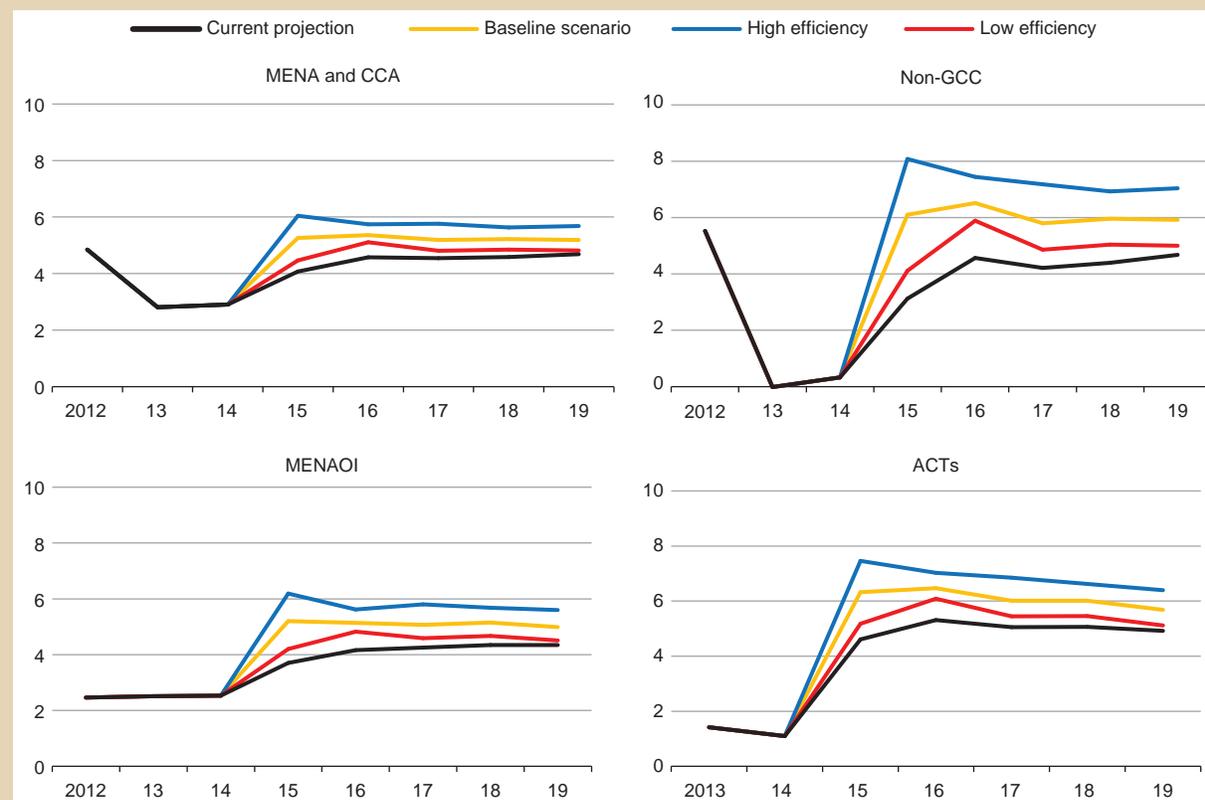
Public infrastructure investment could raise potential growth through capital accumulation and higher productivity. Calculations in this annex assume that policymakers make a temporary increase in public investment in non-GCC oil exporters and MENA oil importers by the amount of the annual infrastructure gap (US\$72 billion).<sup>4</sup> The assumed size of investment is within the range of scenarios discussed in the Arab Stabilization Plan White Paper (2012) (US\$30–100 billion). Elasticities estimated in the October 2014 *World Economic Outlook* and Ianchovichina and others (2013) imply that the growth and jobs benefits of scaled-up infrastructure investment could be substantial (Figure A2.4); however, given the relatively low investment efficiency in most MENA and

<sup>3</sup>In countries with weak institutional quality, governments may also use capital spending as a vehicle for rent-seeking (Grigoli and Mills 2013; Keefer and Knack 2007), which leads to inefficient spending.

<sup>4</sup>Of this amount, US\$57 billion would be for non-GCC oil exporters and US\$15 billion for MENA oil importers (i.e., 6½ percent of GDP and 3 percent of GDP, respectively, as noted above). Calculations assume that the GCC and CCA regions do not make any investments beyond those already planned.

Figure A2.4

### Impact of Higher Public Investment on Real GDP Growth (Percent)



Source: IMF staff calculations.

CCA countries and general capacity constraints (including insufficient domestic skilled labor), the short-term macroeconomic benefits could be at the lower end of estimated ranges:

- Non-GCC oil exporters' growth could increase by some 3 percent in the short term, while employment could increase by 2.8 million.
- MENA oil importers' short-term growth dividend could amount to about 1½ percent, with employment increasing by 1.6 million.
- The growth impact for the MENA and CCA region would be about 1¼ percent, and employment could increase by 4.4 million jobs.

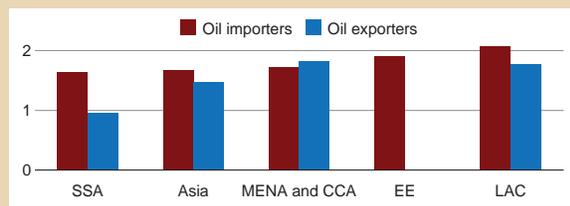
Securing these favorable job and growth outcomes will require that public investment be highly efficient and fiscally sustainable. Infrastructure

spending could be financed by reallocating spending from unproductive uses, or by securing additional external financing in parallel with domestic structural reforms.

## Investment Efficiency

There is substantial scope to improve the efficiency of public investment in the MENA and CCA countries (Albino-War and others forthcoming; Dabla-Norris and others 2012). Greater efficiency would boost the growth dividend while saving financial resources. Albino-War and others (forthcoming) suggest that should MENA and CCA countries raise investment efficiency to the level of the best global performers, the productive infrastructure stock could be boosted significantly without any increase in public spending. Analysis of

Figure A2.5

**Public Investment Management Index,<sup>1</sup> by Region**

Sources: Dabla-Norris and others (2012); country authorities; and IMF staff estimates.

Note: Compiled from 27 countries from sub-Saharan Africa (SSA), 8 from Asia, 10 from MENA and CCA, 9 from emerging Europe (EE), and 9 from Latin America and the Caribbean (LAC).

<sup>1</sup>An index that captures the institutional environment underpinning public investment management across four different stages: project appraisal, selection, implementation, and evaluation. A higher score reflects better public investment management performance.

public investment management processes reveals that MENA and CCA's related institutional quality outperforms sub-Saharan Africa and emerging Asia, but lags behind Latin America (Figure A2.5).<sup>5</sup> MENA and CCA performance is particularly weak in the appraisal and selection stages of investment projects.

## Policy Implications

Job and growth gains from higher public investment can be substantial. Raising public infrastructure investment toward desirable levels could boost short-term growth in non-GCC oil exporters by some 3 percentage points and in MENA oil importers by about 1½ percentage points. However, limited capacity and underdeveloped investment frameworks pose challenges, reducing the macroeconomic benefits. To make the best of potential infrastructure investments, policymakers will need to focus on public investment management reforms, financing access, and labor market policies.

## Public Investment Management

Successful country experiences suggest that developing strong institutions is crucial for

<sup>5</sup>The main aspects of each public investment management system include appraisal, selection, implementation, and evaluation. Public investment management scores for advanced countries are not available.

fostering the efficiency of public investment. In the near term, countries could promote greater scrutiny of public investment projects, while preparing for more fundamental reforms of the public investment management process. Short-term measures would include increasing the transparency of key investment projects over the entire project cycle (for example, appraisal information, competitive procurement process, bidding statistics, cost/time overruns) and the budget process (for example, objectives, costs of projects, ex post evaluations). Over the medium term, countries should align investment projects with strategic country priorities and revamp the framework for managing public investment, including establishing independent checks of project appraisal and project selection.

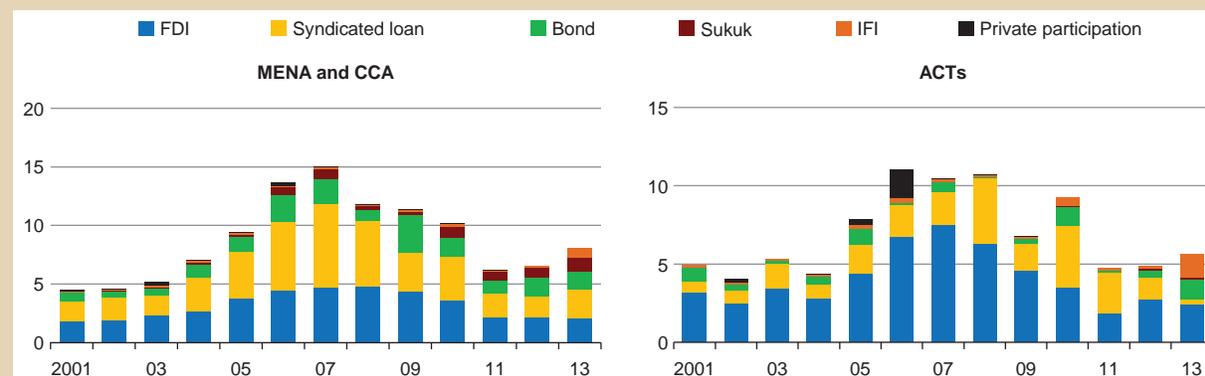
## Access to Financing

Financing capacities vary sharply across the region. Hydrocarbon exporters have generally stronger fiscal positions and easier market access than hydrocarbon importers. Sukuks are an increasingly popular financing option, especially in the GCC, but conventional financing through syndicated loans and bond issuances have fallen substantially since the global financial crisis (Figure A2.6). International financial institutions (IFIs) have boosted their lending, which reflects the new Arab Financing Facility for Infrastructure Investment (a joint project between the Islamic Development Bank and its partners), increased engagement by the World Bank, and Deauville Partnership efforts. Public-private partnerships (PPPs) continue to play a marginal role in the region, but initiatives such as the Arab Stabilization Plan aim to mobilize external capital for MENA infrastructure investments.

For countries with limited fiscal space and fewer financing options, the key questions are how much spending can be feasibly reallocated from unproductive uses toward investment and how much is available from external sources on fiscally sustainable terms. Untargeted subsidies and the public sector wage bill are potential areas for streamlining and reallocating spending in a number of countries.

Figure A2.6

### Financing for Infrastructure and Other Investments (Percent of GDP)



Source: IMF staff calculations.

Note: Includes also financing not directly used for infrastructure spending (e.g., certain FDI, bonds, and loans directed to noninfrastructure investments). FDI = foreign direct investment; IFI = international financial institution.

External financing is often constrained by the challenging political and security environment. Over the long term, policies to develop domestic capital markets and institutions would help secure access to public infrastructure financing. Shorter-term policy options include mobilizing additional public revenue, providing financing support measures to attract more private sector involvement, designing a platform to strengthen IFI financing, and blending concessional and nonconcessional financing (Annex III). For example:

- The World Bank's Multilateral Investment Guarantee Agency credit enhancements for nonhonoring of financial obligations. The nonhonoring of financial obligations, available for up to 15 years, provides capital relief to commercial banks constrained by Basel rules, which could increase commercial banks' lending capacity, allowing them to fund strong projects that are difficult to finance in traditional financial markets.<sup>6</sup>
- Developing a platform to mobilize equity investment or grants from donors would

<sup>6</sup> For instance, Tunisia received about US\$200 million in assistance from nonhonoring of financial obligations, for a transport project in 2011, which helped mobilize French private investors.

strengthen IFIs' infrastructure financing capability. The Islamic Development Bank's private equity infrastructure fund (IIF) II is a good example. Following the successful implementation of IIF I (US\$730 million), IIF II was launched in May 2014. IIF II targets Shariah-compliant investments in infrastructure projects in its member countries. It has already raised US\$850 million, aiming for a target size of US\$2 billion. This would help mobilize up to US\$24 billion of aggregate financing to support the development of key infrastructure projects.

- Donor countries are looking into new approaches that blend concessional and nonconcessional funding to assist low-income countries, given public pressure to reduce official development assistance and constraints on concessional lending by IFIs. These approaches use limited concessional resources to leverage nonconcessional funding, which helps raise the pool of resources for infrastructure development.
- PPPs can be more efficient than traditional public procurement of assets and services, but entail substantial fiscal risks (IMF 2006b). These risks are particularly prevalent when PPPs are implemented by inexperienced

governments, without adequate legal and institutional frameworks, or to bypass budgetary spending controls. Managing fiscal risks from PPPs could be achieved by adopting (1) investment planning systems to select sound projects and procurement options based on economic and efficiency considerations; (2) a legal and institutional framework with the appropriate structures and expertise to handle PPPs; and (3) fiscal accounting and reporting to allow the transparent disclosure and policy analysis of the fiscal implications of PPPs.

### **Labor Market**

Finally, skills mismatches (World Bank 2009b) in domestic labor markets could hinder rollout of approved projects and job creation for citizens, while potentially encouraging the inflow of expatriates. Active labor market policies and structural reforms to address skills mismatches, to improve the skills of those already working, and to increase the number of people with education in technical fields would help increase the jobs and growth dividend of infrastructure investments.