9 Enhancing connectivity through infrastructure investment

This chapter examines the current context of infrastructure investment in the MENA region with a focus on transport, ICT and energy sectors. It reviews the challenges of infrastructure development and provides an overview of recent reforms to boost infrastructure investment and financing, including through public-private partnerships. It also provides policy considerations to address the legal and institutional frameworks for investment in infrastructure.

Summary and policy considerations

High-quality infrastructure is a crucial input for inclusive and sustainable growth. Transport, energy and ICT infrastructure are vital for facilitating investment and promoting connectivity, industrial development and economic diversification in the MENA economies covered in this report (MENA focus economies). Yet, several shortcomings persist across all infrastructure sectors. While the MENA focus economies have made progress in developing basic physical infrastructure, the performance of transport infrastructure (including ports, roads and airports) remains low, causing delays and raising the cost of trade. Poor logistics affects trade and investment more than the lack of infrastructure. On average, 24% of manufacturing firms in the MENA focus economies identify transport issues as a major constraint to their business operations.[1]

MENA economies face bottlenecks in transport infrastructure, including railways, a lack of multi-modal transport, and a fragmented port system. In the wider MENA region[2], this will require investment of at least USD 100 billion annually over the next five to ten years to maintain existing and build new infrastructure (World Bank, 2020[1]). Financing gaps are present across all infrastructure sectors, but more prevalent in cross-border infrastructure, road transport and energy.

While ICT infrastructure is relatively well developed across the MENA region, significant investment in fixed and mobile broadband capacity is required to further facilitate domestic and foreign investment. Key factors limiting the development of the ICT sector include the lack of effective competition and appropriate regulation (Gelvanovska, Rogy and Rossotto, 2014[2]). Many countries still face high barriers to internet accessibility, hindering business operations. Currently, only 8% of SMEs in the wider MENA region have an online presence (compared to 80% in the US) and only 1.5% of the region's retailers are online (McKenna, 2017[3]).

Infrastructure is mainly provided by the public sector through state-owned enterprise (SOEs), with relatively little private sector participation. Public-private partnerships (PPPs) are limited but they are an important avenue through which private sector resources and expertise can be leveraged. In recent years, some MENA governments have boosted efforts to build a credible environment for PPPs by updating their PPP laws and setting up PPP agencies or specialised units within existing institutions (e.g. Jordan, Morocco, Tunisia and Egypt). While the regulatory and institutional environments governing PPPs differ, there is growing political support for PPPs across most MENA economies. Greater private sector involvement in infrastructure through PPPs could not only improve the efficiency of infrastructure and bring new technologies and skills, but also reduce the fiscal burden on public budgets.

Improving infrastructure governance could also attract more private investment. MENA focus economies could improve the management and efficiency of public investment, as well as transparency of procurement and appraisal processes. Planning infrastructure development in a holistic way, following good practices for infrastructure governance, can help alleviate some of the challenges in the region and boost investment.

Policy considerations

- Clarify the regulatory framework for infrastructure investment to provide potential investors with clear, transparent, predictable and consistent policies and regulations. Often, the PPP laws coexist with other procurement modes for infrastructure such as public utilities legislation and a number of sector-specific laws.
- Ensure that infrastructure strategies are well aligned with overall national and regional trade and development strategies, including investment, logistics development and broader governance reforms. MENA economies have often developed hard infrastructure without the accompanying trade and business regulatory reforms or have not adopted a multi-modal approach to deliver the expected results.
- Undertake more pro-competition reforms in the ICT sector to further level the playing field between new entrants and incumbents. Similar to other key sectors, the ICT sector is typically dominated by a few incumbent firms and SOEs, limiting entry of new investors. Reforms should include lifting some entry barriers in the telecommunications sector.
- Streamline or remove restrictions to foreign investment in the energy and transport sectors. Currently, the eight focus economies impose higher restrictions than the OECD average in maritime and air transport, construction and telecom sectors, but also in some cases in electricity distribution and generation. In cases where such policies are considered necessary to address national development objectives, governments should ensure that they are not more restrictive than needed (see Chapter 4).
- Foster dialogue between the public and private sectors. There is significant scope for the private sector to become more engaged in infrastructure development in the region. The public sector should work more closely with private stakeholders to address bottlenecks in the investment climate and build appropriate domestic regulations that foster competitiveness, particularly in backbone service sectors.
- Strengthen capacity and co-ordination across ministries and related entities involved in infrastructure planning and prioritisation. Infrastructure in the region is often developed in silos and not always integrated with other types of policies such as industrial development strategies

Key infrastructure challenges affecting investment in the MENA region

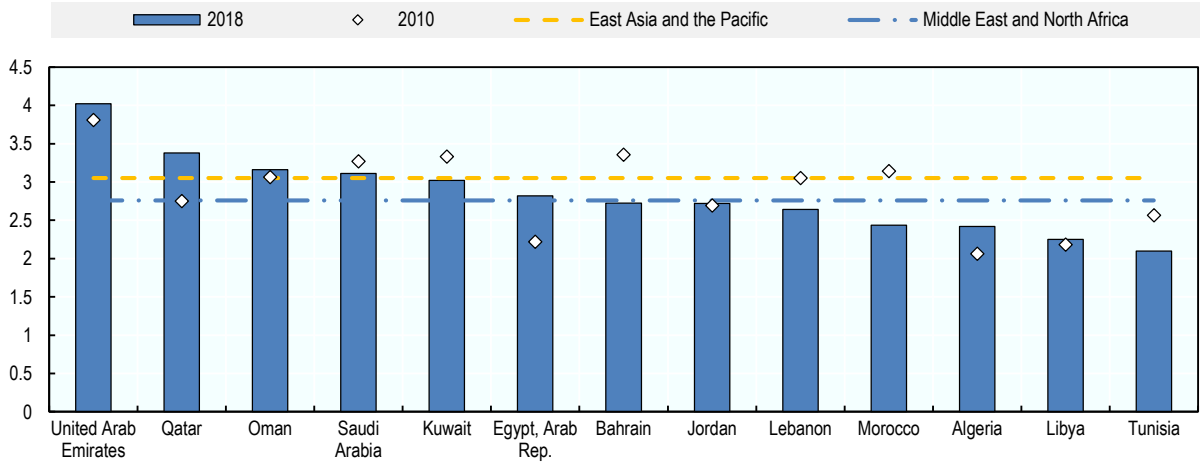
Infrastructure that improves the connectivity of the eight focus economies in the MENA region is an essential element of policies to promote inclusive and sustainable growth. With a population that is expected to grow by 40% to 586 million by 2030, accelerated urbanisation in the coming decades, and a rapidly growing middle class, the region faces increasing strains on its existing infrastructure (Kandeel, 2019[4]). The economic fallout caused by the Covid-19 pandemic is also creating the need for technologically advanced, sustainable and resilient infrastructure that can support the economic recovery. Infrastructure – including transport, energy and ICT and associated services – is vital for facilitating investment, promoting industrial development and economic diversification of the focus economies in the MENA region. Yet, several shortcomings across all infrastructure sectors currently limit the potential for further investment and the contribution made by infrastructure to sustainable and inclusive growth.

The quality of hard and soft infrastructure in the MENA region remains low

While the region has made progress in developing basic physical infrastructure in recent years, the performance of transport infrastructure (e.g. ports, roads and airports) remains low, causing delays and raising the cost of trade. According to the World Bank's *Logistic Performance Index,* the performance of infrastructure varies considerably across the eight focus economies (Figure 9.1). Egypt has advanced most in the region in the past decade thanks to a boost in investment, while Morocco's performance has worsened. Morocco's performance is partly inhibited by weaknesses in customs services and tracking and tracing consignments (Chauffour, 2018[5]). Algeria has also improved its performance since 2010, while in Tunisia and Lebanon there is significant scope for improvement. Overall, the region still faces important infrastructure shortcomings, including in transport, ICT and energy, as reflected in various international indicators (Annex 9.A).

Figure 9.1. The World Bank's Logistic Performance Index, Infrastructure Indicator

Score from 1 to 5 (best)



Note: Data for Morocco is from 2012. The Infrastructure Indicator is one of the six dimensions of the logistics supply chain of the World Bank Logistics Performance Index (LPI), which is based on a worldwide survey of logistics operators on the ground, providing feedback on the logistics "friendliness" of the countries in which they operate and those with which they trade. It measures performance along six dimensions of the logistics supply chain, including: 1) Efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities) by border control agencies, including customs; 2) Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology); 3) Ease of arranging competitively priced shipments; 4) Competence and quality of logistics services (e.g., transport operators, customs brokers); 5) Ability to track and trace consignments; 6) Timeliness of shipments in reaching destination within the scheduled or expected delivery time.
Source: World Bank Logistics Performance Index database

Across the MENA region, poor logistics affects trade and investment more than the actual lack of infrastructure, making the economies relative outliers compared to other regions in terms of their logistics performance. Logistics challenges can be widespread. The cost of port facilities in North African economies are around 40% above the global norm, with long container dwell times, lengthy documentation processing, and delays in vessel traffic clearance (AfDB, 2019[6]). As a result, 70% of delays in cargo is due to extra time in ports. Less than 7% of global intraregional merchandise trade occurs within the region, compared to 40% in East Asia and 50% in Europe. Public sector monopolies in transport infrastructure in most of the MENA economies has undermined incentives to reform (World Bank, 2020[1]).

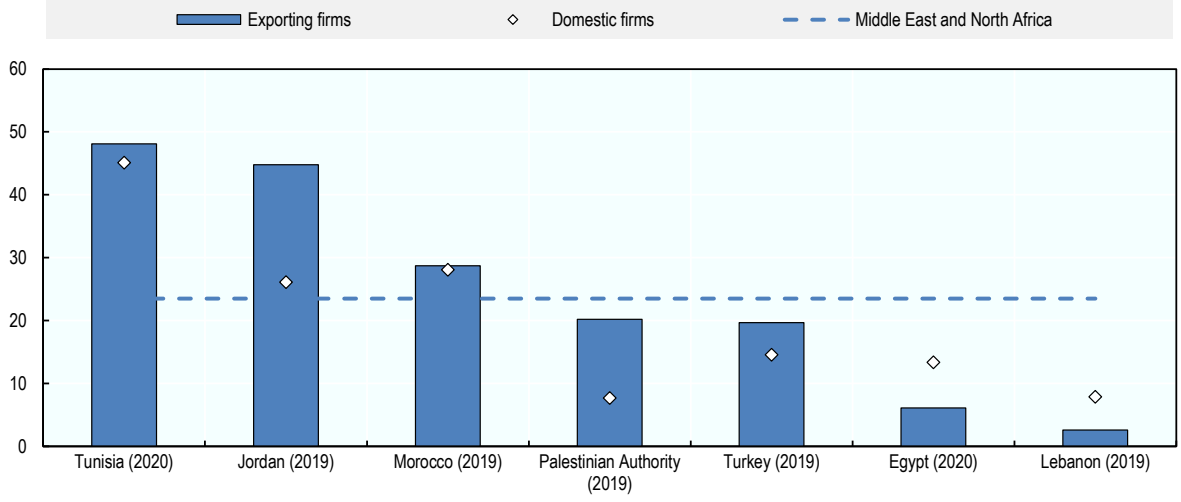
Transport connectivity

The poor quality of connectivity infrastructure constrains the manufacturing sector

Bottlenecks in logistics and transport infrastructure in the MENA region are a major constraint to more trade and investment, limiting the growth of manufacturing firms in particular. In a number of the focus economies, firms identify transport issues as a major constraint to their business operations (Figure 9.2). According the World Bank Enterprise Survey, this is particularly a challenge in Jordan, Morocco and Tunisia. Exporting firms also often face higher transport constraints than domestic firms, particularly in Tunisia, Jordan and the Palestinian Authority.

Figure 9.2. Exporting firms identifying transport costs as a major constraint

As % of manufacturing firms



Note: Exporting firms include firms with direct exports with 10% or more of sales; domestic firms include non-exporters. MENA average for the 8 focus economies except Algeria and Libya due to an absence of data.
Source: World Bank Enterprise Surveys for 2019 and 2020

The maritime networks in the MENA region are fragmented

In contrast to other transport sectors, port infrastructure has received significant public investment by MENA governments. Many economies have developed port infrastructure aimed at accessing European markets but there is also scope to enhance regional trade. Only 5% of cargo traffic in the Mediterranean region passes between MENA countries, while it is 70% between European ports, and 15% between Europe and North Africa (IMF, 2019[7]). The number of inter-port links or port pairs across the Mediterranean has actually declined, from 2,279 in 2009 to 1,532 in 2016. For instance, Tunisia has direct links only to its closest European trade partners (Arvis et al., 2019[8]). There are very few direct lines of sea transport among Maghreb countries, which transport their intraregional goods through third-country ports, such as Marseille, Almeria or even Rotterdam. These locations generate additional costs and limit the price competitiveness of traded products.

Many ports in the region offer significant opportunities for foreign manufacturers looking for locations near markets in Europe, the Middle East and Africa, but this potential is not realised in many countries. According to the IMF, only a few ports are competitive by international standards, with Morocco leading the way with its Tangier port, which became a logistical hub for the region and is considered the biggest

container port in Africa in terms of turnover. In Egypt, the expansion of the Suez Canal in 2015 and the establishment of the Suez Canal Economic Zone to offer more competitive services for global shipping lines and investors are also expected to capture up to 25% of Egypt's containerised Mediterranean trade (Arvis et al., 2019[8]).

Energy and ICT connectivity

Many countries in the region are well endowed with renewable energy resources but have not sufficiently diversified their power supply

The MENA focus economies are well endowed with renewable energy sources such as solar and wind, but the share of renewables in the energy mix varies among countries (see also Chapter 2 on FDI trends and development benefits). Such resources could lower the price of renewable energy and add significant generating capacity. Yet, the share of renewable energy in final energy consumption varies significantly among countries, from 0.1% in Algeria, between 5 and 5.5% in Egypt and Jordan, and between 10 and 12% in Morocco and Tunisia (IEA, 2020[9]). Similarly, the share of renewables in electricity production ranges from 35% in Morocco and 8.5% in Egypt.

Some countries have shown commitment to deepen the use of renewables. For instance, Jordan, which together with Morocco is one of the largest energy importers in the MENA region (importing over 93% of its total energy supplies), has launched a large renewable energy programme focusing on wind and solar (Abu-Rumman, Khdair and Khdair, 2020[10]). Morocco, which also imports 93% of its energy needs, aims to increase the share of renewable energy to reduce its vulnerability to supply shocks and other disruptions caused by the heavy dependence on imports (IFC, 2019[11]). Its National Energy Strategy, implemented by the Moroccan Agency for Sustainable Energy, aims to increase the share of renewable energy to 52% of total installed energy generating capacity by 2030 (ibid). In general, one challenge in the MENA region is to create an environment conducive to low-carbon and climate resilient options. In particular, countries need to encourage competition and entry of private investors in renewable energy.

ICT infrastructure has been expanding fast but businesses in the region still face high costs

ICT infrastructure is relatively well developed across the wider MENA region, thanks to investment by the government as well as by the private sector. According to the 2019 Mobile Connectivity Index[3], which measures the performance of countries against the key enablers of mobile internet adoption – infrastructure, affordability, consumer readiness, content and services – many of the MENA focus economies are "transitioners".[4] Lebanon has the highest score among the focus economies, followed closely by Tunisia and Morocco; Jordan, Egypt, and Algeria rank slightly lower on the index (GSMA Intelligence, 2020[12]). Mobile technologies and services account for 4.5% of GDP in the wider MENA region, supporting 1 million jobs directly and indirectly, and contributing to over USD 18 billion of taxes. Overall, mobile technology and services generated USD 191 billion of value added, which is expected to exceed USD 222 billion by 2023. 4G technology is expected to surpass 3G in the region by 2021 (ibid).

Yet, to keep up with growing demand, significant investment is necessary to increase the fixed and mobile broadband transmission capacity of the eight focus economies. Key factors limiting the development of the ICT sector in Algeria, Egypt, Morocco, Libya, Tunisia and Jordan include the lack of effective competition and appropriate regulation (Gelvanovska, Rogy and Rossotto, 2014[2]). In Jordan, lack of competition has led to low quality of service and one of the highest prices of mobile and fixed internet in the region. Better ICT infrastructure could further facilitate investment, including by making it easier for companies to access local and international markets, and allowing frequent and uninterrupted communication with the headquarters (Latif et al., 2018[13]).

A more competitive ICT sector would allow companies to enter new markets and contribute to the digitalisation agenda of the focus governments in the region. Like many other sectors, the ICT sector is

generally dominated by incumbent firms, private sector or state-owned, making it difficult for other firms to enter the market (World Bank, 2019[14]). Enhanced broadband services would allow all sectors to take advantage of a more modern digital economy (ibid). It would also create new trade opportunities for SMEs, allowing them to reach to new markets.

Many countries still face high barriers to internet accessibility. Currently, only 8% of SMEs in the wider MENA region have an online presence (compared to 80% in the US) and only 1.5% of the region's retailers are online (McKenna, 2017[3]). Excluding the high-income countries from the average, the MENA region has 100 mobile phone subscriptions per 100 inhabitants on average. Morocco and Tunisia surpass the average (128 and 124 per 100 inhabitants respectively), while other countries are below the average: Lebanon (64) and Jordan (88) (WEF, 2019[15]).

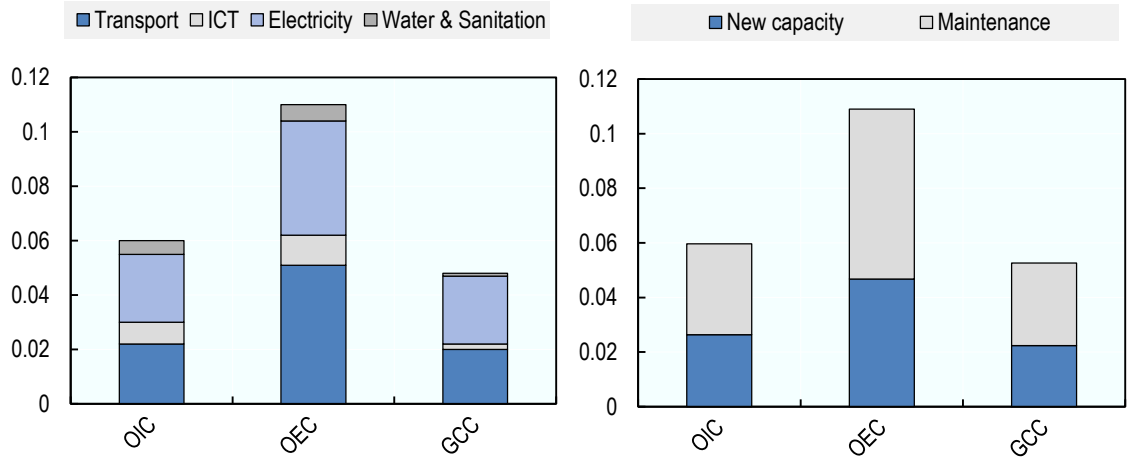
The infrastructure gap in the MENA region

Investment gap in infrastructure amounts to 7% of regional GDP

The wider MENA region needs over 100 billion a year (7% of the annual regional GDP) over the next five years to maintain existing and create new infrastructure, according to the World Bank[5] (Figure 9.3). Developing oil exporting countries will need to commit 11% of their GDP annually. Oil importing countries and GCC oil exporters need approximately 6% and 5% of their GDP in infrastructure investments, respectively. The gaps are present across all sectors, but are more prevalent in cross-border infrastructure, road transport and energy. Transport and electricity account for around 43% of total needs, followed by ICT (9%) and water and sanitation (5%). The electricity needs alone will require 3% of annual regional GDP. Oil importing countries will also need to spend around USD 86 billion to upgrade transport networks. Not only is new infrastructure needed, but also proper maintenance and quality control of the existing assets.

Figure 9.3. Annual infrastructure investment needs in MENA

By sector, investment as % of estimated GDP



Note: GCC: Gulf Cooperation Council; GDP: gross domestic product; ICT: information and communication technology; M: maintenance; MENA: Middle East and North Africa; N: new capital; OIC: Oil importing country; OEC: Developing oil exporting country.
GCC includes: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE; OEC includes Algeria, Iran, Islamic Rep., Iraq, Libya, Syrian Arab Republic, Yemen, Rep.; OIC includes: Egypt, Jordan, Lebanon, Morocco, Tunisia.
Source: World Bank estimations based on (Freund and Ianchovichina, 2012[16]).

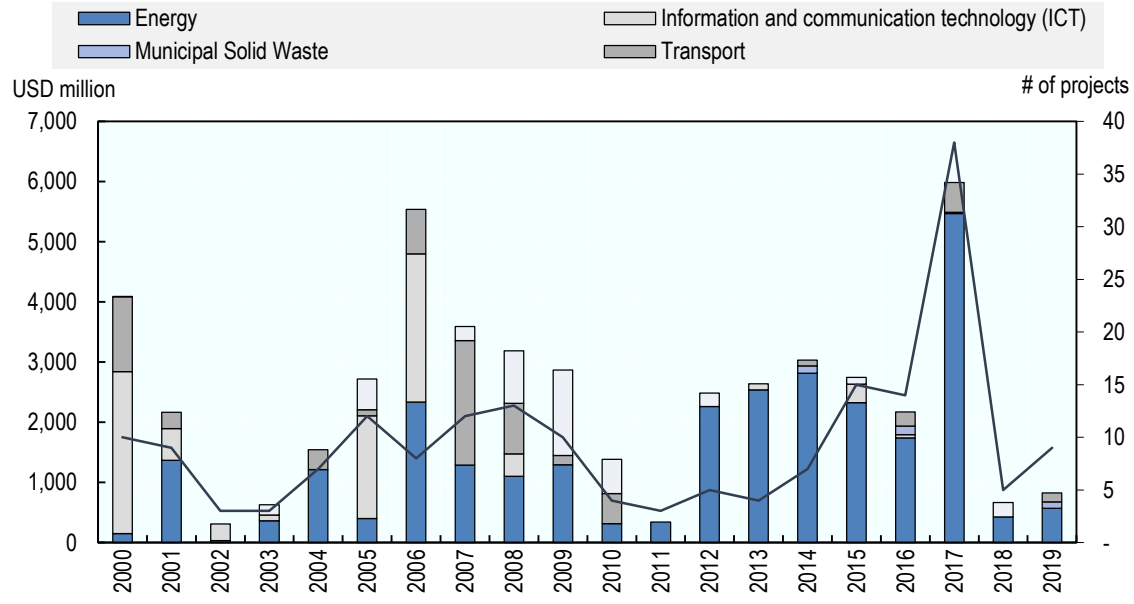
The Global Infrastructure Hub recently estimated that Egypt, Morocco and Tunisia together need USD 997 billion of investment in infrastructure until 2040 (GIHub, 2017[17]). The largest gap is in Egypt, which, under a growth assumption of 4% of GDP each year, will need to spend USD 675 billion (or 5% of GDP) on average until 2040. Given the current levels of spending, this translates to an investment gap of 1.7% of GDP. Morocco has a USD 37 billion infrastructure gap (or 0.90% of GDP under a 3.6% growth assumption). More recent estimates suggest that total investment needs range from 11.5%-18.3% depending on three scenarios of low-growth, business-as-usual, or high-growth) (IFC, 2019[11]). Similarly, Tunisia will also need to spend USD 75 billion (or 4.4% of GDP) on average on infrastructure until 2040.

The MENA region lags behind other regions in terms of private financing

Since the early 2000s, private investment in infrastructure has been increasing steadily across most regions with the exception of MENA. In several MENA countries, private sector infrastructure investments declined sharply in 2010-12. While investment has since recovered to pre-2010 levels, this is primarily due to a few large projects concentrated in the electricity sector in Morocco. The transport and water sectors have seen very limited activity over the past five years (Figure 9.4). Private investment in infrastructure over the past three years has been highly concentrated geographically. Two-thirds of the number of projects have taken place in Jordan, partly a result of the country's programme promoting renewable energy, particularly solar PV plants. In terms of capital expenditure however, almost 75% has gone to Morocco due to the Noor I and II large concentrated solar power projects in Ouarzazate, and a 1360 MW coal-fired power plant in Safi, Southwest Morocco (OECD, 2017[18]).

The principal sources of infrastructure project finance in the MENA region over the past three years have been multilateral and bilateral lenders with the EIB, EBRD, and Islamic Development Bank, being among the most active players. Bilateral lenders come from a wide range of countries and include France, Germany and Japan, among others. Support from multilateral and bilateral lenders has almost exclusively been in the form of debt. International banks have also participated in a number of projects though always in conjunction with a multilateral lender or a major bilateral lender. Local commercial banks have only played a marginal role with the exception of the Agadir desalination plant in Morocco, where they have been the only source of debt finance (OECD, 2017[18]).

Figure 9.4. Private investment in infrastructure in MENA, 2000-2019 (by sector)



Source: World Bank PPIA, PPI project database

Establishing an enabling environment for investment in infrastructure

In order to attract more private sector participation in infrastructure, governments in the region need to ensure that infrastructure priorities are an integral part of economic development strategies and supported by a clear accompanying regulatory and institutional framework. There are often cases when hard infrastructure is developed without the appropriate trade and business regulatory reforms, or where it has lacked the necessary multi-modal approach to deliver the expected results. Overcoming such a fragmented approach is critical for strengthening the investment climate and leveraging the positive spillovers from regional connectivity.

Infrastructure development strategies and financing instruments

In MENA countries that have traditionally relied on natural resource revenues for infrastructure financing, low oil prices will require governments to reconsider their investment strategies and plans for the long term (Rice, 2015[19]). The social and political upheavals over the past decade, coupled with the Covid-19 pandemic, have created additional challenges, including the need to improve governance to give confidence to the private sector to invest in infrastructure.

Infrastructure development is high on the region's agenda. Many focus economies have launched national strategies that stress the need for upgrades in infrastructure to promote sustainable development. Two specific projects that have successfully combined infrastructure investment with an industrial policy agenda are the expansion of the Suez Canal and the Development of the Suez Canal Economic Zone and the Tanger Med Port of Morocco (Box 9.1). In Egypt, plans to increase connectivity are laid out in Egypt's Vision 2030, which aims to increase the capacity of the transport sector and boost Egypt's share in international and regional transport volumes. The Economic Pillar of Vision 2030 includes mega projects such as the Suez Canal and Suez Canal Economic Zone. At the sectoral level, the Transport Master Plan 2027 aims to achieve multi-modal transport chains between national, regional and gateway centres, but also to enhance the role of the private sector in investing and participating in transport projects.

In Morocco, all infrastructure sectors have developed investment plans with ambitious targets and long time horizons for increasing both stocks and quality. For instance, the 2040 Rail Strategy (Plan Rail Maroc) aims to develop the rail network and its various components across the country by 2040 and contribute to territorial development (ONCF, 2020[20]). The National Port Strategy 2030 also aims to consolidate Morocco's ports to increase cargo output and port capacity at a total investment of USD 6 billion, primarily from the public sector (Rensma and Hamoumi, 2018[21]).

Box 9.1. Selected Infrastructure Projects in MENA

Important investments in a number of the MENA focus economies have been a driving force in the region's infrastructure development. The two most prominent examples are the new transhipment hub of the Suez Canal Development Project and Tanger-Med Port and, which continue to facilitate internal and cross-border transport and trade, and have an important role not only for the economic development of Egypt and Morocco, but also for the Mediterranean region.

The Suez Canal Area Development Project

The Suez Canal Area Development Project comprises three main components aimed at reinforcing the position of the Suez Canal as a global maritime trade route, and exploiting its potential for investment attraction and export-oriented growth:

- The "New Suez Canal", involving a major expansion to increase capacity and allow ships to navigate in both directions at the same time, which will decrease waiting hours from 18 to 11

for most ships and double the capacity of the Canal from 49 to 97 ships a day. This project is expected to lead to enlarged transit capacity and increased industrial activity in the area, which will raise the international profile of Egypt as an international logistical and industrial hub.

- The "East Port Said" development project, involving the construction of a 9,5-km side channel bypassing the Suez Canal entrance, port expansion works, a new industrial zone and logistics centre as well as four new East-West tunnels to increase cross-canal connectivity and link the Sinai Peninsula to Egypt's mainland.
- The "Suez Canal Economic Zone" (SCZone) established on 461 km² of land and six maritime ports strategically located along the international waterway with direct access to ports, to serve as an international logistics hub and areas for light, medium and heavy industry as well as commercial and residential developments.

Tanger MED

Situated 40km east of Tangier, Morocco, Tanger Med is the largest cargo port in the Mediterranean and in Africa by capacity. The port represents a major logistics and industrial hub and a gateway for Morocco's imports and exports, connecting to 186 ports worldwide. The first phase of the project (Tanger MED 1) entered into service in 2007 with an initial capacity of over 3.5 million shipping containers, while the second phase (Tanger MED II) was completed in 2019 at a cost of USD 1.5 billion and increased capacity to 9 million containers. The project is part of Morocco's diversification plan to attract new investment and create jobs by offering various investment incentives, access to free trade agreements, skilled labour, as well as well-connected logistics to firms willing to relocate their production. Tanger MED currently hosts around 900 companies in four industrial zones around port facilities creating over 70,000 jobs overall. Nearly half of these companies are European and are linked to the automotive sector, making Tanger MED the largest manufacturing hub of autos in Africa and MENA. Today, automotive sector is Morocco's largest exporting sector. Two most influential car companies are Renault Tanger Med and Peugeot, which are now assembling new vehicles and engines to export to EU and African markets.

Source: (Bank of Alexandria, 2014[22]), (N Gage Consulting, 2016[23]), (EuroMesco, 2019[24]), Suez Canal Authority Website, www.suezcanal.gov.eg.

Infrastructure development is also high on Algeria's policy agenda. The 2015-2019 Investment Plan aimed to support development of various connectivity projects, including rail systems, roads, airport modernisation and ports (Oxford Business Group, 2017[25]). Given that the vast majority of the country's trade is moved through its 11 commercial ports (95% of imports arrive by sea), an important priority is to upgrade ports to increase capacity to handle large vessels and make Algeria a Mediterranean hub (ITA, 2019[26]). Another priority is to expand the rail network to reduce road congestion and increase rail freight domestically and with neighbours. The push for regional connectivity is also driven by the opening of a rail line linking Annaba with Tunisia (Oxford Business Group, 2017[25]).

Jordan's 2025 National Vision and Strategy stresses the role of infrastructure to achieve economic transformation based on export development (Harake, 2019[27]). The infrastructure priorities are laid out in the Jordan Economic Growth Plan 2018-22 for each sectors. In the transport sector, the Plan has several objectives, including to complete and upgrade the transport networks such as airports and ports, enhance the capacity of the land cargo system, and develop a multimodal transport system. In particular, the government aims to establish a cargo-based rail network connecting the main industrial cities and logistical centres domestically, as well as to connect with neighbouring countries and Europe (Jordan Economic Policy Council, 2018[28]). The investment required for such a network is estimated at USD 2.1 billion, which the government hopes to allocate through partnerships with the private sector (ibid).

Mobilising the necessary resources for infrastructure investment in the region requires effective planning and prioritisation of projects. Numerous projects are set up in different infrastructure strategies across countries. Often, the allocation of budget for projects is done on an annual basis. MENA governments need a medium-term planning and funding allocation to increase stability for infrastructure projects. So far, Algeria and Jordan have introduced a medium-term budgetary framework that could allow for multiyear sectoral planning to ensure that investment expenditures are driven by policy priorities and fiscal objectives (World Bank, 2013[29]). Better co-ordination between different ministries would also allow for better prioritisation of investment projects.

Improving the regulatory framework for investment in infrastructure

In order for the private sector to participate in infrastructure projects, an adequate regulatory framework is required. This involves removing administrative bottlenecks and improving regulations (see Chapter 3). In recent years, some governments across the MENA region have boosted efforts to build a credible environment for public-private partnerships (PPPs) by updating their PPP laws and setting up PPP agencies or specialised units within existing institutions (e.g. Jordan, Morocco, Tunisia and Egypt). These improvements have led to a growth in PPPs in recent years. Greater private sector involvement in infrastructure could not only improve the efficiency of such investment, bring new technologies and skills, but also reduce the fiscal burden on public budgets.

The legal frameworks for public-private partnerships can bring important financing solutions for infrastructure projects

The regulatory and legal frameworks vary significantly across different countries with some countries clearly separating PPPs from other forms of procurement, while in others PPPs are treated as a dimension of a wider procurement policy. A number of countries in the region, including Jordan, Morocco, Tunisia and Egypt, have recently updated their PPP laws and set up a new PPP agency or unit to bring further clarity and transparency to their PPP regimes in line with good practices (Table 9.1) (OECD, 2016[30]). In Jordan, PPP investments have equalled 2% of GDP per year over the last five years and a revised PPP law las been submitted to the Parliament. Egypt's revised PPP law streamlined PPP contracts, particularly by cutting the time to issue tenders for PPP projects and introducing new mechanisms for private sector contracting (Enterprise, 2019[31]).

Table 9.1. International practices for PPP projects

Preparatory Stage of PPPs	Procurement Stage of PPPs	Contract Management Stage
The Ministry of Finance or central government budget authority approves the long-term financial implications of the project	The bid evaluation committee meets the minimum technical qualifications	The procuring authority has a system to manage the implementation of the PPP contract, including a contract management team in the project starting at the procurement stage
PPP projects have a specific accounting/reporting framework	The procuring authority publishes the procurement notice online, allowing potential bidders at least 30 days to submit proposals	The procuring authority establishes a system for tracking progress and completing construction works under a PPP contract, with relevant information made publicly available
PPP projects are assessed and prioritised along with all other public investment projects in the context of wider national public investment plans	Foreign companies are allowed to take part in PPP procurements	Monitoring and evaluation systems are in place to oversee the implementation of the PPP contract after the construction stage, with relevant information publicly available.

Assessment results of PPPs and tender documents are made publicly available online	The tender documents set the selection criteria in a transparent manner, and the procuring authority organises a pre-bid conference to disseminate information	Foreign companies are not prohibited from repatriating the income generated by the operation of a PPP project.
The PPP project are adequately justified in the light of socioeconomic, fiscal, financial, environment and risk assessments	Award notice of the winning bidder and the grounds for selection is made publicly available	Any changes in the structure of the private partner are expressly regulated, requiring the replacing entity to be at least as qualified as the original private partner.
The procuring authority prepares a draft and makes the draft contract publicly available before approval	A standstill period after the intended award of the contract is allowed for other bidders to challenge the award decision	Modification and renegotiation of the contract are expressly regulated to reduce incentives to use these changes opportunistically by either the private partner or the procuring authority.
To guarantee consistency and efficiency, the procuring authority has standardised PPP model contracts	The signed PPP contract and amendments is made publicly available	Dispute resolution mechanisms should be in place, and specific circumstances (e.g., setbacks in implementation, refinancing, changes in law) should be accounted for with the grounds of a termination of contract and its consequences clearly laid out

Source: based on (World Bank, 2018[32]).

Yet, a large proportion of private investment in the region has been in sectors where financial sustainability is easier to attain, such as for example power generation projects. For sectors other than energy such as water, it is more challenging to attract investment because projects are generally less bankable and offer fewer prospects for future cash flows. In Jordan, most PPP investments focused on renewable energy. A revamped PPP framework is needed to help facilitate projects in sectors where more extensive government support is required to attract private investment, such as in toll roads. Egypt has a general PPP framework that coexists with alternative channels for procuring infrastructure projects, such as the system of public economic entities, public utilities legislation and a number of sector- specific or project-specific laws (EBRD, 2018[33]).

In Morocco, while the PPP law (Law 86-12) offers a framework for PPPs, it has not replaced other specific laws, which create overlapping legislation for private investment in infrastructure and uncertainty regarding which laws apply to what contracts. The sector-specific laws allow for contracting with private parties in a number of sectors such as ports, renewable energy, electricity generation, desalination, and airports. This has created misalignment on contract selection, preliminary evaluation of projects, minimum clauses, and guarantees. Moreover, SOEs involved in infrastructure, which often receive subsidies (around 0.5% of GDP) from the public budget for investment or operations, can directly select private partners for joint ventures under the commercial law and can invest in private operators even when they compete against them in the market. To address such shortcomings, the Ministry of Finance has taken steps to streamline the market participation of SOEs but with mixed results, while the Ministry of Economy is currently preparing an amendment to the PPP law.

There is growing political support for PPPs across most MENA economies. PPP laws and regulations could create an environment that protects both the public and private sector. When PPPs are used, it is important that, among other principles, the process is transparent and predictable, with a level playing field for all bidders (Box 9.2). Adopting PPPs is not straightforward. It takes time for governments to build capacity to implement credible PPP programmes. But there is strong commitment and multilateral support to help countries deliver and manage PPPs, which can lead to more infrastructure that enhances regional connectivity.

Box 9.2. OECD Principles for Public Governance of Public-Private Partnerships

The 2012 Recommendation of the OECD Council on the Principles for Public Governance of Public-Private Partnerships provides concrete guidance to policy makers on how to make sure that public-private partnerships represent value for money for the public sector.

Establishing clear, predictable, and legitimate institutional frameworks that are supported by competent and well-resourced authorities

1. Political leaders should raise public awareness of the relative costs, benefits and risks of PPPs and conventional procurement. All stakeholders, including end-users should be included in the design and quality control of PPP projects.
2. The role of relevant institutions should be clearly defined and maintained. Procuring authorities, PPP units, Central Budget Authorities, auditors, and sector regulators should have clear mandates and sufficient resources to ensure effective procurement and accountability.
3. Regulatory frameworks that affect PPPs should be clear, transparent, and enforced.

Maximising value in the selection of PPPs

1. Governments should set and pursue strategic goals regarding infrastructure development on the highest political level. PPPs should not be a subject to any institutional, procedural or accounting bias.
2. Prospective infrastructure projects should be assessed for their key characteristics and risks to determine the investment method with most value for money. A procurement option pre-test can help governments to determine whether to investigate PPPs as a further option.
3. Risks should be defined, identified, measured and allocated to the party most able to carry and mitigate them.
4. Procuring authorities should be ready for the operational phase of a PPP, which requires vigilance and effort similar to the pre-project phase.
5. In the event of renegotiation, the public sector should only consider compensations to the private sector partners if conditions have changed due to discretionary public policy decisions.
6. The government should ensure a level playing field and a sufficient amount of competition throughout the tendering process.

Using the budgetary process transparently to minimise fiscal risks and maintain the integrity of the procurement process

1. The Central Budget Authority should ensure that the PPP project is affordable within the framework of wider fiscal policy.
2. Transparency should be maintained throughout the budgeting process. All costs and contingent liabilities should be disclosed.
3. The government should maintain the integrity of the procurement process by guarding against waste and corruption.

Source: OECD Principles for Public Governance of Public-Private Partnerships

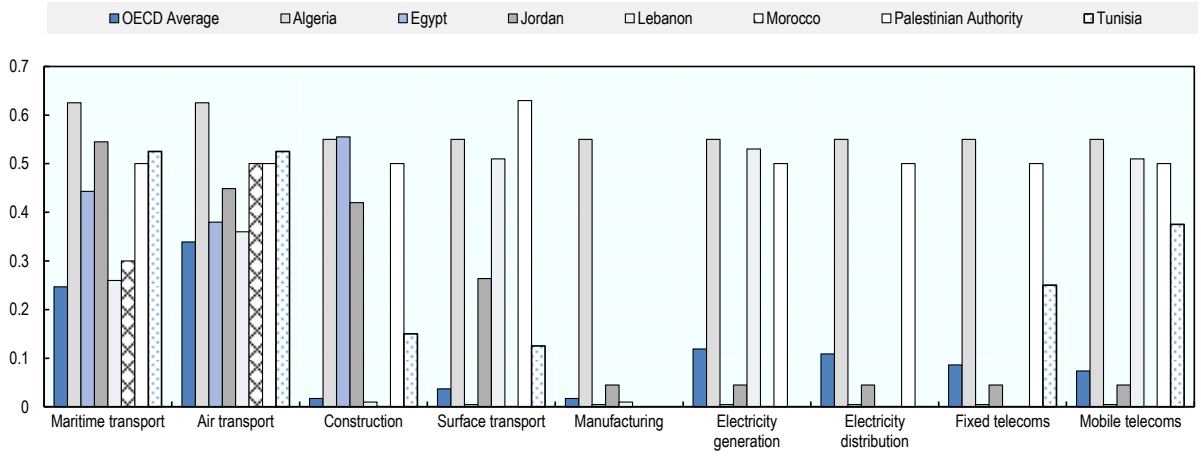
Re-thinking restrictions to foreign investment in sectors relevant to connectivity

While some MENA economies are fairly open to foreign investment, some restrictions are still relatively high compared to the OECD average, particularly in infrastructure services and the construction sector. According to the OECD FDI Regulatory Restrictiveness Index (Chapter 4), the MENA focus economies have higher restrictions in maritime and air transport and construction sectors than the average OECD countries (Figure 9.5). Algeria has the highest restrictions in all relevant sectors (with the exception of surface transport). Jordan also has relatively high restrictions in the transport sector. In Morocco, several sectors including in maritime and air transport face restrictions on foreign ownership. For instance, foreign investment in air transport companies is limited to 49% of capital, while in maritime transport, for a vessel to fly the Moroccan flag, it must be 75% Moroccan owned or the majority of the board of directors or the supervisory board must be Moroccan citizens.[6]

Egypt also only allows foreign investments in the maritime sector in the form of joint venture companies in which foreign equity does not exceed 49%. In transport, provision remains dominated by the public sector, with some private concessions in ports and airports. The Construction Law (1992) also restricts foreign investment to joint-ventures in which foreign equity does not exceed 49%. In addition, foreign participation in electrical wiring and other building completion and finishing services is restricted to projects valued over USD 10 million.[7] Such restrictions affect competition in the market and limit the quality of service provision.

Figure 9.5. OECD FDI Regulatory Restrictiveness Index in selected infrastructure sectors (2019)

Closed=1; Open=0



Source: OECD FDI Restrictiveness Index

Beyond removing restrictions, improving the governance of infrastructure could also attract more private investment

Good governance and strategic vision can improve the management of infrastructure projects and create the basis for increasing private sector participation in funding, construction and operation. For a number of countries in the region, developing infrastructure has come at high levels of capital expenditure, while the efficiency of public investment could be improved. Areas of public management improvement include strengthening the procurement, transparency, and appraisal and selection processes. Planning of infrastructure development in a holistic way following the OECD's key principles for infrastructure governance can help ensure efficient use and allocation of resources (Box 9.3).

In Algeria, while the efficiency of public investment for large projects has improved in the past decade, reducing delays in project completion and cost overruns, it is still lower than in other oil exporters in the region and well below the global average (IMF, 2018[34]). Such inefficiencies have led to costly public investment projects. Algeria's unit cost of road construction projects is about 34% higher than in most countries in the region. According to one estimate, with stronger public investment management institutions, the same amount of investment could have funded 60% more infrastructure projects (ibid).

Box 9.3. OECD Draft Recommendation on the Governance of Infrastructure

The OECD Draft Recommendation on the Governance of Infrastructure developed by the Public Governance Committee reflects the experience, needs and aspirations of the global infrastructure governance at large.

To ensure the efficient use and allocation of resources, the Draft Recommendation develops ten comprehensive policy recommendations:

1. develop a long-term strategic vision for infrastructure
2. guard fiscal sustainability, affordability, and value for money
3. ensure efficient and effective procurement of infrastructure projects
4. ensure systematic and effective stakeholder engagement
5. co-ordinate infrastructure policy across levels of government
6. promote a legitimate, coherent, efficient and predictable regulatory framework
7. implement a whole of government approach to manage threats to integrity
8. undertake evidence-informed infrastructure decision making
9. make sure the asset performs throughout its life
10. strengthen critical infrastructure resilience

The recommendations take into account high-level policy directions in order to underline the specific work areas for Member and non-Member States adhering to the projects (Adherents). The Draft Recommendation on the Governance of Infrastructure will be a basis for OECD reviews and an available Toolkit that Adherents would be able to use in order to plan, make decisions, and monitor the delivery of public infrastructure.

Source: (OECD, 2020[35]).

References

Abu-Rumman, G., A. Khdair and S. Khdair (2020), "Current status and future investment potential in renewable energy in Jordan: An overview", *Heliyon*, Vol. 6/2, p. e03346, http://dx.doi.org/10.1016/j.heliyon.2020.e03346. [10]

AfDB (2019), *African Economic Outlook 2019*, African Development Bank, Abidjan, https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2019AEO/AEO_2019-EN.pdf. [6]

Arvis, J. et al. (2019), *Maritime Networks, Port Efficiency, and Hinterland Connectivity in the Mediterranean*, World Bank Group, Washington, DC, http://dx.doi.org/10.1596/978-1-4648-1274-3. [8]

Bank of Alexandria (2014), *Egypt Country Report: On the Road to Recovery*, Bank of Alexandria, https://www.alexbank.com/document/documents/ALEX/Retail/Research/Country-Profile/AR/Egypt-Country-Report-2014.pdf. [22]

Chauffour, J. (2018), *Morocco 2040: Emerging by Investing in Intangible Capital*, World Bank Group, Washington, DC, http://dx.doi.org/10.1596/978-1-4648-1066-4. [5]

EBRD (2018), *Public-Private Partnership Assessment 2017-2018 Review: Egypt*, European Bank for Reconstruction and Development, https://ppp-ebrd.com/review.php?country=Egypt. [33]

Enterprise (2019), *Egypt's Finance Ministry finalizes PPP law amendments*, Enterprise, https://enterprise.press/stories/2019/06/20/egypts-finance-ministry-finalizes-ppp-law-amendments/. [31]

EuroMesco (2019), *Infrastructures and Power in the Middle East and North Africa: The Crossroads of Regional and Global Geopolitics*, EuroMesco, Rome, https://www.euromesco.net/wp-content/uploads/2020/02/Report-28-Infrastructures-and-Power.pdf. [24]

Freund, C. and E. Ianchovichina (2012), *Infrastructure and Employment Creation in the Middle East and North Africa*, World Bank Group, https://openknowledge.worldbank.org/handle/10986/10853. [16]

Gelvanovska, N., M. Rogy and C. Rossotto (2014), *Broadband Networks in the Middle East and North Africa: Accelerating High-Speed Internet Access*, World Bank Group, Washington, DC, http://dx.doi.org/10.1596/978-1-4648-0112-9. [2]

GIHub (2017), *Global Infrastructure Outlook: infrastructure investment needs, 50 countries, 7 sectors to 2040*, Global Infrastructure Hub, Oxford Economics, https://gihub-webtools.s3.amazonaws.com/umbraco/media/1530/global-infrastructure-outlook-factsheet-24-july-2017.pdf. [17]

GSMA Intelligence (2020), *The Mobile Economy: Middle East and North Africa 2019*, GSMA Intelligence, https://www.gsma.com/mobileeconomy/wp-content/uploads/2020/03/GSMA_MobileEconomy2020_MENA_Eng.pdf. [12]

Harake, W. (2019), *Strategic Assessment : The 2019 Project Pipeline for Jordan and Investment Opportunities*, World Bank Group, https://documents.worldbank.org/en/publication/documents-reports/documentdetail/445051554135426057/strategic-assessment-the-2019-project-pipeline-for-jordan-and-investment-opportunities. [27]

IEA (2020), *Data and statistics: Renewable share in final energy consumption*, IEA, https://www.iea.org/data-and-statistics?country=ALGERIA&fuel=Renewables%20and%20waste&indicator=SDG72 (accessed on 12 February 2021). [9]

IFC (2019), *Creating Markets in Morocco: A second generation of reforms boosting private sector growth, job creation and skills upgrading*, IFC, https://www.ifc.org/wps/wcm/connect/d0c0f18c-26b7-4861-b4c5-14896aaba7f1/201910-CPSD-Morocco-EN.pdf?MOD=AJPERES&CVID=m-LGA3X. [11]

IMF (2019), "Economic Integration in the Maghreb : An Untapped Source of Growth", *Developmental Paper Series*, No. No. 19/01, IMF, https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2019/02/08/Economic-Integration-in-the-Maghreb-An-Untapped-Source-of-Growth-46273. [7]

IMF (2018), *Algeria: Selected Issues. Country Report NO. 18/169*, IMF, Washington, DC, https://www.imf.org/en/Publications/CR/Issues/2018/06/13/Algeria-Selected-Issues-45987 (accessed on 15 February 2021). [34]

ITA (2019), *Algeria: Public Works, Infrastructure Development, and Water Resources*, International Trade Administration (ITA), US Department of Commerce, https://www.stopfakes.gov/article?id=Algeria-Public-Works-Infrastructure-Development-and-Water-Resources. [26]

Jordan Economic Policy Council (2018), *Jordan Economic Growth Plan: 2018-2022*, Jordan Economic Policy Council, http://extwprlegs1.fao.org/docs/pdf/jor170691.pdf. [28]

Kandeel, A. (2019), *Freshwater Resources in the MENA Region: Risks and Opportunities*, Middle East Institute, https://www.mei.edu/publications/freshwater-resources-mena-region-risks-and-opportunities#:~:text=In%202018%2C%20the%20region%20had,1.7%20percent%20as%20of%202017.&text=The%20region's%20population%20is%20projected,and%20731%20million%20by%202050. [4]

Latif, Z. et al. (2018), "The dynamics of ICT, foreign direct investment, globalization and economic growth: Panel estimation robust to heterogeneity and cross-sectional dependence", *Telematics and Informatics*, Vol. 35/2, pp. 318-328, http://dx.doi.org/10.1016/j.tele.2017.12.006. [13]

McKenna, J. (2017), *The Middle East's start-up scene: explained in five charts*, World Economic Forum, https://www.weforum.org/agenda/2017/05/what-you-need-to-know-about-the-middle-easts-start-up-scene-in-five-charts/. [3]

N Gage Consulting (2016), *The Suez Canal Economic Zone: A Strategic Location and Modern Day Innovation*, N Gage Consulting, https://www.ngage-consulting.com/downloads/SuezCanal%20report%20July%202016-NGAGE%20CONSULTING.pdf. [23]

OECD (2020), *OECD Recommendation on the Governance of Infrastructure*, http://www.oecd.org/gov/infrastructure-governance/recommendation/. [35]

OECD (2017), *Supporting the Development of the Suez Canal Economic Zone: Identifying Priority Actions for a Dynamic and Sustainable Economic Zone*, OECD, Paris. [18]

OECD (2016), *Strengthening governance and competitiveness in the MENA region for stronger and more inclusive growth*, Better Policies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264265677-en. [30]

ONCF (2020), *Plan Rail Maroc 2040*, ONCF, https://www.oncf.ma/en/Development/Strategy/Morroco-s-2040-rail-strategy. [20]

Oxford Business Group (2017), *Algeria focuses on transport infrastructure and housing*, Oxford Business Group, https://oxfordbusinessgroup.com/overview/building-possibilities-focus-remains-transport-infrastructure-and-housing. [25]

Rensma, M. and S. Hamoumi (2018), *Dutch business opportunities: Transport & Logistics sector Morocco*, Ministry of Foreign Affairs of the Netherlands, Barendrecht/Casablanca, https://www.rvo.nl/sites/default/files/2018/05/Transport-and-Logistics-sector-Morocco.pdf. [21]

Rice, J. (2015), *Why infrastructure is key to a stable Middle East*, World Economic Forum, https://www.weforum.org/agenda/2015/05/why-infrastructure-is-key-to-a-stable-middle-east/. [19]

WEF (2019), *Global Competitiveness Report 2019: How to end a lost decade of productivity growth*, World Economic Forum, https://www.weforum.org/reports/how-to-end-a-decade-of-lost-productivity-growth. [15]

World Bank (2020), *Convergence: Five Critical Steps toward Integrating Lagging and Leading Areas in the Middle East and North Africa*, World Bank, Washington, DC, http://dx.doi.org/10.1016/978-1-4648-1450-1. [1]

World Bank (2019), *MENA Economic Update: Reaching New Heights: Promoting Fair Competition in the Middle East and North Africa*, World Bank, http://dx.doi.org/10.1596/978-1-4648-1504-1. [14]

World Bank (2018), *Procuring Infrastructure PPPs 2018*, World Bank Group, Washington, DC, https://ppp.worldbank.org/public-private-partnership/library/procuring-infrastructure-ppps-2018. [32]

World Bank (2013), *Beyond the Annual Budget : Global Experience with Medium-Term Expenditure Frameworks*, World Bank, Washington, DC, http://dx.doi.org/10.1596/978-0-8213-9625-4. [29]

Annex 9.A. Comparative infrastructure indicators across MENA

	Egypt	Morocco	Saudi Arabia	Tunisia	United Arab Emirates	Algeria	Jordan	Libya	Lebanon	Palestinian Authority	Middle East and North Africa*
Electricity											
Access to electricity (% of population) 2017	100.0	100.0	100.0	100.0	100.0	100	100	70.1	100	100	97.8
Electric power transmission and distribution losses (% of output) 2014	11	15	7	15	7	17	11	70	10	-	14
Quality of electricity supply (1-7 (best), WEF 2017-2018	5.0	5.6	6.2	5.1	6.5	4.2	5.7	N/A	1.7	-	5.1
ICT											
Mobile telephone subscriptions (per 100 people) 2018	95	124	123	128	209	112	88	91	64	90	106
Individuals using the internet (% of population) 2016	47	65	93	64	98	49	67 (2017)	22 (2017)	78	64	43
Fixed broadband subscriptions (per 100 people) 2018	6.7	4.3	20.2	8.8	31.4	7.26	4.01	4.83	0.14	7.49	9.6
Transport											
Quality of road infrastructure, 1-7 (best), WEF 2019	5.1	4.7	5.2	3.6	6.0	4.0	4.2	N/A	2.6	-	-
Quality of railroad infrastructure, 1-7 (best), WEF 2017-2018	3.3	3.9	3.3	2.8	-	3.4	2.2	-	-	-	-
Liner shipping connectivity index (maximum value in 2004 = 100)[3] 2019	66.7	58.2	63	7.8	71.5	12.8	33.9	14.7	38.5	-	-
Efficiency of seaport services, 1-7 (best), WEF 2019	4.8	5.1	4.8	3.4	5.5	3.9	4.4	-	3.6	-	-
Efficiency of air transport services, 1-7 (best), WEF 2019	5.1	5.3	5.4	3.6	6.0	4.0	5.2	-	4.3	-	-

Note: * The average for the MENA region includes: Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates, West Bank and Gaza, and Yemen.
Source: World Bank World Development Indicators database, World Economic Forum Competitiveness Index (2018).

Notes

[1] Based on responses to the World Bank Enterprise Surveys; average excludes Algeria and Libya due to absence of data.

[2] Unless specified otherwise, the wider MENA region in this chapter refers to the eight focus economies as well as Bahrain, Djibouti, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.

[3] The Mobile Connectivity Index is an input index that measures the performance of 163 economies – representing 99% of the global population – of a range of metrics that are essential to create an effective enabling environment for mobile internet adoption. The corresponding output measure is the number of people accessing the internet via mobile. The GSMA includes the following economies in the MENA average: GCC Arab States (Qatar, UAE, Bahrain, Kuwait, Libya, Lebanon, Saudi Arabia), North Africa (Tunisia, Morocco, Israel, Iran, Algeria), Other Arab States (Egypt, Oman, Turkey, Jordan, Mauritania), and others (Syria, Iraq, Sudan, Palestinian Authority, Yemen, Somalia, Comoros, Djibouti).

[4] Transitioners (score above 50) perform well on at least two enablers and generally have mobile internet penetration rates between 30% and 50%.

[5] These estimates are based on a study of (Freund and Ianchovichina, 2012[16]), which are still considered valid today.

[6] See OECD National Treatment Instrument, 2017: https://www.oecd.org/daf/inv/investment-policy/nationaltreatmentinstrument.htm.

[7] See OECD National Treatment Instrument, 2017: https://www.oecd.org/daf/inv/investment-policy/nationaltreatmentinstrument.htm.