



# Bridging the gap

Private investment in  
Middle East infrastructure

## Key points:

- ▶ The push to diversify economies away from hydrocarbon production is creating a huge need for capital for infrastructure development.
- ▶ More public private partnerships (PPPs) are being formed to develop, manage and operate infrastructure projects.
- ▶ Private investors seek more opportunities to invest in infrastructure in the region.
- ▶ Huge construction projects, such as “world-class cities,” will be designed to promote developing companies and industries, create jobs and improve the region’s living standards.



# Private investment in Middle East infrastructure

In the Middle East, governments have historically played a dominant role in financing the construction and operation of energy, transportation, telecommunications, water, ports and airports in their respective countries. This infrastructure spending has generally been financed through state budgets. The region has been relatively underinvested with a large portion of the rural population completely underserved by electricity and telecommunications. Such services in urban areas often experience high distribution losses, frequent service interruptions and weak financial performance.

Given the oil money flowing into the Middle East, large public infrastructure projects have been executed and new ones are being planned for at least the next decade, with costs running into the hundreds of billions of US dollars. Infrastructure development is not only crucial in meeting the region's social challenges, but also has an essential contribution to make towards improving business competitiveness in the Middle East.

The six nations of the Gulf Cooperation Council (GCC)<sup>1</sup> earned an estimated US\$381 billion from oil exports in 2007 and another US\$26 billion from gas.<sup>2</sup> In 2007, the GCC states had a combined GDP of US\$800 billion.<sup>3</sup> Today, however, even the wealthiest countries in the Middle East are challenged to meet a rapidly growing need for capital to fund infrastructure projects. Rising costs of commodities such as steel and cement are increasing the costs of infrastructure projects. Projects have increased in size, scope and cost, from construction of bigger airports and ports, to development of entire new cities.

More investment is required in development of new infrastructure technology such as improved desalination or water filtration systems, and for investment in alternative energy projects such as converting sunlight to electric power. Additional capital is needed to build schools to provide students with the training and education required to find jobs and pursue careers, and hospitals and clinics to provide healthcare services for growing populations. In the GCC states alone, current and active civil engineering

projects have a total value of US\$1.3 trillion; US\$375 billion in telecom; and US\$217 billion in power and water utilities.

The growing need for capital is driven by the Middle East's strong population and economic growth. Government investments in the region's core oil and gas industry are being impacted by the rising costs of labor and materials. The region's oil production is expected to peak over the next 20 years or so, and the growth of alternative fuels markets is creating uncertainty about future oil demand worldwide.

Saudi Arabia is spending more than US\$50 billion on a multi-year expansion plan that will increase its oil pumping capacity about 11% by 2009. The government has indicated it has no plans to expand beyond that until it has clearer signs about future global oil consumption.<sup>4</sup> If at some point, global consumption were to start falling faster than worldwide supply because of advances in energy conservation initiatives, such as increased use of alternative fuels, then the government could be at risk of spending billions on unneeded additional capacity.

**Table 1.** GCC states 2007 infrastructure investment

Country	Value (US\$ billion)
Saudi Arabia	102.20
UAE	70.32
Qatar	21.85
Kuwait	9.40
Oman	1.90
Bahrain	0.66
Total	206.33

Source: Zawya Project Monitor

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### Looming water shortages

Adding to the need for infrastructure capital is the prospect of severe water shortages in the Middle East. According to a recent report of the World Bank, the amount of water available per person in the Middle East and Africa will halve by 2050 because of population growth and climate changes, among other reasons.<sup>5</sup> Governments are trying to slow the growth in the region's water consumption through pricing mechanisms, better water conservation and more efficient production and delivery. But this alone will not meet the growing demand; additional supplies of water will be needed in the near future.

Governments face the prospect of having to invest many billions of US dollars in the construction of more desalinization plants, water pipelines and municipal distribution systems across the region. Such investment would come on top of the substantial expenditures that governments have already made over the last 10 to 20 years, which established the Middle East as the world leader in desalinization. Of the more than 7,000 desalinization plants worldwide, two-thirds are in the Middle East.<sup>6</sup>

### Infrastructure investment

To help meet the perennial need for infrastructure capital, Middle Eastern countries have long collaborated with domestic as well as international investors in planning, financing, building and operating infrastructure in strategic sectors such as petroleum, water and power. In the water and power sector, for example, global and domestic investors have channeled funds through numerous independent water and power producers (IWPPs) that build and operate desalinization and electric power plants in the Middle East.

Special Purpose Entities (SPEs) have been established to buy the plants' output at contracted rates, for resale to businesses and consumers on a take-or-pay basis. This structure is necessary because the end-use tariff is often only a fraction of the cost of producing and delivering water. The SPE is the "firewall" between the developer and the end-use customer and is the vehicle to which the Government subsidy is provided.<sup>7</sup>

Governments have pursued multiple strategies to encourage investment. These include sales of government assets to private buyers; investments by infrastructure funds and private equity funds; and initial public offerings (IPOs) of state-owned infrastructure companies. In November 2007, DP World, a global port operator owned by the government of Dubai, raised US\$4.96 billion in the largest IPO in the Middle East.<sup>8</sup> Infrastructure funds are gradually being formed to invest in the region. The largest such fund started to date is the US\$2 billion Abraaj Infrastructure Capital and Growth Fund, which aims to invest in a range of infrastructure sectors in the Middle East, including transportation, education, healthcare, water, manufacturing, petrochemicals and power and utilities. Its principal investors are Deutsche Bank, Ithmaar Bank and Abraaj Capital, the fund manager.<sup>9</sup> In March 2008, the fund acquired a 40% interest in oil and petrochemical companies owned by Boscicor Group, a Pakistani integrated oil company.<sup>10</sup> Among other investments, in 2007, the fund acquired what Abraaj Capital said was a "significant stake" in Global Education Management Systems Limited, an international education company based in Dubai.<sup>11</sup>



## Private investment

As their capital needs have continued to grow, governments have worked to promote greater private investment in their fast-growing economies. Public spending in the GCC states declined from about 34% of GDP in 2002 (at the start of the current oil boom) to about 29% in 2007, according to The Institute of International Finance.<sup>12</sup> Meanwhile, the private sector has been stepping up its investment.<sup>13</sup>

### *Foreign direct investment incentives*

GCC countries have recently adopted new incentives to attract foreign direct investment (FDI). These include the establishment of regulatory, institutional and legal frameworks to govern foreign capital inflows under a generally liberal exchange and trade system. In most sectors outside oil and gas, 100% foreign ownership of domestic companies is now allowed. Corporate income tax on foreign corporations has been reduced substantially, the investment approval process streamlined and foreign investors' access to local stock markets improved.

## Shariah-compliant debt financing

In addition to equity financing, Middle East governments have raised debt financing for infrastructure on international bond markets as well as through loans from international and domestic banks and other lenders. More of this financing is being structured as Shariah compliant or financing that is compliant with Islamic law. A key distinction of Islamic law is that it prohibits the payment of interest on loans and deposits. In response, banks and other lenders have designed various financial products and investments in which they share profits and risk with the customer, effectively becoming equity partners rather than lenders. (Islamic law also prohibits various types of investments such as in businesses that have gambling or serve alcohol.)

In recent years rising oil prices have increased the flow of petrodollars into the Middle East, where more institutions and wealthy individuals are seeking ways to invest their capital consistent with Islamic

law. This has sparked worldwide growth in Shariah-compliant investments in a range of companies, businesses and assets including infrastructure and in a variety of Shariah-compliant products and services. One indication of this growth: Islamic finance has grown worldwide during the past 20 years to US\$300 billion in bank assets. According to the General Council for Islamic Financial Institutions, that total is expected to exceed US\$1 trillion within the next five years.<sup>14</sup> Of late, Singapore, Switzerland and London have joined Saudi Arabia and Dubai as centers of Islamic finance activity.

More capital is finding its way into Shariah-compliant investments in infrastructure. Of the nearly US\$40 billion in Shariah-compliant financing provided to GCC states in 2007 and the first quarter of 2008, nearly US\$9 billion or about 22% was for infrastructure. (The largest share or about 45% was for real estate.)<sup>15</sup>

## Public private partnerships

A public private partnership (PPP) is a partnership between a government and a private company such as a large design, engineering and construction company. The company finances and builds infrastructure assets such as a toll road, airport or mass transit system and provides infrastructure services such as toll road operation and maintenance that traditionally have been provided by the government. Typically the government and the company enter into an agreement in which the company leases the infrastructure for a period of 20, 30 or 50 years or more, operates the infrastructure, and realizes income from tolls, fees and other charges paid by users of the infrastructure.

## Public private partnerships in the Middle East

PPPs have not been widely used in the Middle East, partly for cultural reasons. The line between public and private is not clearly defined, the public and private sectors do not have separate and independent functions and large privately owned family businesses have historically had close relationships with the state.<sup>16</sup> Furthermore, the legal and regulatory framework to enable PPPs did not exist. In recent years, however, governments have moved to create such a framework, which is currently in various stages of development in the region. (See table 2 below.) Egypt, for example, is developing and evaluating pilot projects within a PPP framework<sup>17</sup> while Kuwait has a draft PPP law under consideration.

According to a World Bank report, some countries in the Middle East and North Africa are making progress toward establishing a PPP institutional framework; however, little action has been initiated

in a number of other countries.<sup>18</sup> The institutional framework includes a policy framework. "The policy should clearly spell out the goals of PPP, mainly improved efficiency and better quality of services," the report said. Also included is a legal framework, which indicates the modes of private participation that are possible and the responsibilities that fall on the different government entities. It could also address issues such as where the PPP proceeds will be used. Finally, the report said, governments may wish to set up internal departments to manage PPPs over the life of a project.

More PPPs to build and operate infrastructure are being set up/established in the Middle East. The Organization for Economic Cooperation and Development (OECD) expects US\$100 billion of PPP investments in the Middle East and North Africa (MENA) region over the next five years.<sup>19</sup> Examples of current PPP projects in the area include:

**Table 2.** PPP - Institutional framework

PPP scorecard			
Country	Policy	Law	Unit
Algeria	Not developed	Partially developed	Not developed
Bahrain	Partially developed	Partially developed	Partially developed
Egypt	Partially developed	Well developed	Well developed
Iraq	Not developed	Partially developed	Partially developed
Jordan	Partially developed	Well developed	Partially developed
Kuwait	Partially developed	Partially developed	Partially developed
Lebanon	Not developed	Partially developed	Not developed
Morocco	Partially developed	Well developed	Partially developed
Oman	Partially developed	Partially developed	Not developed
Qatar	Partially developed	Partially developed	Partially developed
Saudi Arabia	Partially developed	Partially developed	Partially developed
Syria	Not developed	Not developed	Not developed
Tunisia	Partially developed	Partially developed	Partially developed
UAE	Partially developed	Partially developed	Partially developed
West Bank and Gaza	Not developed	Partially developed	Partially developed
Yemen	Partially developed	Partially developed	Partially developed

Not developed
  Partially developed
  Well developed

Source: World Bank Group



### **Saudi airport project**

Some countries such as Saudi Arabia have undertaken pioneering PPP projects. In 2006, Saudi Binladen Group, a leading Middle East contractor, submitted the winning bid for a US\$315 million concession to expand and rehabilitate a specialized passenger terminal for religious pilgrims at the King Abdulaziz International Airport in Jeddah. Saudi Arabia's General Authority for Civil Aviation (GACA) awarded the contract through an SPE, Hajj and Unruh Terminal Construction Company.<sup>20</sup>

The airport project is being built under a build-transfer-operate or BTO model in which the Binladen Group is doing the construction work. Upon completion it will transfer the terminal to the GACA and operate it for 20 years under the terms of the concession agreement. The project is unique in that it is the first use in the Middle East of a BTO concession that is Shariah compliant. It is expected to serve as a model for future Shariah-compliant financings of infrastructure.<sup>21</sup>

### **Saudi railroad project**

In December 2007, four Middle Eastern and foreign contractors submitted bids to build the Saudi Arabia Landbridge Project,

a 683-mile (1,000-kilometer) railway linking Riyadh with Jeddah and Jubail with Dammam. The winner will get a 50-year concession to operate the railway. It will be allowed to raise funds using Islamic and non-Islamic loans, bond and project financing.<sup>22</sup>

In April 2008 The Tarabot consortium was named as preferred bidder for the US\$5 billion Saudi Landbridge project. The consortium expects to reach financial close within 12 months, and construction will begin shortly afterward.<sup>23</sup> Tarabot comprises seven Saudi Arabian partners and Australian group, Asciano, which owns rail operator Pacific National and ports company Patrick. The other shortlisted bidders were the Agility PWC Logistics consortium, Mada and Saudi Binladen.

### **Dubai metro**

In response to rapid population growth, and severe traffic congestion, the Dubai Roads and Transport Authority is currently building the US\$8.1 billion (AED27.95 billion) Dubai Metro System, which the government says will be the longest fully automated system in the world. The 52-kilometer Red Line, the first of four lines planned for the 171-kilometer system, is scheduled for completion in 2009.<sup>24</sup> A design-build

contract for the Green Line, the second of four lines, was awarded in 2006 and led by Mitsubishi.<sup>25</sup> Construction of the other three lines is scheduled to be completed in 2012.

### **Oman desalination plant**

In Oman, Veolia Water Company, a global operator of water services, in association with Oman's Suhail Bahwan Group, an Oman-based international company with interests in engineering and construction, information technology and other areas, is building a major water desalination plant under a 22-year, €434 million (US\$633 million) build, own, operate (BOO) contract with the government.<sup>26</sup> The plant will have a capacity of 80,200 cubic meters/day and will supply drinking water to 350,000 people.

### **Alexandria University Hospital**

Egypt's Alexandria University Hospital announced in June 2008 that it intends to invite private sector participation in a PPP for designing, financing, constructing and equipping two university hospitals and a blood bank in Alexandria. This project will be the first phase of a nationwide program to build new public hospitals through PPPs.<sup>27</sup>

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### **Alternative energy**

Most Middle Eastern countries are investing in alternative sources of energy for domestic use to compensate for future declines in oil supplies. Qatar, for example, is planning to build either the world's largest solar power complex or a nuclear power plant. Its goal is to quadruple the country's electric power capacity by 2036.<sup>28</sup> Bahrain's World Trade Centre twin office towers incorporate three massive wind turbines that are supported by bridges between the towers and will provide around 11% to 15% of the buildings' electricity.<sup>29</sup> This is reportedly the first time that a commercial development anywhere in the world has integrated large-scale wind turbines within its design to harness the power of the wind.<sup>30</sup>

### **World-class cities**

Led by the GCC states, governments in the Middle East are planning, building or have completed development and construction projects on a size and scale found in few other areas of the world. The common vision driving this massive building program is the creation of world-class financial, economic, energy and knowledge cities of the 21st century. These cities are designed to draw global capital investment, foster innovation and invention, promote economic growth and diversification, create jobs, raise living standards and improve the region's quality of life. Among these cities are:

#### ***Dubai***

In the 1960s, Dubai faced the prospect that its modest oil reserves would run out sooner than those of the oil-rich Gulf countries. It began planning and building a mega city intended to diversify its economy and sustain long-term growth.<sup>31</sup> Today, master-planned Dubai includes hundreds of skyscrapers, shopping malls, hotels and resorts, theme parks and entertainment centers, marinas and residential communities, all supported by a modern infrastructure network of airports, ports, roads and light-rail systems.

In 2000, Dubai began development of Dubai Internet City as a strategic platform for global information technology companies seeking to expand into the Middle East and the Indian subcontinent. Since then, companies including Microsoft, Cisco Systems, HP and Dell have established operations in Dubai.<sup>32</sup> In 2004, Dubai opened the Dubai International Financial Center (DIFC), a 110-acre tax-free zone that it intends to develop into a regional financial hub like London, New York or Hong Kong.<sup>33</sup> Contractors have completed construction of The Gate, a 15-story office building in the DIFC to serve as the DIFC's executive headquarters and furnish office space for international financial institutions.<sup>34</sup>

In time, the DIFC is expected to house 10,000 workers in the banking, capital markets and asset and fund management sectors. Recently, Dubai and the London Court of International Arbitration signed an agreement to establish a new regional arbitration center in the DIFC. The agreement is significant in that it is the first time the London Court has ventured beyond the UK, and it provides Dubai with access to an international network of arbitrators.<sup>35</sup> In 2005, Dubai opened the Dubai International Financial Exchange, an international stock exchange two-thirds owned by Bourse Dubai and one third by NASDAQ OMX Group.<sup>36</sup> Currently, 600 institutions are registered on the exchange.<sup>37</sup> Today, Dubai is one of the world's fastest-growing economies, and oil accounts for only about 5% of its GDP versus nearly half in the 1980s.<sup>38</sup>

#### ***Saudi Arabia's economic cities***

Saudi Arabia is building six economic cities throughout the country. Intended to invigorate local-area economies, the cities are expected to employ a total of 1.3 million people and contribute US\$150 billion to Saudi Arabia's GDP by 2020. The government will act as regulator, facilitator and promoter while private investors and developers will provide the capital and own and develop the land.<sup>39</sup>



The largest, King Abdullah Economic City, located on the Red Sea coast, will cover 168 million square meters. It will include the largest seaport in the region; an industrial zone for industrial and light manufacturing facilities; a central business district of offices, hotels and mixed-use space; a financial district, designed as the region's largest financial center for investment banking, insurance, commercial banking and other financial institutions; a residential and resort zone of hotels, shops, apartments and villas; and an educational zone of primary and secondary schools.

The US\$8 billion Prince AbdulAziz Bin Mousaed Economic City, also known as Rakisa Economic City, is designed as the largest transportation and logistics hub in the Middle East. In January 2008, Jebel Ali Free Zone Authority (Jafza) International, the global free-zone operations arm of Economic Zones World, part of Dubai World, signed a memorandum of understanding with Saudi Arabia's Rakisa Holding for the development and management of Rakisa Economic City.<sup>40</sup>

Another city is the US\$25 billion Knowledge Economic City for knowledge-based industries and companies as well as tourism and services.<sup>41</sup> It is being developed by the Saudi Arabian General Investment Authority and a consortium of Saudi corporations headed by The Savola Group.<sup>42</sup> The other cities are Tabuk Economic City, which will include healthcare and educational institutions;<sup>43</sup> Ras al-Zour Resource City, which will include major aluminum and fertilizer export plants;<sup>44</sup> and Jizan Economic City, which will feature a port,

an industrial zone, a logistic service center, an energy/desalination plant and a residential area.<sup>45</sup> MMC Corporation, a Malaysian contractor, and Saudi Binladen Group are developing Jizan.

#### ***Abu Dhabi: future media center***

Abu Dhabi aims to transform itself into the media center of the Middle East. It has formed a media company, Abu Dhabi Media Company (ADMC), which plans to start producing an English-language newspaper for the Middle East. Last year, Abu Dhabi signed a US\$1 billion agreement with Warner Brothers under which each partner will invest US\$500 million to make big-budget films and video games to be sold internationally. The New York Film Institute has opened a facility in Abu Dhabi, and ADCM is trying to attract other training schools specializing in filmmaking.<sup>46</sup>

#### ***Abu Dhabi: Masdar City***

In Abu Dhabi, ground was recently broken for construction of Masdar City, a nearly self-sustaining "green" city to be built next to Abu Dhabi airport. The 2.3-square-mile (0.213-square meter) car-free city, with a planned population of 50,000, will produce all of its energy from sunlight, and water will come from a solar-powered desalination plant.<sup>47</sup> The first phase, to be completed over the next two years, will be construction of the Masdar Institute, a graduate-level academic research center associated with the Massachusetts Institute of Technology that is intended to foster renewable energy technologies from conception to manufacture.

The US\$15 billion city will be an alternative energy cluster for 1,500 businesses as well as clean-tech venture capital funds, solar and hydrogen power plants, and solar panel manufacturing sites.<sup>48</sup> It is expected to generate 70,000 new jobs, require 75 per cent less electricity than a city of a similar size, and will save oil costs equivalent to US\$2 billion over 25 years.<sup>49</sup> No one will have to walk more than 200 meters (656 feet) before reaching public transport.

#### ***Energy City Qatar***

Qatar is building the US\$2.6 billion<sup>50</sup> Energy City Qatar that includes a US\$1 billion residential component. It is designed to be the Middle East's first energy business center serving the commercial, technical and human resource needs of the oil and gas industry operating in the Gulf region. It will serve as a regional hub for a diverse mix of energy-related companies.<sup>51</sup>

#### ***Kuwait City of Silk***

Kuwait is planning to build the City of Silk, a 250-square-kilometer city near Kuwait City that is intended as a leading trade center in the region. The US\$86 billion project will include Burj Mubarak al-Kabir which, at 1,001 meters tall, currently would be the world's tallest building.<sup>52</sup> The city will include a port, airport, retail facilities, tourist attractions such as hotels, spas and public gardens, and residential complexes for up to 700,000 people. Development is expected to take up to 25 years to complete.

## Social infrastructure

In partnering with the private sector to invest in, develop and operate infrastructure, Middle Eastern countries are moving beyond economic infrastructure, such as roads and mass transit systems, into social infrastructure, including schools, hospitals, healthcare facilities and sports facilities. Countries are expanding and modernizing their educational and healthcare systems to meet the needs of fast-growing populations, to provide the infrastructure to support long-term economic growth and to develop world-class universities and colleges that will enable their citizens to compete in a global economy. As more social projects get started and spending on social infrastructure increases, governments are collaborating more closely with institutions in those areas to develop long-term plans for infrastructure development, including the use of PPPs.

## Outlook

In the Middle East, governments have traditionally contracted with regional or international companies to design and build infrastructure such as airports, ports or roads, and the government agencies have usually operated the infrastructure. While that is still true today, governments are increasingly forming PPPs with the private sector to build and operate projects. Such partnerships provide private investors and contractors with new business opportunities in the Middle East and enable governments to share the risks of project development, draw on the knowledge and experience of the private sector and leverage public investment in infrastructure with private capital. Much of the infrastructure development in the Middle East is now being done by large regional or international companies that are well capitalized, have strong business relationships in the region and are highly experienced in building

and operating infrastructure. If the trend towards greater private participation in infrastructure development continues, however, other companies might also find opportunities in the market. But they will have to cultivate relationships, typically through agents or other intermediaries in the region, and be prepared to invest the time and effort to secure a foothold in the Middle East, a growing infrastructure market that holds much promise for investors and contractors.



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