

REFERENCE GUIDE: ISLAMIC FINANCE FOR INFRASTRUCTURE PPP PROJECTS

REPORT 2019



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Foreword



Having access to basic infrastructure services is absolutely critical to create economic opportunities and bring social services to the poor. Given this, consider the consequences and lost opportunities when 840 million people live more than 2 kilometers from all-weather roads, 1 billion people go without electricity, and 4 billion people cannot access the Internet.

Recent research by the World Bank suggests that—with the right policies—lower- and-middle-income countries need to spend on average 4.5 percent of GDP to deliver infrastructure services and achieve the infrastructure-related Sustainable Development Goals (SDGs).

Do these statistics seem intimidating?

There's good news: associated research finds that these countries already spend between 3.4 and nearly 5 percent of GDP, with a central estimate of around 4 percent. This means getting good infrastructure to more people is within our reach—if we reach smartly.

The international development community has widely agreed that we must engage all stakeholders and potential sources of finance for infrastructure development. The 2030 Sustainable Development Agenda calls for stepping up cooperation, enhancing domestic revenue mobilization, improving public spending efficiency, mobilizing and catalyzing private finance, and enhancing the role of the private sector across a broad spectrum of development activities. The focus on catalyzing more resources for development was reiterated by the 2017 Hamburg principles, where the G20 and multilateral development banks (MDBs)—like the World Bank Group and the Islamic Development Bank Group—highlighted the private sector's potential for providing solutions to vexing development issues.

This means all stakeholders, and MDBs in particular, need to act strategically and cohesively to mobilize novel sources of financing, knowledge, and innovation. As MDBs, our success in achieving this depends partially on helping governments create enabling environments that attract the private sector.

What does this mean, exactly? There's no simple recipe, but certain elements form the backbone of how we can assist governments. These include improving investment climates, strengthening domestic financial markets, promoting sound and sustainable financing practices for debt sustainability, improving governance, and strengthening project pipelines based on robust public investment planning to accommodate expanded financial resources. This not only allows countries to achieve more and better results, it can help ensure inclusive, sustainable growth without pushing the public sector into unsustainable levels of debt and contingent liabilities.

Once enabling environments are in place, we also have a role in encouraging countries to see to it that any specific private sector solutions they consider are properly structured and prepared to ensure economic efficiency, commercial viability, fiscal sustainability, transparency in competitive bidding, and allocation of risks to the party most capable of handling them. As if this list weren't long enough, we should also have an eye on providing value for money; meeting environmental, social and governance criteria; factoring in climate resilience and gender aspects; considering full life-cycle costs; as well as ensuring affordability and social equity. This is significant ground to cover—which is why effective partnership between government, the private sector, and MDBs can help.

Similarly, there is a role for this partnership as it relates to Islamic finance. The quest to mobilize more resources for development is where Islamic finance has a real opportunity to shine even brighter. The global Islamic finance industry recently crossed the \$2 trillion mark in assets and is expected to reach around \$3.5 trillion by 2021. This rapid growth has called the attention of global financial players who are interested in understanding Islamic finance's specific features and mechanisms.

In response, the World Bank Group, the Public-Private Infrastructure Advisory Facility (PPIAF), and the Islamic Development Bank Group published *Mobilizing Islamic Finance for Infrastructure Public-Private Partnerships* in 2017— focusing on two dimensions. First, it aimed to enhance the understanding of the building blocks of Islamic finance as they relate to the financing of infrastructure public-private partnership (PPP) projects. Second, the report examined how Islamic finance fits within the larger infrastructure PPP context. This report saw extensive preparatory consultations among Islamic finance practitioners worldwide and generated significant interest from key stakeholders. These practitioners and stakeholders voiced a need for augmented capacity to scale up the use of Islamic finance and for standardization of documentation across various sectors and asset classes—in effect, a road map for its use.

This Reference Guide is our response to this need. It aims to reduce any added complexity and share more knowledge about Islamic transactions. Ultimately, this will lead to lower transaction costs and greater uptake.

In particular, the guide's case studies are a practical tool to build awareness and capacity among practitioners—including those in the legal, banking, regulatory, and development sectors. They highlight the experiences of countries that have successfully used Islamic finance as an additional resource for their infrastructure PPPs, often alongside conventional financing. Lessons-learned from projects financed under Islamic modes or with an Islamic tranche address the concerns of conventional lenders and show with specificity how *shari'ah*-compliant structures are financed.

The model documentation in the appendices is also a valuable tool towards an initial baseline for standardization. This is fundamental to attracting Islamic finance at scale. Standardization can also significantly demystify the financial and legal aspects of *shari'ah*-compliant structures for newcomers to this resource. Over what we hope is a short period of time, the higher cost of structuring attributed to Islamic finance will even out—creating a more equal playing field for conventional and Islamic finance actors.

We're pleased to have collaborated to jointly publish this guide. Our aim is not to increase the use of Islamic finance to bolster the industry for its own sake. Rather, we are convinced that Islamic finance is a powerful tool that can help developing—including non-Muslim—countries achieve the SDGs and get more infrastructure services to more people.

We note with pride that this is exquisitely aligned with the fundamental values of Islamic finance, which emphasize enduring concern for financial inclusion and social welfare.



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Glossary of Terms

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Concession agreement	A negotiated contract between a company and a government that gives the company the right to operate a specific business within the government's jurisdiction, subject to certain conditions. ^a
<i>Istiṣnā'</i>	Manufacturing contract whereby a manufacturer agrees to produce (build) and deliver a specific asset in the future and where the sale price may be spot payable, amortized or deferred. ^d
<i>Ijārah</i>	A lease. More precisely, the sale of <i>manaḥa'ah</i> (usufruct) for a specific rent and for a specific period. ^d
<i>Muḍārabah</i>	A limited partnership whereby one partner (the capital owner) provides capital and the other partner undertakes a business activity (the manager). Profits are shared between them as agreed, but any financial loss is borne only by the capital owner, unless the manager has been grossly negligent or acted in willful default of its duties. ^d
<i>Muḍārib</i>	The managing partner in a <i>muḍārabah</i> contract providing work, entrepreneurship, and management. ^d
<i>Murābahah</i>	A sale of goods with an agreed profit mark-up on the cost price. ^d
<i>Mushārahah</i>	Partnership whereby all the partners contribute capital in cash or in-kind for a business venture. The partners share profits on pre-agreed ratios, while losses are shared according to each partner's capital contribution. ^d
Off-taker agreement	An agreement that takes place between a producer and a buyer before the construction of a facility that guarantees a market for the future production of a facility. ^a
Parallel financing	The coexistence of Islamic finance and conventional finance. ^d
Public-private partnership (PPP)	A long-term contract between a private party and a government entity to provide a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance. ^b
<i>Shari'ah</i>	Islamic law. ^d
<i>Shari'ah-compliant finance (Islamic finance)</i>	The banking and financial system that offers services and products compliant with <i>shari'ah</i> . ^a

Special purpose vehicle (SPV) or project company	This is the corporate entity created to manage the project. It is usually incorporated in the hosting country and in most cases the project company is quoted as the project name. ^c
Sponsor	Sponsors are private entities that together have an equity participation in the project contract for greenfield projects, brownfield projects, and management and lease contract. ^c
<i>Sukūk</i>	The equivalent of “Islamic bonds,” but more accurately described as certificates representing a proportionate ownership interest in underlying assets services or other activities that generate a cash flow. ^d
<i>Takāful</i>	Solidarity and mutual support. It is the Islamic version of insurance. ^d
<i>Wakālah</i>	Agency. A contract whereby a principal appoints an agent to perform a certain task on its behalf, usually for payment of a fee or a commission. ^d

Sources:

- a. Definitions from the World Bank Group.
- b. Definitions from the *PPP Reference Guide, Version 3.0* (World Bank Group et al. 2017), <https://library.pppknowledge.org/documents/4699>.
- c. Definitions from the Private Participation in Infrastructure database.
- d. Islamic Research and Training Institute (IRTI) Glossary of Islamic Terms Used in the Literature of Islamic Economics, Banking and Finance, as elaborated in *The Global Report on Islamic Finance–Islamic Finance: A Catalyst for Shared Prosperity?* (World Bank and Islamic Development Bank Group 2016), updated for the purposes of the current report with the help of Mohammed Paracha, Head of Islamic Finance at Norton Rose Fulbright.

Acronyms

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
AIG	Airport International Group
AMF	Arab Monetary Fund
BOT	build-operate-transfer
CIBAFI	General Council for Islamic Banks and Financial Institutions
DCT	Doraleh Container Terminal Project (Djibouti)
DP World	Dubai Ports World
EPA	energy purchase agreement
EPC	engineering, procurement, and construction
FWEL-I	Foundation Wind Energy-I Limited
FWEL-II	Foundation Wind Energy-II (Private) Limited
GCC	Gulf Cooperation Council
GDP	gross domestic product
GoDj	Government of Djibouti
GoJ	Government of Jordan
GoP	Government of Pakistan
GoT	Government of Turkey
IA	implementation agreement
IASB	International Accounting Standards Board
ICD	Islamic Corporation for the Development of the Private Sector
ICIEC	Islamic Corporation for the Insurance of Investment and Export Credit
IIFA	International Islamic Fiqh Academy
IFC	International Finance Corporation (World Bank Group)
IFSB	Islamic Financial Services Board
IIFM	International Islamic Financial Market

IILM	International Islamic Liquidity Management
IMF	International Monetary Fund
IPP	independent power producer
IRTI	Islamic Research and Training Institute
IsDB	Islamic Development Bank
IsDBG	Islamic Development Bank Group
kWh	kilowatt hour
MDBs	multilateral development banks
MENA	Middle East and North Africa
MIGA	Multilateral Investment Guarantee Agency (World Bank Group)
MoF	Ministry of Finance
MoH	Ministry of Health
NTDC	National Transmission & Despatch Company (Pakistan)
OIC	Organization of Islamic Cooperation
O&M	operation and maintenance
PAID	Port Autonome International of Djibouti
PCG	partial credit guarantee
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	public-private partnership
PRI	political risk insurance
QAIA	Queen Alia International Airport (Jordan)
REO	rehabilitation, expansion, and operation
SPV	special purpose vehicle
SWF	sovereign wealth fund
TEUs	twenty-foot container equivalent units

Note: All dollar amounts are in US dollars, unless otherwise noted.



EXECUTIVE SUMMARY

The need for infrastructure development remains one of the greatest global challenges for public policy. It is estimated that the global economy will need to invest around \$90 trillion in infrastructure assets through 2030 (Bhattacharya, Oppenheim, and Stern 2015).

These economies will need to double their current spending on infrastructure investment to meet the service delivery needs (Ruiz-Nuñez and Wei 2015). In the face of weak public fiscal space, bridging the infrastructure service delivery needs in emerging markets requires much greater involvement of the private sector.

The Islamic finance market can serve as a complimentary source of finance for infrastructure development in emerging markets. Even though Islamic finance remains relatively untapped -- it only accounts for a small percentage of global financial markets -- it has experienced strong growth over the past two decades. The industry is expected to reach around \$3.5 trillion in assets by 2021 (Thomson Reuters 2016).

With this rapid recent growth in the Islamic finance industry, global players in the financial market have

developed an interest in understanding its specific features and mechanisms. This Reference Guide aims to shed light on the most important aspects of Islamic finance as they relate to infrastructure public-private partnerships (PPPs). The Guide covers the role Islamic finance can play in the infrastructure financing challenge, the major players in the global Islamic finance industry, the potential alternatives offered by Islamic finance to meet the public infrastructure financing challenge, and the Islamic finance structures for infrastructure PPP projects. In addition, the Guide provides extensive case studies of *shari'ah*-compliant cases and legal templates that match the different structures discussed.

Islamic finance provides a great opportunity to finance social and economic infrastructure development. The asset-based approach of Islamic finance promotes using tangible or intangible assets in transactions, which makes infrastructure assets perfect candidates for financing by Islamic finance methods. Islamic finance and infrastructure PPPs' basic principles require risk sharing. This allows capital providers to participate in the underlying economic activities and contribute to social and economic development. Furthermore, Islamic finance also promotes socially responsible infrastructure

investments which aligns with the development goals of interested economies (World Bank Group, PPIAF, and IsDB 2017). Chapter 1 explores the roles and contributions of Islamic finance in meeting global infrastructure challenges.

An enabling environment is needed to carry out any successful infrastructure investment with the private sector (such as PPPs). Similarly, when applying Islamic finance in a jurisdiction, a strong legal and regulatory framework needs to be in place that treats Islamic finance and conventional finance in the same manner with respect to such matters as tax, dispute resolution, liquidation, and termination.

Conventional and Islamic financiers have common requirements in terms of a project's bankability. However, Islamic finance presents additional requirements based on Islamic jurisprudence. The project being financed must also be within the *shari'ah* permissible realms of business (World Bank Group, PPIAF, and IsDB 2017).

Islamic finance requires careful documentation and transparency. Applying Islamic finance together with conventional finance would be a preferable way to harmonize the two financing platforms, given that mechanisms exist to ensure equal treatment and terms. Tremendous work has already been undertaken to standardize documentation of Islamic finance across various sectors and asset classes. The complexity has been minimized with the help of experts in international and local law firms.

Major players in global Islamic financial markets can be categorized by their roles: standard setting organizations; investors; customers; credit rating agencies (CRAs); international institutions; central banks, *shari'ah* boards, and capital markets. These broad categories of players in the Islamic finance industry form the overall Islamic finance eco-system which is somewhat similar to the categories of players in the conventional finance industry. This similarity facilitates the understanding of the global Islamic financial markets. The one institution that is exclusive to Islamic finance are *shari'ah* boards,

which play a crucial role in this market. Chapter 2 sheds light on the global players in Islamic finance industry.

As Islamic finance has become a global phenomenon in recent decades, new players have started to emerge. Many actors in developed countries have become interested in Islamic finance and in playing important roles in today's market. Financial centers such as London and Luxembourg aim to become Islamic finance hubs, as well. Global trends in infrastructure investments indicate that public sector contribution has been increasing in emerging markets and low-income developing countries since 2000 (IMF 2015). Islamic finance offers alternatives to meet the public infrastructure financing challenge. Chapter 3 of this Reference Guide focuses on issuances of *sukūk* by governments as a tool to finance public infrastructure investments and on the challenges and solutions for countries applying Islamic finance for their infrastructure investments.

Infrastructure PPP projects can be financed in a *shari'ah*-compliant manner by applying equity financing through *muḍārabah* (partnership in profit), *wakālah* (agency), and *mushārah* (contractual partnership); or debt-like financing through *murābahah* (sale with profit), *bai al-mua'jjal* (credit sale or deferred payment sale), *istiṣnā'* (build/manufacture), *salam* (advance purchase), and *ijārah* (leasing).

In practice, the most frequently used structures in Islamic project finance are a combination of two separate structures in one transaction: *istiṣnā'-ijārah* (procurement and leasing); *wakālah-ijārah* (agency and leasing); and *mushārah-ijārah* (contractual partnership and leasing).

Structuring an infrastructure PPP project in a *shari'ah*-compliant manner will essentially depend on the nature of the project itself. If the project is a "brownfield" project, in which the project company is expected to already have assets, the typical Islamic finance structure would be a sale and leaseback arrangement. In contrast, for a "greenfield" project, in which the assets need to be created or acquired, the most suitable Islamic

finance structures would be an *istiṣnāʿ* (procurement)-based financing, an *istiṣnāʿ-ijārah* (procurement and leasing)-based financing, a *wakālah-ijārah* (agency and leasing)-based financing, or a *mushārahah-istiṣnāʿ-ijārah* (partnership, procurement, and leasing)-based financing. Some other financing structures are suitable for Islamic finance-backed PPP transactions, such as *murābahah* (sale with mark-up), *muḍārabah* (partnership in profit), or a project *sukūk* (Islamic certificate). Local regulatory requirements also play an important role in choosing the right Islamic finance structure. The appendices to the report contain detailed legal templates to guide various finance structures. Chapter 4 discusses various Islamic finance structures that have been used to finance infrastructure PPP projects.

Despite the differences between Islamic and conventional facility documents, the terms used in the former are somewhat comparable to their conventional counterparts to ensure similar commercial effects and understanding. Also, it is common to include both Islamic and conventional financings with similar commercial terms, benefits, and connotations in an infrastructure PPP project.

The Reference Guide includes four case studies in chapters 5, 6, 7, and 8 to illustrate how the different *shariʿah*-compliant structures have been used in infrastructure PPPs. The Doraleh Container Terminal Project in Djibouti, presented in chapter 5, demonstrates the feasibility of the application of conventional political risk insurance cover in a project funded by an Islamic financing structure.

The case study of Queen Alia International Airport in Jordan is presented in chapter 6. This project demonstrates the value that private sector capital can bring to infrastructure financing and the role that MDBs and government can play in facilitating private investment. In this instance, MDBs played a vital role in structuring and financing

“first-ever” PPP projects, where commercial banks are reluctant to go on their own.

The Foundation Wind Projects (Foundation Wind Energy-I Limited (FWEL-I) and Foundation Wind Energy-II (Private) Limited (FWEL-II) in Pakistan are described in chapter 7. The projects demonstrate the flexibility in structuring various *shariʿah*-compliant Islamic finance instruments to accommodate a diverse group of financiers and project specifics.

Finally, the Konya PPP Health Campus Project in Turkey is showcased in chapter 8. The Konya case shows that Islamic finance structures are flexible enough to accommodate various infrastructure investment projects, sectors, and countries, making its lessons potentially applicable to any context.

In addition, this Reference Guide provides a complete set of Islamic finance template agreements as practical tools which can be applied, with due modification, to a host of infrastructure projects. The Mobilizing Islamic Finance for Infrastructure PPPs report (World Bank Group, PPIAF, and IsDB 2017) included extensive consultations among Islamic finance practitioners worldwide and upon publication generated interest from Islamic finance stakeholders. The different groups of practitioners and stakeholders voiced a need for augmented capacity and for follow-up work diving deeper into each aspect of Islamic finance applied to infrastructure and PPPs. One particular need highlighted was the need for Islamic finance template agreements. This Reference Guide aims to address these gaps, answer various questions about Islamic finance, and offer guidance to investors and backers interested in participating in infrastructure PPPs funded with conventional and Islamic finance, and sharing in their enormous potential leading to the mobilization of more capital for infrastructure PPP projects.



CHAPTER 1

The Infrastructure Service Delivery Challenge and the Role of Islamic Finance

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1.1 THE HUGE NEED FOR INFRASTRUCTURE INVESTMENT

Estimates indicate that the global economy will need to invest around \$90 trillion in infrastructure assets through 2030, according to a report by the Brookings Institution (Bhattacharya, Oppenheim, and Stern 2015). This estimate factors in the need for additional investment in infrastructure to fight climate change.

The link between infrastructure development and growth is very robust. Better infrastructure facilitates manufacturing, services, and trade within a country. It enables sound economic development, creates jobs, and helps transportation of goods and services. Any economy needs reliable infrastructure to connect supply chains and efficiently move goods and services across borders. Sound infrastructure also improves the quality of life for citizens, raises benefits, supports the protection of vital natural resources and the environment, and facilitates a more efficient use of financial resources. Furthermore, essential infrastructure services can

reduce inequality and foster inclusion (Calderón and Servén 2010).

Since D. A. Aschauer's pioneering work in 1989, which posed the question, "Is public expenditure productive?" almost 30 years of research has examined the possible development gains from investing in infrastructure. Aschauer (1989) highlighted the significant importance of public investment on economic growth and productivity improvement, arguing that "core" infrastructure, including roads, highways, airports, mass transit, sewers, and water systems, has substantial explanatory power for productivity. The significant impact of infrastructure development on sustainable growth is well recognized and widely accepted by policy makers, practitioners, and academicians.

The need for infrastructure development remains one of the greatest global challenges and the biggest issues for public policy worldwide. Infrastructure has remained

a key priority for the Group of Twenty (G20) over the last several years. Both advanced and emerging markets need to address this issue. Advanced economies need to replace their aging infrastructure and focus on making it sustainable. For emerging markets, the issue is much more important because they need basic infrastructure to foster economic growth and living standards, reduce unemployment, and alleviate poverty. Urbanization, proactive government policies, population growth, and a growing private sector contribution to the economy are all increasing the need of infrastructure development in emerging markets.

Addressing the infrastructure service delivery gap in emerging markets requires much greater involvement of the private sector. Given that government finances are limited yet many governments are facing fiscal pressure, tapping all possible financial resources and the expertise of the private sector are major priorities. Using public-private partnerships (PPPs) and attracting institutional investors to infrastructure projects have become popular in recent decades. McKinsey argues that the vast majority of infrastructure will likely continue to be financed by the public and corporate sectors (Woetzel et al. 2016). The McKinsey report states that even though PPPs are usually advocated as a solution for infrastructure service gaps, they make up only about 5 percent to 10 percent of overall investment in economic infrastructure. Hence, according to the same report, public finance is still the primary source of funding and there are opportunities to increase private financing and meet the investment needs.

The Islamic finance market can serve as a complimentary source of finance for infrastructure development in emerging markets. Even though Islamic finance accounts for a tiny percentage of global financial markets, it has been demonstrating strong growth. The potential of Islamic finance suggests that it can help finance infrastructure investments as well. The Islamic Economy Leaders Survey of 172 industry leaders by Thomson Reuters (2017) showed that 23 percent of respondents see *sukūk* infrastructure financing as the major growth opportunity for the sector.¹ The Islamic Financial Services Board (IFSB 2018) calculates that approximately 12 percent of *sukūk* issuances in 2017 (\$11.25 billion) are dedicated to infrastructure financing. S&P (2018) argues that Islamic finance can be a cure for Africa's infrastructure investment needs.

This chapter investigates how Islamic finance can help meet the infrastructure challenge, primarily in member countries of the Organization of Islamic Cooperation (OIC). The next section examines the current infrastructure position in OIC member countries and the infrastructure needs to achieve sustainable growth. The third section discusses how Islamic finance relates to infrastructure investments and describes the main types of Islamic finance methods. The fourth section shows how Islamic finance can be utilized for infrastructure investments in OIC member countries. The final section discusses the benefits Islamic finance can offer to non-OIC member countries.

1.2 INFRASTRUCTURE NEEDS IN OIC MEMBER COUNTRIES

The infrastructure challenges in OIC member countries were discussed briefly in a report published by the World Bank Group, PPIAF, and IsDB in 2017, *Mobilizing Islamic Finance for Infrastructure Public-Private Partnerships*. This chapter continues the discussion with more detail and aims to shed light on the infrastructure needs in OIC member countries.

There are 57 countries in OIC and all of them are classified as developing economies by the World Economic Forum (WEF). Thus, the types of challenges they face are shared by other emerging economies. The International Monetary Fund (IMF) reports that the main obstacles to scaling up public investment in economic infrastructure for developing countries are

human and physical resource capacity constraints, administrative capacity constraints, limits on debt accumulation, availability of domestic resources, and availability of external resources (Gurara et al. 2017). These challenges emerge in combination and there is no single dominant obstacle for these economies. Strengthening the role of the private sector, developing local capital markets, increasing access to concessional external financing, and improving efficiency in infrastructure projects can be some important measures to address these challenges (Gurara et al. 2017).

Analysis about infrastructure needs generally use regional and income level classifications of countries. Regional classification includes the Middle East and North Africa (MENA), Sub-Saharan Africa (SSA), Europe and Central Asia (ECA), South Asia (SAR), East Asia and Pacific (EAP), and Latin America and the Caribbean (LAC), as shown in table 1.2. On the other hand, the most common categories by income levels are high-income, low-income, lower-middle-income ,

and upper-middle-income². Because there is no specific data about the infrastructure needs of specific OIC member countries, categorizing OIC member countries by region and income level could provide an idea about the infrastructure needs in these countries. Table 1.2 is based on the World Bank income grouping methodology (according to countries' per capita GDP levels) and the World Economic Forum regional classification.³ There are 20 OIC members in the Middle East and North Africa, 20 members in Sub-Saharan Africa, 8 members in Europe and Central Asia, 4 members in South Asia, 3 members in East Asia and Pacific, and 2 members in Latin America and the Caribbean. According to income level categorization, 15 countries are in the low-income group; 19 are in the lower-middle-income group; 16 are in upper-middle-income group, and 7 are in the high-income group.⁴ All OIC member countries are classified as developing countries by different institutions such as the World Bank, the IMF, and the United Nations.

TABLE 1.1: OIC Member Countries Classification by Region and Income Level

	High-income (7)	Upper-middle-income (16)	Lower-middle-income (19)	Low-income (15)
Middle East and North Africa (20)	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates	Algeria, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Tunisia	Djibouti; Egypt, Arab Rep.; Morocco; West Bank and Gaza; Sudan; Syrian Arab Republic; Yemen	
Sub-Saharan Africa (20)		Gabon	Cameroon, Côte d'Ivoire, Mauritania, Nigeria, Senegal	Benin, Burkina Faso, Chad, Comoros, The Gambia, Guinea, Guinea-Bissau, Mali, Mozambique, Niger, Sierra Leone, Somalia, Togo, Uganda
Europe and Central Asia (8)		Albania, Azerbaijan, Kazakhstan, Turkey, Turkmenistan	Tajikistan, Uzbekistan, Kyrgyz Republic	
South Asia (4)		Maldives	Bangladesh, Pakistan	Afghanistan
East Asia and Pacific (3)	Brunei Darussalam	Malaysia	Indonesia	
Latin America and the Caribbean (2)		Suriname	Guyana	

Source: World Bank compilations.

Table 1.2 shows that 88 percent of OIC member countries are in the middle- and low-income categories. According to a report published by the World Bank, the investment requirements as a share of GDP are 14.1 percent in low-income countries, 3.4 percent in lower-middle income countries, and 2.6 percent in upper-middle income countries (Ruiz-Nuñez and Wei 2015). Hence, large infrastructure needs and their financing become an even more serious challenge for middle- and low-income OIC member countries.

The World Economic Forum's *Global Competitiveness Report 2017* provides a detailed picture about current

infrastructure position of countries around the world. Refining OIC members' infrastructure rankings from the database and comparing them with non-OIC member countries' data could facilitate the analysis of the infrastructure challenge within OIC member countries. Table 1.3 summarizes basic infrastructure rankings of OIC and non-OIC developing countries. The best infrastructure is indicated by the entry 1 and the worst infrastructure by the entry 140. Therefore, the higher the number in the table, the lower the country's ranking on infrastructure and the worse the quality of the country's infrastructure. Data are available for only 38 of 57 OIC member countries.

TABLE 1.2: Global Rankings on Infrastructure for Selected OIC Members and Other Developing Economies

	OIC members				All developing economies, except for OIC members			
	Highest	Lowest	Average	Median	Highest	Lowest	Average	Median
Overall infrastructure	4	137	80	76	38	135	90	93
Roads infrastructure	1	137	76	76	29	136	88	92
Railroad infrastructure	10	101	60	59	17	98	67	69
Port infrastructure	4	137	76	75	6	136	90	93
Air transport infrastructure	3	136	80	91	11	137	87	88
Available airline seat km/week, millions	1	137	75	71	2	136	81	84
Electricity supply	16	137	84	91	37	135	91	91
Mobile telephone subscriptions/100 population	2	135	73	84	5	137	79	81
Fixed telephone lines/100 population	22	137	90	95	25	136	87	89
Global Competitiveness Index	2	137	83	91	27	134	88	90

Source: World Bank, based on the World Economic Forum's 2017 Global Competitiveness Report.

Note: 1 = highest-ranked; 140 = lowest ranked. OIC = Organization of Islamic Cooperation.

Table 1.3 reveals the extent to which OIC member countries need infrastructure investment. Average rankings indicate that OIC member countries require

significant amounts of infrastructure investments in all areas. The lowest rankings of all categories except railroad infrastructure are very close to 140, which

is the lowest ranking for all countries ranked by the survey. Moreover, median rankings are in the range of 75 to 95, which imply that the member country at the mid-point belongs to lower 50 percent of rankings.

The median ranking for overall infrastructure indicates that OIC member countries are in better position than non-OIC developing countries. However, this result should be interpreted with caution. As noted, there are no data for 19 OIC members, which are almost all low-income countries and lack some basic infrastructure. Hence, the overall situation in OIC members is even worse than what is demonstrated in the table. OIC member countries have the worst median rankings in fixed telephone lines, electricity supply, and air transport infrastructure. However, OIC member countries as a group do best in roads, railroads, port, and airline seats infrastructure. Furthermore, in almost all categories, OIC member countries have better median rankings in 2017 compared to the rankings in 2016.

Estimating infrastructure needs and analyzing infrastructure investment in developing countries, specifically in OIC members, are difficult tasks due to the lack of reliable and comparable data. However, it is still possible to reach the broad conclusion, with the help of the estimates by regional and income-level classifications of countries, that OIC member countries need to scale up infrastructure investments.

1.3 ISLAMIC FINANCE AS A NATURAL FIT FOR INFRASTRUCTURE INVESTMENTS

As the World Bank Group, PPIAF, and IsDB (2017) report explains in detail, the basic principles and asset-backed approach of Islamic finance make it a viable option for infrastructure financing. Basic principles require risk sharing and the asset-backed approach promotes using tangible or intangible assets in transactions. Risk sharing allows the capital providers to participate in the underlying economic activities, thus contributing to social and economic development.

Generally, the public sector provides the bulk of infrastructure in low-income developing countries. Public investment as a percentage of GDP in low-income developing countries has increased since 2000, an IMF working paper finds (Gurara et al. 2017). Median public investment in low-income developing countries was 5.5 percent of GDP in 2000 and increased to a peak of 7.1 percent of GDP in 2010. Because of the negative impacts on governments' fiscal balance during and after the global financial crisis, public investments temporarily slowed in 2011. It rose to 6.7 percent of GDP in 2015, and dipped slightly to 6.4 percent in 2016, the latest year for which data are available (Gurara et al. 2017). Investment in economic infrastructure accounted for about half this amount. More precisely, the median investment level hovered around 3 percent of GDP in 2011–14, then dropped below 2.5 percent in 2015 (Gurara et al. 2017).

On the other hand, the increasing importance of the private sector share in infrastructure development is well recognized. Independent of the source of the funding, either public or private, Islamic finance can help address the financing challenge for infrastructure investment. The next section discusses the natural fit between Islamic financing methods and infrastructure investments.

Infrastructure are either tangible or intangible assets, making them perfect candidates for being financed by Islamic finance methods.

Islamic finance encourages partnership structures and risk sharing, which appears in the form of sharing both profit and loss. These aspects of financing methods facilitate the application of Islamic finance to public-private partnerships. Islam also promotes socially

responsible infrastructure investments. Hence, Islamic finance has huge potential to finance social infrastructure development.

There are several options in the Islamic finance toolkit to finance infrastructure investments. Table 1.4 presents the major structures according to the underlying financial contracts.

TABLE 1.3: Widely Used Islamic Finance Methods for Infrastructure Investments

Transaction type	Contract	Brief definition
Asset-based	<i>Ijārah</i> (leasing)	A contract that permits one party (the lessee) to use an asset or property owned by another party (the lessor) for an agreed-upon price over a fixed period.
Sale-based	<i>Murābahah</i> (cost-plus)	A sale contract of a good or property with an agreed profit against a deferred or a lump sum payment.
	<i>Istiṣnā'</i>	A contract to manufacture goods, assemble or process them, or to build a structure according to exact specifications and a fixed timeline. Payments are made as work on the property is finished.
Equity-based	<i>Mushārahah</i> (joint venture)	A contract between two or more parties to establish a commercial enterprise based on capital and labor. The profit and loss are shared at an agreed proportion according to the amount of contribution.
	<i>Muḍārabah</i> (profit and loss sharing)	A contract between two parties; one provides the capital and the other provides the labor to form a partnership to share the profits by certain agreed proportions.
Certificate-based	<i>Sukūk</i>	Financial instruments representing an undivided ownership share in an underlying asset or interest held by the issuer.

Source: World Bank Group, PPIAF, and IsDB 2017.

All the contracts in table 1.4 can be used for infrastructure financing, as discussed in the joint World Bank Group, PPIAF, and IsDB (2017) report. *Salam* contracts (by which full payment for a good is paid in advance but the delivery of the good is made at an agreed future date) and *wakālah* contracts (which entail contracting an agency to do any work or provide any service on behalf of any other) also offer eligible financing structures for infrastructure development.

Insurance is commonly used to mitigate the risks in infrastructure investments. In the Islamic finance toolkit, the *takāful* contract performs this function and insures the investments. It works based on the principle of mutual insurance. Each participant in *takāful* contributes to the fund and receives payment if he or she incurs a loss due to the covered risks. Islamic finance, with its methods and supporting tools (like *takāful*), is a viable complementary choice for financing infrastructure projects.

1.4 ENABLING ENVIRONMENT TO APPLY ISLAMIC FINANCE

While the Islamic finance toolkit includes several financing methods that can be deployed for infrastructure investment, an enabling environment is needed to carry out a successful infrastructure investment with the private sector (such as PPPs). One important factor to apply Islamic finance in a jurisdiction is the existence

of a strong legal and regulatory framework. These include treatment of Islamic finance and conventional finance in the same manner with respect to such matters as taxation, dispute resolution, liquidation, and termination.

In this context, other major considerations can be categorized as feasible project requirements (on the demand side), attracting investors (on the supply

side), and the role of multinational development banks (MDBs).

BANKABLE PROJECTS

Fundamentally, projects should be feasible and bankable to encourage the private sector to participate. A bankable project ensures an acceptable risk allocation among capital providers (in terms of debt and equity) and has appropriate risk mitigation arrangements that increase the investor's willingness to invest into the project. To meet these goals, credit-rating agencies undertake a generic five-step risk analysis: (i) identifying key risks;

(ii) allocating risk through contracts, insurance, and guarantees; (iii) quantifying the risks; (iv) reviewing the financial structure (documentation, leverage, covenants, and so on); and (v) projecting the long-term cash flows. Having experienced lead sponsors is a critical requirement to perform the risk analysis. Other important requirements for a bankable project are summarized in table 1.5.

TABLE 1.4: Requirements for a Bankable Project

Project characteristics	Enabling environment
Well-defined projects	Improved legal regime (rule of law)
Experienced contractors	Political commitment to specific project(s)
High quality predictable cash flows/low volatility	Competition among construction companies
Protection from adverse events, change in law, force majeure, and so on	Availability of capital markets (especially long-term debt markets)
Reliable completion undertakings	Transparent procurement process

Source: Based on Maggiora 2014.

The requirements for bankable projects are common for conventional and Islamic project financing. However, Islamic finance requires an additional requirement that is based on Islamic jurisprudence. The project itself must

be within the permissible realms of business allowed by *shari'ah*.⁵ More specifically, and business transactions should be free from speculation and gambling (World Bank Group, PPIAF, and IsDB 2017).

INVESTOR APPETITE

Rolling out a bankable project is necessary to attract investors into the project, but it is not sufficient. More steps need to be taken to increase investor appetite for Islamic infrastructure projects. Islamic finance requires careful documentation and transparency. To alleviate confusion and complexity, documentation should be clarified in terms of specific Islamic terminology and possible outcomes. Moreover, applying Islamic finance

together with conventional finance would be a preferred way to harmonize the two financing platforms.

The World Bank Group, PPIAF, and IsDB (2017) report presents many examples in which Islamic and conventional finance practices have been applied together. Experience shows that there is a natural fit between Islamic and conventional finance in terms

of documentation and deals level. As well explained in the World Bank Group, PPIAF, and IsDB (2017) report, the documentation for Islamic and conventional investors can be structured in a way that ensures that both groups of financiers benefit from the same or very similar commercial terms. Furthermore, investors, independently of their types (Islamic or conventional) are ranked as senior and share security on a pro rata and *pari passu* basis. To ensure similar treatment for both groups of financiers, core financing agreements such as common terms agreements, intercreditor agreements and common accounts agreements are designed to incorporate both conventional and Islamic financiers. Other documents specific to Islamic finance have been standardized to a great extent across various sectors and

asset classes. The complexity has been minimized with the help of experts in international and local law firms.

The nature of Islamic finance should be well defined in order to avoid complexities that discourage investors. As mentioned, tremendous work has been undertaken in this regard. However, all these improvements have not been communicated effectively to the market and investors. This issue highlights the importance of knowledge dissemination. By disseminating knowledge, misconceptions and misunderstandings among the investors, managers, and employees in financial markets can be removed, while enabling all players in the market to be aware of the legislative and regulatory issues that need to be addressed and equipping them with knowledge to protect themselves (Shaharudin 2013).

THE ROLE OF MULTILATERAL DEVELOPMENT BANKS

Multilateral development banks (MDBs) have key roles to apply Islamic finance to infrastructure investments. They are often lenders and co-financiers of infrastructure projects in developing countries. As investors, MDBs have different characteristics than other financial investors. First, their source and cost of financing are different. They are funded by their member countries and are usually assigned the highest credit ratings, which make their cost of financing lower than other investors. Second, their focus is promoting development. This emphasis on the development aspect allows them to be more flexible in their pricing. Third, they have more expertise in this realm.

The advantageous position of MDBs can be utilized for infrastructure development in OIC member countries via Islamic finance. MDBs can provide capital with affordable conditions by using methods discussed earlier in this chapter. In addition, they have the capacity to provide expertise to these countries. The Islamic Development Bank does business exclusively based on Islamic jurisprudence. Other big MDBs have Islamic windows and can engage in Islamic finance. Moreover, MDBs have very wide geographic coverage that can be used to promote Islamic finance. Raising awareness about Islamic finance and how it could be a natural fit for conventional finance are two key issues that MDBs can help with their extensive network of members.

1.5 ISLAMIC FINANCE FOR NON-OIC MEMBER COUNTRIES

This chapter highlights the potential of Islamic finance as a tool of financing infrastructure investments in OIC member countries. However, there is no restriction for non-OIC developing countries to reap the benefits of Islamic finance.

In the aftermath of the latest global financial crisis, governments have been trying to diversify their funding options. Islamic finance has stood out as a plausible option for these countries. Currently, various non-OIC member countries are interested in Islamic finance in

some form. Islamic finance services are available in 39 non-OIC member countries and total assets amount to \$30 billion, which accounted for 1.4 percent of total global Islamic finance assets in 2016 (Thomson Reuters 2018). The largest non-OIC Islamic finance markets by

total assets are in the United Kingdom (\$6.9 billion), Switzerland (\$6.88 billion), and the United States (\$2.9 billion). Table 1.6 presents the number of non-OIC member countries interested in Islamic finance and their respective assets amount by region.

TABLE 1.5: Islamic Finance in Non-OIC Member Countries by Region

Region	Number of countries	Total Islamic assets (\$ billion)
Europe	12	16.6
Southeast Asia	3	4.0
Sub-Saharan Africa	11	3.7
Americas	4	3.1
Other Asia	9	2.6
Total	39	30

Source: Thomson Reuters 2018.

The essential nature of Islamic finance is the reliance on investments in the real economy rather than on speculation. Given all its other principles and promising

features, Islamic finance can help non-OIC developing countries finance their infrastructure needs as well.

NOTES

- ¹ *Sukūk* are certificate-based financial instruments representing an undivided ownership share in an underlying asset or interest held by the issuer.
- ² These assignments are based on gross national income (GNI) per capita calculated using the Atlas method.
- ³ “Global Competitiveness Index 2017–2018,” World Economic Forum (WEF), <http://reports.weforum.org/global-competitiveness-index-2017-2018/competitiveness-rankings/#series=EOSQ056> (accessed July 1, 2018).
- ⁴ “Financial Outlook of the OIC Member Countries 2017,” Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC) <http://www.mod.gov.tr/Lists/RecentPublications/Attachments/147/Financial%20Outlook%20of%20the%20OIC%20Member%20Countries%202017.pdf> (accessed July 1, 2018).
- ⁵ Shari’ah does not permit interest-based instruments and trades or commodities such as gambling, alcohol, or weapons.



CHAPTER 2

Global Islamic Finance Players

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2.1 INTRODUCTION

The global Islamic finance industry has expanded greatly over the past two decades and total assets of the industry surpassed the \$2 trillion benchmark by the end of 2017 (IFSB 2018). The industry is expected to reach around \$3.5 trillion in assets by 2021 (Thomson Reuters 2016). The rapid growth of the Islamic finance industry has attracted the attention of many players in the global financial markets. Because Islamic finance has its own features and characteristics, some players have a hard time understanding the overall picture of the Islamic finance industry. This chapter aims to shed light on one of the most important aspects: the major players in the global Islamic finance industry. Having a clear picture about the key players and

their roles can facilitate understanding about how the market works.

Major players in global Islamic financial markets can be categorized by their roles as follows: standard-setting organizations; investors; borrowers; credit rating agencies; international institutions; and others, including central banks, *shari'ah* boards, stock exchanges, and consultants. These broad categories of players in the Islamic finance industry are similar to the categories of players in the conventional finance industry. Using similar categories facilitates understanding of the global Islamic financial markets. The next section discusses the main institutions under these categories and their roles in the market.

2.2 KEY PLAYERS IN GLOBAL ISLAMIC FINANCIAL MARKETS

STANDARD-SETTING ORGANIZATIONS

Standard-setting organizations issue global standards and guiding principles, publish annual reports, and sometimes supervise other players. In Islamic financial

markets, there are three key standard-setters: the Islamic Financial Services Board (IFSB), the International Islamic Financial Market (IIFM), and the Accounting

and Auditing Organization for Islamic Financial Institutions (AAOIFI).

The Islamic Financial Services Board (IFSB)

The IFSB was established in 2002. It “promotes and enhances the soundness and stability of the Islamic financial services industry by issuing global prudential standards and guiding principles for the industry, broadly defined to include banking, capital markets and insurance sectors.”¹ The IFSB issues new standards when necessary and adapts existing international standards consistent with *shari’ah* principles and recommend these for adoption. It works in close cooperation with the International Monetary Fund (IMF) and Basel Committee on Banking Supervision. As of December 2017, the IFSB had 185 members, comprising 75 regulatory and supervisory authorities, 8 international intergovernmental organizations, and 102 market players (financial institutions, professional firms, industry associations, and stock exchanges) operating in 57 jurisdictions.² The IFSB is hosted by Malaysia.

International Islamic Financial Market (IIFM)

The IIFM was established in 2002 by the governors of the central banks/monetary agencies of Bahrain, Indonesia, Malaysia, and Sudan, and the President of the Islamic Development Bank (IsDB). Its focus is on standardization of Islamic financial contracts and product templates relating to the capital and money

markets, corporate finance, and trade finance segments of the Islamic financial services industry.³ The IIFM is based in Bahrain and hosted by the Central Bank of Bahrain. Other mandates of the institution are addressing the issue of liquidity management in Islamic financial institutions, developing an active secondary market, and helping the harmonization of *shari’ah* interpretations in the global financial markets.

Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI)

The AAOIFI was established in 1991 and is based in Bahrain. It has issued a total of 100 standards in the areas of *shari’ah*, accounting, auditing, ethics, and governance for international Islamic finance. Islamic financial institutions are encouraged to adopt AAOIFI’s standards and guidelines. Its standards are currently followed by all the leading Islamic financial institutions across the world. The AAOIFI is supported by a number of institutional members, including central banks and regulatory authorities, financial institutions, accounting and auditing firms, and legal firms, from over 45 countries.

In addition to these institutions, global financial market regulators such as the Bank for International Settlements (BIS) and International Accounting Standards Board (IASB) work in cooperation with Islamic financial market regulators. Table 2.1 summarizes the responsibilities of global Islamic finance regulators.

INVESTORS

One way of identifying key players in financial markets is to use the supply-demand framework. In this framework, suppliers are investors that have excess funds and are seeking lucrative investment opportunities.

Institutional Investors

Institutional investors are large organizations that pool considerable cash reserves to invest in financial assets. Main institutional investors are banks, pension funds, *takāful* (insurance) companies, sovereign wealth funds, mutual funds, real estate investment trusts (REITs), hedge funds, and investment funds. They have different investment

TABLE 2.1: Key Financial Regulators in Islamic Finance

Key issues	Responsible regulators
Accounting	AAOIFI, IASB
Financial reporting	AAOIFI, IASB, IFSB,
Auditing	AAOIFI, IASB
Governance framework	AAOIFI, IFSB, IIFM

Source: World Bank compilations.

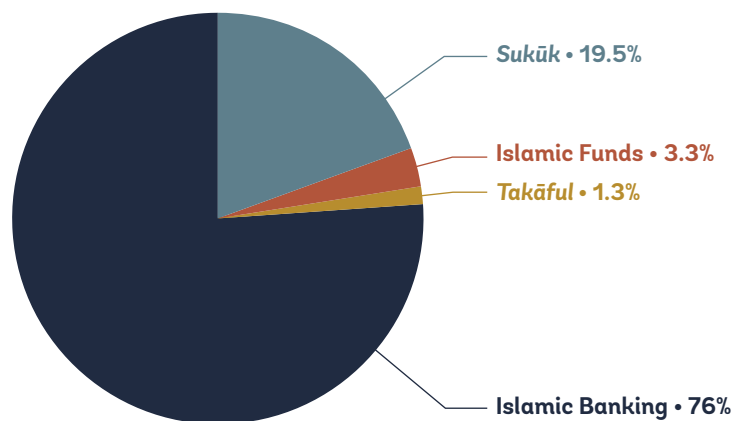
Note: AAOIFI = Accounting and Auditing Organization for Islamic Financial Institutions; IASB = International Accounting Standards Board; IFSB = Islamic Financial Services Board (FSB); IIFM = International Islamic Financial Market.

strategies and asset preferences. Figure 2.1 shows the sectoral composition of the global Islamic financial services industry. This chapter covers the important investors based on their share in total Islamic finance markets.

Islamic Banks and the Islamic Windows

Islamic banks, which are the main Islamic institutional investors, are spread over 50 economies around the

world in both Organization of Islamic Cooperation (OIC) countries and non-OIC countries, and have assets close to \$1 trillion (Ernst & Young 2016). Based on asset value, the Gulf Cooperation Council (GCC) region has the largest share of Islamic banks, followed by the Middle East and North Africa region (excluding the GCC), and Asia. Table 2.2 shows the size of the Islamic banking sector by region.

FIGURE 2.1: Sectoral Composition of the Global Islamic Financial Services Industry, 2017

Source: IFSB 2018.

TABLE 2.2: Islamic Banking Sector by Region, 2017:1H

Region	Sector size (\$ billion)	Share of total (%)
GCC	683.0	43.9
MENA (excluding GCC)	569.0	36.5
Asia	232.0	14.9
Others	73.5	4.7
Total	1,557.5	100

Source: Adapted from IFSB 2018.

Note: GCC = Gulf Cooperation Council; MENA = Middle East and North Africa.

The IFSB criterion states that Islamic banking has systemic importance for the country if the share of Islamic banking assets is greater than 15 percent of the country's total domestic banking assets. According to this criterion, the Islamic banking sector has a systemic importance and Islamic banks are major players in 12 countries (Bahrain, Bangladesh, Brunei Darussalam, Djibouti, the Islamic Republic of Iran, Jordan, Kuwait, Malaysia, Qatar, Saudi Arabia, Sudan, and United Arab Emirates) (IFSB 2018). Globally, the largest five Islamic banks based on total assets in 2015 are Al Rajhi Bank (Saudi Arabia), Kuwait Finance House (Kuwait), Dubai Islamic Bank (United Arab Emirates), Abu Dhabi Islamic Bank (United Arab Emirates), and Qatar Islamic Bank (Qatar).⁴

On the other hand, Islamic windows have been playing an important role. These windows are separate departments within conventional banks that operate under *shari'ah* guidance to offer Islamic banking products. A conventional bank can take advantage of its current branch network to reach potential new customers by setting up an Islamic window. To do this, the bank should establish the appropriate firewalls to avoid the commingling of Islamic and conventional funds (Sole 2007). Big global commercial and investment banks such as BNP Paribas, Citigroup, Deutsche Bank, HSBC, Merrill Lynch, and Standard Charter have Islamic windows and offer Islamic financial products to their customers around the world.

Islamic Pension Funds

Pension funds are entities that provide retirement income. Islamic pension funds should invest in

accordance with *shari'ah* law. Malaysia's public pension fund has the largest Islamic pension offerings, with \$26 billion as of 2016 (Thomson Reuters 2016). Indonesia has initiated Islamic pension funds. United Arab Emirates also has some important Islamic pension schemes. *Shari'ah*-compliant pensions are seen as the major growth opportunity for the sector by 12 percent of experts surveyed by Thomson Reuters (2016). There are several private Islamic pension funds in advanced economies including the United Kingdom, France, and Luxembourg.

Takāful Companies

Takāful companies are insurance providers based on *shari'ah* rulings. *Takāful* is "a mutual guarantee in return for the commitment to donate an amount in the form of a specified contribution to the participants' risk fund, whereby a group of participants agree among themselves to support one another jointly for the losses arising from specified risks" (IFSB 2018). The global *takāful* sector has been growing in parallel with the growth in global Islamic finance. Contributions to this sector reached \$26 billion, with a 12.5 percent growth rate, in 2016. The important players in *takāful* industry based on contributions are in Saudi Arabia (38 percent), the Islamic Republic of Iran (34 percent), Malaysia (7 percent), and United Arab Emirates (6 percent) (IFSB 2018). There are 305 *takāful* operators and windows globally. They offer general *takāful*, family *takāful*, and *retakāful* services. Gross contributions by regions is shown in table 2.3. The key players in the *takāful* industry are hosted mainly in the Gulf Cooperation Council (GCC), Middle East and North Africa (MENA), and Asia regions.

TABLE 2.3: Gross *Takāful* Contributions by Region, 2016

Region	<i>Takāful</i> contributions (\$ billion)	Share of total (%)
GCC	12.6	48.2
MENA (excluding GCC)	9.5	36.4
Asia	3.3	12.6
Others	0.7	2.8
Total	26.1	100

Source: Adapted from IFSB 2018.

Note: GCC = Gulf Cooperation Council; MENA = Middle East and North Africa.

Sovereign Wealth Funds

Sovereign wealth funds (SWFs) are state-owned investment funds that invest in financial and real estate assets globally. There are 94 sovereign wealth funds in the world and 38.2 percent of them (36 out of 94) are in OIC members (Guerrero 2018). Approximately \$3 trillion out of \$7 trillion of the assets are managed by funds in Muslim-majority countries (Guerrero 2018).

The supportive nature for long-term investments in Islamic finance makes its products viable investment opportunities for sovereign wealth funds. A major opportunity in this segment is for private equity offerings, including advisory services and benchmark investment products (Vasseux 2009).

Some of these funds have already issued *sukūk* to raise money from Islamic capital markets. For example, Malaysia's sovereign wealth fund, Khazanah, has a strategic commitment to develop Islamic financial services by pursuing seven key roles: investing in Islamic financial products; issuing *sukūk*; investing in Islamic financial institutions; introducing Middle Eastern investments into Malaysia; investing in initiatives to catalyze the growth of Islamic finance across the world; leveraging Khazanah's position as a shareholder to encourage government-linked-companies to consider Islamic finance solutions where appropriate; and playing an active role to build capacity as well as raise awareness and fund educational institutions.⁵

The biggest players based on assets are United Arab Emirates' Abu Dhabi Investment Authority and Saudi Arabia's SAMA Foreign Holdings. They are followed by sovereign wealth funds in Qatar, Kuwait, and Dubai. Other important sovereign wealth funds are in the GCC, the Islamic Republic of Iran, and in other Muslim-majority countries in North Africa, Central Asia, and Southeast Asia.

Islamic Funds

Islamic funds invest in accordance with *shari'ah* principles. Hedge funds and other specialized funds are included in this category. Islamic funds are managing approximately 4 percent of Islamic assets (ICD-Thomson Reuters 2017). As of the end of 2017, 1,161 Islamic funds held about \$66.7 billion in assets under management (IFSB 2018). The majority of Islamic funds are in the GCC and Asia regions (table 2.4). Two major jurisdictions for Islamic funds are Saudi Arabia and Malaysia. Together, these countries account for 69 percent of the total assets held in Islamic funds (IFSB 2018) (Table 2.5). In all, 34 countries host Islamic funds and 20 of them are non-OIC jurisdictions. Among these 20 countries, Ireland, the United States, and Luxembourg are the leaders (IFSB 2018).

TABLE 2.4: Islamic Funds' Assets by Region, 2017

Region	Islamic funds' assets (\$ billion)	Share of total (%)
GCC	26.8	40.3
Asia	24.8	37.3
Africa (excluding North Africa)	1.6	2.4
Others	13.4	20.0
Total	66.7	100

Source: Adapted from IFSB 2018.

Note: GCC = Gulf Cooperation Council.

TABLE 2.5: Islamic Funds' Assets under Management by Country, 2017

Country	Assets under management (% of total)
Saudi Arabia	37.10
Malaysia	31.66
Ireland	8.62
United States	5.25
Luxembourg	4.76
Indonesia	2.96
Kuwait	2.49
South Africa	2.40
Pakistan	2.32
Others	2.44

Source: IFSB 2018.

CUSTOMERS

According to supply-demand framework for funds market, customers are the players that demand funds. This segment can be categorized into two groups: retail and institutional customers.

Retail Customers

Retail customers are individuals who borrow money to meet their expenditures. An Islamic retail customer prefers Islamic methods to obtain financing and Islamic banks as financiers. Because Islamic finance transactions prohibit interest, Islamic banks offer different mechanisms to compensate for their potential losses in the case of default.

Institutional Customers

Institutional customers are financially sophisticated organizations such as large publicly traded companies, hedge funds, large banks, or large insurers that borrow substantial amounts of capital using debt securities or direct borrowing.⁶ Islamic institutional customers can be any type of organization that use Islamic methods to raise required funding. Because Islamic finance prohibits interest, all financing methods must be based on *shari'ah*-compliant structures. Two options for Islamic institutional customers are raising funds directly from Islamic banks and/or through Islamic capital markets. Islamic banks offer several *shari'ah*-compliant

contracts to facilitate the transactions. On the other hand, institutional customers can raise required funds through Islamic capital markets by issuing notes (*sukūk*).

The key players in this segment are sovereigns and corporations. Sovereign issuers have been outweighing corporate issuers based on issuance amount. The largest

sovereign issuers are Indonesia, Malaysia, Oman, Qatar, Saudi Arabia, and Turkey. They accounted for more than 90 percent of total sovereign *sukūk* issuances in 2017. In the corporate sector, main issuers (or key players) are located in Kuwait, Malaysia, Qatar, Saudi Arabia, Turkey, and United Arab Emirates. They accounted for 94 percent of total corporate *sukūk* issuances in 2017.

CREDIT RATING AGENCIES

Credit rating agencies (CRAs) are critical players in conventional financial markets and Islamic financial markets alike. Globally, the big three credit rating agencies (S&P, Moody's, and Fitch Ratings) have Islamic windows and rate Islamic financial assets. These "Big Three" credit rating agencies dominate the industry, in

both Islamic and conventional financial markets. All have specific guidelines and methodologies to assess Islamic financial institutions and instruments. Table 2.6 presents the Big Three's rating coverage according to the number of Islamic financial institutions and instruments they have assessed.

TABLE 2.6: Rating Coverage of Islamic Financial Institutions and Instruments by the Big Three Credit Rating Agencies

Credit rating agency	Financial institutions (Islamic banks and <i>takāful</i>)	Financial instruments (<i>sukūk</i>)
Moody's (as of August 2017)	27	70
Standard&Poors (as of August 2017)	19	46
Fitch (as of March 2018)	34	104

Source: Adapted from the official web sites of the credit rating agencies.

Besides the Big Three, there is only one international credit rating agency dedicated to Islamic financial products: the Islamic International Rating Agency (IIRA). IIRA was established in 2005 and started operations in 2011. It is hosted by Bahrain. There are some other domestic

credit rating agencies like Rating Agency Malaysia (RAM) and Malaysia Rating Corporation Berhad (MARC) in Malaysia, and JCR-VIS Credit Rating in Pakistan. These domestic credit rating agencies are also important in their regions and countries.

OTHER INTERNATIONAL INSTITUTIONS

Several key international institutions do not issue guidelines, but they are still important in the market. The main contributions of these institutions to the market are producing research, recommending policies, engaging in Islamic finance transactions, and supporting the enabling environment with their

broad experience. International organizations have the highest credit rating and they are able to obtain funds with lower pricing conditions. Therefore, they can provide these funds to the market with reasonable terms and conditions, which greatly helps support the infant Islamic finance market. This section covers five of the

most important institutions: the Islamic Development Bank, International Islamic Liquidity Management, the International Monetary Fund, the World Bank Group, and the Arab Monetary Fund.

The Islamic Development Bank (IsDB)

The IsDB was established in 1975 in Saudi Arabia. Its purpose is to foster the economic development and social progress of member countries and Muslim communities individually as well as jointly in accordance with the principles of Islamic law.⁷ Total IsDB Group (IsDBG) net approvals for projects in member and non-member countries since inception reached \$130.7 billion by the end of the first quarter of 2018.

The IsDB is one of the leading organizations in Islamic finance. It issued its first *sukūk* of \$400 million in 2003 and has become a beacon for investors and issuers that are interested in unlocking the potential of the Islamic finance market.⁸ In 2005, the IsDB announced a \$1 billion medium-term note (MTN) program, which was raised to \$3.5 billion in September 2010. After several updates, the ceiling of the MTN program was increased to \$25 billion in 2015.

The IsDB pioneered the first Islamic public-private partnership (PPP) financing in 2005. As of 2017, the IsDB Group’s total approvals of public-private partnerships exceed \$4.5 billion, with 58 operations spanning 21 countries (World Bank, PPIAF, and IsDB 2017).

In particular, the IsDB has assisted in the establishment of more than 50 Islamic financial institutions, including banks, *takāful*, microfinance institutions, leasing companies, and almost all of the international Islamic financial institutions, including the AAOIFI, IFSB, IILM, and IIRA. The IsDB Group consists of five institutions. They are profiled in table 2.7.

The International Islamic Liquidity Management (IILM)

The IILM was established in 2010 by central banks, monetary authorities, and multilateral organizations with a mandate to issue *shari’ah*-compliant financial instruments. It is hosted by Malaysia. The primary objectives of the IILM are facilitating cross-border liquidity management within the international Islamic finance system by making available a variety of *shari’ah*-compliant instruments and fostering regional and

TABLE 2.7: Profiles of the Five Institutions in the Islamic Development Bank Group

Institution	Objectives
Islamic Research and Training Institute (IRTI)	Established in 1981 to undertake research and provide training and information services in member countries and Muslim communities in non-member countries to help bring their economic, financial and banking activities into conformity with <i>shari’ah</i> and to further accelerate economic development and enhance cooperation among them.
Islamic Corporation for Insurance of Investments and Export Credits (ICIEC)	Established in 1994 to enlarge the scope of trade transactions and investment flows among OIC members.
Islamic Corporation for the Development of the Private Sector (ICD)	Established in 1999 to complement the IsDB through the development and promotion of the private sector as a vehicle for economic growth and development in member countries.
International Islamic Trade Finance Corporation (ITFC)	Established in 2008 to promote trade of the member countries of the Islamic Development Bank by providing trade finance and engaging in activities that facilitate trade involving IsDB member countries.
World WAQF Foundation (WWF)	Established in 2001 to create a global entity for <i>waqf</i> (endowments, foundations), in collaboration with <i>waqf</i> organizations, governmental and nongovernment organizations, and philanthropists from the private sector.

Source: IsDB, www.isdb.org (accessed June 10, 2018).

Note: IsDB = Islamic Development Bank; OIC = Organization of Islamic Cooperation.

international cooperation to build robust liquidity management infrastructure at the national, regional, and international levels.⁹ The current member shareholders comprise the central banks of Indonesia, Kuwait, Luxembourg, Malaysia, Mauritius, Nigeria, Qatar, Turkey, and the United Arab Emirates, and the monetary agency, Islamic Corporation for the Development of the Private Sector.

To increase liquidity in Islamic capital markets, IILM issued its inaugural *sukūk* in 2013—the first money-market instrument backed by sovereign assets in the form of *sukūk*. The US dollar-denominated *sukūk* had a three-month tenor. As of March 2018, IILM had issued 51 *sukūk* and the total outstanding amount had reached \$3 billion.

The International Monetary Fund (IMF)

The International Monetary Fund (IMF) focuses on the implications of Islamic finance for macroeconomic and financial stability. It provides analytical work on Islamic finance in key areas, assists in identifying policy issues, and enhances coordination with different stakeholders interested in Islamic finance. The IMF also played a key role in the establishment of the Islamic Financial Services Board .

The growing Islamic finance phenomenon has been increasing the demand on the IMF. To meet the demand, the IMF formed an Interdepartmental Working Group with the mandate of developing an institutional view on the industry, building in-house expertise, and coordinating different stakeholders. This Working Group produces analytical research and policy recommendations for almost all areas under Islamic finance.

The IMF established an External Advisory Group to help identify policy issues and enhance coordination with different stakeholders interested in Islamic finance. This group comprises the top officials from standard-setting bodies and leading international experts.

On May 2018, the IMF released a policy paper regarding the core principles for Islamic finance regulation for banking (IMF 2018). In this paper, the IMF stated that it will incorporate Islamic finance into its financial sector assessments of select countries starting in January 1, 2019 to improve regulation in the growing sector. The initiative aims to encourage more consistency in applying Islamic finance rules.

The World Bank Group

The World Bank Group has been interested in the development aspects and implications of Islamic finance. Its involvement in Islamic finance is directly linked to its objectives of reducing poverty, promoting financial sector development, broadening financial inclusion, and building financial sector stability and resilience in client countries. The World Bank Group institutions have different types of engagements in Islamic finance according to their scope of work.

The International Bank for Reconstruction and Development (IBRD) offers loans to middle-income developing countries. The IBRD established its *Global Islamic Finance Center* in Istanbul, a knowledge hub for developing Islamic finance globally, conducting research and training, and providing technical assistance and advisory services to World Bank Group client countries interested in developing Islamic financial institutions and markets.

The Global Islamic Finance Center established the *Global Islamic Finance Development Program*, with the aim of fostering the development of Islamic finance around the world through the design and delivery of client-oriented activities focusing on advisory services, financial services, convening services, and knowledge generation and dissemination.

The International Finance Corporation (IFC) is the member of the World Bank Group focused exclusively on the private sector in developing countries. IFC's engagement in Islamic finance involves investments,

mobilization by IFC's Treasury through Islamic bond issues (*sukūk*), and advisory services.

The Multilateral Investment Guarantee Agency (MIGA) is the member of the World Bank Group that promotes foreign direct investment (FDI) in developing countries to help support economic growth, reduce poverty, and improve people's lives. MIGA has been taking on the coverage of Islamic finance deal structures.

In 2007, MIGA extended cooperation with the Islamic Development Bank in support of the Doraleh port in Djibouti (see chapter 5). MIGA created a guarantee structure aimed at addressing the key noncommercial risks that concerned the project financiers, while meeting the strict requirements governing the Islamic structure. This resulted in the agency's first guarantee coverage of an investment supported by an Islamic financing structure.

In 2011, MIGA provided \$450 million in investment guarantees to support the expansion of telecommunications services in Indonesia through a *murābahah* financing facility underwritten by Deutsche Bank and Saudi British Bank.

The Arab Monetary Fund (AMF)

The AMF was established in 1976 as a regional Arab organization. It has 22 member countries and is hosted by the United Arab Emirates. The AMF has an extensive working mandate and various means to operate. It provides short-term and medium-term credit facilities to member states, with a view to assisting in financing their overall balance of payments deficits, liberalizing and promoting trade, holding periodic consultations with member states on their economic conditions, providing technical assistance to banking and monetary institutions in member states, and so on.

One of its objectives is promoting the development of Arab financial markets. Although it operates in the realm of conventional finance, its scope includes Islamic finance. It provides technical assistance and capacity building activities in Islamic finance for its members. The AMF has signed memoranda of understanding with several international institutions, including the Islamic Financial Services Board and the World Bank, to foster the development of Islamic finance in common member countries.

General Council for Islamic Banks and Financial Institutions (CIBAFI)

CIBAFI was established in 2001 and is headquartered in Bahrain. It has nearly 120 members in over 30 jurisdictions and is affiliated with the OIC. CIBAFI is dedicated to pursuing four strategic objectives.

- ◆ ***Policy and regulatory advocacy:*** CIBAFI engages with international standard-setters (both conventional and Islamic) to highlight the challenges the Islamic financial industry is facing and implications of regulatory requirements in their business operations.¹⁰
- ◆ ***Research and publications:*** CIBAFI issues high-quality research and publications primarily for its members and the industry.
- ◆ ***Awareness and information sharing:*** CIBAFI aims to create a platform for those involved in Islamic finance through which members may share their experiences; discuss issues and challenges; and share success stories.¹¹
- ◆ ***Professional development:*** CIBAFI provides training to help fill the gap in human capital gap in the industry.

OTHER PLAYERS

There are other important regional players in Islamic finance. Four of them are worth mentioning: central banks, *shari'ah* boards, stock exchanges, and consultants.

Central Banks

Central banks manage countries' currencies, money supply, and interest rates. They are thus one of the most important actors and regulators for economies. In the realm of Islamic finance, central banks also play critical roles. In particular, the cooperation between Islamic banks and central banks of states where they operate is an important aspect to help foster the growth and development of Islamic banks and to assist them in competing with conventional banks. Some states have special legislation for Islamic banks, while others have taken the initiative to develop and enforce legislation that would allow Islamic banks to be established in accordance with specific laws and regulations.¹² Specific Islamic banking legislation has been passed by a representative assembly in 17 jurisdictions (including Indonesia, Iran, Jordan, Kuwait, Malaysia, and Sudan), according to Song and Oosthuizen (2014). Islamic banking decrees/directives have been issued by a ruling authority in six jurisdictions (including Kazakhstan and Qatar). Islamic banking regulations have been issued by a bank regulatory authority in 17 jurisdictions (including Afghanistan, Bahrain, and Ethiopia). The legal basis is implicitly set by the bank regulatory and supervisory authority facilitating the presence of Islamic banking in 11 jurisdictions (including Botswana, Kenya, and the United Kingdom).

Shari'ah Boards

Shari'ah boards certify Islamic financial products as being *shari'ah*-compliant. The convention for Islamic market players is to have their own *shari'ah* boards. However, this trend has been changing in recent years and central *shari'ah* boards are becoming popular. The AAOIFI in 2019 introduced the Governance Standard (Standard No. 8 'Central Shariah Board'), recommending the setting up of a centralized *shari'ah* board as a more unified way of managing Islamic finance.¹³ The initiative intends to shift the Islamic finance industry away from self-regulation.

The International Islamic Fiqh Academy (IIFA) provides guidance to *shari'ah* boards. IIFA is the leading organization to advance the theoretical interpretation of *shari'ah* matters. It was established in 1981 and is hosted by Saudi Arabia. Besides traditional Islamic matters, the IIFA seeks to advance knowledge in the realms of culture, science, and economics. Many of the IIFA's rulings have become the guiding principles of Islamic finance practices globally.

Stock Exchanges

Stock exchanges are the platforms where the issuing and trading of equities or stocks of publicly held companies, bonds, and other classes of securities take place. The global key players that provide Islamic financial transactions are Bursa Malaysia, the Irish Stock Exchange, the London Stock Exchange, the Luxembourg Stock Exchange, and Nasdaq Dubai Stock Exchange.

NOTES

- 1 IFSB, *Background Information*, www.ifsb.org (accessed June 10, 2018).
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- 3 IIFM, Corporate Profile, www.iifm.net (accessed June 10, 2018).
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CHAPTER 3

Islamic Finance and Public Sector Infrastructure Projects

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3.1 INTRODUCTION

Public infrastructure investment refers to investing in the system of public works in a country, state, or region, including roads, utility lines, and public buildings. Even though there are different ways of funding these investments, this chapter focuses solely on financing sources in the public sector.¹

As mentioned in chapter 1, public infrastructure investments have positive effects on economic growth and living standards. A dollar spent by the government for investment raises domestic welfare by equivalent of 0.8 dollars of private consumption, a study by the International Monetary Fund (IMF) (Ganelli and Tervalá 2016) finds. The empirical literature documents the positive contribution of infrastructure in reducing economic disparities both within and across countries and regions (Rillo and Ali 2017).

The public sector contribution to infrastructure investments has been increasing in emerging markets and low-income developing countries in recent years (IMF 2015). Public investment rates peaked at over 8 percent of GDP in the late 1970s/early 1980s, fell to around 4 percent to 5 percent of GDP in the mid-2000s, but since then have risen to 6 percent to 7 percent of GDP.

More than half of the member countries of the Organization of Islamic Cooperation (OIC) (27 of 57) are lower-income developing countries, according to the IMF classification. These countries as a group have a higher ratio of public investment to GDP than emerging and advanced economies, averaging more than 6 percent (Gurara et al. 2017).

Public investment is the main source of infrastructure development in low-income developing countries and emerging markets.

Governments have two main ways to finance public infrastructure: pay-as-you-go (pay-go) and pay-as-you-use (pay-use) (Marlowe, Rivenbark, and Vogt 2009). Pay-go financing refers to using budget allocations or other current assets rather than debt issuance to fund infrastructure projects. In this method, a certain amount of the budget is reserved each year for financing infrastructure investment. There are many considerations with this arrangement, such as selection of the infrastructure, distribution of the budget among different projects, risk management, and measuring the effectiveness of the process. These concerns should be considered carefully and addressed before decisions are reached.

Pay-use financing refers to issuing certificates through capital markets or borrowing from private banks to fund infrastructure projects. In the bank financing method, governments as borrowers engage with banks to get the required amount of funds and pay back the loan once the project is completed. Governments can also use capital markets to acquire financing. There are different options, such as issuing bonds, project bonds, *sukūk*, and equities. All these methods can be utilized under the Islamic finance framework. However, in practice, there has been very limited use of project specific bonds or *sukūk* by governments. Table 3.1 summarizes these methods.

TABLE 3.1: Methods for Infrastructure Financing with Government Resources

Pay-as-you-go financing (budget resources)	Pay-as-you-use financing (debt financing)
Taxation	
General taxes	
Special dedicated taxes	Loan financing
Private bank loans	
Cash and savings	Capital markets financing
User charges	Financing bonds
Grants and aid	<i>Sukūk</i>

Source: World Bank compilations.

Generally, the less costly way for governments to obtain financing is by issuing government debt, which can be used for infrastructure finance. The motivation for using other methods such as project-specific bonds or *sukūk* can range from better fiscal risk management to monetizing existing government-owned assets that may be sitting idle in low-productive ways.

This chapter examines potential alternatives proposed by Islamic finance to meet the public infrastructure financing challenge. The next section sheds light on

sukūk issuances by governments and its potential in financing infrastructure investments. Common Islamic finance methods are well explained in the 2017 report by the World Bank, PPIAF, and IsDB and chapter 4 of this report. To avoid duplication, details of these methods will not be discussed here. Section 3.3 describes the *sukūk* issuance process for governments and a tentative timeline from beginning to the end of process. The final section discusses challenges and constraints to applying Islamic finance methods and offers some solutions to them.

3.2 USE OF CERTIFICATE-BASED MODES OF FINANCING (SUKŪK) BY GOVERNMENTS TO FINANCE PUBLIC INFRASTRUCTURE

While *sukūk* are often referred to as "Islamic bonds," they are more akin to Islamic trust certificates, representing an undivided beneficial ownership interest in an underlying asset wherein the return is fixed and comparable to the return on a project bond.² The assets themselves may be tangible or intangible, provided that they are certain, generate income, and not being used for any purposes that do not comply with *shari'ah*, such as gambling or the sale of alcohol.

Sukūk can be of two categories in terms of underlying assets: asset-based *sukūk* and asset-backed *sukūk*. Asset-based *sukūk* raises finance where the returns and re-payments to *sukūk* holders are not directly dependent on the underlying assets. In contrast, for asset-backed

sukūk, the returns and repayments to *sukūk* holders are directly linked to the underlying assets.

Sukūk can be placed on top of a number of Islamic structures. The Bahrain-based Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) has identified 14 eligible types of *sukūk* that can be classified based on assets, debt, equity, and services (Ahmed 2009). Of those 14, *sukūk al-ijārah* and *sukūk al-murābahah* are the most common. Of these alternatives, *sukūk al-istiṣnā'* is considered to be the most appropriate structure for project financing. Various types of *sukūk* relevant to project financing that fall under these categories are shown in table 3.2.

TABLE 3.2: Sukūk Types Based on Islamic Contracts

Categories	Sukūk type
Asset-based	<i>Ijārah</i>
Debt-based	<i>Istiṣnā', murābahah</i>
Equity-based	<i>Mushārahah, muḍārabah</i>
Agency-based	<i>Wakālah</i>

Source: Ahmed 2009.

Sukūk constitute one of the most viable sectors in Islamic finance industry. The total cumulative outstanding volume of *sukūk* reached \$400 billion as of the end of 2017, compared to almost zero at the start of the

millennium (IFSB 2018). *Sukūk* issuances from Asia and the Gulf Cooperation Council (GCC) region account for approximately 95 percent of total outstanding *sukūk* issuances (table 3.3).

TABLE 3.3: Outstanding Sukūk Issuances by Region

Region	Sukūk outstanding (\$ billion)	Share of total (percent)
Asia	239.5	59.9
GCC	139.2	34.8
MENA (excluding GCC)	17.8	4.5
Others	3.4	0.8
Total	399.9	100

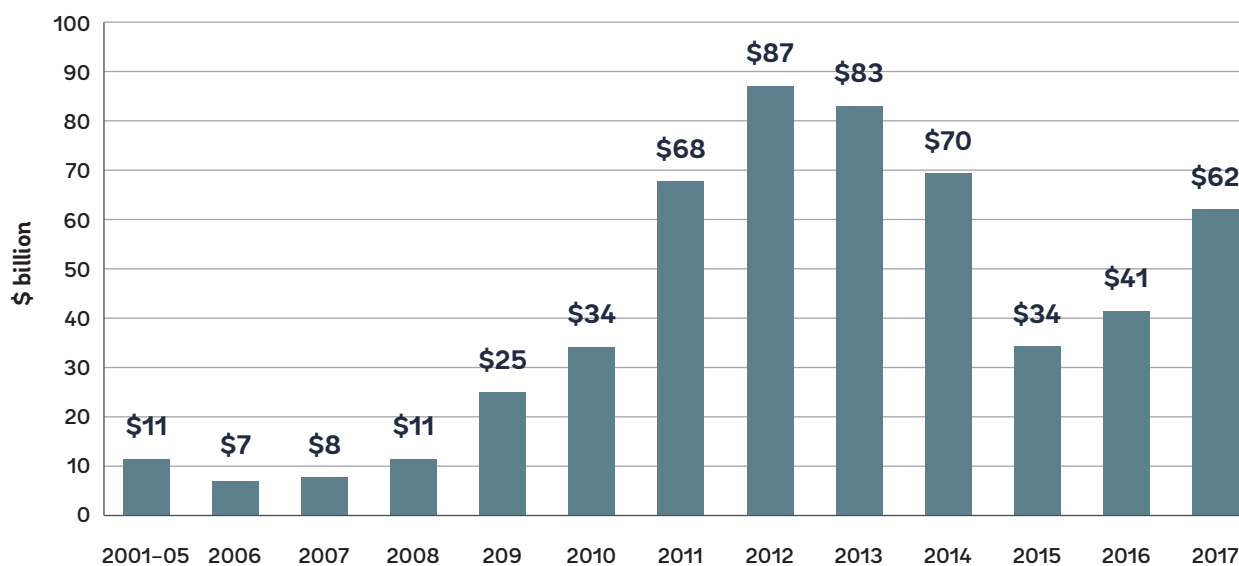
Source: Adapted from IFSB 2018.

Note: GCC = Gulf Cooperation Council; MENA = Middle East and North Africa.

Until 2009, corporate issuers dominated the *sukūk* market, but following the global financial crisis, sovereign issuers took the lead. In 2017, the total annual volume of *sukūk* issuances was \$116.7 billion and 53 percent of this total was issued by sovereigns (IIFM 2018). Sovereigns from 14 jurisdictions issued *sukūk* in 2017. All of them were OIC member countries, except Hong Kong SAR, China. OIC member countries that issued *sukūk* in 2017, in descending order of issuance amount, were Saudi Arabia, Malaysia, Indonesia, Qatar, Oman, Turkey, Bahrain, United Arab Emirates, Pakistan, Nigeria, Brunei Darussalam, Jordan, The Gambia, and Bangladesh. Figure 3.1 presents global sovereign *sukūk* issuance trends.

In a generic *sukūk* issuance, there are three players: the originator, the issuer, and investors. If a government chooses to raise funds via *sukūk* issuance, it will be the ultimate address for issuance proceeds. Thus, the government is called the “originator.” *Sukūk* are issued by a special purpose vehicle (SPV) (“issuer”) that is established by the government and represents the entity where the assets or the infrastructure investment project will be placed. “Investors” are *sukūk* holders who buy *sukūk* certificates from either primary or secondary markets.

FIGURE 3.1: Trends in Sovereign *Sukūk* Issuance, 2001–17



Source: IFSB, 2018.

BOX 3.1: *SUKŪK* AND GREENFIELD PROJECTS

Sukūk raise finances through a subscription process in the market. The entire financing is raised on the first day of subscription to achieve financial closure, while the funds are released over a relatively long period of time. However, infrastructure projects have long gestation/construction periods and need injections of funds at different times throughout their construction periods. This can lead to financial inefficiency because the money raised will start accumulating mark-up/margin right away, which will be an additional financial burden on the project. This problem, known as “cost of carry” is not only typical for *sukūk*, but is also common for conventional project bonds. This problem explains why *sukūk* as well as project bonds are used less often to finance greenfield infrastructure public-private partnerships (PPPs), in which the assets need to be created or acquired (World Bank, PPIAF, and IsDB 2017).

Sukūk are capital market instruments and can be issued in various financial terms. There are two approaches linking sovereign *sukūk* to infrastructure financing: direct and indirect.

In the direct approach, *sukūk* are issued to finance a specific public infrastructure investment. Under this approach, governments use the infrastructure project itself as an underlying asset for transactions. All cash flows in the structure should be linked directly to this specific project.

In the indirect approach, sovereign *sukūk* issuances are used to finance general budget expenditures. Budget financing refers to closing the gap between government expenditures and government revenues. *Sukūk* proceeds can also be used to finance governments' investment expenditures.

To illustrate: sovereign *sukūk* based on any Islamic contract can be issued to finance infrastructure. Under the indirect approach, governments are not required to link any specific infrastructure project to the *sukūk* issuance. Any kind of public assets can be used as an underlying asset for *sukūk* issuance and proceeds from the issuance

go directly to the general budget. Then, these proceeds can be used to finance a public infrastructure investment. Because of the circulation of issuance proceeds in this way, this approach is referred to as indirect.

Both the direct and indirect approaches can be structured based on different types of Islamic contracts. The only difference between two approaches is the underlying asset.

Governments' *sukūk* issuances or Islamic financial transactions require a different approach than transactions in the conventional private sector. This is mainly because of the status of government assets. Some projects and/or assets have strategic value for governments, such as an airport or seaport. This makes it difficult to transfer these tangible/intangible assets to any third party, such as an SPV. To address this issue, Islamic finance structures are modelled in different ways within the *shari'ah* framework. For instance, in a sovereign *sukūk* issuance, both the government and the SPV have several different roles to guarantee *shari'ah* compliance and mitigate government strategic concerns. Table 3.4 describes these roles in the case of an *ijārah* (leasing) *sukūk*. For more on *ijārah* (leasing), see chapter 4.

TABLE 3.4: Roles of the Government and the Special Purpose Vehicle in an *Ijārah-Sukūk*

Role	Performer	Description
Issuer	SPV	Issues the certificate
Trustee/lessor	SPV	Holds the trust assets in trust unequivocally for the <i>sukūk</i> holders as owners and beneficiaries pro rata according to the face amount of certificates held by each investor, and distributes the income from the trust assets, in accordance with the declaration of trust.
Seller	Government	Sells the underlying assets to the trustee in line with a purchase agreement (see chapter 4).
Lessee/tenant	Government	Leases from the trustee, in accordance with a lease agreement, the underlying assets for a specified period, and pays rent on a periodic basis. The rent is intended to fund the periodic income payable by the issuer with respect to the certificates.
Servicing agent	Government	Appointed by the trustee, pursuant to a servicing agency agreement, and is delegated the responsibility for the performance of all major maintenance and structural repairs; the payment of proprietorship taxes and levies (if any); and dealing with the incident of a total loss.
Obligor	Government	Commits to repurchase the assets from the trustee, in accordance with the terms of a purchase undertaking, on a scheduled dissolution date at an exercise price.

Source: Balibek 2017.

Note: SPV = special purpose vehicle.

3.3 THE *SUKŪK* ISSUANCE PROCESS FOR GOVERNMENT-ISSUED *SUKŪK*

This section describes the steps of a generic *sukūk* issuance. The issuer in this example is the SPV and the originator is the government. “Originator” refers to the

ultimate entity that raises funds, so that the issuance proceeds are transferred to it.

PRE-ISSUANCE PHASE

- 1 | Government authorities should identify which public institution has the authority to issue capital market certificates on behalf of the government. In many cases, either the Ministry of Finance (MoF) or Treasury Department has the authority. The same entity would be the originator. In the discussions that follow, the MoF is considered the responsible entity.
- 2 | Legal screening should be done by the authorities to detect whether the MoF is able to establish an SPV (a separate legal entity). If the MoF has the authority to establish the SPV, then it should do so. If the MoF does not have the authority, legal amendments are needed to grant that authority.
- 3 | *Sukūk* issuances require transfer of public assets or the right to use the asset (usufruct) to the SPV. Before the transfer is made, guarantees are needed that there are no legal impediments to the transfer. If required, legal amendments should be enacted to allow this transfer.

ISSUANCE PHASE

- 1 | The MoF should extend a mandate to intermediary banks, which will arrange all transaction documents and roadshow logistics.
- 2 | The MoF and intermediary banks should choose the Islamic finance structure to be used.
- 3 | The MoF should identify the assets that will be used in the issuance and transferred to the SPV.
- 4 | Intermediary banks lead the book building³ and final allocation of *sukūk* certificates is completed.

POST-ISSUANCE PHASE

- 1 | The SPV and the MoF should prepare closing documents.
- 2 | The responsible public accounting authority provides updates after the asset transfer is completed.

The issuance process takes approximately 2 to 2.5 months. It can be shortened by implementing common and standard structures. Alternatively, governments can customize the process in parallel with their concerns and needs. A simple timeline for the issuance process is presented in table 3.5.

TABLE 3.5: A Simple Timeline for a Sukūk Issuance Process

Phase	Actions
Inception	Mandate intermediary banks
Structuring	Identify legal advisors, shari'ah boards
	Prepare the draft Islamic finance structure
Documentation and approvals	Agree on public assets used in the model
	Prepare draft prospectus and sukūk documentation and send it to the relevant parties for them to confirm
	Finalize the prospectus and sukūk documentation
	Establish the special purpose vehicle (SPV) with the Ministry of Finance's approval
Marketing	Receive shari'ah boards approval regarding the envisioned structure in advance
	Prepare presentations for investors
	Decide on roadshow dates and logistics
	Carry out due diligence
Pricing	Conduct the roadshow and receive feedback from investors
	Carry out due diligence and release details of the sukūk certificates
	Determine pricing
	Sign the closing documents
	Share the legal and shari'ah opinions
	Transfer the fund and sukūk

Source: World Bank compilations.

3.4 CHALLENGES FOR GOVERNMENTS REGARDING ISLAMIC FINANCING

While Islamic finance can help meet the financing infrastructure challenge of OIC member countries, various constraints and challenges must be dealt with to structure Islamic finance deals. Challenges regarding PPP structures are explored in the 2017 report by the World Bank, PPIAF, and IsDB. Thus, this chapter focuses

on challenges and constraints that a government might confront when it chooses to use Islamic finance for its infrastructure investments. In fact, understanding of Islamic financing principles and Islamic financing instruments is very low, especially in non-OIC countries, where Islamic finance has low penetration.

COMMON CHALLENGES

All parties involved in Islamic finance face some common challenges. These are well discussed in various industry reports and can be summarized as follows:

Lack of Standardization: Because Islamic financial transactions can be more complex than their conventional counterparts, there are concerns that

this added complexity can generate greater uncertainty for Islamic contracts and thus lead to relatively higher transaction costs. This issue has been addressed in recent years. Standard and transparent contracts now exist in the market for most transactions. Increasing standardization helps mitigate some of the legal risks and lower transaction costs.

Lack of Risk Mitigation Instruments: The risks involved in Islamic finance and lack of risk mitigation instruments have been cited as key constraints to greater private sector participation. To address this issue, the *takāful* (Islamic insurance) sector has been improving and some risk mitigation tools, such as *tahawwut* (hedging), have been developed in the last decade.

Inadequate Liquidity: Islamic financial instruments are less liquid than their conventional counterparts. However, recent developments in the *sukūk* market and the increasing number of issuers and investors are helping to sort out this problem. Deep markets require more time and Islamic finance has a long way to go in this respect. The growth rate of industry is so strong that it promises to address this issue in the coming years.

Investor Protection: There are some concerns regarding insolvency regimes and governance issues. The Islamic finance industry has been criticized for having weak default resolution and weak *sukūk* governance. Global efforts, primarily by the Islamic Financial Services Board (IFSB) and Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), are continuing and are expected to produce better guidelines for investor protection.

Lack of Harmonization in Shari'ah Rulings: A quest for harmonization in *shari'ah* interpretations among different jurisdictions has been ongoing in the market. Although different interpretations of *shari'ah* were a problem in the 2000s, this is not a severe issue nowadays. There is a consensus on the most common structures and contracts.

Cost of Transaction: Islamic financing instruments often come at a heightened cost (capital and transaction) compared to the conventional instruments available to governments. For example, obtaining the opinion of a *shari'ah* board in each transaction increases the fees and costs required to be made to close the finance

transaction and renders Islamic financial instruments uncompetitive with respect to their conventional counterparts. A possibility for governments, depending on the project size and context, will be to combine Islamic and conventional financing instruments. In an infrastructure PPP project, although the Islamic and conventional facilities are documented separately, the terms and conditions incorporated into the two sets of documents are structured in a way that ensures that both group of financiers benefit from the same or very similar commercial terms. In order to achieve the senior and *pari passu* status and to ensure the smooth integration of Islamic and conventional finance in the same infrastructure PPP transaction, the two group of financing institutions become parties to a single set of financing agreements, in addition to their respective facility agreements. While introducing Islamic finance into an infrastructure PPP project may entail additional documentation, it does not necessarily add any complexity to the overall documentation structure of a project. In addition, as the country/sector moves toward standardization, the higher cost of structuring attributed to Islamic finance will be evened out and a equal playing field will exist for both conventional and Islamic finance actors to invest in infrastructure PPPs. Although Islamic finance documentation for infrastructure PPP projects has already become standard to a great extent across various sectors and asset classes where Islamic finance is evolving, this challenge is still evident in developing countries and locales where Islamic finance is not often used. It is especially the case in countries where tax legislation is not updated with the necessary regulations, asset purchase, and sale transactions required by Islamic finance instruments.

Lack of Qualified Human Capital: Since Islamic finance is a very specific field that requires complex structuring, the inadequacy of expertise in this field can prevent governments from using Islamic finance instruments, and push them toward conventional counterparts.

CHALLENGES IN OIC COUNTRIES

In addition to these challenges, some other constraints are specific to particular countries and structures. As a country group, this report focuses on OIC members and assumes that governments are looking for financing. Under these assumptions, important constraints may be listed as follows:

Budgetary Limitations: As discussed in chapter 1, most OIC member countries are in the low-income and middle-income group. Hence, they do not have enough budget resources to allocate to infrastructure investments. As mentioned, some Islamic finance structures require a budget allocation. Budget constraints of OIC member countries can impede the application of Islamic finance structures. One possible solution might be the involvement of multilateral development banks (MDBs) in the structure. Another option is for MDBs to provide credits to governments.

Legal Issues: Infrastructure financing involves many parties and a web of contracts. A strong legal system that can enforce the various contracts is a must. Most OIC member countries have either common law or civil law legal systems. While most Middle East countries have adopted a form of the European civil law, former British colonies have the British common law regime, and former French colonies have French civil law (Ahmed 2009). Under these legal regimes in most OIC member countries, problems may arise in settling disputes involving Islamic contracts. Because these legal systems do not support Islamic laws, Islamic financial transactions in these jurisdictions involves uncertainty, which makes investors/financiers hesitant to participate in the transactions.

Issuer-specific Constraints: Originators (governments) that are willing to use Islamic finance structures face several main constraints:

- ◆ *Asset Ownership:* Some types of Islamic finance require transferring sovereign assets to a SPV. Given that the public assets are strategic in nature, transferability of the ownership of sovereign asset

to investors, particularly if they are not citizens, is a constraint. To address this issue, governments can establish their own SPVs and own all the shares. In this way, the SPV would become a government entity. However, it must maintain a separate legal status for the sake of investor protection.

- ◆ *Limited Tangible Assets:* In some cases, governments need tangible assets to use in the financing method. The availability of physical assets that are suitable for *sukūk* issuance is critical. However, this is not possible for many countries. Having suitable tangible assets available ensures the sustainability of Islamic finance structure.

- ◆ *Credit Rating:* A credit rating is a critical indicator for financial markets and, in many cases, is used as a reference to determine the riskiness of the issuer and/or the project. Therefore, it affects the cost of financing for governments. Unfortunately, few OIC member countries have credit ratings above investment grade and many of them are below this threshold. Thus, investors hesitate to provide capital for projects in member countries that have low credit ratings, or they ask for high level of return, depending on the riskiness of the project.

Investor-side Constraints: Governments should attract both domestic and international investors to their financial markets. Lack of awareness about Islamic finance and attracting institutional investors are the most important challenges that must be addressed. Institutional investors are the key players to finance infrastructure projects and are a natural fit because these projects are long term in nature and institutional investors are looking for long-term instruments. Critical steps that must be taken to broaden the institutional investors base include developing risk management tools; improving money markets; establishing relevant benchmarks for comparison; strengthening supervision and practices related to transparency, dissemination and valuation; and promoting investor awareness.

NOTES

- 1 A companion report, *Mobilizing Islamic Finance for Infrastructure Public-Private Partnerships*, was published by the World Bank Group, the Public-Private Infrastructure Advisory Facility (PPIAF), and Islamic Development Bank (IsDB) in 2017. It covers private sector contributions to infrastructure financing. This chapter aims to fill the gap by focusing on public sector sources for financing infrastructure investments.
- 2 See “Glossary of Islamic Terms Used in the Literature of Islamic Economics, Banking and Finance,” by the Islamic Research and Training Institute (IRTI), as elaborated in *The Global Report on Islamic Finance. Islamic Finance: A Catalyst for Shared Prosperity?* (World Bank and IsDBG 2016).
- 3 Book building is the process by which the intermediary banks attempt to determine the price at which the investment instrument (here, *sukūk*) will be offered.



CHAPTER 4

Islamic Finance Structures for Infrastructure PPP Projects

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4.1 ISLAMIC FINANCE AND INFRASTRUCTURE PPP PROJECTS

Infrastructure public-private partnership (PPP) projects can be financed in a *shari'ah*-compliant manner by applying either one, or both, of the following two techniques:

- ◆ Equity financing through *muḍārabah* (partnership in profit), *wakālah* (agency), and *mushārah* (contractual partnership).
- ◆ Debt financing through *murābahah* (sale with profit), *bai al-mua'jjal* (credit sale or deferred payment sale), *istiṣnā'* (build/manufacture), *salam* (advance purchase), and *ijārah* (leasing).

In practice, the most frequently used structures in Islamic project finance are a combination of two separate structures in one transaction: *istiṣnā'-ijārah* (procurement and leasing); *wakālah-ijārah* (agency and leasing); or *mushārah-ijārah* (contractual partnership and leasing).

Structuring an infrastructure PPP project in a *shari'ah*-compliant manner will essentially depend on the nature of the project itself. If the project is a “brownfield” project, in which the project company is expected to have assets already, the typical Islamic finance structure would be a sale and leaseback arrangement. In contrast, for a “greenfield” project, in which the assets need to be created or acquired, the most suitable Islamic finance structures would be any of the following:

- ◆ *Istiṣnā'* (procurement)-based financing
- ◆ *Istiṣnā'-ijārah* (procurement and leasing)-based financing
- ◆ *Wakālah-ijārah* (agency and leasing)-based financing
- ◆ *Mushārah-istiṣnā'-ijārah* (partnership, procurement, and leasing)-based financing.

The *istiṣnāʿ* mode is more suitable for projects that entail construction. While construction is over and assets are created, *ijārah* becomes the appropriate mode. In addition, some other financing structures are suitable

for Islamic finance-backed PPP transactions. Notable examples include *murābaḥah* (sale with mark-up), *muḍārabah* (partnership in profit), or a project *sukūk* (Islamic certificate).

4.2 SECURITY SHARING AMONG CONVENTIONAL AND ISLAMIC FINANCIERS

In many projects where Islamic financiers provide financing, conventional lenders are also present.¹ This arrangement is generally referred to as parallel financing or co-financing. One frequently asked question is how these two financing classes can be integrated in a single project. Another common question concerns the security charge (a priority claim is created over particular assets as security for indebtedness). How can the security charge over the project assets be created and shared by both group of financiers?

During the normal course of project's operation, conventional and Islamic banks are paid from the project's cash waterfall side by side, in a *pari passu* manner, so that the payments are scheduled or voluntary. Scheduled payments refer to payments that the project would make regularly under the financing agreements, such as quarterly rental payments to Islamic financiers for *ijārah* assets and quarterly debt service to conventional lenders.

The test of coexistence of Islamic and conventional financiers comes when the project defaults. Through the financing or project documents, Islamic finance practitioners have put in appropriate structures to ensure that the exercise of remedies between the conventional and Islamic financiers are harmonized in case of default. This is because the project is an indivisible whole. As an intercreditor matter, it would not be acceptable for one tranche to be accelerated/repaid as a result of default, while others must wait to obtain payment—or not be paid at all.

This issue is addressed through a concept known as the common security pool, which is shared *pari passu* (on equal footing) among all financiers—conventional and Islamic alike. In the event of default, the Islamic financiers substitute their ownership right of an asset (in *ijārah* transactions) in favor of the common security pool.

Take the simple case of financing a power plant, where both conventional and Islamic financiers are participants. In case of *ijārah* financing, the Islamic financier would be owner of a particular asset, such as the turbine or generator. This may raise a concern among the conventional financiers that the Islamic financiers are at an advantage in terms of security of the project assets because they own key project assets. In other words, it may seem that the Islamic financiers may have carved out an asset in their name and conventional lenders would not benefit from this particular asset, and the *pari passu* nature of the project's overall security package would be compromised.

The common security pool solves this problem. The Islamic financier in such a case would agree that in the event of default, the generator or turbine that the Islamic financier owns would become part of the common security pool. Thus, it would be liquidated along with the other secured assets and the proceeds would be shared by all financiers. In this manner, Islamic financing has facilitated other means of financing by accepting Islamic financiers' rights over the assets in specific circumstances without compromising their risk and ownership principles.

4.3 TERMS USED IN ISLAMIC FINANCE DOCUMENTATION AND CONVENTIONAL COUNTERPARTS

Unlike conventional loan-based financing techniques, Islamic financing is asset based and generally involves one or more of the following:

- ◆ A sharing-based structure, such as *mushārah* (partnership) or *muḍārabah* (partnership in profit)
- ◆ A sales-based structure, such as *murābahah* (sale with profit), *istiṣnā'* (build/ manufacture), or *salam* (advance purchase)
- ◆ A lease-based structure, such as *ijārah* (leasing)
- ◆ A fee-based structure, such as *wakālah* (agency), *kafālah* (guarantee), or *ju'alah* (service contract).

Given the structural and technical differences between conventional financing and Islamic financing, both are

documented differently and separately, the terms and conditions incorporated into the two sets of documents are structured in a way that ensures that both group of financiers benefit from the same or very similar commercial terms. The documentation ensures that both facilities rank as senior and the two syndicates share security on a pro rata and *pari passu* basis.

Despite the differences between Islamic and conventional facility documents, the terms used in the former have somewhat comparable financial consequences to their conventional counterparts. While comparing these terms, it must be noted that the terms are the product of very different structures and that only their financial implications/results are comparable (table 4.1). Also, it is common to include both Islamic and conventional financings with similar commercial terms, benefits, and connotations in an infrastructure PPP project.

TABLE 4.1: Commercial Terms Used in Islamic Finance Documents and their Conventional Finance Counterparts

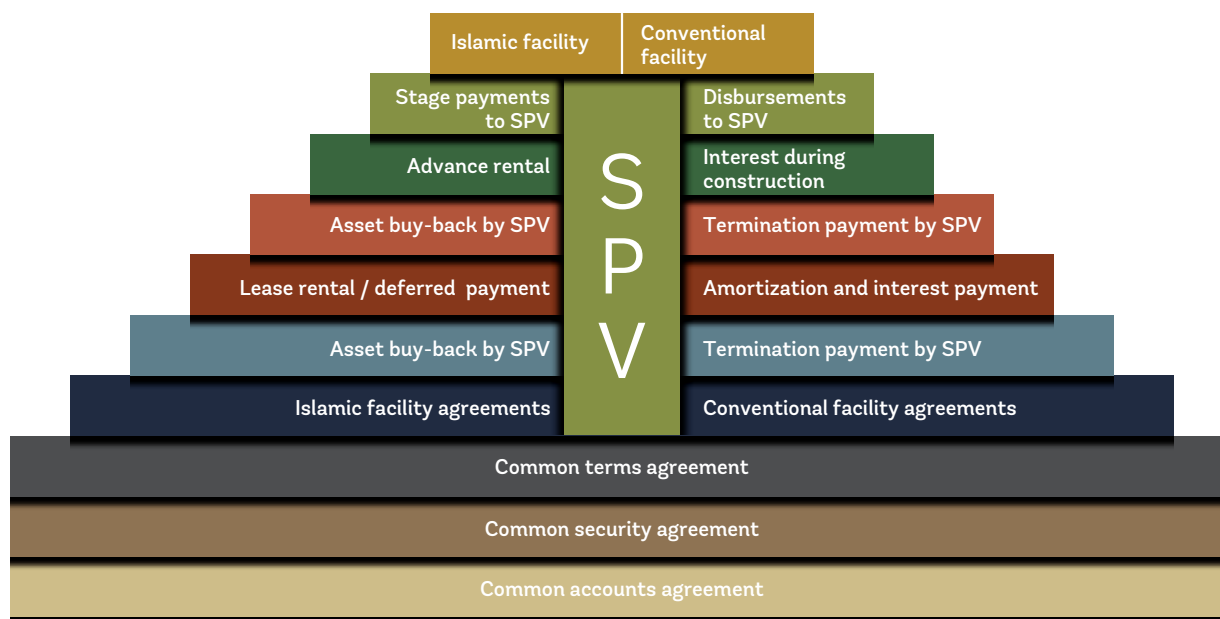
Islamic finance terms	Conventional finance counterparts
Advance rental	Interest during construction
Base amount	Principal amount
Base rental payment/fixed rental	Principal repayment installment
Cost price	Principal element of a financing
Lease rental	Amortization and interest payment
Deferred payment date	Repayment date
Completion date	Construction completion date
Delivery	Transfer of project assets to the project company
Exercise notice	In the context of a purchase undertaking (put option), a notice from the financiers to the project company to purchase the project assets
Exercise price	In the context of a purchase undertaking (put option), the sale price of the project assets to be paid by the project company to the financiers
<i>Istiṣnā'</i> assets	Project assets in the context of an <i>istiṣnā'</i> -based financing structure
Late payment	Default interest payment
Lease commencement date	The date of transfer of possession of the project assets to the project company
Lease rental payment	The combination of both principal payment and interest in a lease-based financing structure

Islamic finance terms	Conventional finance counterparts
Lease term	Facility term in relation to a lease-based financing
Musharakah assets	Project assets in the context of a musharakah-based financing
Profit or mark-up or variable rental	Interest
Purchase undertaking	A put option in favor of the financiers from the project company in relation to a lease-based financing structure
Sale notice	In the context of a sale undertaking (call option), a notice from the project company to the financiers to sell the project assets
Service agency costs	In relation to a lease-based financing structure, the costs and expenses incurred by the project company (as service agent of the financiers) for maintenance and repair of the project assets, procuring property loss insurance, and paying ownership-related taxes
Stage payment	Utilization/disbursement to the project company
Takāful	Shari'ah-compliant insurance
Total loss	Loss, damage, or destruction that makes the project assets permanently unfit for any economic use or wholly uneconomical for any repair or remedial
Variable element	Profit/interest portion
Wakālah assets	Project assets in the context of a wakālah- based financing structure
Works	Description of the project in an istiṣnā'-based financing structure

The use of a common terms agreement and an intercreditor agreement are common in both conventional and Islamic finance transactions in which two or more financiers extend financing through separate financing arrangements.

Security documents and guarantees provided in relation to an Islamic facility are generally identical to those of a conventional facility. Figure 4.1 compares Islamic and conventional financing in infrastructure PPP projects.

FIGURE 4.1: Islamic and Conventional Financing in Infrastructure PPP Projects



Source: World Bank.

Note: PPP = public-private partnership; SPV = special purpose vehicle.

The discussion that follows focuses on several Islamic finance structures that will be considered from the perspective of infrastructure PPP project financing.

- ◆ *Istiṣnāʿ*-based financing structure
- ◆ *Istiṣnāʿ-ijārah*-based financing structure
- ◆ *Wakālah-ijārah*-based financing structure

- ◆ *Mushārakah-istiṣnāʿ-ijārah*-based financing structure
- ◆ Other Islamic finance structures suitable for an infrastructure PPP project.

The discussion describes structural issues and processes, and presents diagrams, indicative documentation, and case studies (where relevant and available). Chapters 5, 6, 7, and 8 present detailed case studies.

4.4 *ISTIṢNĀʿ*-BASED FINANCING STRUCTURE

DESCRIPTION OF THE *ISTIṢNĀʿ*-BASED STRUCTURE (BUILD/MANUFACTURE)

Istiṣnāʿ is a sale contract pursuant to which the seller undertakes to (i) manufacture/build certain specific assets for an agreed price and in accordance with agreed specifications and (ii) deliver such assets to the purchaser at an agreed time.

Istiṣnāʿ Agreement and Agency Agreement

In the case of the application of an *istiṣnāʿ* contractual arrangement to an infrastructure PPP project financing, the Islamic financiers (as seller) undertake under the *istiṣnāʿ* agreement to (i) procure the manufacture, construction, and delivery of the relevant assets from an engineering, procurement, and construction (EPC) or construction contractor, and (ii) deliver such assets to the project company (as purchaser) upon completion at an agreed sale price to be paid by the project company. In turn, the Islamic financiers appoint the project company as their agent, pursuant to an agency agreement, to enter into an EPC or any other form of construction contract with the EPC or construction contractor, incorporating a pass-through of the terms and conditions of the *istiṣnāʿ* agreement. Title to the relevant assets typically passes from the Islamic financiers to the project company automatically upon transfer of title under the EPC or construction contract.

The Islamic financiers, in their capacity as seller under an *istiṣnāʿ* agreement, avoid being exposed to the construction, performance, and delivery risks associated with the project assets by appointing the project company as their agent (under the agency agreement) to procure the project assets from the EPC or construction contractor.

Disbursement

In line with payment terms agreed in the EPC/construction contract(s), the Islamic financiers make stage payments (periodic payments)—akin to drawdowns/utilizations under any conventional finance facility—to the project company (the obligor) under the agency agreement.

Repayment

The Islamic financiers receive their investment back with the agreed profit (the repayment of the principal with interest) in the form of the “sale price” of the *istiṣnāʿ* assets payable by the project company under the *istiṣnāʿ* agreement. The project company pays the sale price as per the payment terms agreed in the *istiṣnāʿ* agreement.

Fixed-Rate Financing

Taking into account that *istiṣnāʿ* is a sale-based instrument and the sale price of the *istiṣnāʿ* assets payable by the project company to the Islamic financiers must be agreed and fixed at the time of entry into the *istiṣnāʿ* agreement between the Islamic financiers (as seller) and the project company (as purchaser), an *istiṣnāʿ*-based financing (as a stand-alone structure) is generally a fixed-rate financing. From a financier's perspective, being limited to fixed-rate financing is a significant constraint of arrangements solely based on *istiṣnāʿ* financing. For greater clarity, all other Islamic finance techniques (other than *istiṣnāʿ* as a stand-alone technique) discussed in this chapter can be structured on either a floating- or fixed-rate basis.

Reduction or Prepayment of the Sale Price and Cost Overruns

During the construction period of the project, the project company, as purchaser of the *istiṣnāʿ* assets, is entitled to reduce the sale price payable to the Islamic financiers by altering the specifications of the *istiṣnāʿ* assets (equivalent to a cancellation under conventional facilities). If the sale of the *istiṣnāʿ* assets is reduced under the *istiṣnāʿ* agreement, the corresponding reduction in the disbursement of the Islamic facility

will be made under the agency agreement between the Islamic financiers and the project company.

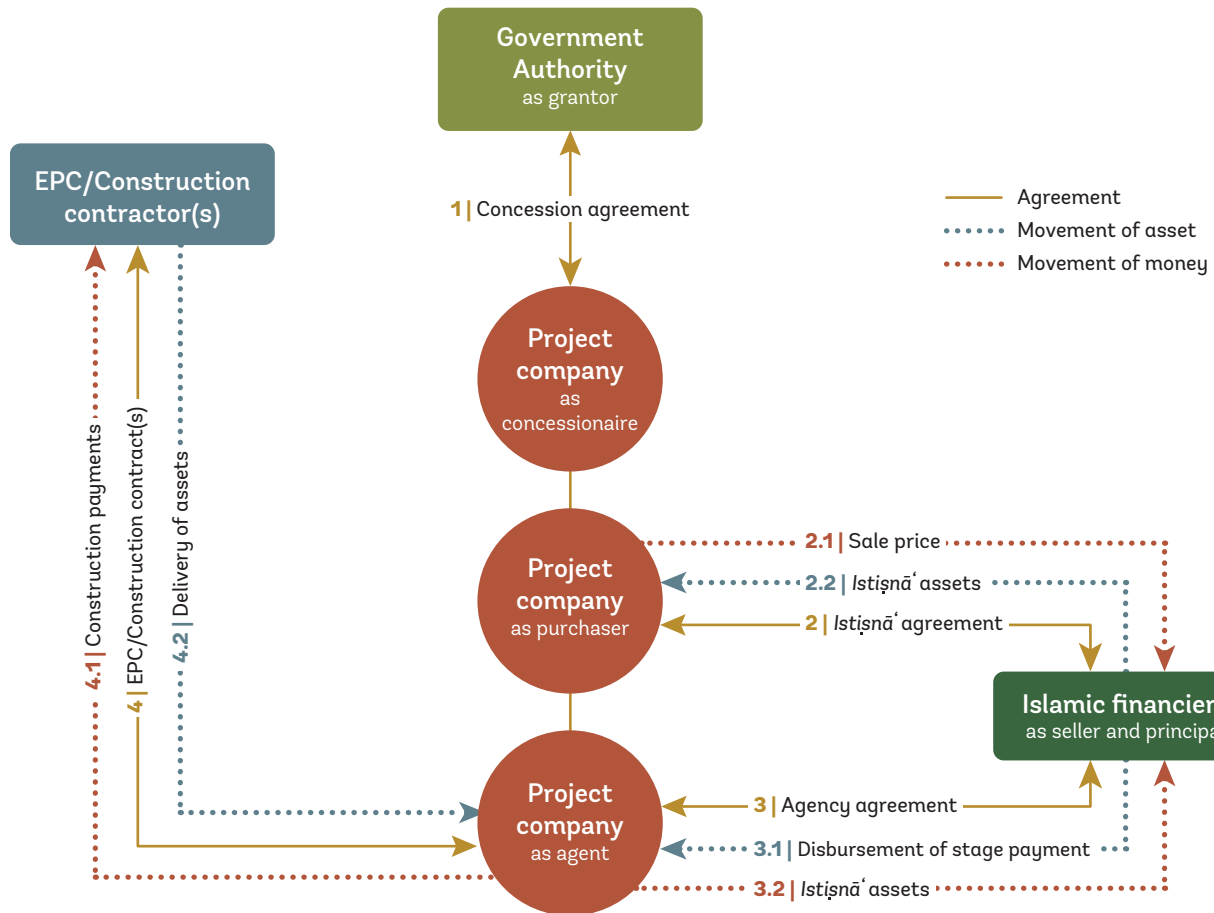
Following the completion and delivery of the *istiṣnāʿ* assets, the project company may offer to prepay the whole or any part of the outstanding sale price then due and payable under the *istiṣnāʿ* agreement. Upon receiving an early payment of the outstanding sale price from the project company, the Islamic financiers may (but are not obliged to) return any part of the sale price (as a rebate) to the project company. Such rebates may not be structured and documented in the finance agreements in order to avoid *shari'ah* issues related to a future contract and uncertainty in the sale price.

The project company, as the agent of the Islamic financiers under the agency agreement, will ensure that the *istiṣnāʿ* assets are completed and delivered within the costs agreed in the EPC/construction contract(s) and the Islamic financiers are not required to pay any additional cost for the completion of the *istiṣnāʿ* assets. If there is any increase in the agreed costs for the completion of the *istiṣnāʿ* assets, then the Islamic financiers will not be obliged to increase the Islamic facility amount agreed in the agency agreement and the project company will meet such cost overruns.

DIAGRAM OF AN *ISTIṢNĀʿ*-BASED INFRASTRUCTURE PPP PROJECT FINANCING STRUCTURE

In an *istiṣnāʿ*-based financing structure, the agency agreement to be entered into between the Islamic financiers (as principal) and the project company (as agent) sets out the mechanism for the disbursement/utilization of the facility amount by the project company during the construction period. The *istiṣnāʿ* agreement

provides the mechanism through which the project company pays the facility amount along with the agreed profit in the form of a sale price to the Islamic financiers. Figure 4.2 presents a suggested *istiṣnāʿ*-based infrastructure PPP project financing structure, and related steps.

FIGURE 4.2: Sample *Istiṣnāʿ*-based Infrastructure PPP Project Financing Structure and Steps

Note: EPC = engineering, procurement, and construction; PPP = public-private partnership.

DOCUMENTATION FOR AN *ISTIṢNĀʿ*-BASED FINANCING STRUCTURE

An indicative list of documentation for implementing an *istiṣnāʿ*-based infrastructure PPP project financing structure follows.

An *Istiṣnāʿ* Agreement

An *istiṣnāʿ* agreement is a sale contract entered into between the Islamic financiers (as seller) and the project company (as purchaser) for the sale of certain designated assets (that is, project assets). Pursuant to the *istiṣnāʿ* agreement, the Islamic financiers (as seller) undertake to procure the construction, development, and delivery of the project assets for the project company (as purchaser). Under the *istiṣnāʿ* agreement, the project company pays the principal and an additional profit amount

applicable to the financing in the form of the sale price for the project assets.

Because the project company purchases the project assets from the Islamic financiers under this *istiṣnāʿ*-based structure, the *istiṣnāʿ* agreement in this context is sometimes referred to as a purchase *istiṣnāʿ* agreement. A sample form of a purchase *istiṣnāʿ* agreement is presented in appendix A.

An Agency Agreement

Pursuant to an agency agreement, the Islamic financiers (as principal) appoint the project company as their agent and pass through their obligations and undertakings

under the *istiṣnāʿ* agreement to the project company. The project company (as an agent of the Islamic financiers) enters into the EPC/construction contract(s) for and on behalf of the Islamic financiers to procure the designated assets (that is, the project assets) from the EPC/construction contractor and deliver title to and ownership of the project assets to the Islamic financiers. The Islamic financiers disburse the facility amount pursuant to the agreed payment terms of the agency agreement. A sample form of an agency agreement is presented in appendix B.

Application of an *Istiṣnāʿ*-based Financing Structure

An *istiṣnāʿ*-based financing structure was used in the Konya Integrated Health Campus project in Turkey for the construction of an 838-bed general hospital (the **Konya project**; see case study in chapter 8). The parties in the Konya project entered into the following finance documentation:

- ◆ The project company and the Islamic financier (the Islamic Development Bank Group) entered

into a procurement (or *istiṣnāʿ*) agreement pursuant to which the Islamic financier (as seller) undertook to procure and deliver the assets to the project company (as purchaser) for an agreed sale price to be paid by the project company in installments.

- ◆ Pursuant to an agency agreement, the Islamic financier (as principal) appointed the project company as its agent to enter into the EPC contract with the EPC contractor. The Islamic financier disbursed the facility amount under the agency agreement in accordance with the payment terms agreed in the EPC contract.

Upon completion, the assets are delivered directly to the project company by the EPC contractor. With the delivery of the assets to the project company, the project company's role as agent under the agency agreement comes to an end and the obligation of the Islamic financier (as seller) under the procurement agreement to deliver the assets to the project company (as purchaser) is completed.

4.5 *ISTIṢNĀʿ-İJĀRAH*-BASED FINANCING STRUCTURE

DESCRIPTION OF THE *ISTIṢNĀʿ-İJĀRAH*-BASED STRUCTURE

An *istiṣnāʿ-ijārah* structure is the combination of two separate structures (an *istiṣnāʿ* and an *ijārah*) in one transaction. An *istiṣnāʿ* (manufacture/build) contract is generally used for the construction phase, when the underlying assets are procured. An *ijārah* (leasing) contract is put in place for the operation phase, when the assets are ready for their intended purposes.

Istiṣnāʿ (Build/Manufacture)

Pursuant to the *istiṣnāʿ* agreement, the project company undertakes to procure the manufacture, construction, and delivery of the relevant assets from

the manufacturer/construction contractor and deliver such assets to the Islamic financiers. In turn, the project company enters into an EPC contract or any other form of construction contract with the construction contractor, incorporating a pass-through of the terms and conditions of the *istiṣnāʿ* agreement. Title to the relevant assets typically passes to the Islamic financiers automatically upon transfer of title under the EPC contract or construction contract. The Islamic financiers in their capacity as buyer under an *istiṣnāʿ* agreement avoid being exposed to construction, performance, and delivery risk associated with the project assets.

Forward Lease, Advance Rental Payments, and Liquidated Damages

The Islamic financiers make stage payments to the project company (the obligor)—akin to drawdowns/utilizations under any conventional finance facility—during the construction phase of a project. *Shari'ah* scholars generally permit the use of a forward lease arrangement (known as an *ijārah mawsufah fi al thimma*), whereby advance rental payments are paid by the project company during the term of the *istiṣnā'* (or the construction phase). These advance rental payments are typically structured to cover the Islamic financier's funding costs, together with a profit margin during construction.

If the project company fails to deliver the assets, the remedies available to the Islamic financiers are more or less the same as the remedies conventional banks rely on in the same scenario. The Islamic financiers are entitled to accelerate the repayment obligations of the project company and to terminate the *istiṣnā'* agreement. The project company is typically obliged to reimburse to the Islamic financiers the aggregate of state payments it has received under the *istiṣnā'* agreement before the agreement is enforced and is often also obliged to pay liquidated damages as described earlier.

The project company is also required to pay liquidated damages to the Islamic financiers if (i) assets are delivered behind schedule, or (ii) assets are nonconforming.²

Given that Islamic financiers are paid from lease payments, and lease payments can be made only once the assets are constructed and operational, the liquidated damages provision enables the Islamic financiers to receive monies equivalent to (i) in the case of a delay, the lease payments they would have received had the lease transaction commenced as scheduled, or (ii) in the case of nonconforming assets or termination of the *istiṣnā'* agreement, to all amounts paid by the Islamic financiers to the project company to procure the assets.

Reduction of Project Costs and Cost Overruns

During the construction period of the project, the project company is entitled to reduce the total project cost payable by the Islamic financiers by changing the specifications of the assets (equivalent to a cancellation of certain parts of loan under conventional facilities). Because the *istiṣnā'* agreement provides for a maximum amount the Islamic financiers would pay the project company for its procurement obligations, if the cost of constructing the assets is greater than that amount (whether as a result of a change order or a change in law), the project company must pay the excess. The Islamic financiers have no obligation under the *istiṣnā'* agreement with respect to this cost overrun.

Ijārah (Leasing)

The *ijārah* agreement usually comes into effect when the construction stage is finished and the project is completed. An *ijārah* is a lease contract pursuant to which a lessor purchases an asset and leases it to the lessee for a specific period at an agreed rental.

The leased asset must have a usufruct. In order to be *shari'ah*-compliant, an *ijārah* must be transparent and detailed, and the terms agreed prior to execution. The lessor under an *ijārah* must maintain legal and beneficial ownership of the asset and bear responsibility for risks associated with ownership of the asset. In other words, there must be a link between an Islamic financier's ability to earn profits and the assumption of risk.

An *ijārah wa iqtina* is essentially the Islamic equivalent of a conventional equipment lease contract. Ownership of the assets is delivered to the Islamic financiers upon project completion pursuant to the *istiṣnā'* agreement. Thereafter, the Islamic financiers lease the assets to the project company in consideration for rental payments that are structured to cover the capital cost of the equipment plus a profit margin.

In the context of an infrastructure PPP project financing, the project company, as lessee, and the Islamic financiers, as lessor, will enter into a forward lease agreement to lease the assets on delivery. The forward lease agreement operates during the operational phase of the project (the period following delivery of the assets to the Islamic financiers according to the *istiṣnā'* agreement until a date equivalent to the final maturity date under the conventional facilities). Pursuant to the forward lease agreement, the project company will lease the assets from the Islamic financiers in return for lease payments.

While the forward lease arrangement is normally entered into at the same time as the *istiṣnā'* agreement is concluded, actual leasing does not commence until the asset has been delivered under the *istiṣnā'* agreement.

The lease payments are calculated by aggregating (i) a lease fixed element, equivalent to principal on the conventional facilities; (ii) a variable element, generally on the basis of a reference such as the six-month London Interbank Offered Rate (LIBOR), plus a fixed fee, which is equivalent to the applicable margin under the conventional facilities; and (iii) a service amount, which is equivalent to the amount paid to the project company, in its capacity as service agent under the service agency agreement, (further explained next) by the Islamic financiers. Lease payments can be structured to be made at the same times as equivalent payments under conventional facilities.

Under an *istiṣnā'-ijārah* financing structure, voluntary and mandatory prepayments are addressed via early lease payment mechanics under the forward lease agreement.

Service Agency Agreement

In accordance with *shari'ah* principles, unlike in conventional operating leases, the Islamic financiers (in their capacity as lessors) are responsible for all major maintenance: typically, structural repair, replacement, and maintenance, without which the assets could not reasonably be used by the project company.

The project company is responsible for all ordinary maintenance (other than major maintenance): typically, repair, replacement, and maintenance of the assets, such as basic wear and tear. In addition, the Islamic financiers are responsible for the insurance of the assets and payment of ownership-related taxes. To limit the Islamic financiers' liabilities and to ensure that third parties do not have any claims on the Islamic financiers or its assets, the project company and the Islamic financiers enter into a service agency agreement, pursuant to which the project company is appointed as agent of the Islamic financiers for the purpose of carrying out the major maintenance, procuring the insurance, and paying the ownership-related taxes. If the project company fails to effect any repairs or replacements, or obtain insurance, the Islamic financiers may do so and will be indemnified by the project company for all amounts paid or costs incurred by the Islamic financiers.

If the project company is found negligent in the use or maintenance of the assets, or in procuring insurance or performing any of its obligations listed under the service agency agreement, it assumes principal liability for and will be required to indemnify the Islamic financiers for any related losses.

Purchase and Sale Undertakings

The *istiṣnā'-ijārah* documentation set typically incorporates purchase undertaking (put option) arrangements and sale undertaking (call option) arrangements following termination or expiry of the lease. However, these undertakings are separate unilateral promises, as such, are not part of the main *istiṣnā'-ijārah* documentation. Pursuant to the terms of the sale undertaking, the Islamic financiers usually undertake to sell all or part of the assets to the project company in the event of a partial or full cancellation or prepayment of the Islamic facility and following the discharge by the project company of all outstanding payments owed to the Islamic financiers. The purchase undertaking will be used in case of an acceleration of the loan³ and the sale undertaking will be used in case of early payment.

If the project company defaults, the Islamic financiers normally have the benefit of a purchase undertaking (put option) from the project company. This is a form of acceleration of the Islamic facility. In the event of a default, if the Islamic financiers exercise their rights under the purchase undertaking, the project company is obliged to purchase the leased assets (that is, the project assets) for a purchase price equal to the aggregate of amounts outstanding under the Islamic facility. The documentation normally stipulates that title to the assets does not pass to the project company until the amounts owed to the Islamic financiers have been discharged in full. However, by exercising the purchase undertaking, the Islamic financiers will have a claim against the project company for an amount that is immediately due and payable and will thus have a claim in the proceeds of any security package available in relation to the financing.

Total Loss

In an *ijārah*-based financing, a total loss of the underlying leased assets (that is, if the project assets are destroyed, damaged beyond repair, or otherwise completely lost) will have a major impact on the leasing arrangements. Pursuant to *shari'ah* principles, a lease arrangement will be terminated with immediate effect upon the occurrence of a total loss of the leased assets (that is, the project assets) and any purchase undertaking with respect to those assets becomes ineffective as a result.

In order to mitigate this risk, the Islamic financiers typically appoint the project company as their service agent under a service agency agreement and require it, in such capacity, to maintain insurance with respect to the full replacement value of the project/assets. If a total loss occurs, the project company (as service agent) will be under an obligation, within a given time frame, to provide the Islamic financiers with the proceeds of the insurance. If the proceeds are less than the full replacement value of the assets, or are not paid within the agreed timeframe, the project company will have failed to comply with its strict insurance obligations (as service agent) under the service agency agreement and will be liable to indemnify the Islamic financiers for any shortfall.

Diagram of an *Istiṣnā'*-*Ijārah*-based Financing Structure

In an *istiṣnā'*-*ijārah*-based financing structure, the *istiṣnā'* agreement sets out the mechanism for the utilization of the facility by the project company during the construction period, while the forward lease agreement provides the mechanism through which repayments for the Islamic facility are made to the Islamic financiers.

A suggested *istiṣnā'*-*ijārah*-based infrastructure PPP project financing structure, and related steps, are presented in figure 4.3.

DOCUMENTATION FOR AN *ISTIṢNĀ'*-*IJĀRAH*-BASED PPP PROJECT FINANCING STRUCTURE

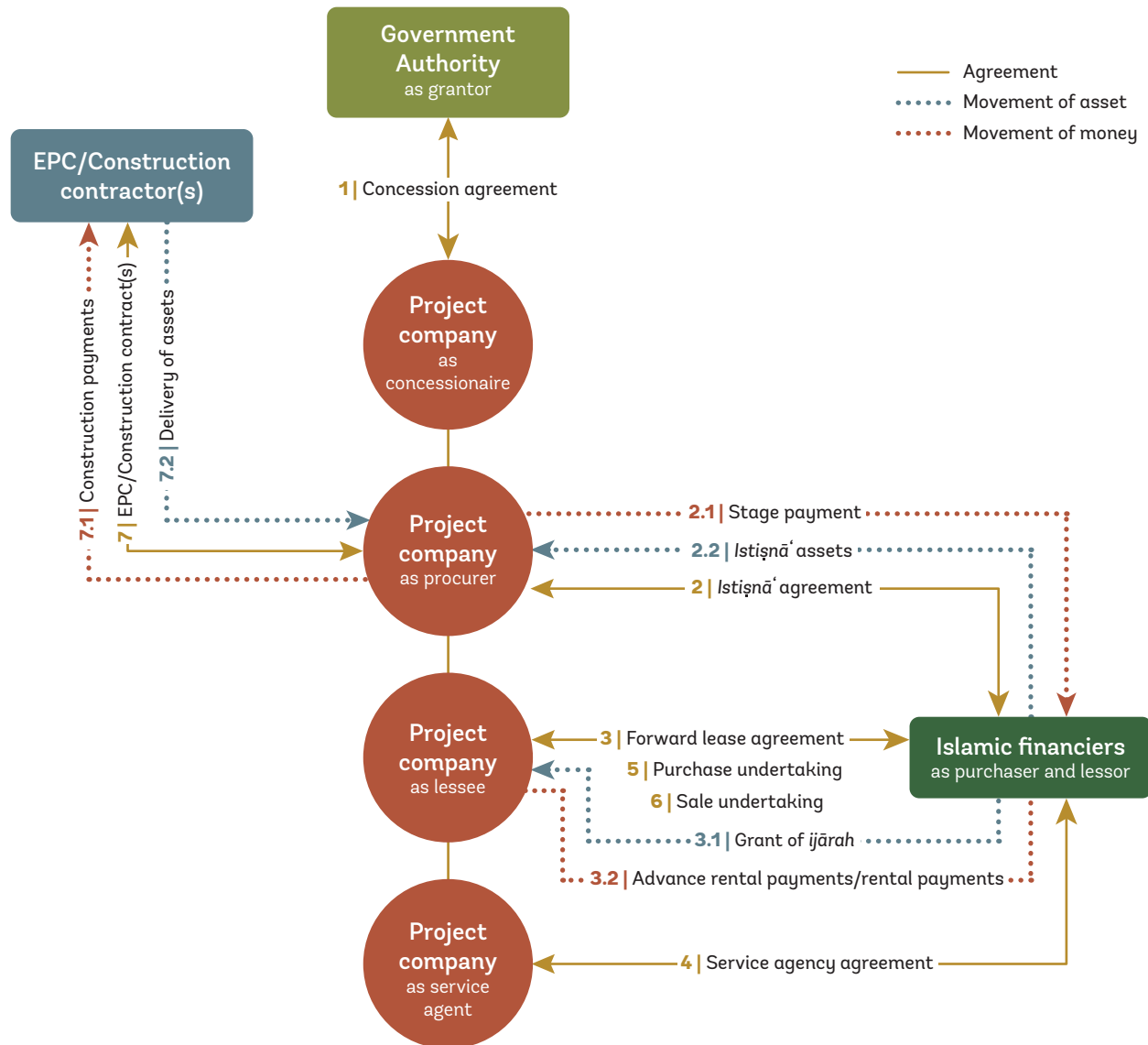
An indicative list of documentation for implementing an *istiṣnā'*-*ijārah*-based infrastructure PPP project financing structure follows.

An Istiṣnā' Agreement

This is a sale *istiṣnā'*, which is different from a purchase *istiṣnā'* explained in section 4.4 (*Istiṣnā'*-based Financing

Structure), whereby the project company (as seller) undertakes to procure the construction, development, and delivery of certain designated assets (that is, the project assets) for the Islamic financiers (as purchaser). The Islamic financiers disburse the facility amount as stage payments to the project company pursuant to the terms of the *istiṣnā'* agreement. A sample form of a sale *istiṣnā'* agreement is presented in appendix C.

FIGURE 4.3: Sample *Istiṣnā’-Ijārah*-based Infrastructure PPP Project Financing Structure and Steps



Note: EPC = engineering, procurement, and construction; PPP = public-private partnership.

A Forward Lease Agreement

Pursuant to a forward lease agreement, the Islamic financiers (as lessor) leases the project assets to the project company (as lessee). The lease will commence from the date the project assets are delivered to the lessee (the project company). Until the lease commencement date, the lessee will pay advance rentals. The lessor will calculate the lease rental payment for

each sublease period (to be agreed between the Islamic financiers and the project company, but usually three or six months, and will mirror the interest periods on a conventional loan). A forward lease agreement provides the mechanism for the payment of the principal and profit amount of an Islamic facility by the project company. A sample form of a forward lease agreement is presented in appendix D.

A Service Agency Agreement

Pursuant to a service agency agreement, the Islamic financiers appoint the project company as the service agent to carry out structural, major maintenance and repair of the project assets; procure insurance against all risks; and pay ownership taxes relating to the project assets. The Islamic financiers, in their capacity as lessor, will bear the aforementioned costs; however, such costs will be a component of the lease rental payments payable by the project company under the forward lease agreement. A sample form of a service agency agreement is presented in appendix E.

A Purchase Undertaking

A unilateral purchase undertaking (put option) is provided by the project company in favor of the Islamic financiers whereby in the case of (i) an illegality,

(ii) a mandatory prepayment, or (iii) default, the project company will purchase the project assets from the Islamic financiers, at a purchase price to be determined in accordance with a pre-agreed formula. A sample form of a purchase undertaking is presented in appendix F.

A Sale Undertaking

A unilateral sale undertaking (call option) is provided by the Islamic financiers in favor of the project company to sell the project assets or part thereof in the case of (i) a cancellation of participation for a single facility participant; (ii) a voluntary early payment (in full or part) of the financing facility by the project company, at a price to be calculated in accordance with a pre-agreed formula; or (iii) full and final maturity of the financing facility at a nominal price. A sample form of a sale undertaking is presented in appendix G.

APPLICATION OF AN *ISTIṢNĀ'*-*IJĀRAH*-BASED FINANCING STRUCTURE

An *istiṣnā'*-*ijārah*-based financing structure was used in the Prince Mohammad Bin Abdulaziz International Airport project in Madinah, Saudi Arabia (the **Madinah Airport project**). The parties entered into the following finance documents, among others:

- ◆ Pursuant to an *istiṣnā'* agreement, the project company (as seller) sold certain designated *istiṣnā'* assets (in the form of commercial rights) to the Islamic financiers (as purchaser) for an agreed sale price and with an agreed delivery date.
- ◆ The Islamic financiers lease the designated *istiṣnā'* assets to the project company pursuant to an *ijārah* agreement for a periodic lease rental payment

(comprising both the principal amount and the profit element of the Islamic facility).

- ◆ With each rental payment (of principal amount of the Islamic facility) by the project company, the Islamic financiers agree to gradually transfer the ownership of a part of the *istiṣnā'* assets to the project company, pursuant to a sale undertaking (call option) or a purchase undertaking (put option).

For the financing of the **Queen Alia International Airport** in Jordan (see chapter 6), a *muḍārabah-istiṣnā'-ijārah* structure was used, with an added element of a *muḍārabah* to mobilize funds by the Islamic financier from third-party financiers (on a syndicated basis).

4.6 WAKĀLAH-IJĀRAH-BASED FINANCING STRUCTURE

DESCRIPTION OF A WAKĀLAH-IJĀRAH-BASED FINANCING STRUCTURE

Islamic financing for an infrastructure PPP project can be structured as a *wakālah-ijārah*-based financing. As the name indicates, a *wakālah-ijārah*-based structure is the combination of two separate structures (a *wakālah* and an *ijārah*) in one transaction.

While the repayment phases (through the *ijārah* mechanism) of a *wakālah-ijārah*-based structure and an *istiṣnā'-ijārah*-based structure (explained in section 4.5) (*Istiṣnā'-Ijārah*-based Financing Structure) are the same, these two structures differ, as shown in table 4.2.

Even though, under the *wakālah-ijārah*-based structure, the construction risk related to the project remains with the Islamic financiers, in practice, these risks are passed on to the project company, in the latter's capacity as an agent.

Under a *wakālah-ijārah* structure, the project company is appointed as the Islamic financiers' agent (or *wakil*) in accordance with the terms of a *wakālah* (agency) agreement. A *wakālah* (agency) agreement largely

fulfils the same function as an *istiṣnā'* agreement under an *istiṣnā'-ijārah*-based structure, although being a *wakālah* (agency) agreement, the contractual relationship between the Islamic financier, as principal (or *muwakkil*), and the project company, as agent (or *wakil*), is different. The project company procures the construction, development, and delivery of the project assets identified in the *wakālah* (agency) agreement as agent for the Islamic financiers.

In line with payment terms agreed in the EPC/construction contract(s), the Islamic financiers make periodic stage payments to the project company—akin to drawdowns/utilizations under any conventional finance facility—under the *wakālah* (agency) agreement.

The *istiṣnā'-ijārah* and *wakālah-ijārah* structures are otherwise similar. Both structures incorporate a forward lease agreement for the operations phase and a service agency agreement pursuant to which the project company performs certain obligations with respect to the maintenance of the assets, procurement of insurance, and payment of ownership taxes related to the assets.

TABLE 4.2: Comparison of a *Wakālah-Ijārah*-based Structure and an *Istiṣnā'-Ijārah*-based Structure

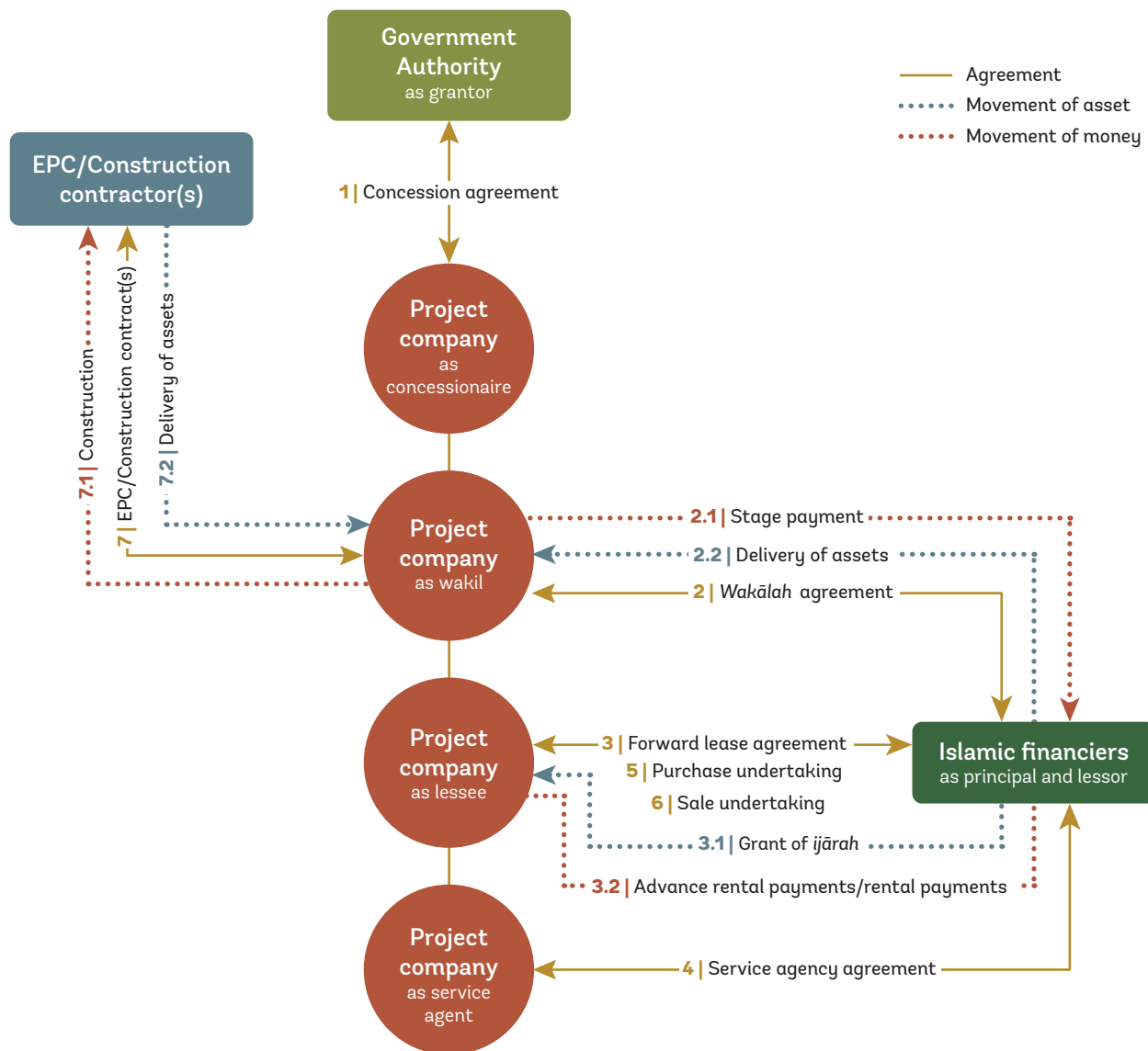
	<i>Wakālah-ijārah</i> -based structure	<i>Istiṣnā'-ijārah</i> -based structure
Basis	A <i>wakālah-ijārah</i> is an agency- and lease-based financing structure.	An <i>istiṣnā'-ijārah</i> is a sale- and lease-based financing structure.
Construction phase	During the construction phase of a <i>wakālah-ijārah</i> structure, the project company acts as an agent of the Islamic financiers (as principal) to procure the construction, development, and delivery of the project assets for and on behalf of the Islamic financiers.	During the construction phase of an <i>istiṣnā'-ijārah</i> structure, the project company acts as a seller of the project assets (to be constructed, developed, and delivered) to the Islamic financiers (as purchaser).
Disbursement	The Islamic financiers (as principal) disburse the facility amount to the project company (as agent) pursuant to the terms of the <i>wakālah</i> (agency) agreement to procure the project assets by the project company (as their agent).	The Islamic financiers (as purchaser) disburse the facility amount (as the sale price of the project assets) to the project company (as seller) pursuant to the terms of the <i>istiṣnā'</i> agreement

DIAGRAM OF A WAKĀLAH-IJĀRAH-BASED INFRASTRUCTURE PPP PROJECT FINANCING STRUCTURE

In a *wakālah-ijārah*-based financing structure, the *wakālah* (agency) agreement sets out the mechanism for the utilization of the facility by the project company (as agent) during the construction period, while the forward lease agreement provides the mechanism

through which repayments and payments of profit/returns of the Islamic facility to the Islamic financiers are made. Figure 4.4 presents a suggested *wakālah-ijārah*-based infrastructure PPP project financing structure, and related steps.

FIGURE 4.4: Sample *Wakālah-Ijārah*-based Infrastructure PPP Project Financing Structure and Steps



Note: EPC = engineering, procurement, and construction; PPP = public-private partnership.

DOCUMENTATION FOR A WAKĀLAH-IJĀRAH-BASED FINANCING STRUCTURE

An indicative list of the documentation for implementing a *wakālah-ijārah*-based infrastructure PPP project financing structure follows.

A Wakālah (Agency) Agreement

Pursuant to a *wakālah* (agency) agreement, the Islamic financiers (as principal) appoint the project company as their agent (*wakil*) to enter into the EPC/construction contract(s), for and on their behalf, to procure the designated assets (that is, the project assets) from the EPC/construction contractor and deliver title to, and ownership of, the project assets to the Islamic financiers. The Islamic financiers disburse the facility amount to the project company, pursuant to the terms of the *wakālah* (agency) agreement. A sample

form of a *wakālah* (agency) agreement is presented in appendix H.

Other Finance Documents

The other finance documents (in the form of a lease agreement) (see appendix I for a sample lease agreement for a *wakālah-ijārah* based financing), a service agency agreement (see appendix J for a sample service agency agreement for a *wakālah-ijārah* based financing), a purchase undertaking, and a sale undertaking used in a *wakālah-ijārah*-based financing structure are mostly identical to those explained in section 4.5 (*Istiṣnā'-Ijārah*-based Financing Structure) in the context of an *istiṣnā'-ijārah*-based financing structure. Samples of such purchase and sale undertakings can be found in appendices F and G.

4.7 MUSHĀRAKAH-ISTIṢNĀ'-IJĀRAH-BASED FINANCING STRUCTURE

DESCRIPTION OF A MUSHĀRAKAH-ISTIṢNĀ'-IJĀRAH-BASED FINANCING STRUCTURE

Mushārahah

The term *mushārahah* means partnership. Under a *mushārahah* structure, the parties involved in the transaction remain vested in the project for a defined period and are required to share the risks and rewards, similar to equity partners in a venture. *Mushārahah* structures require that the parties agree upon a profit-sharing ratio. This ratio does not necessarily need to be in proportion to their respective contribution to the *mushārahah*. However, any losses must be shared in proportion to the amount contributed by each *mushārahah* partner.

Mushārahah Agreement and Contribution

In the context of an infrastructure PPP project, the project company and the Islamic financiers may form a

mushārahah (contractual partnership) by entering into a *mushārahah* agreement. In *mushārahah*, the Islamic financiers will contribute the facility amount and the project company will contribute an agreed amount in cash (in the form of its shareholders' equity contribution, shareholders' loans, or other amount obtained by the project company from other sources) and/or in kind (for example, existing capital or rights under the concession agreement). If the project company's contribution comprises in-kind contributions, including its rights under the concession agreement, then an appropriate valuation of the project company's in-kind contribution will be determined.

Mushārahah Business Plan

The *mushārahah* to be formed between the project company and the Islamic financiers will have a *mushārahah* business plan showing the activities in which the *mushārahah* capital will be invested and the anticipated return on such investment. The subject matter of the concession agreement or any specific part thereof would be considered the *mushārahah* business plan.

Mushārahah Management Agreement

The *mushārahah* will need a manager to implement the *mushārahah* business plan. Pursuant to a *mushārahah* management agreement, both *mushārahah* partners (the project company and the Islamic financiers) will appoint the project company as a manager of the *mushārahah* to implement the *mushārahah* business plan. The project company, in its capacity as the manager of the *mushārahah*, will enter EPC/construction contract(s) with EPC/construction contractor(s) and other parties to complete the project in accordance with the *mushārahah* business plan.

The *mushārahah* manager will ensure that the project is implemented within the estimated parameters of project costs in accordance with the *mushārahah* business plan. Unless agreed otherwise in the finance documents, the Islamic financiers will not be obliged to increase their contribution to the *mushārahah* if there is any increase

in estimated project costs, and the project company will meet such cost overrun(s).

Leasing of the Islamic Financiers' Undivided Share in the Mushārahah

The Islamic financiers will lease their undivided share in the *mushārahah* to the project company by entering into a forward lease agreement. This agreement will include provisions whereby the project company will pay advance rentals (the lease rental payments are increased by an amount of the advance rental and then the two are offset, ensuring the lenders are not out of pocket) to the Islamic financiers during the construction period when the *mushārahah* business plan is being implemented.

The structure and mechanics for a forward lease agreement in a *mushārahah-istiṣnā'-ijārah* structure is the same as described under the *istiṣnā'-ijārah* structure described in section 4.5 (*Istiṣnā'-Ijārah*-based Financing Structure).

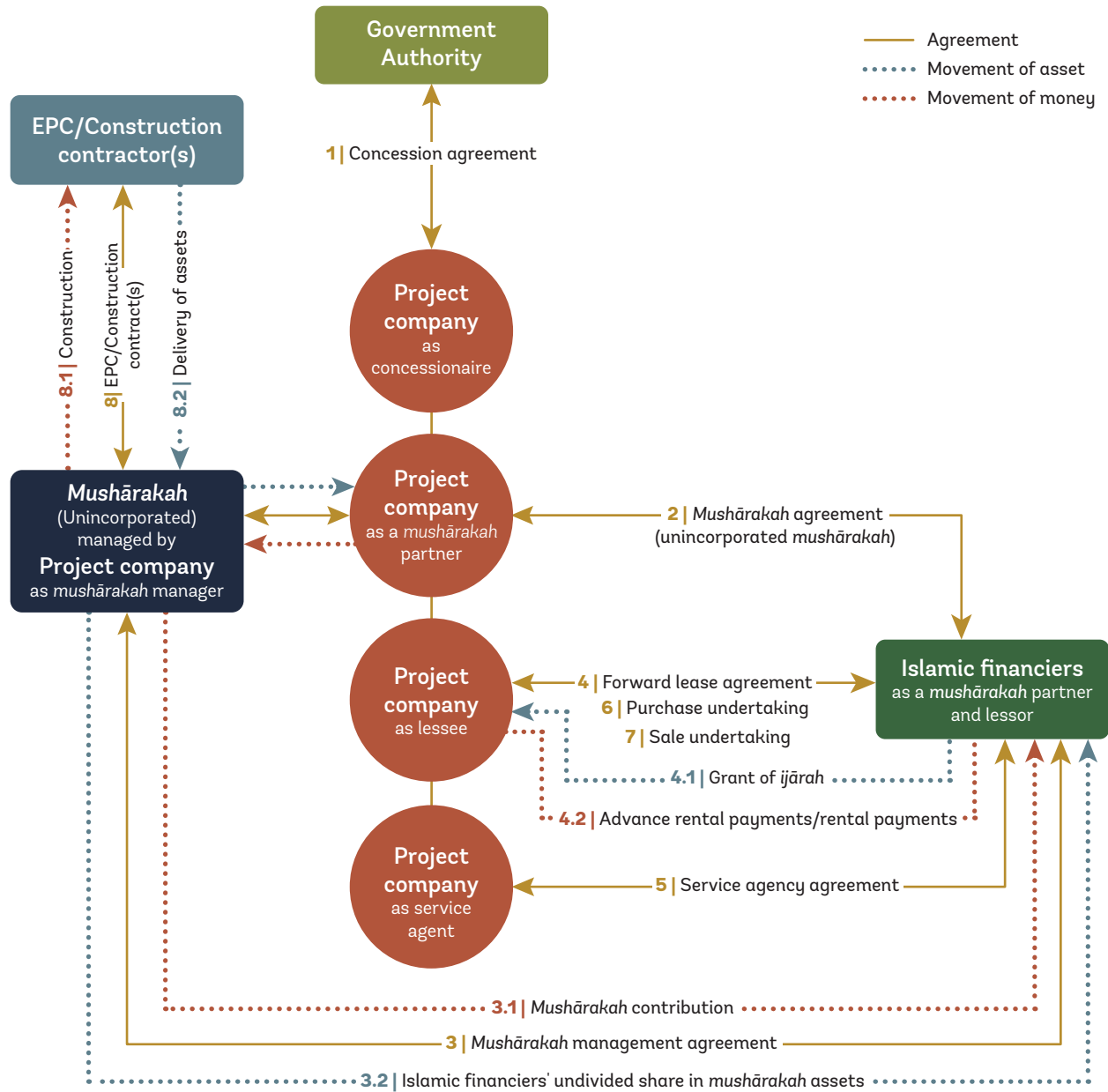
Under this structure, Islamic financiers' returns are limited to the earning from lease rentals. As mentioned, *mushārahah* structures require that the parties agree upon a profit-sharing ratio and this ratio does not necessarily need to be in proportion to their respective contribution to the *mushārahah*. Hence, the Islamic financiers may decide to agree on a very small, notional amount of profit sharing, given that their returns stem from the lease rental.

DIAGRAM OF A MUSHĀRAKAH-ISTIṢNĀ'-IJĀRAH-BASED INFRASTRUCTURE PPP PROJECT FINANCING STRUCTURE

In a *mushārahah-istiṣnā'-ijārah* structure, the *mushārahah* agreement and the *mushārahah* management agreement set out the mechanism for the utilization of the facility by the project company during the construction period, while the forward lease agreement provides the mechanism through

which repayments and payments representing a return (that is, interest) of the Islamic facility to the Islamic financiers are made. Figure 4.5 presents a suggested *mushārahah-istiṣnā'-ijārah*-based infrastructure PPP project financing structure, and related steps.

FIGURE 4.5: Sample *Mushārahah-Istiṣnā'-Ijārah*-based Infrastructure PPP Project Financing Structure and Steps



Note: EPC = engineering, procurement, and construction; PPP = public-private partnership.

DOCUMENTATION FOR A MUSHĀRAKAH-ISTIṢNĀ'-IJĀRAH-BASED FINANCING STRUCTURE

An indicative list of the documentation for implementing a *mushārahah-istiṣnā'-ijārah*-based infrastructure PPP project financing structure follows.

A Mushārahah Agreement

Pursuant to a *mushārahah* agreement, the project company and the Islamic financiers will contribute a

certain agreed percentage of the *mushārah* capital (in cash and/or in kind) that will be required to implement the *mushārah* business plan (that is, the subject matter of the concession agreement or any specific part thereof), and agree to share profit (as per an agreed percentage) and loss (in proportion to their respective capital contributions). A sample form of a *mushārah* agreement is presented in appendix K.

A Mushārah Management Agreement

Pursuant to a *mushārah* management agreement, both *mushārah* partners (the project company and the Islamic financiers) will appoint the project company as a manager to manage the *mushārah* (an unincorporated entity) and implement the *mushārah* business plan in accordance with the terms of the *mushārah* agreement.

The project company (in its capacity as the *mushārah* manager) will enter into the EPC/construction contract(s) and/or any other agreements to complete the project in accordance with the *mushārah* business plan. A sample form of a *mushārah* management agreement is presented in appendix L.

Other Finance Documents

The other finance documents (in the form of an *istiṣnāʿ* agreement, a forward lease agreement, a service agency agreement, a purchase undertaking, and a sale undertaking) used in a *mushārah-istiṣnāʿ-ijārah*-based financing structure are identical to those explained in section 4.5 (Documentation for an *Istiṣnāʿ-Ijārah*-based Financing Structure) in the context of an *istiṣnāʿ-ijārah*-based financing structure.

APPLICATION OF A MUSHĀRAH-ISTIṢNĀʿ-IJĀRAH-BASED FINANCING STRUCTURE

A *mushārah-istiṣnāʿ-ijārah*-based financing structure was used in the Doraleh Container Terminal project in Djibouti (the **Doraleh project**) (see case study in chapter 5). The parties entered into the following finance documents, among others:

- ◆ ***Mushārah Agreement:*** Pursuant to the agreement, the project company (as a *mushārah* partner for the equity portion of the project) and the financiers (as a *mushārah* partner for the debt financing portion of the project) agreed to contribute their respective percentage of the *mushārah* capital in order to implement the *mushārah* business plan of procuring the construction of a container terminal.
- ◆ ***Istiṣnāʿ Agreement:*** The *mushārah* partners (both the project company and the financiers) and the project company (as a separate capacity) entered into an *istiṣnāʿ* agreement, pursuant to which the project company (as seller) agreed to procure the *istiṣnāʿ* assets for the construction of a container terminal and delivery of the same to the *mushārah* partners (as purchaser) upon completion. The *mushārah* partners (as purchaser) agreed to disburse their respective *mushārah* contribution to the project company (as seller) as per the payment terms agreed under the EPC contract.
- ◆ ***Ijārah (Forward Lease Agreement):*** The financiers (as lessor) leased their share in the *istiṣnāʿ* assets to the project company (as lessee) on a forward lease basis, whereby the project company agreed to pay periodic advance rental payments (only the profit component of the financing) during the construction period and lease rental payments (both principal and profit components of the financing) from the date of completion and delivery of the *istiṣnāʿ* assets.
- ◆ ***Purchase Undertaking and Sale Undertaking:*** The project company provided a purchase undertaking (put option) whereby the financiers could oblige the project company to purchase the financiers' share

of the *istiṣnā'* assets (equivalent to acceleration) following the occurrence of one or more designated events or circumstances set out in the purchase undertaking. The financiers also provided a sale undertaking (call option), pursuant to which the project company could exercise its right to buy out

the financiers' share in the *istiṣnā'* assets (equivalent to a voluntary prepayment in full).

In the province of Sindh, Pakistan, a *mushārahah-ijārah*-based structure was used to finance the **Foundation Wind Power Project** (see case study in chapter 7), excluding the *istiṣnā'* component present in the Doraleh project.

4.8 SOME OTHER SUITABLE ISLAMIC FINANCE TOOLS

MUḌĀRABAH-BASED INFRASTRUCTURE PPP PROJECT FINANCING

Muḏārabah is a special kind of partnership (different from a *mushārahah*) between two partners for purposes of sharing profits. One partner (the *rab al-mal*) contributes capital for investing in a business enterprise and the other partner (the *muḏārib*) provides entrepreneurial or management skills.

The ownership of the assets acquired by the *muḏārib* with the *muḏārabah* capital remains with the *rab al-mal*. The *muḏārib* earns his/her share in the profit of the *muḏārabah* only if the *muḏārabah* business venture generates profits. Any loss suffered by the *muḏārabah* is borne solely by the capital provider (*rab al-mal*), except in the case of misconduct with respect to the *muḏārabah* capital, such as negligence or the breach of terms of the *muḏārabah* contract.

The *rab al-mal* may specify a particular business venture for the *muḏārib*, in which case the *muḏārib* is restricted to invest the *muḏārabah* capital only in that particular venture. This is called a restricted *muḏārabah*. However, if the *rab al-mal* has left it open for the *muḏārib* to undertake whatever business venture he/she wishes, the *muḏārib* is authorized to invest the *muḏārabah* capital in any *shari'ah*-compliant business venture he/she deems fit. This type of *muḏārabah* is known as an unrestricted *muḏārabah*.

A *muḏārib* is authorized to do anything that is normally done in the course of a business. However, if a *muḏārib* wants to do something that is beyond the ordinary scope of the relevant business, he/she cannot do so without obtaining prior express permission from the *rab al-mal*.

The *rab al-mal* and the *muḏārib* may agree at the time of entering into the *muḏārabah* that no party shall terminate the *muḏārabah* during a specified period, except if one or more specified events or circumstances occur.

Muḏārabah Profit

For a *muḏārabah* to be valid, the *rab al-mal* and the *muḏārib* must agree in advance upon a definite ratio for the distribution of *muḏārabah* profit. While the allocation of a fixed, nominal lump-sum amount of the profit to a party is not *shari'ah*-compliant, the *rab al-mal* and the *muḏārib* are free to share *muḏārabah* profits in equal or different proportions (in terms of percentages).

Except for receiving an agreed proportion of the *muḏārabah* profit, the *muḏārib* is not entitled to claim any periodical salary or a fee or remuneration for the work he/she performs for the *muḏārabah* business venture.

BOX 4.1: SUKŪK STRUCTURES FOR INFRASTRUCTURE PPPs

Although various *sukūk* structures can be utilized to finance an infrastructure PPP project, the combination of three Islamic finance techniques—namely, *mushārahah*, *istiṣnāʿ*, and *ijārah*—have been used in structuring certain recent project finance *sukūk*.

A *mushārahah-istiṣnāʿ-ijārah*-based *sukūk* comprises (i) a *mushārahah* (contractual partnership) relationship between the project company and the *sukūk* issuer SPV, followed by (ii) an *istiṣnāʿ* for the construction phase, and (iii) a forward lease for the operation phase of the transaction.

The basic structure and mechanics for a *mushārahah* agreement, an *istiṣnāʿ* agreement, and a forward lease agreement in a *mushārahah-istiṣnāʿ-ijārah*-based *sukūk* is the same as described in section 4.7 (*Mushārahah-Istiṣnāʿ-Ijārah-based Financing Structure*).

A *sukūk murābahah* was used to finance the construction of a 36.16-km closed-toll, dual-lane expressway between Bandar Sungai Long and Ukay Perdana in Malaysia, commonly known as the **East Klang Valley Expressway Project** (World Bank Group, PPIAF, and IsDB 2017).

Commingling Funds by the Muḍārib

If the *muḍārib* commingles some of his/her own funds (whether in the form of cash and/or in kind) with the *muḍārabah* capital, the *muḍārib* will become a partner with respect to his/her own funds and a *muḍārib* with respect of the *muḍārabah* capital provided by the *rab al-mal*. These two capacities are separate parallel functions.

Use of Muḍārabah as a Resource Mobilization Tool

Muḍārabah may also be used as a tool to mobilize resources for infrastructure PPP projects, where the lead bank takes the *muḍārib* role and the financiers participate in the transaction through the *muḍārib*. The *muḍārib* itself may also invest in the project.

4.9 SOME IMPORTANT CONSIDERATIONS UNDER DIFFERENT ISLAMIC FINANCE STRUCTURES

LATE PAYMENT

In the case of a default by the project company in the payment of any amount on the due date under a financing agreement, the Islamic financiers cannot increase the amount due to them in response to the project company's default and missed payment due date. However, the project company may be required to pay a prescribed amount to a charity in the case of

the late payment in lieu of a fine or equivalent late fee/payment increase. The Islamic financiers are generally required, as per the principles of *shari'ah*, to direct the late payment amount to a charitable purpose on behalf of the project company after deducting any actual and direct costs incurred by the Islamic financiers due to such late payment.

INVESTMENT AGENCY AGREEMENT AND INVESTMENT AGENT

Where more than one Islamic financier is involved in financing an infrastructure PPP project, it is expected that the Islamic financiers will enter into an investment agency agreement. Pursuant to this agreement, the financiers will appoint one of the Islamic finance participants or an external financial institution as their agent in relation to their participation in the financing—and, if the financing structure so requires, to hold title to the project assets on their behalf and for their benefit. An investment agency agreement stipulates the financier's and the investment

agent's rights and obligations, the funding allocation, and the disbursement mechanism. While it is not an essential requirement for a project company to be a party to an investment agency agreement, the project company is often made a party to this document. In cases in which the Islamic financiers choose to establish a special purpose vehicle (SPV) to hold title to the project assets, the investment agency agreement may set out provisions for the establishment of the SPV and the rights and obligations of the SPV.

USE OF A SPECIAL PURPOSE VEHICLE (SPV) BY ISLAMIC FINANCIERS

The Islamic financiers may choose to use an SPV to act on their behalf in an Islamic finance transaction. Given that Islamic finance is an asset-based financing, the use of an SPV in certain types of Islamic finance structures may provide certain benefits to both the Islamic financiers and the project company. In the case of the Islamic financiers, the SPV protects them from the risks associated with ownership of the underlying assets, such as environmental liability. In the case of the project company, because the assets are not held by the Islamic financiers directly, the SPV isolates the project company and the assets from the risk of insolvency of an Islamic financier. The use of an SPV may also help overcome issues preventing foreign

ownership (in jurisdictions where such restrictions apply).

However, incorporating an SPV can be time consuming and administratively burdensome. Moreover, the parties may not agree to incur the relevant costs involved in incorporating an SPV. The use of an SPV may raise some structuring issues related to the impact of the intervening SPV on the contractual relationships between the financiers and the project company. Having an SPV hold title to the project assets may also have tax implications in some jurisdictions. Accordingly, proper due diligence must be conducted before using an SPV in the financing structure.

CHOICE OF THE MODES OF FINANCING / STRUCTURES

The decision of which modes of financing or structures are appropriate for different projects largely depend on a host of factors, such as the nature of the project, assets, and regulatory requirements of the project's domiciled country. For example, the choice of *istiṣnā'* may be due to the fact that the Islamic financier wants to match fixed rate deposits with fixed rate assets. It may also be due to certain legislative limitations in some countries. Notably, in some PPP modalities, the land owned by

the government is allocated to the project company exclusively under the usufruct rights agreement, without the possibility of transferring those rights further. Thus, all civil works done belong to the land and cannot be transferred to the Islamic financier. For this reason, the Islamic Development Bank decided to structure the *istiṣnā'* financing for **Konya Hospital Project** (please see chapter 8) in such a way that it did not have to establish actual or notional ownership over the asset.

4.10 COMMON DOCUMENTS FOR AN INFRASTRUCTURE PPP PROJECT FINANCING TRANSACTION

A list of infrastructure PPP transaction documents follows. The last two documents are common in a

financing transaction where two or more financiers extend financing through separate financing arrangements:

AN INTERCREDITOR AGREEMENT

If the project company chooses to obtain financing from two or more financiers through separate financing arrangements, or from both conventional and Islamic financiers, the rights of each set of financiers (including the Islamic financiers' rights to take any enforcement action in relation to the assets) may be governed by the terms of an intercreditor agreement entered into between all such financiers.

An intercreditor agreement generally regulates the respective rights and ranking of different sets of financiers in a financing. Usually an intercreditor agreement regulates two sets of rights, among others: (i) before any enforcement of security, the rights to receive payments (such as principal, profit, and fees) from the debtor; and (ii) the rights to enforce security over the assets of the debtor (that is, the project company).

A COMMON TERMS AGREEMENT

In cases in which both conventional and Islamic financiers or two or more different sets of financiers extend financing through separate financing arrangements to a project company for the same project, different sets of financiers may choose to have a common terms agreement.

relationships among them (including definitions, conditions, order of drawdowns, project accounts, and voting powers for waivers and amendments). A common terms agreement greatly clarifies and simplifies the multisourcing of finance for a project and ensures that the parties have a common understanding of key definitions and critical events related to the project company and the project.

This agreement generally sets out the terms that are common to all the financing arrangements and the

4.11 SOME PERTINENT ISSUES RELATED TO ISLAMIC FINANCE

TAX ISSUES FOR ISLAMIC FINANCE

Because Islamic finance is asset-based financing, Islamic finance transactions often require multiple title transfers of underlying assets, which may trigger double or even triple tax charges in some jurisdictions. Because of the tax implications, utilizing certain Islamic finance products could be costly and uneconomical in some jurisdictions.

Certain jurisdictions have made some changes to their tax laws to create a "level playing field" so that Islamic finance products are taxed in the same way as equivalent conventional financial products. In some jurisdictions, certain Islamic finance structures are favored over other structures due to the tax implications.

Both the provider and recipient of the Islamic finance facility should carefully consider tax issues on a jurisdiction-by-jurisdiction basis before choosing an Islamic finance product and the structure involved in implementing such product.

Furthermore, both the project company and the Islamic financiers should carefully consider: (i) whether any payment related to an Islamic finance transaction would be subject to withholding tax; and (ii) whether an Islamic finance mechanism should be accounted for (in terms of accounting and tax deductibility purposes) as a debt financing arrangement, or otherwise.

SHARI'AH-COMPLIANT HEDGING

Hedging in general is permitted by the principles of *shari'ah*. From an Islamic finance point of view, hedging is an attempt by a party to mitigate or reduce the level of risk inherent to a financing transaction. Many forms of Islamic hedging instruments have been developed in recent years. *Shari'ah*-compliant hedging instruments currently available in the market include Islamic foreign exchange forwards, Islamic options, Islamic profit rate swaps, and Islamic currency swaps.

Derivatives Association (ISDA) have jointly developed certain types of *shari'ah*-compliant hedging instruments (including Islamic foreign exchange forwards, Islamic cross-currency swaps, and profit rate swaps).

The Bahrain-based International Islamic Financial Market (IIFM) and the International Swaps and

In an Islamic finance transaction, the financiers may require that an obligor (that is, the project company) use one or more *shari'ah*-compliant hedging instruments to mitigate certain risks (such as currency or profit rate risks) related to the obligor's obligations under such financing. An Islamic financier may also hedge its own exposure to a financing transaction.

TAKĀFUL, OR SHARI'AH-COMPLIANT INSURANCE

Takāful, or *shari'ah*-compliant insurance, is a form of insurance based on principles of mutuality and cooperation, encompassing the elements of shared responsibility, joint indemnity, common interest, and solidarity.

offer *takāful* products for infrastructure PPP projects. The Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), a member of the Islamic Development Bank Group (IsDBG), is a pioneer in this respect, and is leading the efforts to offer insurance services for infrastructure PPP projects based on *takāful* principles.

Some Islamic financiers may require that the insurance to be procured by an obligor be placed with *shari'ah*-compliant insurers on a *takāful* basis if adequate and viable relevant insurance cover is available from satisfactory and creditworthy insurers on commercially reasonable terms.

While the use of *takāful* is recommended, *shari'ah* scholars allow conventional insurance to be used in infrastructure PPP projects that are financed wholly or partially by Islamic finance if Islamic insurance products are not available or are not economically feasible.

While *takāful* products have been available in the market for some time, only a handful of institutions

NOTES

- 1 This section summarizes material discussed in World Bank Group, PPIAF, and IsDB (2017) and Rana (2015).
- 2 A nonconforming loan is a loan that fails to meet bank criteria for funding. For instance, the loan amount may be higher than the conforming loan limit (for mortgage loans), there is not enough credit, the nature of the use of funds may be unorthodox, or there may be concerns about the collateral backing it.
- 3 In conventional finance, an acceleration clause is a contract provision that allows a lender to require a borrower to repay all of an outstanding loan if certain requirements are not met. In case of Islamic finance, the similar arrangement is achieved through a combination of purchase undertaking and sale undertaking.



CHAPTER 5

Case Study: The Doraleh Container Terminal Project

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5.1 BASIC PROJECT INFORMATION

The Doraleh Container Terminal Project (DCT) supports Djibouti in meeting its growing volume of trade and strengthening its position as gateway to the east and southern Africa. The project involved the development, design, construction, management, operation, and maintenance of a greenfield container port terminal in the city of Doraleh. Located in highly strategic east-west shipping lanes, the project, in addition to serving as the de facto port for Ethiopia, has huge potential as a transshipment hub for the Common Market for Eastern and Southern Africa (COMESA) region.

The project was developed under a 30-year concession signed in 2006 and granted by the Government of Djibouti (GoDj) to the main project sponsors—Dubai Ports World (DP World) of the United Arab Emirates and the Port Autonome International of Djibouti (PAID)—via their joint-venture vehicle, the Doraleh Container Terminal S.A. (the project company). PAID holds a 67 percent equity stake in the terminal, while DP World

Djibouti—a 100 percent-owned subsidiary of DP World, the Dubai-based port operator and a leading global terminal investor—holds the remaining 33 percent.

The \$396 million project represents the first public-private partnership (PPP) financing in Djibouti. The project was financed by a consortium of international financiers, under the Islamic and conventional finance facility, with various Islamic modes of financing involved. The financiers assumed the risk for the project without recourse to the GoDj, based on the strategic importance of the port, market demand, and the experience of DP World in successfully managing similar ports. In its first guarantee of a project funded under an Islamic financing structure, the World Bank Group's Multilateral Investment Guarantee Agency (MIGA) has supported DCT, providing project sponsors and financiers the protection for investments against the risks of transfer restriction, war and civil disturbance, expropriation, and breach of contract.

The project commenced operations in 2009. The terminal has a total quay length of 1,050 meters and an annual handling capacity of 1.2 million TEUs (twenty-foot container equivalent units).¹ In 2016, the new container terminal handled more than 836,000 TEUs,² more than double the 360,000 TEUs handled by the old port in 2008.

DCT has supported Djibouti’s increasing port traffic, has enabled the latest generation container ships to

be hosted, and has opened up new opportunities for investment and growth. Moreover, the new terminal has eased the country’s reliance on trade with Ethiopia (before the project, 85 percent of country’s incoming cargo was destined only for Ethiopia) and attracted other African countries to use the port as a gateway. Operating at full capacity, DCT ranks high among all DP World ports in terms of units offloaded per hour. Lloyds Register certified the terminal as fully compliant with the stringent ISO 28000: 2007 security standard.

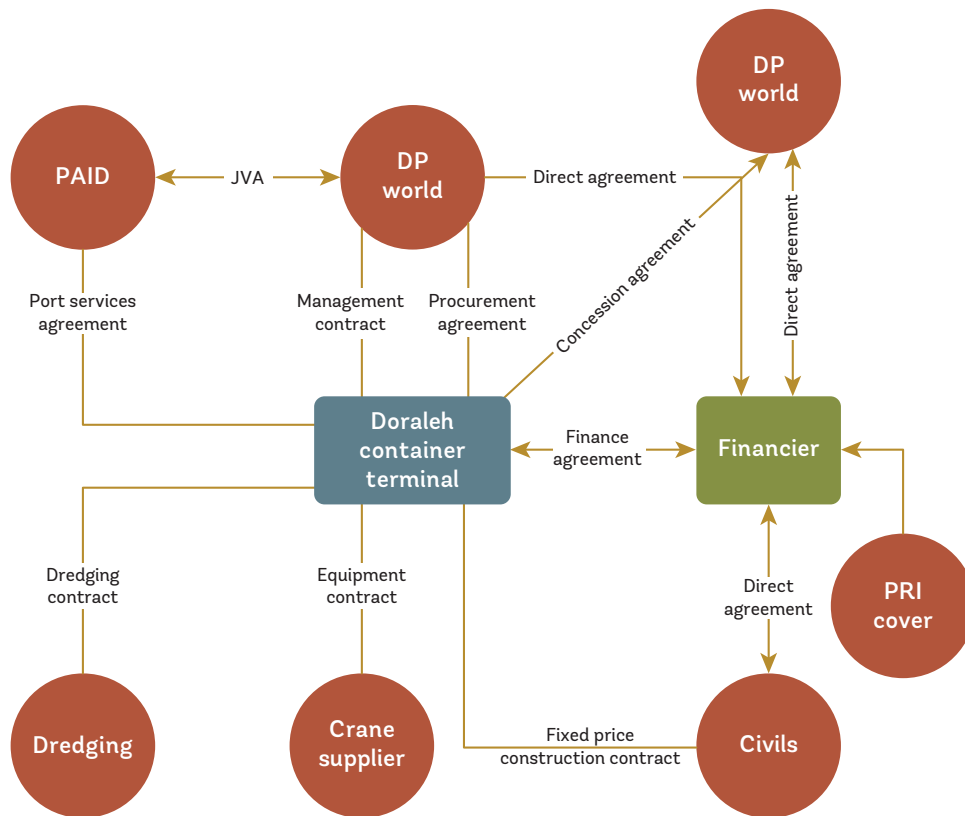
5.2 THE CONTRACTUAL ARRANGEMENTS

OVERVIEW OF THE CONTRACTUAL ARRANGEMENTS

The principal contracts and relevant counterparties of the project, as well as the summary of the terms of the main contracts, are presented in figure 5.1.

◆ *Concession Agreement:* The agreements entail a 30-year build-operate-transfer (BOT) concession to develop, finance, design, construct, manage,

FIGURE 5.1: The Contractual Framework of Project Financing for the Doraleh Container Terminal Project



Source: Standard Chartered Bank 2010.

Note: DP World = Dubai Ports World; PAID = Port Autonome International of Djibouti; PRI = political risk insurance.

operate, and maintain a new container terminal at Doraleh. The agreement also specifies various responsibilities for the GoDj with respect to DCT (mainly fulfilled through a service contract with PAID), termination clauses, and relevant compensation provisions.

◆ *Direct Agreement:* The financiers entered into this agreement with the government and project sponsors to prevent the termination of the concession via agreed lenders’ step-in rights and rights to replace the operator.

◆ *Procurement Agreement and Operation and Maintenance (O&M) Agreement:* These agreements

ensure that the work of all contractors is moving in concert toward achieving completion, placing the overall completion responsibility on DP World Djibouti. DP World, the parent company of DP World Djibouti, has extensive experience in operating container terminals and has been operating the existing Djibouti port since 2000. DP World undertakes to ensure that DP World Djibouti has sufficient resources to carry out its obligation to DCT under the procurement agreement and O&M agreement, and through the provision of equity to DCT.

Project parties and stakeholders include but are not limited to those listed in table 5.1.

TABLE 5.1: Project Parties and Stakeholders for the Doraleh Container Terminal Project

Role	Party
Concessionaire	The Government of Djibouti: Djibouti Ports and Free Zones Authority (DPFZA)
Project company	Joint venture vehicle, the Doraleh Container Terminal S.A.
Sponsors	- Dubai Ports World (DP World) of the United Arab Emirates - Port Autonome International of Djibouti
EPC contractor	Construction and supply of equipment (crane supplier, dredging) to come from three main contracts on a fixed price basis
O&M contractor	DP World Djibouti, the 100 percent-owned subsidiary of DP World
Financiers	Islamic tranche: - Bank of London & The Middle East - Dubai Islamic Bank - Islamic Development Bank - Standard Chartered Bank - WestLB AG Conventional tranche: - African Development Bank - Proparco Political risk insurance cover: - Multilateral Investment Guarantee Agency (MIGA) - Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC)

Note: EPC = engineering , procurement, and construction; O&M = operation and maintenance.

ISLAMIC FINANCING TRANCHE

The project was initially financed under a 100-percent Islamic facility involving various Islamic financing structures. The innovative DCT financing arrangement

was recognized as one of the most significant financing deals of 2007 by a number of publications, including Euromoney Project Finance Magazine, African

Transport, and The Journal of Islamic Finance. For its role in the project, the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC) won “Most Innovative Islamic Financing Transaction” at the 2009 London Sukuk Summit Islamic Finance Awards.³ Figure 5.2 presents the Islamic financing structure of the project financing.

The project financing was executed by combining the *mushārahah* and *istiṣnāʿ* financing during the construction period and *ijārah* financing for post-construction completion. Key financing agreements include:

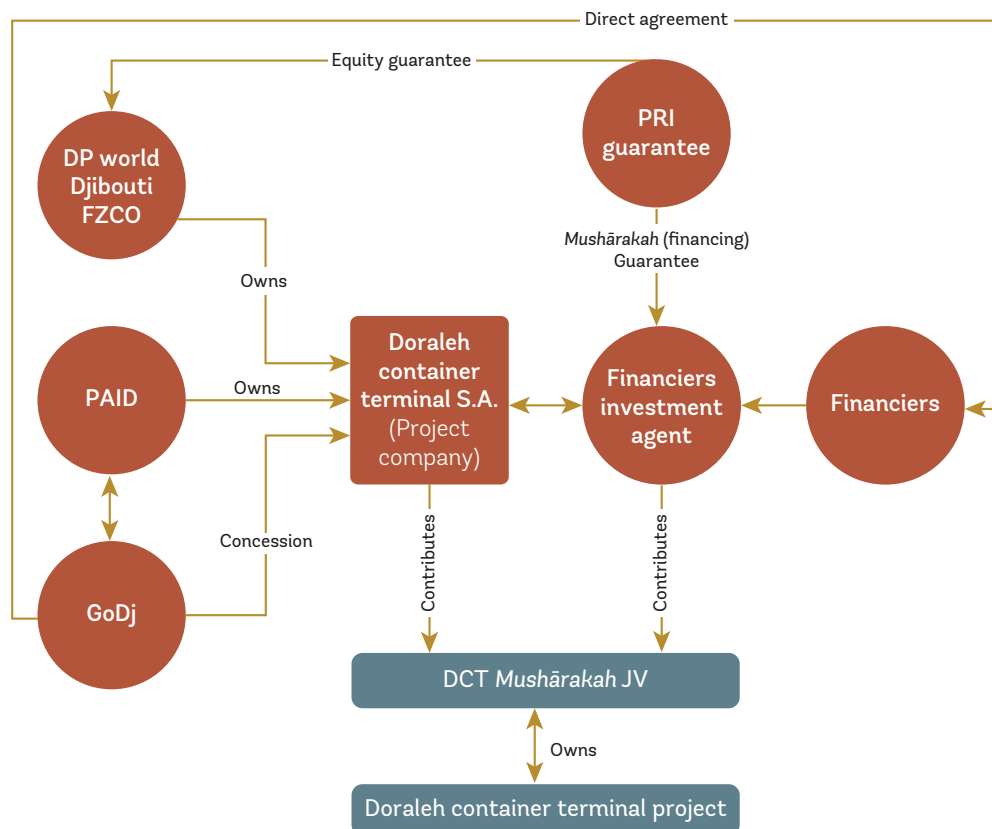
◆ *Mushārahah* Agreement: This agreement created an unincorporated joint venture that owns the assets being built. Through the *mushārahah* agreement,

DCT and the project financiers agreed to procure assets for the project jointly and committed to making respective capital contributions representing the financing plan’s debt and equity components.

◆ *Istiṣnāʿ* (construction/asset development financing): Through this agreement, the partners appointed DCT as a procurer to construct the container terminal and ensure the delivery of assets at the end of the construction period. Capital contributions under the *mushārahah* were paid to DCT, which essentially is equivalent to multiple drawdowns under a conventional lending arrangement. The agreement expires at project completion.

◆ *Ijārah* (forward lease agreement): Through this agreement, the financiers agreed, upon project

FIGURE 5.2: Islamic Financing Tranche for the Doraleh Container Terminal Project



Source: World Bank.

Note: DCT = Doraleh Container Terminal; DP World = Dubai Ports World; FZCO = Free Zone <Free Zone Company >; GoDJ = Government of Djibouti; JV = joint venture; PAID = Port Autonome International of Djibouti; PRI = political risk insurance.

FIGURE 5.3: The Structure of the Islamic Profit Rate Swap for the Doraleh Container Terminal Project

Source: World Bank.

completion, to forward lease their ownership stake in project assets to DCT: that is, the financiers lease the right to use the co-ownership interest in the terminal to DTC in exchange for rental payments reflecting amortization of the loan. The purchase undertaking will be used in case of an acceleration of the loan and the sale undertaking will be used in case of early payment.

◆ *Purchase Undertaking:* Through this arrangement, financiers have the right to force DCT to purchase their share of the assets (equivalent to acceleration). The exercise price under this undertaking is an amount equal to the outstanding facility amount, any accrued and unpaid lease rentals, and any other outstanding amount under the financing documents.

◆ *Sale Undertaking:* According to this arrangement, if DTC chooses, it has a right to buy out its partner (the financiers) in return for paying off its contribution in full (equivalent to the principal of the financing). This would be equivalent to voluntary prepayment in full.

◆ *Islamic Profit Rate Swap:* In addition, in order to control the risk and manage the exposure to interest rate movements, the financing structure

also entailed an Islamic profit rate swap, a hedging instrument acceptable and available in the Islamic finance market that effectively is the same as that underlying a conventional interest rate swap. Figure 5.3 illustrates the structure of the Islamic profit rate swap.

As shown in figure 5.3:

- 1 | The project company “sells” commodities (on a *murābahah* basis) to the swap bank,⁴ payable on a pre-agreed date and yielding a fixed profit return.
- 2 | The project company “buys” commodities (on a *murābahah* basis) from the swap bank, payable on a pre-agreed date and yielding a floating profit return.
- 3 | The project company pays floating-rate rental to the financiers. The project rate risk is hedged for the project company by matching rental payment obligations with inflows from the floating *murābahah* investment.

This project demonstrates the versatility of Islamic instruments in order to able to develop an Islamic profit rate swap structure as well as Islamic tranches being able to come under the MIGA cover.

5.3 FINANCIAL INFORMATION

The project's economic benefits remain significant to Djibouti, enhancing its role as a catalyst for growth, private sector development, and trade. The project supported the creation of jobs and enabled a transfer of technology, lowering the transportation costs for the shipping lines. The project's real economic internal rate of return (EIRR) was estimated at 24.4 percent.⁵

The total cost of the project, estimated at \$396 million, was financed through a debt-to-equity ratio of 77:33, with \$133 million financing in the form of equity.⁶

The financing of the project faced numerous structuring and syndication challenges because the project involved multiple contractors and government co-ownership, and the track record of international funding in Djibouti was limited. The financing achieved financial close in December 2007, with seven financing institutions committing to support the project at its final financial close. Financing entailed a 10-year term, including a 2-year construction phase. It was provided by a mix of commercial lenders, multilateral financing institutions, and development finance institutions: the Islamic tranche of \$160 million was provided by the Bank of London & The Middle East, Dubai Islamic Bank, the Islamic Development Bank, Standard Chartered Bank, and WestLB AG, while the conventional tranche of \$103 million was provided by the African Development Bank and Proparco.

5.4 GOVERNMENT SUPPORT

Contract Termination: In all circumstances of termination of the concession agreement, the GoDj has undertaken to compensate financiers for all of DCT's outstanding debt obligations. Furthermore, the breach of contract cover under the political risk insurance

MIGA, the risk insurance arm of the World Bank Group, along with ICIEC, part of the Saudi Arabia-based Islamic Development Bank, were brought in to insure against political risk. The political risk insurance (PRI) covered against the risks of currency inconvertibility and transfer restriction, expropriation, breach of contract, and war and civil disturbance, and was available for 99 percent of the facility amount.

The political risk guarantee was structured to mitigate multiple country and political risks, including cancellation of the concession or modification of its terms; confiscatory regulatory/administrative decisions; change in law; political force majeure events in both Djibouti and Ethiopia; and nonpayment of termination payments by the GoDj (MIGA 2009).

Financiers joined on a nonrecourse project finance basis, which was supported by a security package standard for project finance transactions. The security package includes (i) assignments of the concession agreement, other project agreements, termination compensation, and all commercial insurance and performance bonds, and the assignment of the political risk insurance package; (ii) pledge of all shares in the project company; and (iii) charge over the land, plant, and equipment, as well as charge overall project accounts.

was provided in relation to GoDj's obligation to pay termination compensation, which covers termination in all circumstances leading to termination of the concession agreement other than termination due to an event of default by DCT.

5.5 LESSONS LEARNED

- 1 | The project demonstrates the feasibility of political risk insurance cover application in a project funded by an Islamic financing structure. The following adjustments to MIGAs contract of guarantee were made:

MIGA agreed to cover the advance rental and rental under the forward lease agreement, and the early termination events, including: (i) termination payment under the *istiṣnāʿ* agreement in the event that construction is not completed; (ii) DCT's payment obligation to purchase the assets from the project financiers in the event that the purchase undertaking is exercised; and (iii) the amount owed by DCT as partner to the financiers under the *mushārakah* agreement in the event of an unwinding of the partnership. All references to "interest" in the contract of guarantee, including interest owed to MIGA for late premium, were replaced with the term "late payments," and it was agreed that such payments will be donated to charitable foundations.
- 2 | Establishing the precedent for an innovative financing structure, the project was MIGAs first guarantee for a project funded under an Islamic project finance facility in collaboration with ICIEC. Joint MIGA and ICIEC political risk insurance helped mobilize financing, which would otherwise have been difficult considering the noncommercial risks.
- 3 | The project demonstrates the significant benefits of working with multilateral banks and development finance institutions, especially in the context of political risk insurance cover for Islamic financiers. MIGA structured its guarantee in a way that addressed the key risks that concerned the project financiers, while meeting the strict requirements governing the Islamic finance structure. MIGAs participation enabled the syndication of a significant amount of financing provided by several banks on favorable terms and conditions under an Islamic financing structure.
- 4 | Key success factors include:
 - ◆ *The defined strategic importance of the project.* The development of shipping, logistics, and services is central to the GoDj's economic strategy, especially with respect to the country's development as a regional shipping hub and gateway to the COMESA region.
 - ◆ *Implementation of the economically efficient PPP financing structure,* which alleviated pressure on the country's fiscal resources.
 - ◆ *Engagement in demand-based development.* Market research established strong justification for expanding Djibouti's port facilities to serve Ethiopia's and Djibouti's trade as well as to serve transshipment (pickup and drop off for international shipping lines).
 - ◆ *Strong and competent sponsors and contractors.* DP World has extensive knowledge and experience in the global and local operational environment.
 - ◆ *Utilization of equipment meeting high industry standards.* Latest-generation equipment was installed and used for operation of the terminal, thanks to the vast expertise provided by the sponsor.
- 5 | Nevertheless, GoDj's seizure of DCT from DP World in February 2018 and the ongoing dispute at the port of Djibouti highlights the country's erratic policy environment, increasing the contract risks to foreign investors and denting investors' confidence. The seizure comes after the government in November 2017 adopted a new law that allows it to renegotiate concessions agreed under previous administrators and proceeded to cooperate with China Merchants Port Holdings on port-related development projects despite its exclusive concession agreement with

DP World. These decisions are very likely to lower trust, and thus investments, of foreign investors—all the more because the legal channels whereby they can challenge the government's decisions are fewer than in other jurisdictions.⁷

- 6 |** In August 2018, the London Court of International Arbitration (LCIA) ruled that the Government of Djibouti cannot terminate the contract granting control of the Doraleh port to DP World.⁸ The High Court of England & Wales issued an injunction against the government-controlled company Port de Djibouti SA, ordering that it must not act as

though its joint venture with DP World had been terminated, must not remove any DP World board members, and must not use Standard Chartered Bank to transfer funds to Djibouti. Djibouti, despite the ruling and its exclusive concession agreement with DP World, has proceeded to cooperate with China Merchants Port Holdings (CM Port) on port-related development projects. DP World was awarded \$385 million (\$533 million with royalties) in compensation for the Government of Djibouti's decision to shut it out of previously agreed development opportunities.⁹

5.6 RISK MATRIX

Table 5.2: highlights key risks associated with the project, describing the respective mitigants contained in the project design and contractual arrangements.

TABLE 5.2: Risk Matrix for the Doraleh Container Terminal Project

	Description	Allocation	Mitigation
Construction/ completion risk	Given the multiple contract structure, the risk of specification mismatch, interface issues, and delays/cost overruns	Sponsors/ project company	DP World Djibouti has the responsibility for ensuring the appropriate specifications and coordination of all activities of various contractors. DP World, the experienced parent, undertakes to support DP World Djibouti's obligations under the agreements. Drawdown under the financing documents conditions the requirement for a satisfactory report by the technical advisor appointed by financiers for review of project design and the construction implementation plan. Construction and supply of the equipment (crane, dredging) occurs through three main contracts on a fixed-price basis.
Operating risk	Inefficiencies, maintenance, congestion	O&M contractor	DP World has extensive knowledge and experience in the global and Djibouti's operating environment. It has the latest technical and technological skills to operate and manage ports internationally. DCT was built with the latest technologies.
Commercial risk	Reduced demand, competition, mark-up risk	Project company/swap counterparty	The existing port before the new DCT port was launched had an established business, enjoyed a competitive tariff structure, and was managed by the DP World. It was taken over by DCT, therefore providing DCT the advantage of picking up from existing operations. Experienced independent consultants analyzed key sources of project traffic (Ethiopian transit traffic, local Djibouti traffic, and transshipment traffic), concluding that DCT would be commercially viable, given its strategic location, competitive operations, and the future outlook of the regional trade traffic development. Furthermore, the GoDj has undertaken not to introduce competing container terminals for a minimum of 10 years. The mark-up rate risk is mitigated through financiers' requirement to hedge a certain portion of the debt for the full tenor, undertaken by the underwriters using a shari'ah-compliant hedging mechanism.

	Description	Allocation	Mitigation
Financial risk	Delay, nonrepayment	Project company	A debt service reserve account has been maintained through a cash waterfall mechanism, with the requirement for the DCT project to maintain at all times one-quarter of the amount of repayment installments. Because project revenues are denominated in both US dollars and in Djibouti francs (DF), an offshore proceeds US dollar account was maintained, while limits were imposed on an onshore operating expense DF account.
Exchange rate risk	DCT revenues are in both US dollars and Djibouti francs	Project company	DCT is located in the free zone, enjoying no restrictions on foreign exchange. The majority of DCT revenues are in US dollars and maintained in an offshore US dollar account, pledged to the financiers.
Legal and regulatory risks	Risk related to change in law, regulatory framework	Project company/insurer	The GoDj is a major shareholder in the project. All regulations and the concession have been approved by Djibouti’s parliament. Nevertheless, in the event of a change in law that is directly unfavorable to DCT, the political risk insurance (PRI) cover was included as a risk mitigant to mitigate the losses to financiers.
Force majeure risk	Risk of force majeure events	Insurer	MIGA’s political risk insurance was structured to mitigate the following risks, mainly through its breach of contract cover: <ul style="list-style-type: none"> • Cancellation of the concession or modification of its terms • Change in law • Political force majeure events in both Djibouti and Ethiopia • Nonpolitical force majeure events • Nonpayment of termination payments by the GoDj • Nonpayment of liabilities related to losses caused by the state-owned enterprise • Corporate events of default cause by actions of the GoDj
Country risk	Economic risks, political risks	Project company/insurer	Aligned with its strategic location and its status as a free trade zone, Djibouti’s primarily service-based economy offers a positive outlook for facilitation of regional transit port and international transshipment and refueling services. Government ownership in the project aligned interests with the concessionaire. Country risk is further mitigated by the PRI cover available against the risks of currency inconvertibility and transfer restriction, war and civil disturbance, expropriation, and breach of contract.

Note: DCT = Doraleh Container Terminal Project; DP World = Dubai Ports World; GoDj = Government of Djibouti; MIGA = Multilateral Investment Guarantee Agency; PRI = political risk insurances; O&M = operation and maintenance.

NOTES

- 1 <http://dpfza.gov.dj/?q=facilities/dct>
- 2 https://www.joc.com/port-news/terminal-operators/dp-world/djiboutis-doraleh-container-terminal-benefits-domestic-consumption_20160307.html
- 3 <http://islamicfinancenews.wordpress.com/2009/07/19/2009-london-sukuk-summit/>
- 4 A swap bank is an institution that acts as a broker between two counterparties that wish to enter into a swap agreement.
- 5 www.ifc.org/.../7%2BStandard%2BChartered%2BDoraleh%2BContainer%2BTerminal...
- 6 <http://idb-40.org/assets/2014/5/4/pdf/92afc31-0ced-44e5-a32c-01f0f4688256.pdf>
- 7 <https://allanandassociates.africa-newsroom.com/files/download/f87c1579e629ef5>
- 8 https://www.americanshipper.com/Main/full/British_court_rules_in_DP_Worlds_favor_72441.aspx?source=Little4 https://www.joc.com/port-news/terminal-operators/dp-world/djibouti-doraleh-terminal-operator-government-owned_20180312.html
- 9 <https://www.maritime-executive.com/article/djibouti-ordered-to-pay-dp-world-530m-in-port-dispute>

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CHAPTER 6

Case Study: Queen Alia International Airport

6.1 BASIC PROJECT INFORMATION

The project aims to increase the capacity and improve the quality of service at Queen Alia International Airport (QAIA), the largest airport and main aviation gateway of Amman, Jordan, originally built in 1983. QAIA handles almost all of the country's air traffic. The project encompasses the construction of the new terminal, expansion of the facilities, and improvement of the airport operations management through involvement of an international airport operator. The project is the first successful airport public-private partnership (PPP) in Jordan and the Middle East and the largest private sector investment in Jordan to date.

The International Finance Corporation (IFC) provided transaction advice to the Government of Jordan (GoJ) for structuring and awarding the concession. The concession was granted as part of a wider GoJ reform program, including a new Civil Aviation Law to separate regulatory and operational responsibilities and introduce the regulated airport charges.

In November 2007, Airport International Group (AIG) entered a 25-year concession agreement—also known as a rehabilitation, expansion, and operation

(REO) agreement—with the GoJ for the expansion, rehabilitation, and operation of the QAIA. Pursuant to the concession agreement, AIG is entrusted with the design, development, operation, administration, management, improvement, and maintenance of QAIA until 2032. The concession required that the project be implemented under a build-operate-transfer (BOT) scheme, considering phased upgrading of the airport capacity: a new terminal was to be built and commissioned to replace the existing one (Phase I, completed in 2013), followed by the expansion of related airport facilities (Phase II, completed in 2016).

This PPP project resulted in more than \$1 billion of investment, financed by the private sector. The financing was implemented in two phases: the initial phase and the expansion. Both phases benefited from parallel financing: that is, Islamic financing (provided by the Islamic Development Bank, IsDB) and conventional financing (provided by IFC). The PPP arrangement has further generated significant gains for the public sector, estimated at \$200 million annually (World Bank Group 2016). The capacity of the airport was increased from about 4 million passengers in 2007 to 12 million

passengers at the time of completion of the expansion phase in 2016. The airport handled about 8 million passengers in 2017, continuing to facilitate Jordan’s

long-term traffic growth and to provide for a modern and efficient transportation asset supporting Jordan’s regional and global connectivity.

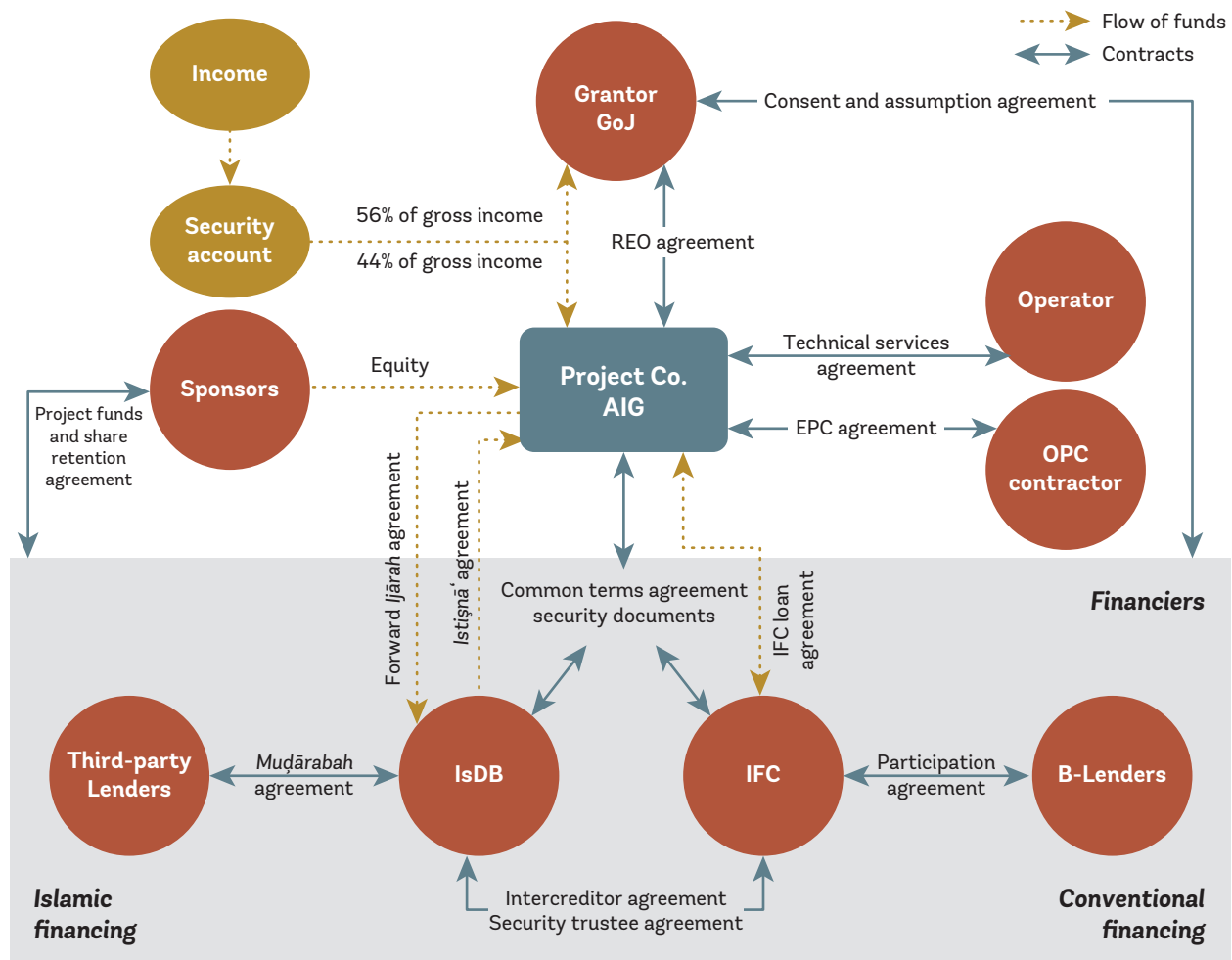
6.2 THE CONTRACTUAL ARRANGEMENTS

OVERVIEW OF THE CONTRACTUAL ARRANGEMENTS

The project company entered into a number of agreements with different parties to deliver this project, as summarized in figure 6.1. Broadly, these agreements can be categorized as project agreements (rehabilitation, expansion, and operation [REO] agreement; technical services agreement; engineering procurement, and

construction (EPC) agreement; consent and assumption agreements; and so on) and financing agreements (common terms agreement, loan agreement, intercreditor agreement, forward *ijārah* agreement, and so on). Financing agreements are highlighted in the shaded area of figure 6.1.

FIGURE 6.1: The Contractual Framework of Project Financing for the Queen Alia International Airport Project



Sources: Gosavi 2009; IFC 2017.

Note: AIG = Airport International Group; EPC = engineering, construction, and procurement; GoJ = Government of Jordan; IFC = International Finance Corporation; IsDB = Islamic Development Bank; REO = rehabilitation, expansion, and operation.

At the core of the project agreements is the concession agreement—in this case, the REO agreement—that defines the following key terms and requirements:

- ◆ Establishes a 25-year BOT concession agreement for refurbishment and upgrade of the existing airport
- ◆ Requires (i) building a new terminal, and operation and management of the airport (including collection of revenue and airport charges); and (ii) stipulates that the ownership of the project must remain with the government.
- ◆ Provides for (i) exclusivity rights to support the competitiveness of the project; (ii) currency and inflation protection; (iii) force majeure and political events protection; and (iv) termination/default compensation.

All the capital expenditure works were completed by an EPC contractor on a lump-sum, fixed-price,

date-certain, turnkey basis. The EPC contractor was responsible for design, procurement, and delivery to site of the installation, construction, testing, commissioning, completion, and hand-over of all works specified in the REO agreement and to remedy defects within the period stipulated in the EPC contract.

The operation of the airport was arranged through the technical services agreement between AIG and Aéroports de Paris Management (ADPM). The technical services agreement enables AIG to benefit from the significant business development and operations management expertise of ADPM. Under the technical services agreement, ADPM provides all necessary technical support in order to run the operation according to the requirements of the REO agreement.

Project parties at the time of initial financial closing of the project include but are not limited to those listed in table 6.1.

TABLE 6.1: Project Parties for the Queen Alia International Airport Project

Role	Party
Grantor	The Hashemite Kingdom of Jordan (GoJ): - Ministry of Transport - Civil Aviation Regulatory Commission - Jordanian Ministry of Industry and Trade
Project company (winning bidder)	Airport International Group P.S.C (AIG)
Sponsors ^a	- Aéroports de Paris Management S.A. (ADP) - J&P-Avax S.A., Joannou & Paraskevaides (Overseas) Ltd (J&P) - Abu Dhabi Investment Company - Noor Financial Investment Company KSCC - EDGO Investment Holdings Ltd
EPC contractor	J&P-Avax S.A., Joannou & Paraskevaides (Overseas) Ltd
Financiers	- Lead financiers: IFC and IsDB. - Sublenders: Calyon, Natixis, and Europe Arab Bank, among others, for conventional finance tranche; and OFID for the Islamic facility

Note: GoJ = Government of Jordan; IFC = International Finance Corporation; IsDB = Islamic Development Bank; OFID = OPEC Fund for International Development; OPEC = Organization of the Petroleum Exporting Countries.

a. In April 2018, Groupe ADP, through its fully owned subsidiary, ADP International, finalized the transaction to acquire the 51 percent capital ownership and the exclusive control of the AIG (Groupe ADP 2018). The new co-shareholders with which Groupe ADP invested were the infrastructure investment funds Meridiam and IsDB Infrastructure Fund II. EDGO remains a co-shareholder. See <http://www.aig.aero/en/content/our-shareholders>.

The financing comprises long-term debt from both IsDB and IFC, as well as equity from the AIG shareholders, in addition to cash generated from the operation of the existing airport at the time of the financing of the initial terminal, which was operated profitably by the

AIG during the construction of the new terminal. In addition to this base financing, sponsors agreed to contingent financing to cover cost overruns or other unforeseeable changes during the construction of the new terminal.

ISLAMIC FINANCING TRANCHE

The project is the first Middle-East PPP dual tranche conventional loan and Islamic facility. The Islamic financier (IsDB) provided total financing of \$125 million through a leasing mode.

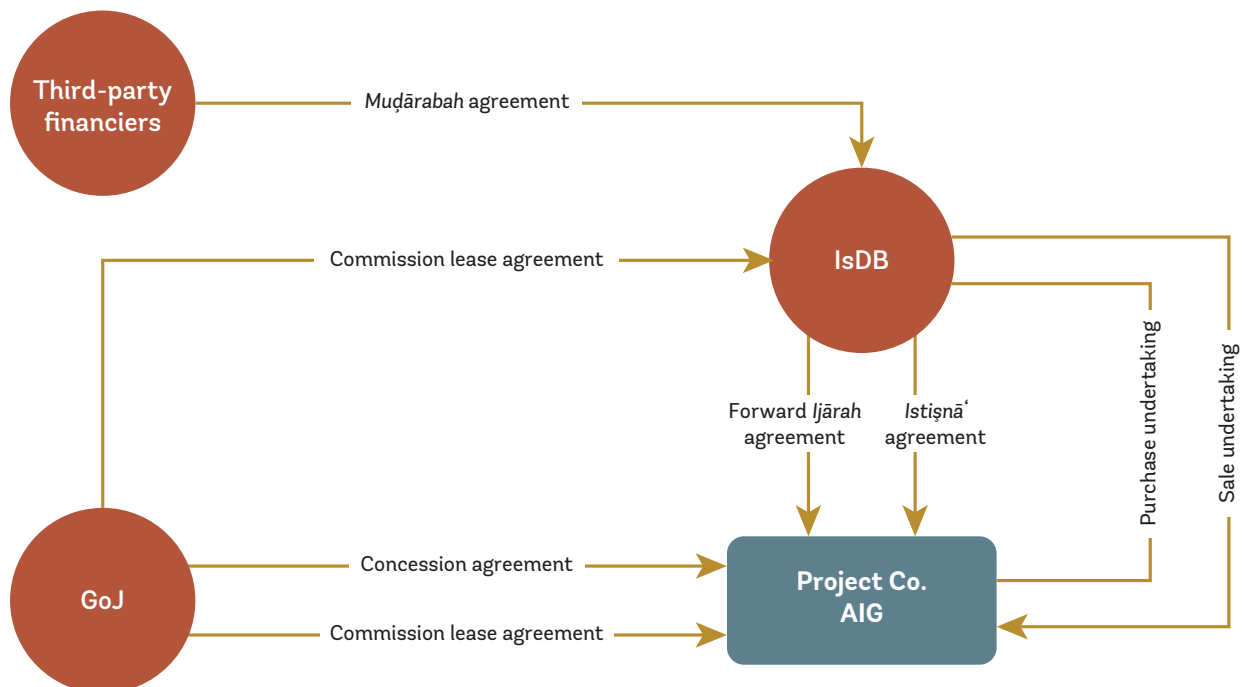
The Islamic facility tranche for this project was executed as per the following contractual framework, shown in figure 6.2:

- ◆ The construction phase of the project was governed by an *istiṣnā'* agreement between the IsDB and the project company.

- ◆ Once construction was complete, the IsDB and the project company signed an *ijārah* agreement whereby the IsDB leases the asset to the AIG.
- ◆ The IsDB mobilized the third-party financing through a *muḍārabah* agreement.

While the Islamic and conventional tranches were incorporated through the well-known parallel financing structure, an additional notable feature of this project is to demonstrate the application of resource mobilization under the Islamic tranche, through *muḍārabah* arrangement, similar to what IFC did under a B-loan structure.

FIGURE 6.2: The Contractual Framework for the Islamic Financing Tranche for the Queen Alia International Airport Project



Sources: World Bank Group, PPIAF, and IsDB 2017; Gosavi 2009.

Note: AIG = Airport International Group; GoJ = Government of Jordan; IFC = International Finance Corporation; IsDB = Islamic Development Bank.

6.3 FINANCIAL INFORMATION

Project costs incorporating both phases of project implementation totaled more than \$1,060 million (\$850 million for Phase I and \$214 million for Phase II). The project was financed under the comfortable debt-to-equity ratio of 55:45. Debt raised by IFC and the IsDB totaled \$473 million, with the remainder funded by sponsors and cash flows generated from airport operations.

The financing plan was as follows:

- ◆ Phase I (2007) conventional financing consisted of two senior tranche financing (A-Loan and B-Loan totaling \$230 million) and two subordinated tranches (C-Loan and Stand-by loan totaling \$50 million). The Islamic facility consisted of a parallel cofinancing senior tranche (totaling \$100 million), which was subsequently syndicated for participation of the third-party financier.

- ◆ Phase II (2016) financing comprised senior tranche financing (totaling \$93 million) from both lead financiers.

To facilitate project implementation needs, the financing incorporated long tenures and a reasonable grace period, and was priced at market rates.

Financing by lenders was secured by all concession rights and project company assets and further protected by step-in rights and GoJ's undertaking to pay all financial obligations in case of termination of the concession agreement. Phase II financiers were provided additional comfort by requiring the sponsors to undertake stand-by funding for debt service or funding shortfalls until project completion. The security is structured on a *pari passu* basis shared among the financiers of both phases.

6.4 GOVERNMENT SUPPORT

One of the valuable lessons learned that is widely applicable to PPP projects was that government support and engagement is a key condition to a successful PPP. The Government of Jordan has demonstrated a strong commitment to support the

successful implementation of the QAIA project, as shown in table 6.2.

Key events of default under concessionaire's and public authority's events of default are described in table 6.3.

TABLE 6.2: Key Government Support for the Queen Alia International Airport Project

Guarantees	<ul style="list-style-type: none"> • In the event of termination either by the government or the project company, the government shall assume all outstanding obligations of the project company as stipulated in the financing agreements or shall assume payout to lenders.
Land leases, asset transfers	<ul style="list-style-type: none"> • Assignment of all project documents • The REO agreement provides that the ownership title of concession assets shall lie with the GoJ. However, the government acknowledged the usufruct rights of IsDB over the leased assets.
Other support	<ul style="list-style-type: none"> • Stand-by funding for debt service and funding shortfall was available until project completion. • Lenders are indemnified in the event of force majeure that results in termination of the concession, including during the operation period. • The REO agreement provides for competition protection and currency/inflation protection, as well as for force majeure and political events protection.

Note: GoJ = Government of Jordan; IsDB = Islamic Development Bank; REO = rehabilitation, expansion, and operation (REO).

TABLE 6.3: Events of Default and Termination Payments for the Queen Alia International Airport Project

Party	Events of Default	Termination Payments
Concessionaire	1. In the event of termination by the project company 2. In the event that the project company defaults under the financing agreements	The government will assume all the project company's obligations regarding finance agreements. Financiers are granted step-in rights to designate a third party as a substitute concessionaire.
Authority	1. In the event of force majeure that causes delays to the schedule, resulting in the termination of the concession	The government indemnifies the financiers in the case of an event of force majeure that causes delays to the schedule resulting in the termination of the concession. This will be done through a direct payout mechanism or through the government assuming the project company's outstanding obligations as specified in the financing agreements.

6.5 LESSONS LEARNED

The successful completion of the QAIA project demonstrates the value that private sector capital can bring to infrastructure financing and the role that multilateral development banks and government can play in facilitating private investment. Specifically:

- 1 | Funding large-scale PPP infrastructure projects via conventional and Islamic cofinanced deals can succeed and the obstacles in structuring can be eliminated. Specifically:
 - ◆ Intercreditor issues can be resolved. The Islamic financiers are the (indirect) owners of the assets, and thus structurally in a better position than a conventional lender (Cross et al. 2012). This concern was addressed in the intercreditor agreement, which establishes the decision-making process in the event of enforcement of the security and the mechanics for the sharing of enforcement proceeds.
 - ◆ The project demonstrates that the Islamic finance contracts can be subject to English law: that is, aligned with conventional finance documents while complying with *shari'ah* principles.
- 2 | The principle features of project financings can be met, including for Islamic financiers, as well as in conjunction for conventional and Islamic parallel finance.
- 3 | Mobilization of commercial banks, both under the Islamic finance and conventional finance tranches, led by multilateral development banks.
- 4 | Significant efforts by the government and financial institutions supporting upstream reforms, a fair and transparent PPP process, a concession design/feasibility study, a competitive tendering process, and a flexible transaction structure were essential to improving the project's creditworthiness.
- 5 | Multilateral development banks can play a vital role in countries to structure and finance "first-ever" PPP projects, in situations in which commercial banks are reluctant to proceed on their own.

6.6 RISK MATRIX

In addition to viability of the project making good business sense, it is important that it is based on a fair public-private risk allocation for the partnership to

be sustainable. Table 6.4 describes the risk allocation and respective arrangements to mitigate risk implemented for the QAIA project:

TABLE 6.4: Risk Matrix for the Queen Alia International Airport Project

	Description	Allocation	Mitigation
Sponsor risk	The financial and technical strength of the project company sponsors may affect the financial viability of the concession	Project company	Ensured involvement of (i) an experienced management team (ADP) to upgrade the service level, to generate new revenue streams; and (ii) a strong construction company (J&P) with ample experience and specialization for a project of this size.
Construction/ completion risk	The risk of project delay/cost overruns during the construction period, due to the EPC contractor	EPC contractor	The EPC contractor provides the requisite performance bond and undertakes the risk of the delay penalties.
Cost risk: capital, operating costs	High upfront capital costs and long payback period create a cash flow mismatch, affecting project operations and schedules, escalating costs	Project company	Provisions were made for long-term senior/subordinated loans with a grace period matching cash flows; stand-by loan will be disbursed in the event that the cash flows by existing operations were insufficient to complete the financing during the construction phase
Risk related to change in law, regulatory framework	The risks of putting any financier into a disadvantageous position due to a change in law and/or regulatory framework in the country	Project company	Lead financiers were involved in carrying out early analysis for the PPP framework, and drafting concessions, the Islamic financing framework, and the intercreditor documentation to identify related risks and structuring implications. Legal due diligence has been conducted, identifying legal implications should any material events occur.
Market risk	Exchange rate risk, currency mismatch risk, and interest rate risk, given that project revenues are denominated in local currencies, while bills from international contractors and financiers are due in US dollars.	Project company	A local currency devaluation threshold of 10 percent was set as a trigger for a smaller share of government revenues to be exercised. An interest swap was provided to the sponsor to minimize the interest rate risk of the transaction.
Operating risk	Concessionaire does not meet operational performance targets; cost overruns; unforeseeable changes during the construction of new terminal	Sponsors	Sponsor's commitment through conservative debt-to-equity ratio (-55:45) was ensured. Share retention and contingent funding undertaking requirements by sponsors were negotiated. Termination rights/trigger events (including those due to the government's or project company's default) and compensation to lenders were clearly defined. Operational performance targets (including achievable quantitative and operational milestones, construction deadlines) were set. Close portfolio monitoring requirements were set by lenders.
Commercial risk, market/ demand risk	Reliability of traffic assessment assumptions, risk of insufficient traffic to support project company revenues	Project company	Independent traffic consultants were hired, and an assessment report confirmed the project company's revenue forecast.
Force majeure risk	During the construction and operation periods, an event of force majeure that causes: (i) delays to the scheduled completion, and/or (ii) material interruptions to the regular operation of the airport	Government	The project company was entitled to extensions to the concession equal to the period of time that the construction works or operations were delayed. If a force majeure event prevents the total or partial completion of any of the project company's obligations, neither the project company nor the government is allowed to terminate the concession. The GoJ indemnifies the lenders in the case of a force majeure event that causes delays resulting in the termination of the concession.

Political risk	Regional risk profile characterized by instability, perceived threat of conflicts	Government	In the event of war/terrorism/force majeure that affects the concessionaire's revenues for more than six months, concession holders shall have the right to terminate the concession agreement, in which case the GoJ would repay the sponsors' equity and assume debt obligations.
Limited recourse risk	Limited access to direct security over project assets	Government	Lenders entered into direct agreement with the GoJ and the project company defining lender's rights versus concession parties (direct repayment mechanism of termination compensation from the project company to lenders, step-in rights to allow substitution of operators).

Note: ADP = Aeroports de Paris Management S.A.; EPC = engineering, procurement, and construction; GoJ = Government of Jordan; J&P = J&P-Avax S.A., Joannou & Paraskevaides (Overseas) Ltd.

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CHAPTER 7

Case Study: Foundation Wind Projects

7.1 BASIC PROJECT INFORMATION

Foundation Wind Energy-I Limited (FWEL-I) and Foundation Wind Energy-II (Private) Limited (FWEL-II) are two of Pakistan's first wind farms developed under the Pakistan Feed-in Tariff (FiT) Programme. The wind parks, located in the Sindh province in southeast Pakistan, were constructed under the sponsorship of the Fauji Foundation, Fauji Fertilizer Bin Qasim, Islamic Infrastructure Fund (IIF),¹ and the Tapal Group (for FWEL-II, only). FWEL-I and FWEL-II achieved commercial operations date (COD) on April 2015 and December 2014, respectively.²

Two projects encompass engineering, design, procurement, construction, turbine erection, grid tie-in, commissioning, and operation and maintenance (O&M) for two 50-megawatt (MW) wind power plants. They are among Pakistan's first few privately financed wind power projects constructed under the Renewable Energy Policy 2006. The Policy offered a guaranteed internal rate of return, cost indexation, and pass-through tariff structure. The projects supply power to the national grid (National Transmission & Despatch Company, NTDC) under a 20-year take-or-pay

energy purchase agreement (EPA). The government guarantees NTDC's obligations under the EPA as part of its obligations under a 20-year implementation agreement (IA). At financial close, farms expected a levelized tariff of \$0.15 per kilowatt hour (kWh), which compared favorably with \$0.19–\$0.23 per kWh of the incremental cost of furnace oil or diesel-based power generation.

The two projects have the same set of engineering, procurement, and construction (EPC) contractors, financiers, and technical and legal advisors but are legally, economically, and contractually distinct and do not rely on each other's cash flows. Plant components are manufactured by Nordex. Nordex and Descon Engineering Limited were signed as the onshore contractors for engineering and construction, and O&M. Selection of Nordex was done through international competitive bidding. Nordex is the world's leading developer and manufacturer of wind turbines, offering customers innovative technology, high reliability, and systematic services. Based in Denmark, Nordex has installed more than 7,109 highly efficient wind power

systems since 1985, with a total installed capacity of over 13,000 MW in over 65 countries on five continents.³

Total project costs amounted to approximately \$255 million. Debt financing was arranged through a forward lease agreement (*ijārah*) with the Islamic Development Bank (IsDB), unfunded risk participation (a partial credit guarantee, or PCG) by the Asian Development Bank (ADB), and the rupee-denominated Islamic financing provided by a consortium of local banks lead by the National Bank of Pakistan.

The implemented PCG structure was the first time ADB participated in a debt financing that is entirely

compliant with *shari'ah*.⁴ ADB's partial credit guarantee was from ADB's ordinary capital resources without government guarantee and covered 50 percent of any nonpayment by the project company of the IsDB's exposure. The IsDB took full project risk on the remainder of the funding provided. The proceeds of the partial credit guaranteed financing or the loans funded the construction and development of the two projects. The PCG structure allowed ADB to participate in a fully *shari'ah*-compliant financing structure, facilitating ADB in becoming more responsive to borrower requirements, and providing the potential for expanding financing opportunities in developing member countries.

7.2 THE CONTRACTUAL ARRANGEMENTS

OVERVIEW OF THE CONTRACTUAL ARRANGEMENTS

An overview of the overall contractual framework under the project agreements and brief information of each of core agreements is depicted in figure 7.1.

- ◆ *Energy Purchase Agreement (EPA)*: Project companies engaged into a 20-year EPA with the National Transmission & Despatch Company (NTDC) through its Central Power Purchasing Agency. Each project expects to generate ~144 gigawatt hours (GWH) of energy annually at the capacity factor of ~33 percent. The electricity generated is sold to the Central Power Purchasing Agency at the 132-kilovolt (KV) Thatta grid station operated by NTDC.
- ◆ *Wind Risk Agreement (WRA)*: Under the agreement, the power purchaser absorbs the risk of variability of wind speed. A benchmark wind speed and the benchmark capacity were determined for the projects. The project companies are compensated for unfavorable deviation of average monthly wind speeds from a predetermined benchmark. If wind speeds are higher than the benchmark and energy generation is above benchmark levels, the project

companies are entitled to a 10 percent upside of the extra generated energy value.

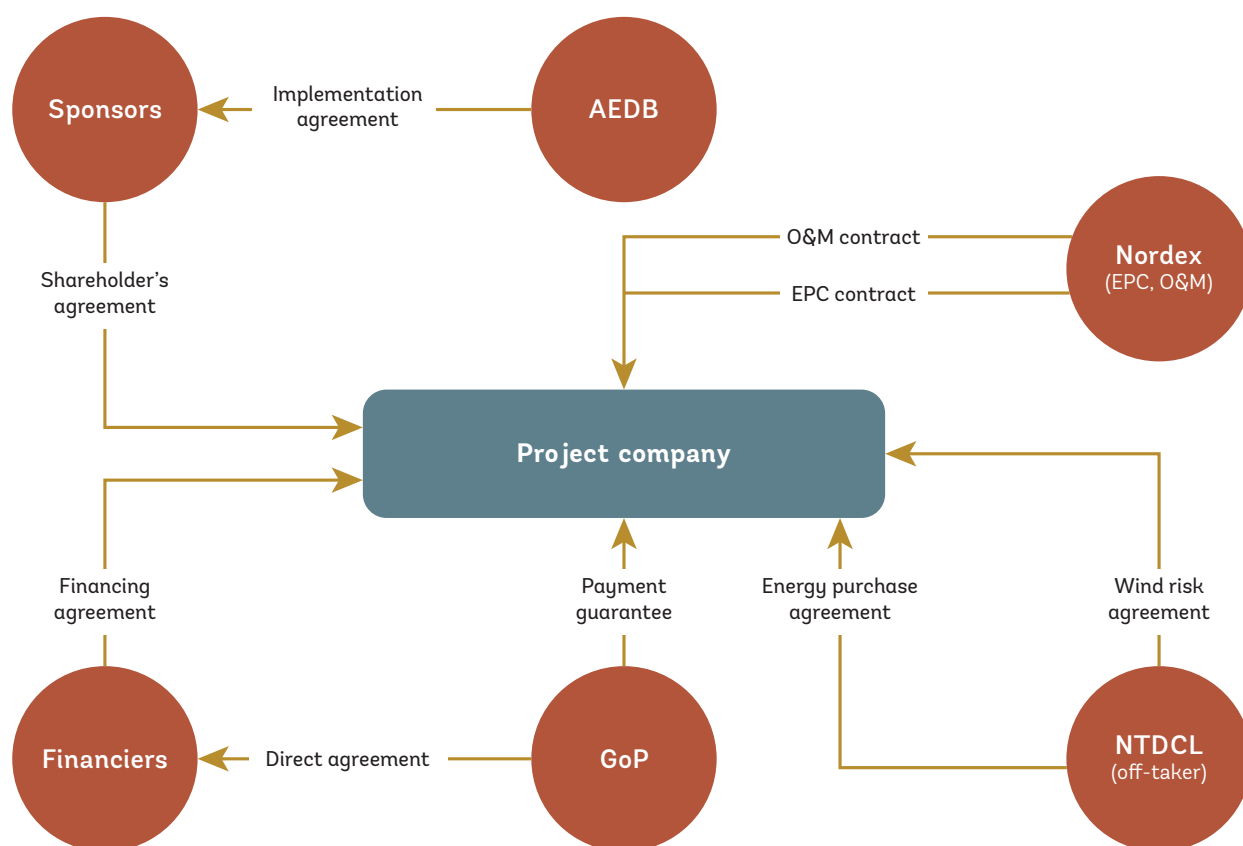
- ◆ *Implementation Agreement (IA)*: The Alternate Energy Development Board (AEDB) of Pakistan signed an implementation agreement on behalf of the Government of Pakistan (GoP) with the project companies. The GoP provided a sovereign guarantee backing the payment obligations of the off-taker.
- ◆ *EPC and O&M Contract*: The project companies signed a lump-sum, turnkey EPC contract with a company experienced in the industry, sector, and country (Nordex Singapore), backed by performance obligations by Nordex Germany. To ensure the availability of the plant to continue operations at the agreed capacity level, the EPC contractor provides a performance and warranty bond as well as a power curve warranty (assuring the performance of the wind turbines according to specifications, but not the energy output of the wind farm). The power curve warranty requires the contractor to bear costs associated with the power curve performance test, wind turbine generator

modification, and adjustments in case the verified power curve is not in accordance with the warranted power curve. Liquidated damages in the EPC contract are back-to-back with key agreements. The O&M of the project is with Nordex and Descon

consortium, covering the warranty period of two years after the commercial operations date.

Project parties include but are not limited to those listed in table 7.1.

FIGURE 7.1: The Contractual Framework of Project Financing for the Foundation Wind Project



Source: IsDB.

Note: AEDB = Alternate Energy Development Board; EPC = engineering, procurement, and c construction; GoP = Government of Pakistan; NTDC = National Transmission & Despatch Company Limited; O&M = operation and maintenance.

TABLE 7.1: Project Parties for the Foundation Wind Project

Role	Party
Project company	Two special purpose vehicles (SPVs): <ul style="list-style-type: none"> - Foundation Wind Energy-I Limited (FWEL-I) - Foundation Wind Energy-II (Private) Limited (FWEL-II)
Sponsors	<ul style="list-style-type: none"> - Fauji Foundation - Fauji Fertilizer Bin Qasim - Islamic Infrastructure Fund (IIF) - Tapal Group (for FWEL-II only)
Off-taker	Government of Pakistan (GoP): <ul style="list-style-type: none"> - National Transmission & Despatch Company (NTDC)

Role	Party
EPC, O&M contractors	<ul style="list-style-type: none"> - Nordex Pakistan (Private) Limited - Descon Engineering Limited - Descon Integrated Projects (Private) Limited
Financiers ^a	<p style="text-align: center;">FWEL-I</p> <p>Dollar-denominated financing:</p> <ul style="list-style-type: none"> - Islamic Development Bank (IsDB) - Asian Development Bank (ADB) <p>Rupee-denominated financing:</p> <ul style="list-style-type: none"> - National Bank of Pakistan - Faysal Bank Limited - United Bank Limited - Askari Bank Limited
	<p style="text-align: center;">FWEL-II</p> <p>Rupee-denominated financing:</p> <ul style="list-style-type: none"> - National Bank of Pakistan - Askari Bank Limited - Meezan Bank Limited - Allied Bank Limited

Note: EPC = engineering, procurement, and construction; O&M = operation and maintenance.
 a. <http://fwel.com.pk/index.php>.

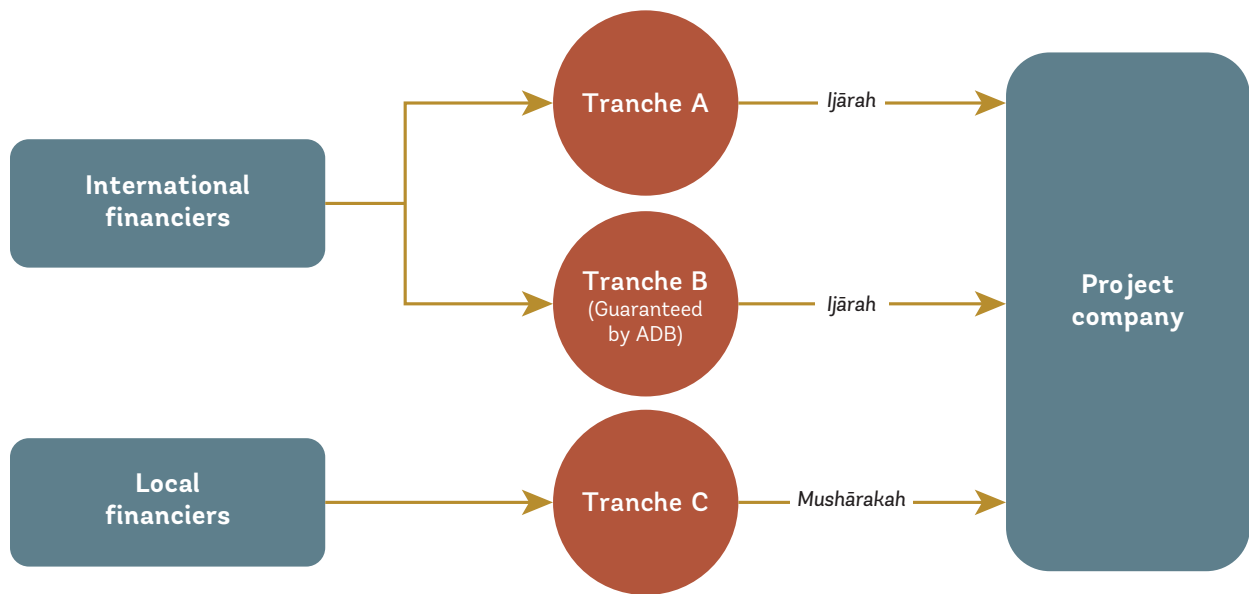
ISLAMIC FINANCING TRANCHE

The Islamic facility tranche for this project was executed as per project financing structure shown in figure 7.2.

The IsDB financed the projects based on *ijārah* (a *shari'ah*-compliant financing structure similar to lease financing; see chapter 4). Under the *ijārah*, the

IsDB advanced the full amount of financing to each project company during construction for developing and procuring certain project assets. The IsDB takes full project risk on its balance. During operations, each project company pays rent to the IsDB for the use of those assets.

FIGURE 7.2: Islamic Financing Tranche for the Foundation Wind Project



Source: IsDB.
 Note: ADB = Asian Development Bank.

The *ijārah* was divided into a two-tranche structure in which the ADB provided a 50 percent PCG for one tranche so that the IsDB and ADB equally shared the commercial and credit risk. Both tranches are structured as 100 percent *shari'ah* compatible. Under this structure, the IsDB provided the project company with two *ijārah* lease financings (Tranche A and Tranche B). Tranche A has full exposure to project risk, while Tranche B has full exposure to ADB risk only.

ADB's PCG covered any nonpayment by the project company to the IsDB, which included, but was not limited to, initial disbursements by the IsDB, rental payments, termination payments, and other associated costs. The guarantee is irrevocable, unconditional, and on demand. The PCG matches the tenor of the IsDB's financing. The proceeds of the PCG financing fund the construction and development of the two projects. ADB's PCG carries guarantee fees.

The transaction required tailored drafting of documentation for the guarantee and a counterindemnity by the project company.⁵ ADB is a party to the common terms agreement and the intercreditor agreement as a finance party. Any amounts recovered by the security trustee/intercreditor agent will be shared *pari passu* among the finance parties.

7.3 FINANCIAL INFORMATION

Financed at 75:25 debt-to-equity ratios, the total projects' combined cost amounted to approximately \$255 million (approximately \$128 million for FWEL-I and \$127 million for FWEL-II). Debt financing for the projects was arranged from foreign and local banks, with a distribution of 66 percent and 34 percent, respectively.

The IsDB's *ijārah* tranche (the forward lease Islamic facility) is repayable in 19 semiannual installments starting in January 2015. ADB's PCG terms matched the IsDB's funding, and the *mushārah* finance facility (provided by a consortium of local banks and denominated in local currency) is repayable over a period of 10 years, with the last installment due in January 2024.

Local financiers participated with a local currency tranche (Tranche C). *Mushārah* provided by local banks, comprising approximately one-third of the total debt, was arranged, led by the National Bank of Pakistan. A consortium of Islamic financiers and the project companies entered into the *mushārah* agreement to own the *mushārah* assets (project assets) amounting to the contribution of the total debt financing. The *mushārah* agreement appointed the project companies as managing co-owners to supervise the construction of the farms on behalf of the *mushārah* parties, and one of the financiers to act as agent on behalf of all the financiers.

The legal title of the *mushārah* assets (project assets) remains in the name of the project companies, which hold the title on behalf of the financiers in accordance with their undivided share. The project companies, as an agent of the financiers, are responsible for maintenance, insurance, security, and payment of ownership expenses and taxes with respect to *mushārah* assets.

Through this project, it was the first time ADB participated in a debt financing that is entirely compliant with *shari'ah*, making the whole financing structure *shari'ah* compliant.

The equity financing for the project has been arranged by the project sponsors: Fauji Foundation (30 percent), Fauji Fertilizer Bin Qasim Limited (35 percent), and CapAsia, a Malaysian private equity firm (35 percent) for FWEL-I; and Fauji Foundation (20 percent), Fauji Fertilizer Bin Qasim Limited (35 percent), Cap Asia (25 percent), and Tapal Group (20 percent) for FWEL-II.⁶ The financial close of the projects was achieved in 2013.

The security package, typical of project finance transactions, included but was not limited to: a deed of floating charge *pari passu* with all other senior debt over the project's assets; assignment of insurance; a hypothecation and charge of movables and receivables; assignment of certain contract

rights; a charge over certain accounts and investments; a mortgage over the power plant and project site; and pledges over the sponsor's shares.

The latest entity ratings of good credit quality of the projects (A+ for medium-to-long-term; A-1 for

short-term; stable outlook) assigned by JCR-VIS Credit Rating Company Limited take into account the strong ownership profile, solid project specifications, and the presence of reputable operational and maintenance contractor with a sound track record (JCR-VIS Credit Rating Company Limited 2017).

7.4 GOVERNMENT SUPPORT

Guarantee: The projects supply power to the national grid under a long-term take-or-pay energy purchase agreement with the off-taker (NTDC). The payment obligations of NTDC are counterguaranteed by the GoP. The Pakistan government also provided wind risk protection, which acts as a proxy of capacity payments under traditional independent power producers (IPPs).

Tariffs: As per the tariff mechanism for the project and in line with the prevailing policy for private power generation projects in Pakistan, the volatility of mark-up in both the construction phase and operational phase will be passed on to the tariff. In the event of higher mark up, the project company will be compensated with a higher tariff.

- ◆ The projected levelized tariff for FEW-I and-II is \$0.15 per kWh, which compares favorably with \$0.19–\$0.23 per kWh, the incremental cost of furnace oil or diesel-based power generation at the time of the projects' closing.
- ◆ In a renewables regime unique to Pakistan, the cost of the debt is passed through to the tariff, which fluctuates in line with any changes in the

currency exchange rate, inflation, and six-month interbank rates. The tariff system also provides sponsors a guaranteed return on investment as long as the plant performs as expected, with the Pakistan government providing a wind risk guarantee.

Contract Termination: Termination compensation (including principal and mark-up on lease financing) is to be paid by the GoP in the event of a termination of the EPA by either the NTDC or the project companies. In case of termination due to an event of default of the project companies or for any other force majeure event, the right of the GoP to purchase the plant by paying the compensation to the financiers is triggered. If the GoP does not elect to purchase the plant, no compensation is payable to the project companies (or its financiers), but the GoP shall have no further rights or interest in, or obligations, to the projects. Nevertheless, the main remedy of the financiers is to step in (before the termination), fix the default, and transfer the projects to a third party under the direct agreements or pursue their rights against the project companies' contractors, exercise the security over the assets, or claim the sponsor's support.

7.5 LESSONS LEARNED

1| The projects demonstrate that flexibility in structuring various *shari'ah*-compliant Islamic finance instruments is possible. The projects are characterized by significant innovation involving

a conventional financier—a multinational development bank (ADB)—as a partial credit guarantor for the Islamic finance facility provided by IsDB. Structuring the intercreditor agreements

related to decision making and security sharing was especially tricky because it required ensuring that the voting rights and other entitlements reflected the participating banks' exposure.⁷ These arrangements, however, were possible and were executed.

- 2 | The projects demonstrate that in order to accommodate a diverse group of lenders and project specifics, more than one Islamic structure can be applied to a financing structure of the same project. The debt finance comprises both dollar- and rupee-denominated facilities and features *ijārah* (lease) and *mushārah* tranche financing structures.
- 3 | The projects demonstrate that the Islamic finance contracts can be subject to English law as well as *shari'ah*. In line with the Pakistan's legal system

(based on English law), project and financing documents are enforced, based on compliance with *shari'ah*.

- 4 | The use of Islamic finance instruments mobilized private investment in infrastructure PPPs and facilitated the provision of confidence to commercial lenders (local commercial banks, in this case) to follow suit.
- 5 | The deal broadens the lending base for wind developers and its structure provides a replicable template as the number of license applications in Pakistan's sponsor-friendly wind tariff regime continue to grow. Innovation in the structure used contributes to the body of knowledge and experience, paving the way for future transactions.

7.6 RISK MATRIX

Overall, the structure of the Foundation Wind Energy Projects, as well as project-specific steps to mitigate risk, are aligned with other independent power producer

(IPP) projects in Pakistan. Major risks of the projects and respective steps to mitigate risk are presented in table 7.2.

TABLE 7.2: Risk Matrix for the Foundation Wind Project

	Description	Allocation	Mitigation
Country/ sovereign risk	Risk of the government not honoring its agreements and commitments. Risk of domestic unrest, political disturbances, and regional conflicts.	Government	The GoP has been supportive of its IPP program, developing a well-accepted IPP regulatory regime. <ul style="list-style-type: none"> - Confiscation, expropriation, and nationalization are constituted as events of default (EoD) under the implementation agreement (IA). Should any occur, the project company has the right to terminate the agreements and obtain comprehensive compensation from the GoP, including all financial commitments outstanding to financiers. - Pakistan political force majeure events are covered in the IA, as well.
Sponsor risk	Project experience, commitment of the sponsor to the project; financial and credit strength	Sponsor	The lead sponsor is one of the large business groups in Pakistan, with prior experience sponsoring IPP projects. A world-class team of EPC contractor and professional consultants is advising the sponsors throughout the project implementation. The sponsor is providing a stand-by letter of credit to support its equity contribution to the project, as well as its commitment for a contingent equity injection.

	Description	Allocation	Mitigation
Completion risk	Risk of limited experience of the EPC contractor with the technology and country; weak implementation track record. Availability of suitable replacement contractors, performance warranties. Cost overruns.	EPC contractor	A well-regarded EPC contractor is engaged with a lumpsum, turnkey contract. The EPC contractor provides the performance bond and warranty bond as well as its parent's guarantee for full performance. Documentation ensures appropriate provisions for liquidated damages, including the EPC contractor providing the power curve warranty. The estimated project cost compares well with the costs of other wind projects being undertaken in Pakistan. Each project company and the EPC contractor carry the necessary insurance to cover essential risks during both construction and operation.
Technology risk	Risk of conventionality and reliability of chosen technology; availability of manufacturer's support, experienced staff/operators; conformity and compliance of technology with standards.	EPC contractor/equipment supplier	Projects deploy tested technology that has been used in other countries and has been in operation successfully. The EPC contractor, which is also an O&M contractor and turbine manufacturer, is an experienced, internationally reputable firm (Nordex), which also provides a power curve guarantee and monthly availability guarantee for the initial years of project operation. The turbines have a warranty period following the commercial operation date. The EPC contractor provides warranty bonds and performance bonds.
Operations/maintenance risk	Experience with the technology, with similar project operations. Availability of skilled and trained staff, alternative operators. Tenure of O&M contract.	O&M contractor/EPC contractor	The O&M contractor and the EPC contractor are the same entity, largely mitigating O&M risks, including the risks of timely availability of spare parts and trained manpower. The EPC contractor and the O&M contractor shall remain for at least two years with the project after commercial operation commences. Documentation ensures appropriate liquidated damages provisions. Liquidation damages, in case of nonavailability of the plant, are completely covered by the O&M contractor.
Off-take risk	Major risk related to off-take is the delay in payment, which has been experienced by a number of IPPs in Pakistan		Pakistan has been suffering from large gap between demand and supply of electricity. The off-taker, NTDC, is 100%-owned by the GoP and the GoP guarantees the payment obligations of the off-taker. Given the strategic importance of the power sector, it is expected that the GoP will continue maintaining its financial support to NTDC.
Wind risk	Availability and variability of the wind speed	Government	Extensive wind data analysis was conducted before developing the projects. The GoP provides the wind risk cover under which the sponsors do not assume the wind variability risk and the power purchaser absorbs the risk of variability of wind.
Force majeure		Government/insurance	The GoP covers most of the force majeure risks. Adequate insurance requirements at the project level are in place.
Nonavailability risk	Nonavailability of the plant	O&M contractor	O&M contractors have guaranteed to maintain 94.43% of plant availability; the contractors have provided warranties amounting to 10% of the O&M contract price in this regard. Plant availability was at around 98% at both projects in 2017 and 1Q:2018.

Note: EPC = engineering, procurement, and construction; GoP = Government of Pakistan; IA = implementation agreement; IIP = independent power producer; NTDC = National Transmission and Despatch Company; O&M = operation and maintenance.

NOTES

- 1 The Islamic Infrastructure Fund was established at the initiative of the Islamic Development Bank (IsDB) and the Asian Development Bank (ADB) and managed by a Malaysian private equity firm, CapAsia. The Fund makes *shari'ah*-compliant investments in the economic and social infrastructure sectors in the Islamic countries of Asia that are countries where both IsDB and the ADB have operations.
- 2 CapAsia, <https://www.capasia.com/foundation-wind-energy>.
- 3 <http://www.nordex-online.com/en/references/worldwide-installations.html>.
- 4 ADB, <https://www.adb.org/sites/default/files/project-document/60523/45905-01-pak-rrp.pdf>.
- 5 <http://www.iflr.com/Article/3039391/ADBs-first-shariah-compliant-project-financing-explained.html>.
- 6 http://fwel.com.pk/fwel-II_overview.php.
- 7 According to Shearman & Sterling, the advisor to ADB and the IsDB: <http://www.iflr.com/Article/3039391/ADBs-first-shariah-compliant-project-financing-explained.html>.

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CHAPTER 8

Case Study: Konya PPP Health Campus Project

8.1 BASIC PROJECT INFORMATION

In 2005, the Government of Turkey (GoT) launched a comprehensive program to transform health care, with the aim of providing its citizens with coherent and quality health care services by capitalizing on the private sector's investment capabilities and experience. This long-term transformation program aims at raising Turkey's health care services to the level of a regional health care hub, aspiring to generate \$20 billion in revenues from more than 2 million foreign patients. Under this massive health care transformation program, the government is developing 35 new integrated health campuses (PPP hospitals) under the public-private partnership (PPP) model, increasing capacity more 40,000 to 50,000 hospital beds.

Konya Karatay Integrated Health Campus PPP Project, also known as the Konya PPP Hospital (the project), is one of the awarded greenfield health care facility projects. It has a capacity of 838 beds, consisting of a general hospital (420 beds) and a maternity and children's hospital (418 beds). Located in Konya, the seventh largest city in Turkey in terms of population,

the project is expected to fill the gap of higher quality of services and developing technologies in Konya's health care facilities and serve not only the growing population of this city but also residents of the neighboring cities of Karaman and Aksaray, among others.

The winning bidder under the PPP, YDA Insaat Sanayi ve Ticaret A.S. (YDA Group, or the sponsor) is implementing the project under a concession term of 28 years, including a construction period of three and half years. Following construction, the sponsor will operate the project for 25 years before handing it over to the Ministry of Health (MoH). The total cost of the project is estimated to be €354 million.¹

The project is being implemented through a combination of debt and equity. Debt financing was provided by a group of multilateral development banks (MDBs) and commercial banks, gathering both conventional lenders and Islamic financiers, including the Islamic Development Bank (IsDB), the European Bank for Reconstruction and Development (EBRD),

the Black Sea Trade and Development Bank (BSTDB), UniCredit, and Siemens Bank. The nonrecourse project finance facility has a maturity of 18 years with a grace period during the construction period.

As of November 2017, the physical completion rate of the project had reached 34 percent. Completion is expected by the final quarter of 2019 (YDA İnşaat Sanayi ve Ticaret A.Ş. 2017).

8.2 THE CONTRACTUAL ARRANGEMENTS

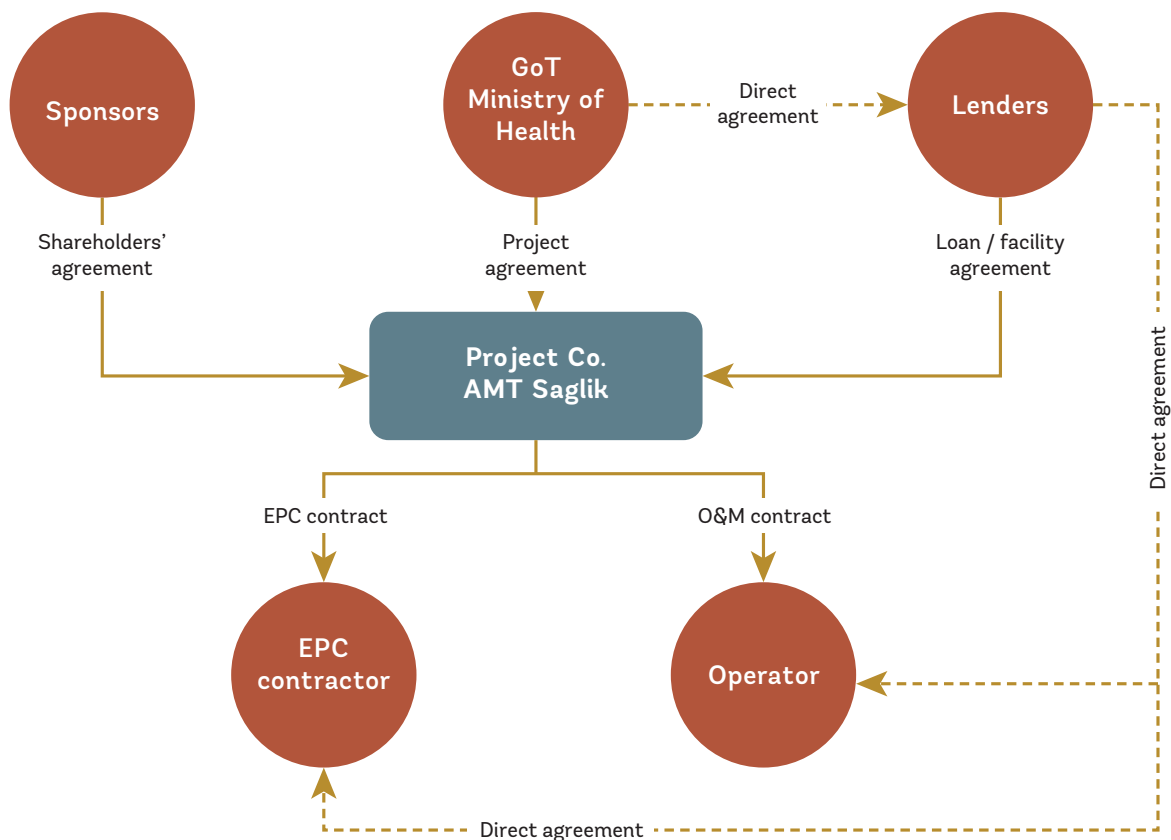
OVERVIEW OF THE CONTRACTUAL ARRANGEMENTS

Figure 8.1 captures the contractual framework of project financing under the project agreements.

PPP Scheme: Turkey's PPP structure in the health care sector, implemented under the build-lease-transfer (BLT) model, is considered favorable for both project sponsors and lenders. The private sector finances and builds the facility

and then leases it to the MoH, the provider of the public service. The Konya PPP Hospital is to be transferred to the public at the end of the operation period in good operating, well-maintained, and usable condition, free of all charges, encumbrances, or undertakings (Ghazaleh 2017).

FIGURE 8.1: The Contractual Framework of Project Financing for the Konya PPP Health Campus Project



Source: Kilic 2017.

Note: EPC = engineering, construction, and procurement; GoT = Government of Turkey; PPP = public-private partnership.

Concession Agreement: The concession term is 28 years, including a 3-year construction period. Designed along the lines of the United Kingdom's private finance initiative, under the concession, the project company is responsible for:

- ◆ Financing, design, construction, operation and transfer of the project
- ◆ Supplying the medical equipment and other series to the facilities
- ◆ Furnishing, maintenance, and repair of all relevant facilities
- ◆ Operation of commercial facilities.

The project company will not provide any core medical services and will not be liable for services that are to be performed by the doctors, nurses, or administrative personnel, as these remain the sole responsibility of the MoH.

EPC Contract: The hospital is being designed and constructed by the engineering, procurement, and

construction (EPC) contractor pursuant to a lump-sum, fixed-price, turnkey contract. The EPC contractor performs all the obligations relating to the design, procurement, construction, and commissioning of the facilities, and bears the risks in relation to works as a result of all circumstances and events that may occur during the performance of the EPC contract. The EPC contract contains a general pass-down of the project company's responsibility under the concession to the EPC contractor.

Operation and Maintenance (O&M) Contract: During the operational term, the O&M contractor performs nonmedical services in respect to the health campus (the services) and assumes risks and obligations for which the project company is responsible to the MoH. The O&M contract contains a pass-down of the project company's general service obligations, and rights and responsibilities in relation to equipment maintenance and repair functions under the concession to O&M contractor. The penalty and bonus mechanism have been incorporated to ensure the performance of the O&M contractor.

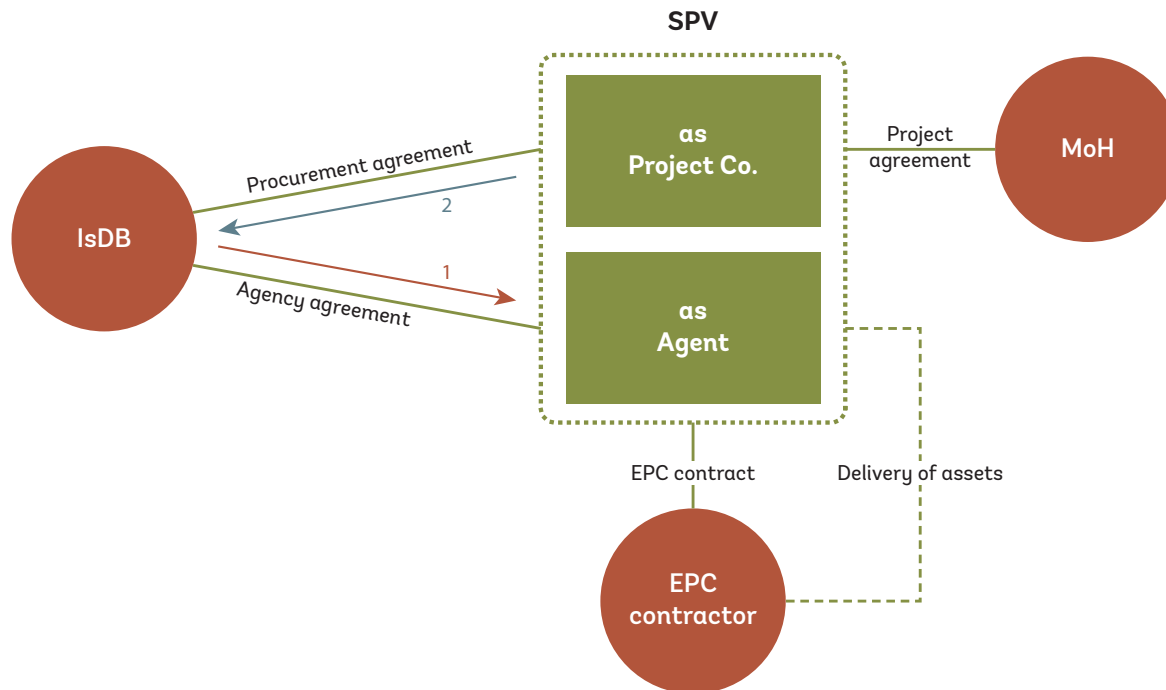
ISLAMIC FINANCING TRANCHE

The project was the first combination of an Islamic tranche and conventional tranche under the same documentation for the financing of a PPP health care project in Turkey. For the IsDB, the Islamic financier of the project, this was the first health care PPP project it financed, as well as its first project finance transaction in Turkey. The IsDB provided Islamic financing facility through an *istişnā'* mode of financing. *Istişnā'* is a sale in which the transaction is executed before an asset exists (see section 4.4) Under the *istişnā'* arrangement, a purchaser orders a contractor to make a specific asset and deliver it at a pre-agreed delivery date for a pre-agreed price. The purchaser pays the price, either in a lump sum

or installments. The Islamic facility tranche for this project was executed as per the contractual framework shown in figure 8.2.

- 1 | The IsDB makes stage payments to the SPV (as agent) during the construction phase in consideration for the agent procuring the construction and delivery of the assets to the SPV, fulfilling the IsDB's obligations under the procurement agreement.
- 2 | The SPV makes deferred consideration payments to the IsDB in consideration for the IsDB fulfilling its obligations to procure the assets.

FIGURE 8.2: Islamic Financing Tranche for the Konya PPP Health Campus Project



Note: EPC = engineering, procurement, and construction; IsDB = Islamic Development Bank; MoH = Ministry of Health; PPP = public-private partnership.

The project company enters into a procurement agreement with the IsDB to subcontract its obligations under the concession and to deliver specified procurement assets with a value equal to the amount of the IsDB's financing facility. Through the procurement agreement, the IsDB is responsible for procuring and delivering the asset. Because the IsDB is not the EPC contractor, it appoints the project company (as an agent) to perform this work through another parallel agreement, the agency agreement. The project company, in turn, appoints the EPC contractor. In other words, the IsDB essentially passes the tasks of procurement and construction to the EPC contractor through a combination of procurement and agency arrangements.

◆ *Procurement Agreement:* The IsDB undertakes to finance the development, construction, and delivery of the procurement assets by making contributions (disbursements under the facility agreement representing a percentage of the total project cost) toward the costs of the procurement assets, and the project company undertakes to pay

for the procurement assets by paying a deferred purchase price (repayments under the facility agreement) for the procurement assets. The deferred purchase price includes a built-in calculation of the IsDB's profit for extending the financing. This deferred payment is made in installments, synchronized to the project company's repayment of the conventional loan to the conventional lenders.

◆ *Agency Agreement:* This agreement dictates how the IsDB would disburse funds to the project company, as per the construction schedule. The project company, as the agent of the IsDB, makes the payments due to the EPC contractor under the EPC contract.

When construction is complete, assets are delivered directly to the project company. This settles the agent's obligation to deliver the asset to the IsDB under the agency agreement, and the IsDB's obligation to deliver the assets to the project company under the procurement agreement.

A notable feature of this project is the innovative pricing mechanism through which the istisna'a tranche was able to accept a variable pricing, similar to the conventional tranches.

Project parties and stakeholders include but are not limited to those listed in table 8.1.

TABLE 8.1: Project Parties and Stakeholders for the Konya PPP Health Campus Project

Role	Party
Concessionaire	Government of Turkey: Ministry of Health (MoH)
Project company	AMT Saglik Konya Yatirim ve Isletme A.S.
Sponsor	YDA Insaat Sanayi ve Ticaret A.S. (YDA Group)
EPC contractor	Teyda Insaat Taahhut Elektromekanik Sanayi Ticaret A.S and Intas Taahhut Yapi Sanayi Ticaret A.S. Joint Venture
O&M contractor	YDA Saglik
Financiers	Multilateral development banks: EBRD, IsDB (Islamic financing), and BSTDB Commercial lenders: UniCredit Bank, Siemens Bank

Note: BSTDB = Black Sea Trade and Development Bank; EBRD = European Bank for Reconstruction and Development; IsDB = Islamic Development Bank; O&M = operation and maintenance; PPP = public-private partnership.

The project company, EPC contractor, and O&M contractor are related companies. Throughout the respective term of the EPC contract and O&M contract, the performances of obligations of the project company are passed down to the EPC contractor and O&M

contractor, which have limited track records in the health care sector. Such obligations and services are hence fully guaranteed by YDA Group (the sponsor), which has extensive experience in contracting and developing different types of real estate, including hospitals.

8.3 FINANCIAL INFORMATION

Total project cost at financial closing was estimated at € 353.6 million. The € 354 million financing package consisted of € 265 million in debt and € 89 million in equity with an all-in tenor of 18 years, one of the longest tenors achieved in PPP and build-operate-transfer (BOT)-type projects in Turkey. As part of a comprehensive long-term financial package, the European Bank for Reconstruction and Development has arranged a € 147.5 million syndicated loan under its A/B loan structure, with €67.5 million for the Bank's own account and €80 million syndicated to UniCredit Bank Austria AG and Siemens Financial Services. The Black Sea Trade and Development Bank and the Islamic Development Bank are providing parallel financing of €50 million and €67.5 million,

respectively.² At the expected completion date, total project debt is estimated to result in 75:25 debt-to-equity ratio.

The revenue stream for the PPP hospital will come from three sources, including (i) availability payments (rental payment for the hospital infrastructure); (ii) service payments (payments for the exclusive right the project company has to provide the medical support services and general support services during the operation period) payable by the MoH; and (iii) commercial revenues expected from the commercial use of certain properties within the hospital complex, such as rents from shops or fees from car parking.

Availability payments are guaranteed by the MoH, collected by the project company independent of hospital occupancy rates, denominated in local currency, and adjusted for inflation, and provide a certain level of protection against devaluation. Service payments are paid by the MoH to the project company for provision

of support services. The MoH guarantees payments for a certain minimum percentage of the total service payments, irrespective of the number of patients. Service payments are adjusted for inflation annually. Each service is market tested and provides for periodic repricing to ensure the value for money the MoH pays for the service.

8.4 GOVERNMENT SUPPORT

As captured in table 8.1, the project has significant support from the GoT, demonstrated by favorable concession terms, including guarantees it provides with respect to the termination framework and

service payments. Standard to project finance, step-in rights were negotiated for this project, recognized by the GoT through the direct agreement.

TABLE 8.2: Key Government Support for the Konya PPP Health Campus Project

Guarantees	No termination risk for lenders and the sponsor: <ul style="list-style-type: none"> The MoH undertakes the repayment of invested equity and debt in the project together with all the financial expenses in case there is a termination. This demonstrates the government's commitment to the long-term development vision of Turkey's health care industry, providing comfort to project lenders and sponsor.
Availability payments and service payments	The MoH is the payer to the hospital under the facility management model. It considers fixed and to certain degree inflation-/foreign exchange-adjusted availability and service payments: <ul style="list-style-type: none"> <i>Availability payments:</i> These are paid independently of hospital occupancy. Guaranteed by the MoH, payments are denominated in Turkish lira, adjusted quarterly for inflation (100 percent) and devaluation (87.5 percent), and collected independently of hospital occupancy. <i>Service payments:</i> These are paid monthly by the MoH for support services. The MoH guarantees payments for a certain minimum percentage of the total service payments, irrespective of the number of patients, adjusted for inflation annually. Each service is market-tested every five years, whereby the project company is required to float tenders to the market to see if any other provider can offer the services at a cost-competitive price.

Source: World Bank Group, PPIAF, and IsDB 2017.

Note: MoH = Ministry of Health; PPP = public-private partnership.

The project provides lenders comfortable termination rights guaranteed by the MoH. The MoH undertakes the payment of termination compensation and the cover for the contracted debt as well as the equity contributions, for exercised termination rights under most of the

core scenarios, including the event of default (project company, MoH), unfair termination (project company, MoH) and termination under the mutual agreement, nationalization, prolonged force majeure, and project suspension by the MoH.

8.5 LESSONS LEARNED

1 | Islamic finance structures are flexible enough to accommodate various infrastructure investment projects, sectors, and countries. The flexibility associated with Islamic finance, and the ability of practitioners to address project-and country-specific issues, make

it possible to apply Islamic finance to infrastructure PPP projects in nearly all jurisdictions (Harris 2017).

For example, hospitals in Turkey are considered assets of national interest, hence requiring

government to retain ownership of the project assets. The *ijārah* structure, while preferred by Islamic financiers because it enables the financing of the project construction without taking the direct construction risk exposure, requires that the Islamic financiers own the project assets in order to lease it back to the project company; hence, it is not feasible under the circumstances of this project. In order to finance the project, the *istiṣnā'* instrument was used, whereby the Islamic financier appoints the project company as its agent to undertake the construction works (the obligations under which the project company hands over to the EPC contractor) and once the hospital is constructed, the project company makes the deferred payment to the Islamic financier to pay back the financing.

2 | Despite the previously untested and relatively complex structure involved in merging the MDBs and commercial banks, and conventional and Islamic financing tranches, under the same umbrella, the

loan extended to the project company achieved the longest tenor of any PPP health care project in the Turkish market, paving the way for other health care PPP projects to replicate (Bilen 2017).

3 | Government support is a precondition for success. A robust contractual framework with a well-defined revenue payment mechanism, risk allocation, and favorable termination framework is fundamental in attracting private investors and commercial financiers beyond MDBs.

4 | Islamic finance as an additional source of financing for Infrastructure development. PPP projects have been traditionally financed by conventional financing institutions in Turkey. This was the first time a PPP project in the country applied successfully Islamic finance, in parallel to conventional finance. This project sets an example and paved the way for other PPP projects in Turkey to apply Islamic finance.

8.6 RISK MATRIX

Table 8.3 highlights the risk allocation and respective steps to mitigate risk implemented for the project. While all major risks assumed by the project company under the concession are passed down to the EPC and O&M contractors, respective contracts are backed by the

sponsors' guarantee. The GoT supports the favorable PPP structure with fixed availability payments and low termination risk for lenders and the sponsor, as well as the commitment of Turkey's long-term development vision for health care industry.

TABLE 8.3: Risk Matrix for the Konya PPP Health Campus Project

	Description	Allocation	Mitigation
Sponsor risk	Financial and technical strength of the project company/sponsors may affect the financial viability of the concession	Project company	<p>The project is backed by the financial strength of the sponsor and operational strength and experience at the EPC and O&M levels. Because the sponsors have limited experience in managing medical support services and medical facilities, the concession responsibilities are passed down to the O&M contractor, which will assign specialized subcontractors for each service. The parent company guarantee by YDA Group backs both the EPC and O&M contracts.</p> <p>Project documents consider adequate restrictions on change of control at the project company-, EPC contractor-, and operator-level to mitigate the risk of sponsors exiting the project.</p> <p>The equity contributions (made pro rata with drawdowns under the senior loan facilities) are supported by stand-by letters of credit from acceptable banks.</p>

	Description	Allocation	Mitigation
Construction/ completion risk	The risk of project delay/cost overruns during the construction period, due to the EPC contractor	EPC contractor/ sponsors	The EPC contractor provides the requisite performance/liquidated damages bond and assumes the risk of the delay penalties.
Market risk	Exchange rate risk, currency mismatch risk, and interest rate risk, given that project revenues denominated in local currencies.	Project company/ government	The revenue structure of the hospital is based on the facility management model. The project company will receive fixed quarterly availability payments from the MoH as a rental payment for the hospital infrastructure. The MoH will make availability payments irrespective of hospital occupancy rates. Furthermore, certain guaranteed monthly service payments will be made for the various support services rendered as part of facilities management. Payments from the MoH are indexed to inflation and provide for certain level of foreign exchange protection. The project company is required to undertake mandatory interest rate hedging with an acceptable bank.
Operating risk	Concessionaire does not meet operational performance targets	O&M contractor/ sponsors	All core medical services shall remain the responsibility of the MoH. The services included within the project company's scope are related to facilities management. Similar services are routinely outsourced to the private sector in Turkey and internationally. The project company will pass down performance of the services to the O&M contractor. O&M contractor obligations will be fully guaranteed by the sponsor. The sponsors' commitment through equity contributions is ensured. Clearly defined termination rights, compensation to lenders, and operational performance targets are set. Close portfolio monitoring requirements are set by lenders.
Commercial risk	Risk of insufficient revenues of the project company	Project company/ government	The MoH will make availability payments irrespective of hospital occupancy rates, limiting market/volume risk, demand risk, or commercial risk to financiers. Revenues from service payment and commercial stream are not guaranteed.
Termination risk	Debt repayment risk for financiers if the project defaults or there is a termination event	Government	In case of termination, as defined by the project agreement, the MoH guarantees repayment of the equity contribution, debt amount, and financial costs related to loans and other financial expenses, while in case of termination caused by the MoH, the MoH will repay the loss of profit to the project company on top of the previously mentioned repayment categories.

Note: EPC = engineering, procurement, and construction; MoH = Ministry of Health; O&M = operation and maintenance.

NOTES

- 1 <http://www.bondsloans.com/news/article/1234/case-study-yda-structures-first-dual-islamic>.
- 2 <http://www.bondsloans.com/news/article/1234/case-study-yda-structures-first-dual-islamic>.

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