Standing Committee
for Economic and Commercial Cooperation
of the Organization of Islamic Cooperation (COMCEC)

COMCEC

Improving Public Debt Management In the OIC Member Countries

COMCEC COORDINATION OFFICE
March 2017

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Table of Contents

List of Figures

List of Tables

List of Acronyms

$	U.S. Dollar
AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ADF	African Development Fund
AfDB	African Development Bank
ATM	Average Time to Maturity
ATR	Average Time to Refixing
BADEA	Arab Bank for Economic Development in Africa
BCEAO	Banque Centrale des Etats de l'Afrique de l'Ouest
BIS	Bank for International Settlements
BOAD	Banque Ouest Africaine de Developpement
BoU	Bank of Uganda
BRVM	Bourse Régionale des Valeurs Mobilières
CBI	Central Bank of Iran
CBE	Central Bank of Egypt
CBG	Central Bank of Gambia
CBoS	Central Bank of Sudan
CCA	Caucasian and Central Asian
CESEE	Central, Eastern and Southeastern Europe
CFA-Franc	Franc de la Communauté Financière d'Afrique
CHF	Swiss Franc
CMA	Capital Market Authority
CNDP	Comité National de la Dette Publique
COMCEC	Standing Committee for Economic and Commercial Cooperation of the OIC
DDP	Direction de la Dette Publique
DeM	Debt Management
DeMPA	Debt Management Performance Assessment
DLDM	Directorate of Loans and Debt Management
DMO	Debt Management Office
DMU	Debt Management Unit
DVP	Delivery Versus Payment
EFF	Extended Fund Facility
EIB	European Investment Bank

EPG	Egyptian Pound
EUR	Euro
FRN	Floating Rate Notes
FX	Foreign Exchange
GBP	United Kingdom Pound
GDB	Government Development Bond
GDP	Gross Domestic Product
GCC	Gulf Cooperation Council
GMD	Gambian Dalasi
GNI	Gross National Income
HIPC	Heavily Indebted Poor Countries
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Islamic Development Bank
IIFM	International Islamic Financial Market
IFAD	International Fund for Agricultural Development
IFSB	Islamic Financial Services Board
IMF	International Monetary Fund
ITB	Islamic Treasury Bill
JPY	Japanese Yen
MDRI	Multilateral Debt Relief Initiative
MDTS	Medium Term Debt Management Strategy
MEAF	Ministry of Economic Affairs and Finance
MEFMI	Macroeconomic and Financial Management Institute of Eastern and Southern Africa
MENA	Middle East and North Africa
MIFC	Malaysia International Islamic Finance Centre
MoEF	Ministère de l'Économie et des Finances
MoF	Ministry of Finance
MoFEA	Ministry of Finance and Economic Affairs
MoFNE	Ministry of Finance and National Economy
MoFPED	Ministry of Finance, Planning and Economic Development
NDB	Net Domestic Borrowing

NDT	National Directorate of Treasury
NPV	Net Present Value
OECD	Organisation for Economic Co-operation and Development
OFID	OPEC Fund for International Development
OIC	Organization of Islamic Cooperation
OPEC	Organization of the Petroleum Exporting Countries
OTC	Over the counter
OTR	Office of Togolese Revenue
PDMS	Public Debt Management Strategy
PDU	Public Debt Unit
PPP	Public Private Partnership
RO	Omani Rial
SAI	Supreme Audit Institution
SAMA	Saudi Arabian Monetary Agency
SAS	Sukuk-al-salam
SDR	Special Drawing Right
SDMO	Separate Debt Management Office
SOE	State Owned Enterprise
ST	Short-Term
T-Bill	Treasury Bill
T-Bond	Treasury Bond
TL	Turkish Lira
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
US	United States
USD	U.S. Dollar
VAT	Value Added Tax
WAEMU	West African Economic and Monetary Union
WAIR	Weighted Average Interest Rate
WEO	World Economic Outlook
WES	CESifo World Economic Survey

Executive Summary

1 Definition and Performance Indicators of Public Debt Management

Public debt management is intended to design the government's debt portfolio in a targeted and efficient way. Public debt management strategies aim at raising the required amount of funding at the lowest possible costs, consistent with a prudent degree of risk. Additional objectives include developing and maintaining an efficient market for government securities.

Performance indicators for public debt management are grouped into the categories (1) governance and strategy development (e.g. the legal or managerial framework); (2) coordination with macroeconomic policies (e.g. coordination with fiscal or monetary policies); (3) borrowing and related financial activities (e.g. domestic or external borrowing); (4) cash flow forecasting and cash balance management (e.g. effectiveness of cash flow forecasts); and (5) debt recording and operational risk management (e.g. debt administration and security).

A **public debt management strategy** helps (1) making prudent borrowing decisions based on an analysis of cost and risks; (2) facilitating intra-governmental and creditor-addressed communication and coordination to reduce uncertainty; (3) giving debt managers a clear mandate, thereby ensuring good governance and accountability; and (4) fostering the development of a domestic debt market by making the government's debt goals transparent to market participants.

Risks for the government's debt portfolio arise from the structure of outstanding debt, including but not limited to **refinancing risk**, **interest rate risk** and **exchange rate risk**.

2 Global Practices in Public Debt Management

In a global sample over the period 1980-2015, the **average public debt level** assumed values between 40% and 80% of GDP with a tendency to increase. In most years, average public debt relative to GDP in the group of high-income countries is larger than in middle-income and low-income countries.

The **average public budget deficit** was 7.2% of GDP during the period 1980-1995. Since 1995 budget deficits have decreased to 2.0% on average (1.4% of GDP for the period 1996-2006). The global financial crisis, however, marks a structural break and pushed balances deeper into deficit, where they will remain in coming years according to projections. Compared to the 1980s and 1990s, public budget balances of low-income countries have improved remarkably.

The shorter the **maturity of debt**, the higher the amount of debt to be rolled-over in a given year and the higher the **refinancing risk**. The average share of short-term in total public debt in a global sample decreased from 24% in 1995 to 11% in 2015. While private creditors extend their credit for an average period of approximately five years, official creditors sign contracts with maturities exceeding 20 years on average.

Debt denoted in **foreign currency** is subject to **exchange rate risk** because a devaluation of the domestic currency increases the value of foreign currency denominated debt expressed in domestic currency. Public debt denominated in foreign currency has increased slightly over the past 20 years. It makes up about 36% of total public debt across all income groups; the share is highest in low-income countries and lowest in high-income countries.

Foreign-denominated public debt is mostly contracted in U.S. Dollars, whose share has been rising over time and equaled 59% in 2014. Other dominant currencies are the Euro (13%) and Special Drawing Rights (SDRs) with the IMF (6%). While high-income countries mostly rely on

domestic creditors (76.2% in 2015), middle-income countries divide their financing needs almost equally between both types of investors and low-income countries' debt is mostly held by external creditors.

Interest rate risk arises for contracts with short maturities or variable interest rates. While highest in high-income countries, the share of variable rate contracts is generally small.

Governments may receive **credits on concessional terms**, in particular from official creditors as a form of development aid or in support of local reforms. This grant element in public debt has been rising over time and amounted to 50% in 2014. The average interest rate of public debt is often lower than the lending rate to the private sector, which might be explained by the importance of concessional lending to governments.

Debt Management Offices (DMOs) are typically responsible for funding operations, for analyzing and monitoring risks, for the settlement of transactions and for keeping financial records up to date. The existence of a principal debt management entity with clear objectives, a medium-term strategy and the requirement to report to parliament or government is generally considered as best practice in public debt management.

The DMO as part of the overall **institutional structure** may be a department of the Ministry of Finance, an office within the central bank or an independent agency. A clear separation of assigned responsibilities for monetary policy and for debt management is a precondition for accountable institutions; this suggests separating the DMO from the central bank. If the recruitment of trained portfolio managers from the private sector has priority, independent agencies outside of other official institutions, so-called separate debt management offices (SDMOs), might be established.

If public debt management is located within the central bank, it faces **conflicts of interest between monetary policy and public debt management**. A clear allocation of the responsibilities for monetary policy and debt management, which is a precondition for accountable institutions, therefore suggests dividing these policies between two institutions.

An efficient **governance structure** requires that DMOs follow a clear mandate with well-defined objectives. Potential targets are the allocation of public debt in domestic and external currency debt, the division between fixed and floating interest rate debt and the percentage of total debt that has to be refinanced within twelve months. This helps to improve accountability and to limit principal-agent problems. Active trading based on benchmarks is rather absent in global best practices.

There are competing views on the **aims of public debt management**: as a form of portfolio management, costs are minimized for given risks (narrow view). Alternatively, when taking revenues into account, public budget management has to prevent mismatches between revenues and debt payments (broad view). This strategy focuses on budgetary risks and aims at reducing financial risks by guaranteeing that government can meet its obligations at any point in time. As such, it **coordinates** public debt management **with other public policies**.

A World Bank survey conducted in 2013 shows that 60% of the responding countries had a formal debt management strategy in place. 77% of those with formal strategy published it, 76% aimed at strategic targets, 71% used quantitative analysis and only a minority grounded the strategy on a legal framework.

Results from the CESifo **World Economic Survey** (WES) suggest that the **efficiency of public debt management** is highest in high-income countries and lowest in low-income countries. While foreign currency risk is least important in high-income countries, it is the most important risk category for public debt management in the other income groups and in the OIC countries.

Public debt markets in high-income countries received the best assessment from WES experts, in low-income countries the worst. Public debt markets in the group of OIC countries perform on average relatively unsatisfactory in international comparison. According to the experts, the most important **problems faced by** domestic public debt markets in **OIC** countries are a **poor market infrastructure**, the **limited size of the economies** and a **missing investor base**.

Global best practice in OECD countries reveals four important issues for the success of public debt management. First, public debt management needs to be based on a sound long-term strategy. Second, it is important that this strategy is implemented by an institution capable to deal with public portfolio management. Third, modern instruments and techniques have to be used in public debt management. Finally, suitable mechanisms to ensure accountability and successful delegation have to be designed. Applied to emerging and developing countries, their characteristics (e.g. limited access to financial resources, less developed institutions, larger vulnerability) have to be taken into account.

3 Public Debt Management Practices in the OIC Member Countries

Average public debt relative to GDP in the OIC member countries has increased from 36.7% in 2012 to 46.1% in 2015 and is expected to rise to 51.1% in 2017. The amount of outstanding gross public debt relative to GDP is, however, very heterogeneous among OIC member countries, ranging between 3% and 139%.

The highest average debt-to-GDP ratios are expected in low-income OIC countries in the next years. High-income OIC countries are expected to experience the largest increases in the average debt-to-GDP ratios. Different debt dynamics also arise among regional groups. Several African countries have been granted debt relief or restructuring in the last decade. Consequently, debt ratios have substantially decreased between 2006 and 2009 in the African group but have slightly risen afterwards. The average debt-to-GDP ratio in the Asian group has been on a relative stable path. The average debt-to-GDP ratio in the Arab group has increased since 2014 as the decline in oil prices had negative effects on the economies of oil-producing countries. While the fiscal buffers of some OIC member countries are expected to be capable of absorbing the predicted budget deficits following lower oil revenues for some years, other OIC member countries have to issue substantial amounts of debt.

The average **grant element** in OIC countries has been about 50% since 2006, similar to the worldwide average. Grants are primarily extended by official creditors, i.e. international organizations and governments, while private credit contracts rarely have a grant element. Grants to low income countries are more generous than to middle-income countries. The grant element is particularly high in the African group.

The share of **short-term debt** in total public debt in the OIC member countries has decreased from 68.1% in 2006 to 54.5% in 2015 (slightly above the worldwide average of 52%). Official creditors sign contracts with maturities similar to the worldwide average at around 21 years on average. Private creditors extend their credit for an average period of approximately 4 years (below the worldwide average of 5 years). The maturity of new debt contracts is significantly larger in low-income countries than in middle-income countries, which might be

explained by the larger share of official creditors in low-income countries. Consequently, the average maturity of new contracts is largest in the African group.

The average share of **domestic debt** in total public debt in OIC member states has slightly increased since 2006 and stands at around 41.5% in 2015 (a share above the worldwide average). Low-income countries have a lower share of domestic debt (31%) than middle- and high-income countries (41.9%). In high-income countries, the share of domestic creditors has increased since 2008 and stands at about 77.7% in 2015. However, OIC member countries differ considerably in their shares of external debt.

The largest share of **external public debt** in OIC countries was denominated in U.S. Dollars (51.3%), followed by Euro (15.4%), Special Drawing Rights (6.6%) and Japanese Yen (3.2%) in 2014. The share of external public debt denominated in U.S. Dollar and Special Drawing Rights (SDR) has increased between 2006 and 2014 while the share of external public debt denominated in Euro has been relatively constant. The share of external public debt denominated in Japanese Yen has decreased.

The average **interest rate on public debt** has been relatively stable and low in OIC member countries over the last decade (the average interest rate was about 1.9% in 2014). Many OIC member countries borrow from official creditors at preferential rates (on average about 1.2% in 2014). The average interest rate for private credits was about 3.9% in 2014, a rate being higher than the worldwide average. Low-income countries face lower interest rates than middle-income ones presumably because they have access to concessional lending. Average interest rates in the Arab and Asian group have decreased over the last years, while average interest rates in the African group have increased since 2006.

Islamic finance has become an important part of the financial systems in several OIC member countries. Governments in OIC countries use **Islamic sovereign bonds (*sukuk)*** in public debt management. *Sukuk* are financial certificates commonly referred to as "*sharia* compliant" bonds, which do not pay interest. The investor rather acquires a share of the underlying project that the *sukuk* bond is linked to. Several OIC member countries plan to increase the share of Islamic finance instruments in the next few years.

In most OIC member countries a **Public Debt Management Office (DMO)** at the Ministry of Finance is responsible for public debt management. In some countries, a department at the central bank also carries out debt management operations. Only few OIC member countries have established independent debt management offices. In several countries, there is not one single entity responsible for public debt management but several departments at the Ministry of Finance and the central bank and in some cases also in other institutions.

Among the OIC member countries, 62% countries have established a **formal debt management strategy** (similar to the worldwide average of 60%). Among the OIC member countries with a formal public debt management strategy, 78% have published this document. Among the OIC member countries with a formal public debt management strategy, 68% use strategic targets and benchmarks (a share being lower than the worldwide average of 77%).

Among the OIC member countries with a formal public debt management strategy, 63% have set **strategic targets** for currency risk, 58% have set targets for refinancing risk, and 53% have set targets for interest rate risk. In contrast, on a global view, it is most common to set strategic targets for refinancing risk (66%), followed by interest rate risk (56%) and currency risk (50%). Targets used for currency risk include the share of foreign currency debt in total debt; targets used for interest rate risk include the share of fixed interest debt in total debt and

the average time to refixing; and targets used for refinancing risk include a ceiling on maturing debt within one year (in % of total outstanding debt) and the average time to maturity.

4 Public Debt Management Practices in Individual OIC Member Countries

The low and lower-middle income African countries Gambia, Mozambique, Togo, Uganda, as well as Sudan have shares of external public debt in total public debt of about or over 50%. These figures indicate an **underdeveloped domestic debt market**. The high share of debt denominated in foreign currencies exposes these countries to exchange rate risk. Nigeria is an exception among the African countries with external public debt amounting to only about 18% of total public debt.

The **external public debt** of low and lower-middle income countries with high shares of external public debt is largely held by official creditors such as international organizations and governments. Low and lower-middle income countries often face difficulties in financing themselves on international capital markets. Official creditors lend at preferential interest rates and at longer maturities than private creditors. Consequently, the case study countries with a high share of external public debt have lower interest rates and longer average maturities in their government debt portfolio.

Other case study countries such as Egypt and Lebanon strongly rely on the **domestic debt market**. High interest rates on government debt and preferences for safe lending reduce the incentives of banks to provide credit to the private sector in these countries, leading to a **crowding-out of bank loans to the private sector**. Banks tend to invest in short-term instruments to avoid asset and liability mismatches with short-term bank deposits. Lebanon has recently made progress in reducing the reliance on the domestic debt market especially through a swap of domestic currency debt to Eurobonds.

Given the different debt levels and structures, **debt management strategies** vary among the case study countries. Out of the 15 case study countries, eleven have developed formal debt management strategies. Uganda, Egypt, Indonesia, Nigeria, Albania and Lebanon have published numerical targets for risks in the public debt portfolio. Turkey has set numerical targets but does not disclose these numbers. Gambia, Mozambique and Togo have set general objectives but do not formulate specific targets. Saudi Arabia, Sudan, Kazakhstan and Oman do not have or do not disclose targets.

Iran and Sudan all local banks operate under **Islamic finance rules,** while in Saudi-Arabia one-third of all local banks can be considered as fully Islamic. Consequently, Islamic finance instruments also play an important role for public debt management in these countries. Debt-to-GDP ratios in Iran and Saudi Arabia are very low, amounting to 17.1% and 5.8% in 2015. Public debt in Saudi Arabia is completely domestic, while the share of domestic public debt in Iran accounts for more than 90%. Declining oil revenues give rise to additional borrowing needs and these countries plan to also tap international debt markets. To prepare international bond issuances, legal and organizational structures for debt management are being established at the moment. In contrast, Sudan has a relatively high public debt ratio (68.9%) and about 90% of public debt is external.

The central bank of Saudi Arabia (SAMA) issues SAMA Bills and the government has issued Government Development Bonds (GDBs). Although GDBs are not defined as Islamic bonds, they are "*zakah* (compulsory alms) deductible" for domestic investors. The general rise in popularity of corporate and quasi-sovereign *sukuk* and other Islamic finance instruments in Saudi Arabia indicate that Islamic bonds will play also a bigger role in the future of the country's public debt management.

The government of Iran has mainly borrowed from domestic Islamic banks by taking loans with fixed rates of return in the past. In 2015, Iran has started to expand its Islamic bond market. There are various types of instruments such as *murabaha*, *musharakah*, *ijarah*, and different types of *sukuk*. Sovereign *sukuk*, *ijarah*, and Sovereign Settlement Bills were issued for the first time in 2016. Islamic Treasury Bills (ITBs) were also introduced describing zero coupon bonds sold at a discount to their face values.

The government and the central bank of Sudan use various short- and long-term Islamic finance instruments for debt and liquidity management. The central bank uses Central Bank *ijarah* Certificates (*shihab*) for open market operations whose returns are fixed and distributed monthly. The central bank also uses *sukuk* bonds for the management of liquidity. The government employs two types of *sukuk*: short-term Government *Musharaka* Certificates (GMCs), which are mainly used for liquidity and cash management, and long-term Government Investment Certificates (GIC). The nominal value of the instrument is distributed in profits quarterly or bi-annually. Compared to the market for GMCs, which has been growing steadily since 1999 because of the specific characteristics of these instruments such as high profitability, low risk, short-term maturity and high liquidity, the market for GICs has been stagnating since its introduction in 2003.

Some case study countries with conventional finance systems have also introduced Islamic finance instruments in public debt management. Countries such as Gambia, Togo and Oman have already issued *sukuk*. Indonesia has established a rapidly growing market for public *sukuk* and has also issued *Global Sukuk* denominated in foreign currency. Other countries such as Egypt, Kazakhstan, Mozambique, Nigeria and Uganda have created legal prerequisites to use Islamic finance instruments and/or are planning to issue *sukuk* in the next years.

5 Policy Recommendations

Most OIC countries have established legal and organizational public debt management frameworks and have created **Debt Management Offices** or are in the process of doing so. In some countries, the delineation of responsibilities for public debt management remains, however, vague. Public debt management functions often are not fully centralized at the debt management office but additional ministerial departments, the central bank and committees pursue debt management functions. A large number of institutions involved in public debt management hampers coordination and makes it difficult to evaluate the degree of accountability of the individual institutions. As long as all debt management responsibilities are not centralized at a debt management unit, adequate and systematic communication between the various embedded institutions is important. All OIC member countries are advised to set up Debt Management Offices if they have not done so, and to give these DMO clearly defined authority to manage public debt.

About 38% of the OIC member countries have not yet developed a **medium-term debt management strategy (MTDS)** following international standards. Among the OIC member countries with formal public debt management strategies, 32% have not yet set numerical strategic targets. All OIC countries are recommended to create MTDS including numerical strategic targets. A clear commitment to the public debt management strategy is likely to be helpful in attracting foreign investors and improving domestic debt markets. Countries that have not yet published their debt management strategies are advised to do so to facilitate communication with international investors. It is important to strengthen public disclosure of legal and organizational structures of public debt management, operations and strategies in the OIC member countries.

OIC member countries that already have established professional public debt management practices might advise other countries in establishing institutional frameworks for public debt management. Existing institutional settings and public debt management documents might be taken as models by countries that take the first steps in implementing formal public debt management. Often countries have gained various experiences regarding public debt management such as long-term strategy development, risk management, monitoring or institutional coordination. Countries may be able to offer good examples within one area of debt management and/or negative experience from which lessons can be learned. OIC member countries are also advised to cooperate. Tasks such as the training of specialized staff, the development of capacities of the middle office and the creation of risk quantification models might be centralized. Given their commonalities, this opens the room for cooperation among the OIC member countries. Therefore, it might be useful to bring OIC member countries together for developing solutions of public debt management problems. It is recommended to coordinate **cooperation within COMCEC** for instance by setting up workshops or joint training courses on public debt management.

Central bank independence might be strengthened in the OIC member countries. In some countries, the central bank has purchased substantial amounts of sovereign bonds. This poses the risk that monetary and financial policies are not clearly separated and that the central bank cannot implement an independent monetary policy. Public debt management is well advised to further diversify the investor base.

Islamic sovereign bonds (*sukuk)* are likely to gain popularity in OIC and non-OIC countries. An important factor is growing preference for *sharia* compliant finance products. Moreover, the issuance of *sukuk* bonds might serve market development purposes by diversifying domestic capital markets and attracting new investors from Islamic countries. Investors can benefit from new sovereign *sukuk* issuances because of the opportunity to diversify their portfolios. Several OIC member countries are planning on issuing sovereign *sukuk* or have already done so. Infrastructure projects are especially suitable as underlying structure for sovereign *sukuk* given the asset-backed nature of these bonds. In several Islamic markets funding gaps and infrastructure requirements exist. As investments in infrastructure are expected to increase in developing and emerging countries with Islamic banking playing an important role in many of these markets, *sukuk* issuance related to infrastructure is expected to increase.

However, Islamic finance instruments do not always minimize financing costs as they may entail additional administrative expenses and greater legal and accounting challenges. The prohibition of interest and the limited primary and secondary market for *sukuk* may give rise to concerns regarding an efficient price system and tradability. The limited tradability, the comparatively high issuance costs, and the rather limited volume of *sukuk* constrain market liquidity and hence a government's flexibility in fiscal policy and a central bank's flexibility in monetary policy.

As a result of **underdeveloped domestic debt markets,** several low and lower-middle income OIC member countries strongly depend on external borrowing. Domestic debt markets are potentially an important source of financial funding for governments. A well-functioning domestic market for public debt helps to reduce the risks linked to public debt because it provides additional diversification opportunities and reduces the exchange rate risk. For domestic creditors it is easier and less expensive to buy sovereign bonds if they are traded on the domestic rather than on the international market. Domestic creditors, in turn, are a source of funds that reacts less to global market conditions and as a result is less volatile and instable

than external sources. The domestic debt market can be strengthened by a variety of measures such as improving legal and regulatory frameworks, market infrastructure, political stability and developing a reliable public debt management. Weak public debt management capacities decrease the government's credibility resulting in higher risk premiums especially with regard to long-term bonds. Disseminating information on debt operations, adopting transparency in primary auctions and developing secondary markets strengthen the functioning of domestic debt markets.

Some OIC member countries are heavily indebted to the **domestic banking sector**. High interest rates on government debt and preferences for safe lending reduce the incentives of banks to provide credit to the private sector in these countries, leading to a **crowding-out of bank loans to the private sector**. Banks tend to invest in shorter term instruments to avoid asset and liability mismatches with short-term bank deposits giving rise to interest rate risk and refinancing risk for the government's debt portfolio. When a substantial part of public debt is held by domestic banks, a potentially dangerous link between public finances and the banking sector exists: public default would damage the banking sector and difficulties in the banking sector endanger government's ability in placing its bonds on the domestic market. A diversified domestic creditor base with a large share of non-banking investors is favorable. The investors' base can be broadened by reforming the legal framework to grant pension funds, insurance companies and foreign investors' access to the domestic debt market.

OIC member countries may well use ***sukuk*** in public debt management in addition to conventional bonds to diversify the government's debt portfolio and attract new investors, domestically and from other (Islamic) countries. In particular, countries that rely heavily on the domestic banking sector may benefit from these instruments, including retail *sukuk*. Countries that mainly rely on concessional lending may also use Islamic finance products to attract private investors.

Governments often issue short-term bonds rather than long-term bonds. Interest rates of short-term bonds are usually lower than long-term ones when the markets have concerns about political and macroeconomic risks. This also prevents the establishment and development of a domestic debt market which is supposed to satisfy the investors' and governments' financing needs in the long run. Countries with short average maturity of public debt are exposed to **refinancing risk** and may **lengthen maturities** of public debt by preferring longer-term T-Bonds over short-term T-Bills. In countries with low shares of foreign currency debt, this objective might be achieved, for example, by using swaps of domestic currency debt to foreign currency debt which generally longer maturity. Public budget management might also benefit from the current low interest rate environment to lengthen the average maturity of debt to reduce refinancing risk and reduce the number of bonds issued annually. An important indicator for the quality of the domestic debt market is in how much the bond maturity structure mirrors the government expenditure structure.

Macroeconomic risk management is an important complement to public debt management. The main tools in macroeconomic risk management are information and analytical systems based on adequate frequency data providing early warning indicators. These indicators enable policy makers to react to crises with adequate control measures. Several best practices are used internationally that OIC member countries are recommended to consider.

1 Introduction

1.1 Definition of Public Debt Management

Public debt management is intended to design the government's debt portfolio in a targeted and efficient way. The IMF (2014, p. 5) describes public debt management as "the process of establishing a strategy for managing the government's debt in order to raise the required amount of funding at the lowest possible cover cost over the medium- to long-run, consistent with a prudent degree of risk." Public debt management is an everyday business that is not only relevant when a budget deficit has to be financed or maturing debt has to be repaid. Debt management relates to the total stock of outstanding debt, whose structure (e.g. currency denomination, creditor base, maturity structure and interest rates) can be changed through operations on the money and capital markets. While debt management in the private sector primarily aims to minimize costs and risks, debt management in the public sector (DeM) can pursue additional goals, such as macroeconomic stabilization (Tobin 1963), tax burden smoothing (Barro 1995) or a stabilization of the public budget (Missale 2000).

Historical experiences with sovereign debt crises (e.g. Mexico in 1994, Turkey in 1994, Russia in 1998 and Argentina in 2001) and the recent sovereign debt crisis in Europe, triggered by the U.S. financial crisis starting in 2007, have shown that public debt management is relevant for both high- and lower-income countries. As the IMF (2014, p. 6) pointed out, public debt management is closely linked with a country's financial stability and crisis vulnerability: "Sound risk management practices are essential given that a government's debt portfolio is usually the largest financial portfolio in the country and can contain complex and risky financial structures, which have the potential to generate substantial risks to the government's balance sheet and overall financial stability. Sound risk management by the public sector is also essential for risk management by the private sector."

Governments regularly borrow to finance public expenditures. Overall, the decision on the amount to be borrowed should be based on a sustainability analysis of public debt. Such fiscal sustainability typically relates to the solvency of the government, i.e. the ability to continue servicing its debt without an unrealistically large future correction of the budget balance or an explicit default (see, e.g., Burnside 2005, IMF 2007). To raise the intended funds, public debt managers have to choose suitable finance instruments and seek for the best borrowing conditions, i.e. to raise the funds at the lowest cost. Additionally, they have to structure the debt portfolio in a way such that negative effects of economic or financial shocks on the public budget are minimized (see, e.g., Melecky 2007). Thus, financing public debt in an efficient manner requires a complex multi-perspective approach.

Generally, public debt management describes the process of establishing and implementing a prudent strategy for raising the required amount of funding, while considering the government's cost and risk preferences. In any event, the government may set additional goals, such as developing and maintaining an efficient market for government securities. In practice, public debt management usually involves the following tasks (Wheeler 2004):

- Establishing clear public debt management objectives within a sound governance framework, including a prudent cost and risk management strategy and accompanying portfolio management policies;
- Establishing an efficient organizational structure and appropriate management information systems;
- Ensuring that all portfolio-related transactions are consistent with the government's debt management strategy while being efficiently executed;

- Establishing reporting procedures to ensure that the government's debt managers are accountable for their assigned debt management responsibilities and assignments.

The main purpose of this study is to examine public debt management practices in the member countries of the Organization of Islamic Cooperation (OIC) and to propose recommendations for improving public debt management in the OIC member countries. The study explicitly considers the institutional framework of public debt management and the debt structure. Other important issues regarding the sustainability of public debt, such as the levels of public budget deficits and debt, and whether debt is issued for financing investment or consumption are beyond the scope of this study. The decision on the amount to be borrowed is made by the government before the process of public debt management sets in.

1.2 Performance Indicators and Best Practices

The World Bank (2015) has developed the Debt Management Performance Assessment (DeMPA) methodology to assist countries in improving their public debt management. The DeMPA performance indicators cover five dimensions of public debt management, namely: (1) governance and strategy development, (2) coordination with macroeconomic policies, (3) borrowing and related financial activities, (4) cash flow forecasting and cash balance management, and (5) debt recording and operational risk management (see Table 1-1 for further details).

Table 1-1: World Bank DeMPA Performance Indicators

Performance Indicator	***Description***
1. Governance and Strategy Development	
Legal Framework	The existence, coverage and content of the legal framework on authorization to borrow (in both domestic and foreign markets), undertake debt-related transactions (e.g. debt exchanges as well as currency and interest swaps) and issue loan guarantees
Managerial Structure	(1) Managerial structure for central government borrowing and debt-related transactions (2) Managerial structure for preparation and issuance of central government loan guarantees
Debt Management Strategy	(1) Quality of the DeM strategy document (guidelines and target ranges of indicators for interest rate, refinancing, and foreign currency risks) (2) Decision making process and publication of the DeM strategy
Debt Reporting and Evaluation	(1) Publication of a statistical bulletin on debt, loan guarantees and debt-related operations (2) Reporting to parliament or congress
Audit	(1) Frequency and comprehensiveness of financial, compliance, and performance audits (of the effectiveness and efficiency of government DeM operations, including the internal control system), and publication of external audit reports (2) Degree of commitment to address the outcomes from the audits

Performance Indicator	*Description*
2. Coordination with Macroeconomic Policies	
Coordination with Fiscal Policy	(1) Supporting fiscal policy makers through the provision of accurate and timely forecasts on total central government debt service under different scenarios (2) Availability of information on key macroeconomic variables, as well as the quality and frequency of debt sustainability analyses
Coordination with Monetary Policy	(1) Clarity of separation between monetary policy operations and DeM transactions (2) Coordination with the central bank through regular information sharing on current and future debt transactions and the central government's cash flows (3) Extent of the limit of direct access to financial resources from the central bank
3. Borrowing and Related Financial Activities	
Domestic Borrowing	(1) The extent to which market-based mechanisms are used to issue debt; the preparation of an annual plan for the aggregate amount of borrowing in the domestic market, divided between the wholesale and retail markets; and the publication of a borrowing calendar for wholesale securities (2) Availability and quality of (documented) procedures for borrowing in the domestic market and interactions with market participants
External Borrowing	(1) Documented assessment of the most beneficial or cost-effective borrowing terms and conditions (including lender or source of funds, currency, interest rate and maturity) and a borrowing plan (2) Availability and quality of documented procedures for external borrowings (3) Availability and degree of involvement of legal advisers before signing of the loan contract
Loan Guarantees, On-lending and derivatives	(1) Availability and quality of documented policies and procedures for approval and issuance of central government loan guarantees (2) Availability and quality of documented policies and procedures for approval and issuance of central government on-lending
4. Cash Flow Forecasting and Cash Balance Management	
	(1) Effectiveness of forecasting the aggregate level of cash balances in government bank accounts (2) Decision of a proper cash balance ('liquidity buffer') and effectiveness of managing the intended cash balance in government bank accounts (including the integration with any domestic debt borrowing program, if required)

Performance Indicator	*Description*
5. Debt Recording and Operational Risk Management	
Debt Administration and Security	(1) Availability and quality of documented procedures for the processing of debt-related payments (2) Availability and quality of documented procedures for debt and transaction data recording and validation, as well as storage of agreements and debt administration records (3) Availability and quality of documented procedures for controlling access to the central government's debt data recording and management system and audit trail (4) Availability and frequency of off-site, securely stored debt recording and management system backups
Segregation of Duties, Staff Capacity and Business Continuity	(1) Segregation of duties for key functions and the presence of a risk monitoring and compliance function (2) Sufficient staff capacity and human resource management (3) Presence of an operational risk management plan, including business continuity and disaster recovery strategies
Debt and Debt-Related Records	(1) Completeness and timeliness of central government records on its debt, loan guarantees and debt-related transactions (2) Complete and up-to-date records of government securities holders in a secure registry system, if applicable

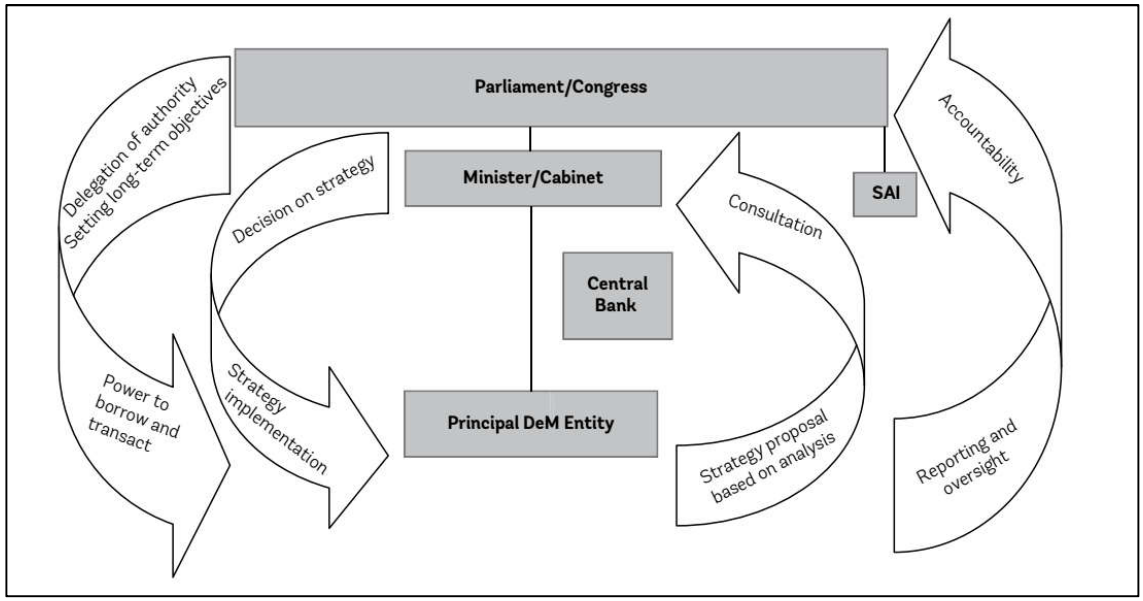
Source: World Bank (2015)

(1) Governance and Strategy Development

Legal framework and managerial structure

Public debt management requires a legal framework defining the authority for public debt management operations such as borrowing and issuing new debt, undertaking debt-related transactions and providing loan guarantees. The managerial structure should include a clear definition of roles and responsibilities. Generally, it is recommended to have a division between the *political level*, i.e. the president, minister of finance, the cabinet, the parliament or congress, or any other responsible political authority at the executive level who sets the overall government debt management objectives and decides on the risk level that the government is willing to tolerate, and the *executive level*, i.e. the entities responsible for implementing such policy decisions (see Figure 1-1).

Figure 1-1: Public Debt Management Governance Structure



Note: DeM = Public Debt Management, SAI = Supreme Audit Institution
Source: World Bank (2015, p. 6).

It is advisable that public debt management operations are undertaken by one integrated principal entity, such as a debt management office (DMO). Only as an alternative if such integration is not feasible, multiple entities may execute specialized tasks. In that case, all entities should ensure a regular exchange of information and a clear coordination of their activities through formal institutional mechanisms. In principal, it proves to be beneficial if the task of public debt management is assigned to either the national central bank or to the Ministry of Finance. On one hand, concerns over price stability and a smooth transmission channel of monetary policy may speak in favor of the central bank. On the other hand, the pursuit of macroeconomic goals and, in practice most importantly, the minimization of financing costs for the budget may make the Ministry of Finance the adequate institution for supervising and conducting debt management operations. Moreover, locating a consolidated debt management entity within the Ministry of Finance facilitates coordination and information sharing. For a separate debt management office outside the mentioned institutions, formal agency arrangements as well as stronger accountability and transparency frameworks are required (Togo et al. 2003). Finally, debt management tasks may be assigned to an inter-agency body. However, given that the Ministry of Finance is the natural authority responsible for a country's financial stability, such a body should be chaired by the Ministry of Finance (Bangura et al. 2000).

Debt management strategy

The legislation should stipulate the debt management entity to develop a debt management strategy. The strategy defines the objectives for the management of domestic and external public debt, other financial (contingent) liabilities and related assets. In particular, the debt management strategy refers to a document that defines target values and benchmarks for risk indicators of the debt structure. Developing a debt management strategy may provide many advantages (Cabral 2015), including but not limited to:

- Making prudent borrowing decisions based on an analysis of costs and risks
- Facilitating intra-governmental and creditor-addressed communication and coordination to reduce uncertainty
- Giving debt managers a clear mandate, thereby ensuring good governance and accountability
- Fostering the development of a domestic debt market by making the government's debt goals transparent to market participants

Overall, a sound risk management is essential for fiscal sustainability. The most important risks to be taken into account are the following:

- Refinancing risk or rollover risk, i.e. the risk that the government is unable to refinance maturing debt. The shorter the maturity of debt is, the higher is the amount of debt to be rolled-over in a given year and the higher the refinancing risk.
- Interest rate risk or refixing risk, i.e. the risk that borrowing costs increase due of unfavorable developments in interest rates. Interest rate risk is higher if contracts are based on variable interest rates. With fixed interest rates, it covers the risk that refinancing of maturing debt is realized at higher interest rates.
- Exchange rate risk, i.e. the risk that a devaluation of the exchange rate increases the value of debt expressed in domestic currency. Hence, exchange rate risk is relevant for debt denoted in foreign currency.

Additionally, debt managers face operational risks that should be managed through governance and control functions (see Table 1-2). Indicators to be assessed in the debt management strategy also include projections of the total debt service and the maturity structure under different scenarios.

Table 1-2: Risks Relevant for Public Debt Management

Risk	Description
Refinancing risk or rollover risk	Refers to the risk that debt will have to be refinanced at a higher cost or cannot be refinanced at all. To the extent that refinancing risk is limited to the risk that debt might have to be financed at higher interest rates, including changes in credit spreads, it may be considered a type of interest rate risk. However, it is often treated separately, because the inability to refinance maturing debt and/or exceptionally large increases in government funding costs are likely to give rise to a debt crisis. Additionally, bonds with embedded put options may potentially exacerbate refinancing risk. Measures of refinancing risk include the share of debt maturing within one, two and three years to total debt the average time to maturity (ATM), the share of short-term to long-term debt, or the redemption profile.
Interest rate risk or refixing risk	Refers to the risk of increases in the cost of debt arising from changes in interest rates. For both domestic and foreign currency debt changes in interest rates influence debt servicing costs on new issuances when fixed rate debt is refinanced, and on existing and new floating-rate debt at the rate reset dates. Generally, short-term and floating rate debt is considered to be the subject to a higher risk than long-term, fixed-rate debt. Measures of interest rate risk include the average time to maturity (ATM), the share of fixed-rate to floating-rate debt and the average time to interest rate refixing (ATR).

Risk	Description
Exchange rate risk	Refers to the risk of increases in the value of debt arising from changes in exchange rates. Debt denominated in or indexed to foreign currencies may add volatility to debt servicing costs as measured in domestic currency due to exchange rate movements. Measures of exchange rate risk include the share of foreign currency to domestic currency debt, the currency composition of foreign currency debt, and the share of short-term external debt to international reserves.
Liquidity risk	Refers to the risk that the volume of liquid assets, especially cash, diminishes quickly as a result of unanticipated cash-flow obligations and/or possible difficulties in raising funds through short-term borrowing.
Credit risk	The risk of non-performance by borrowers on loans or other financial assets, or by a counterparty on financial contracts. This risk is particularly relevant in cases where debt management includes the management of liquid assets. It may also be relevant with regard to the acceptance of bids in auctions of securities issued by the government and credit guarantees, and with respect to derivative contracts entered into by the debt manager.
Settlement risk	Refers to the risk that counterparty does not deliver a security as agreed in a contract, after the country (other counterparty) has already made the payment according to the agreement.
Operational risk	Refers to a range of different types of risks, including but not limited to transaction errors in the various stages of executing and recording transactions; inadequacies or failures in internal controls, or in systems and services; reputation risk; legal risk; security breaches; or natural disasters that affect the debt manager's ability to pursue activities required to meet debt management objectives.

Sources: IMF (2014, pp. 12-13), World Bank (2015)

Debt reporting and evaluation

To ensure a transparent disclosure of the debt portfolio, it is recommended that a statistic bulletin is published regularly, including information on domestic and external public debt stocks and ratios (by creditor, residency classification, instruments, currency, interest rate basis and original and residual maturity), debt flows (especially principal and interest payments) and loan guarantees decomposed by type of loan and clarifying the amount that has already been amortized.

(2) Coordination with Macroeconomic Policies

Public debt management interacts with fiscal and monetary policy. Fiscal policy involves the usage of public spending, taxes and other sources of revenue which determine the primary budget balance and influence economic outcomes. Objectives pursued by fiscal policy include stabilizing the economy, improving resource allocation and providing public goods and services and influencing the income distribution. Monetary policy primarily aims at achieving price stability. By doing so, it inevitably affects both interest rates and exchange rates while possibly trying to stabilize output. Instruments available to monetary policy include open market operations and regulatory tools, e.g. reserve requirements. The objectives and the

implementation of public debt management, fiscal policy and monetary policy are interdependent and involve trade-offs (see Table 1-3). However, it is advised that public debt management should be pursued independently (Togo 2007). Nevertheless, fiscal policy makers, monetary policy makers and debt managers should coordinate their actions, e.g. by establishing an internal public debt committee, and agree on common objectives such as targets or ceilings on the deficit and on the stock of public debt (Allen et al. 2013).

Table 1-3: Interdependencies of Public Debt Management, Fiscal Policy and Monetary Policy

	Public Debt Management • Objective: raising the required amount of government funding at the lowest possible cost, consistent with a prudent degree of risk • Target: debt structuring • Instruments: operations on the capital markets
Fiscal Policy • Objective: achieving the least distorting budgetary policy that stabilizes output, improves the resource allocation and manages distributive effects • Target: primary budget balance • Instruments: government spending, taxes	Debt management actions are likely to influence the government's debt service costs, and can thus force governments to reduce expenditures to decrease debt levels and meet their debt obligations.
	Fiscal policy measures (in particular spending and taxation) are likely to influence the risk premium of government debt which affects debt managers' ability to issuing debt instruments and build a sound debt portfolio.
Monetary Policy • Objective: achieving price stability while possibly stabilizing or increasing output • Targets: inflation, interest rates, monetary aggregates, exchange rate • Instruments: open market operations, regulatory tools.	The debt structure, including maturity, floating interest rates or currency denomination, are likely to restrain the central bank's policy options, e.g. in increasing interest rates or devaluating the domestic currency, given that these measures may potentially trigger a debt crisis.
	Exchange rate and interest rate policies are likely to restrict the issuance of foreign currency debt and floating rate debt. A loose monetary policy may increase the inflation expectations of investors, and hence require debt managers to issue short-term debt, or debt that is indexed to inflation rates.

Source: Togo (2007)

Debt management transactions shall be formally separated from monetary policy operations if the central bank conducts debt management transactions as an agent of the central government. It is recommended that the central bank provides information to the government and markets, clearly stating whether it performs transactions under the objective of monetary policy or debt management on behalf of the government. A steady exchange of information between the debt management entity and the central bank on current and future debt transactions and on central government cash flows is advisable, especially if those transactions are important for monetary policy. Moreover, a formal limitation concerning public funding

through the central bank may be put in place, restricting direct financing to exceptional emergency situations and a limited time period.

(3) Borrowing and Related Financial Activities

To fulfill the projected borrowing requirements, market-based instruments such as auctions, syndication, tap issuance or retail issuance might be used. Moreover, it is recommended to publish an annual borrowing plan for domestic and external borrowing. This borrowing plan shall distinguish between wholesale and retail markets, and other sources of funding. A borrowing calendar including debt instruments, issue dates and indicative borrowing amounts for wholesale securities may be released regularly. It is usually advisable that the general public shall have access to information on procedures for domestic and external borrowing, as well as the terms, conditions and criteria for accessing primary wholesale and retail markets. The debt management entity may regularly discuss its assessment on borrowing plans and the development of (domestic) markets with market participants. Similarly, an assessment of the most advantageous and cost-effective terms and conditions for external borrowing may be prepared. Internal documented procedures for all external borrowing should be easily accessible and regularly reviewed. All relevant financial terms of the loan transaction shall be registered into a debt recording system, preferably in a timely manner. Legal advisers may be consulted during the negotiation process and may authorize the legal arrangements.

To facilitate the process, internal documented procedures for the approval and provision of credits, and for the approval, issuance and monitoring of loan guarantees should be easily accessible. The procedures may require an assessment of credit risk before the issuance of credits and loan guarantees. Additional procedures regarding derivative transactions may demand that certain derivative transactions are regularly supervised and that the counter-party credit risk is addressed.

(4) Cash Flow Forecasting and Cash Balance Management

The central government shall provide data-based and easily accessible aggregate forecasts of cash inflows and outflows, preferably at a monthly basis, as well as cash balances on central government bank accounts for the budget year. Ideally, such monthly cash flow forecasts include weekly predictions. Moreover, the float shall be kept within the ranges proposed by central government policies through appropriate transactions, e.g. issuance and buyback of T-Bills. Forecasts of cash balances may be taken into account for the planning of short-term instrument issuance, and surplus cash shall be invested by the central government within adequate credit risk limits.

(5) Debt Recording and Operational Risk Management

It is advisable that easily accessible manuals for the processing of debt service payments, data recording and validation, and documented procedures for controlling access to the central government's debt recording and management system exist. Moreover, such manuals shall be reviewed regularly. Internal payment orders are recommended to be prepared and issued electronically, while debt data may be independently verified each year by external auditors. Backup systems for debt recording and management can be created, safely preserved and regularly checked. Central government liabilities and all debt-related transactions, including past debt restructuring and relief actions, should be consistently recorded. It is recommended that government securities are stored in electronic form in a safe and continuously updated central registry, which is regularly audited regarding internal controls and the management of operational risk.

Staff members of the debt management entity should be appropriately trained and bound to good governance guidelines. It is advisable that there exist separate units responsible for (1) negotiating loans and entering contract data in the debt management system, (2) confirming contract details and finalization of records and (3) initiating and processing payments. Business continuity and disaster recovery plans, operational risk management and an operational recovery site should exist.

2 Global Practices in Public Debt Management

This chapter examines public debt developments, debt structures and performance indicators for public debt management in a global context. Section 2.1 portrays how debt levels and structures have evolved globally since 1980. Both, structure and performance of public debt, might depend on the underlying institutional framework. Therefore, the advantages and disadvantages of different legal and organizational structures of public debt management will be discussed in Section 2.2 and lessons learned for OIC member countries will be described in Section 2.3. A survey among international economic experts about debt management practices in their home countries and their assessment of risks encountered in public debt management complements this section by qualitative insights.

Public debt management can be assessed independently from the structure of public budgets according to the criteria laid out above. However, the overall evaluation of the debt situation of a country needs to take into consideration not only the overall debt levels and the way this debt is managed, but also the underlying structure of revenues and expenditures as well as the overall debt dynamics. If, for instance, debt is increased temporarily as a response to a global economic crisis as revenues fall short of expectations, a transitory increase in public debt may be preferable to decreasing expenditures to maintain current levels of public services whereas a permanent increase in debt levels may not. In a similar vein, a temporary increase in debt levels that finances productive public investment in education, physical infrastructure or the like may be a reflection of productive public investment. Improved growth performance will pay off debt and thus the increase in expenditures may be tolerable. An opposing scenario would be deficit spending of the same amount to finance unproductive government consumption, leading to a permanent upward-shift in debt levels. While the present report takes into account debt dynamics in the recent past, a detailed analysis of the expenditure and revenue structure of OIC member states is beyond the scope of the present analysis.

2.1 Descriptive Statistics and Performance Indicators

This section describes how levels of sovereign debt have evolved over time, and presents data on government budget balances. Moreover, it provides stylized facts regarding the structure of sovereign debt, e.g. its maturity, currency denomination and creditor structure.

To examine whether developments depend on the level of income, which is commonly regarded as a measure of a country's stance of development, and to identify potential common features, countries are grouped into low-, middle-, and high-income countries. This classification is based on the World Bank method that divides countries into certain groups based on their Gross National Income (GNI) per capita, using the World Bank Atlas method. The specific thresholds may change over time. To reduce the number of groups, countries classified as lower middle-income and upper middle-income by the World Bank are merged into one group labeled middle-income countries (a list of the countries included in this study may be found in the Appendix B). Besides the classification according to the level of income, regional country groups are formed, as levels of sovereign debt and their evolution might share common features within a region. Moreover, governments may easier justify their financial policies if they follow neighboring countries.

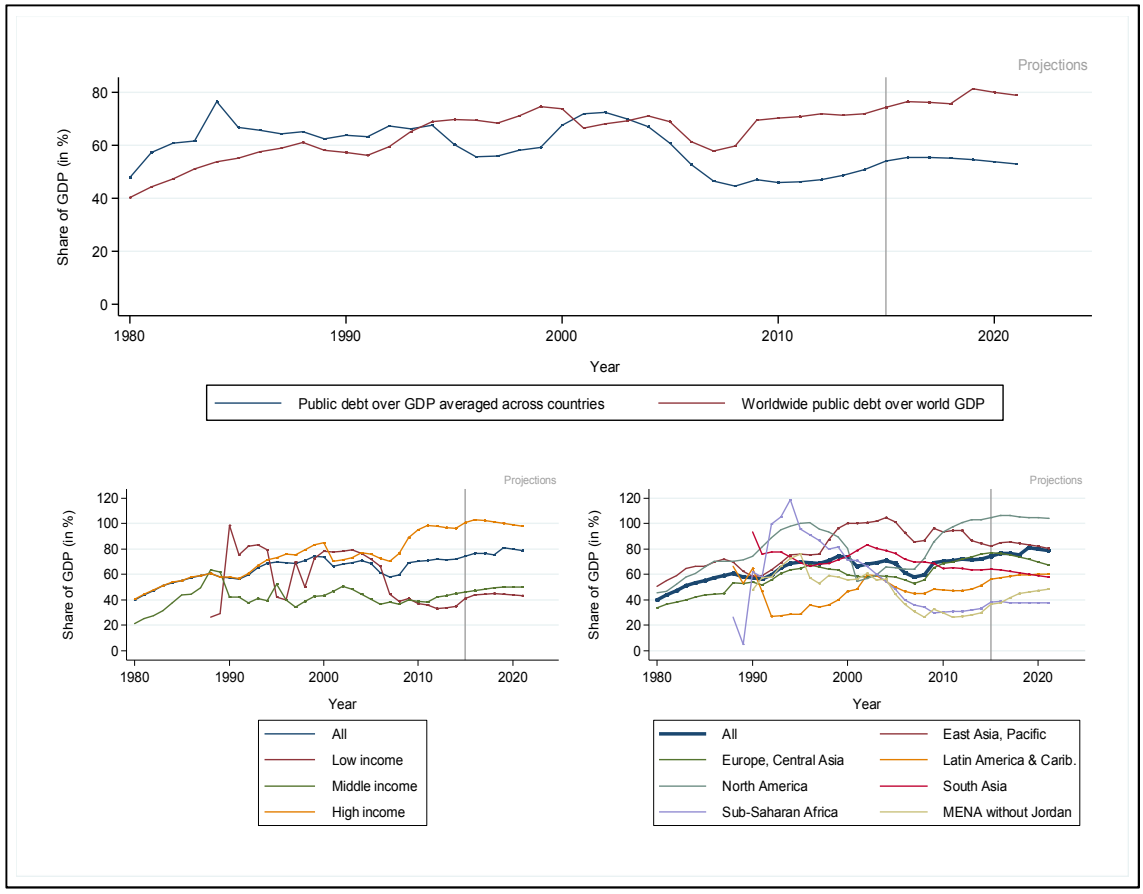
2.1.1 Public Debt Dynamics

Figure 2-1 shows the evolution of sovereign debt as a percentage of GDP for a sample of a maximum of 193 countries over the period 1980-2015 including projections until 2021. Scaling by GDP is motivated by the idea that this ratio expresses indebtedness relative to the

economic size of a country. To some extent, GDP may be regarded as a measure of the tax potential of a country.[1]

The upper panel of Figure 2-1 shows two different measures of average debt levels. The blue line corresponds to the unweighted average of public debt relative to GDP across countries. The red line is a measure of global indebtedness. It displays the ratio of the worldwide sum of government debt relative to world GDP. Over the period of consideration, debt levels have been located between 40% and 80% of GDP with a tendency to increase. Exceptions are the periods just before and during the global financial crisis and the European sovereign debt crisis. Debt levels are projected to rise further. While the current average debt level across countries (blue line) lies below its mean across the period, debt has reached an unprecedentedly high level if expressed as the aggregated worldwide level (red line).

Figure 2-1: Gross Public Debt Worldwide



Sources: WEO (2016), calculations by the Ifo Institute.

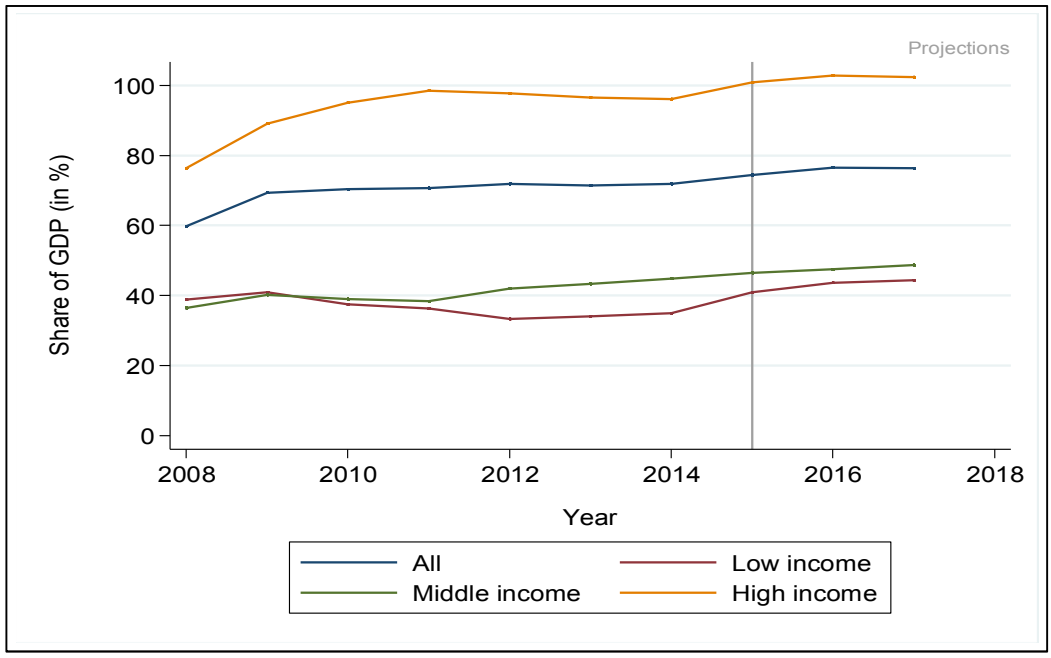
The lower panel of Figure 2-1 shows the evolution of debt for different country-income groups (left) and for different regions (right). In most years, relative sovereign debt in high-income countries is larger than in middle-income and low-income countries. This difference has

[1] Alternatively, sovereign debt might be scaled by government revenues. This variable would provide information on government's ability to repay sovereign debt in the future.

become more pronounced since the middle of the first decade of the 2000s: while debt has been increasing in high-income countries, debt drastically decreased in low-income countries. Debt in low-income countries shows the largest volatility over time. Different dynamics can also be observed within the regional country groups: countries in the Middle East and North Africa and, to a lower extent, those in Sub-Saharan Africa show a substantial and continuous reduction of debt levels over the past 20 years. After reaching a peak in the early 2000s, debt levels in East and South Asia have been decreasing. Debt levels in Latin America and the Caribbean showed relatively constant values in the recent past. North America, Europe and Central Asia have increased their debt levels significantly since 2007.

Figure 2-2 zooms into the more recent period starting in 2008 and presents debt classified according to income level. Average debt ratios in high-income countries are more than twice as large as in middle-income and low-income countries. Debt crises and financial crises in many advanced countries are responsible for the debt increases until 2011; ratios in middle-income and low-income countries, in turn, remained relatively stable.

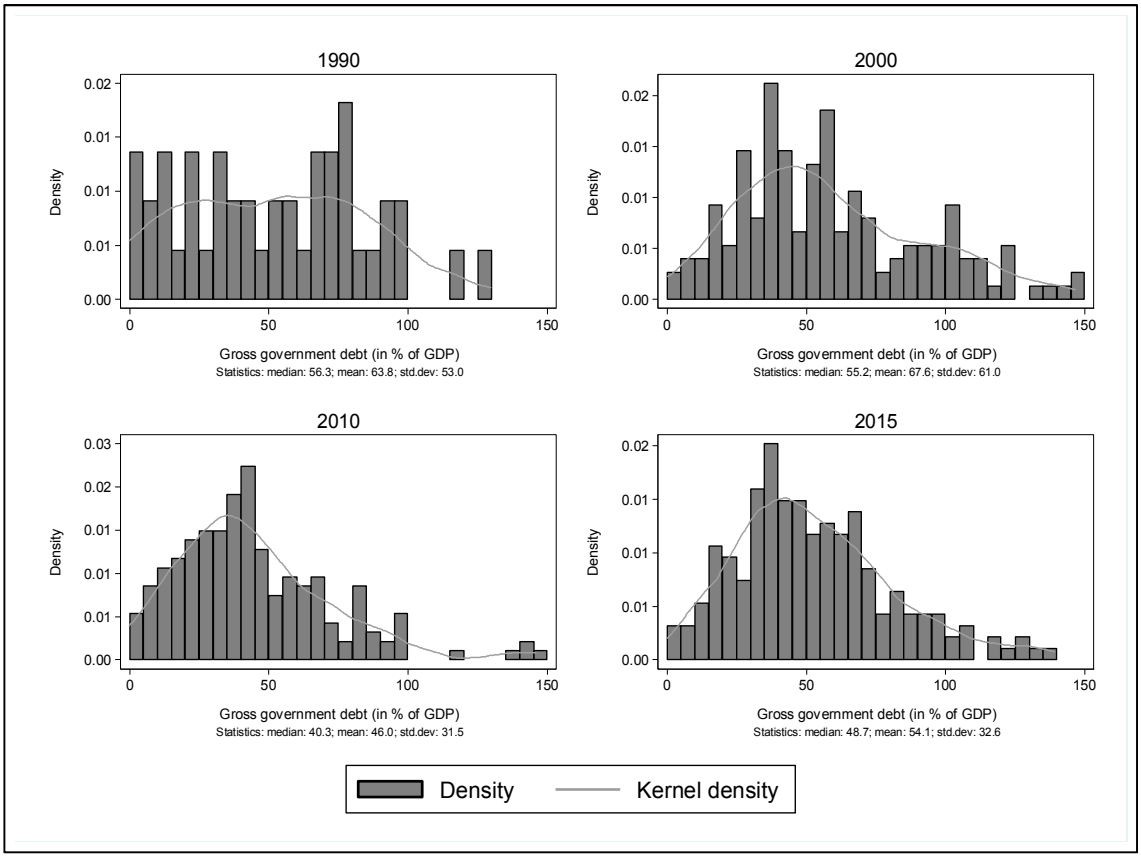
Figure 2-2: Gross Public Debt Worldwide Since 2008



Sources: WEO (2016), calculations by the Ifo Institute.

Figure 2-3 provides an alternative way to illustrate global debt developments: it shows the unconditional distribution of sovereign debt levels (in % of GDP) in selected years for those countries for which data is available in the IMF World Economic Outlook (WEO 2016). Histograms and kernel densities portray an increasing concentration of sovereign debt ratios since 2010 compared to the previous period. While more countries are concentrated at values around 50%, the number of outliers with high debt levels has also risen. The mean is always larger than the median. Nevertheless, the standard deviation has decreased. The distribution has become steeper with more mass being concentrated in the center.

Figure 2-3: Distribution of Gross Public Debt to GDP Ratios Worldwide



Notes: The histograms show the distribution of gross government debt levels (in % of GDP) for the years 1990, 2000, 2010 and 2015. Each graph includes all countries for which data are available in the IMF World Economic Outlook (WEO 2016). Outliers with debt values larger than 150% of GDP were dropped. The bin width amounts to 5 percentage points. The line graph plots a kernel density estimate for ratios of government debt over GDP. As kernel-weight function the function of Epanechnikov is used. The width of the density window is computed as that width that would minimize the mean integrated squared error if data were from a normal distribution and a Gaussian kernel was used.

Sources: WEO (2016), calculations by the Ifo Institute.

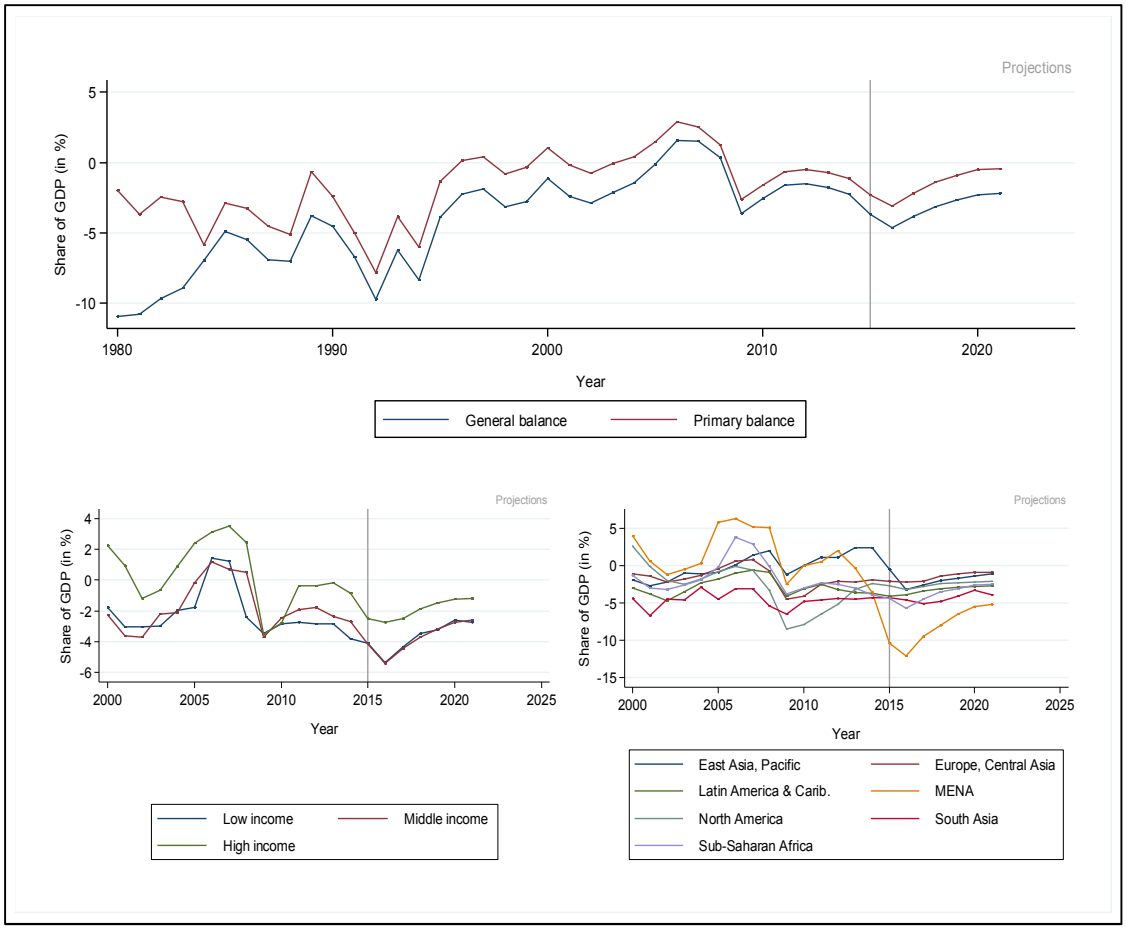
2.1.2 Government Budgets

Scaling debt levels by GDP implies that for balanced government budgets falling debt ratios in periods of economic growth and increasing debt ratios in recessionary periods (characterized by a reduction in GDP) can be observed. In addition, given that for many low- and middle-income countries a substantial share of their government debt is denominated in foreign currencies (see Section 2.1.3), exchange rate changes affect the measure of government debt. In particular, a depreciation of the domestic currency increases debt expressed relative to GDP. To isolate the effect of fiscal policy on government debt, it is therefore warranted to consider the government budget balance.

The upper panel of Figure 2-4 shows averages across countries for two measures: the general budget balance and the primary budget balance, which excludes interest payments on outstanding debt. As governments are net debtors on average, the general balance lies below

the primary balance. Because of the low interest rate environment, the difference between both measures has become smaller in the recent past. While the average budget deficit was 7.2% of GDP during the period 1980-1995, average budget deficits drastically decreased to 1.4% over the period 1996-2006. However, the global financial crisis has marked a structural break and pushed balances deeper into deficit, where they will remain in coming years according to the projections.

Figure 2-4: Government Net Lending Worldwide



Source: WEO (2016), calculations by the Ifo Institute.

The classification according to the income level (lower left panel) shows a remarkable improvement in government budget balances in low-income countries. While historically they ran much larger deficits, their behavior does not differ much from the behavior observed in middle- and high-income countries from 2000 onwards. The regional data (lower right panel) reveal that the improvement in low-income countries can be traced back to countries in Sub-Saharan Africa. This development might be partially attributed to debt relief programs which were implemented over the last two decades. The volatility observed in Middle Eastern and North African (MENA) countries is pronounced, which could be due to the role of commodities, especially oil and gas, as a major source of government revenues. While the MENA countries ran large surpluses between 2004 and 2008, they currently display the largest deficit of all

country groups (10.4% in 2015). It is noted that many countries in this region belong to the OIC.

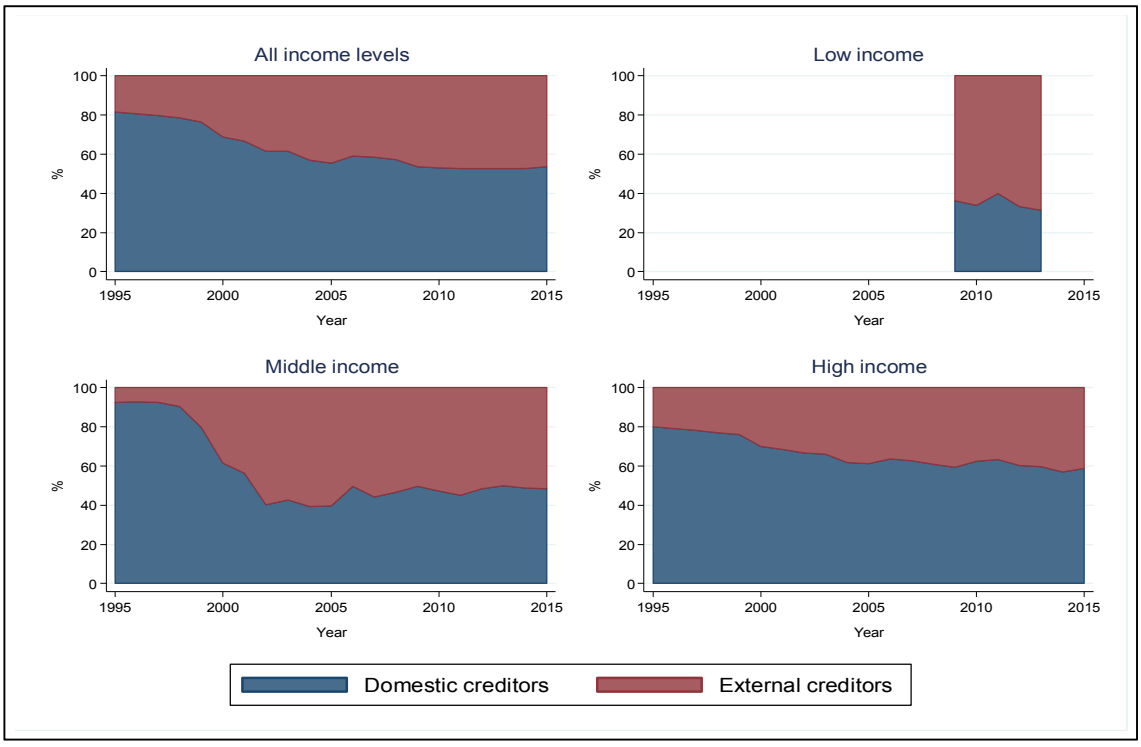
2.1.3 Debt Structures

When evaluating fiscal sustainability, key parameters to consider are debt levels and budget deficits, which enter the intertemporal budget constraint. Besides these "hard" figures, the structure of public debt provides important information about the risks entailed in public debt. Consequently, by turning to an analysis of debt structures, a picture of the maturity structure, currency composition and interest rate types of public debt is drawn. In addition, it will be distinguished between domestic and foreign as well as private and official creditors.

Creditors

Who lends to governments? Financial resources might be provided by domestic or foreign creditors. As shown in Figure 2-5 there is a substantial difference in the residence of creditors between different income groups: High-income countries rely mostly on domestic creditors (59% in 2015), middle-income countries divide their financing needs equally between both types of investors and low-income countries only sold 31% of their liabilities to domestic creditors.

Figure 2-5: Creditor Structure of Public Debt Worldwide



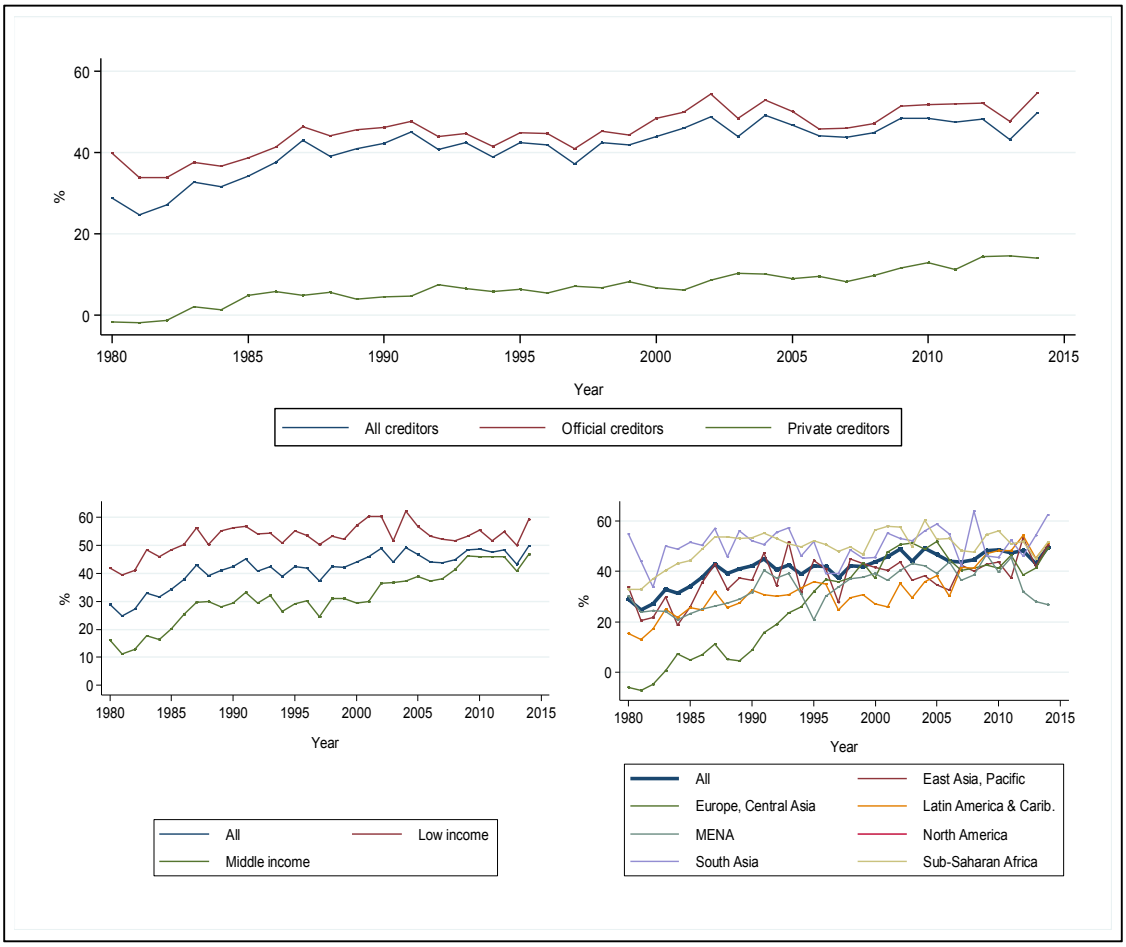
Sources: IMF and World Bank (2016), Quarterly Public Sector Debt database, calculations by the Ifo Institute.
Note: Due to missing data the graph for low income countries covers a shorter time period only.

Grant Element

Individual countries may be unable to finance themselves on international capital markets. Macroeconomic instability, political uncertainty and legal enforcement problems might deter

international investors to provide financial resources. These impediments are reinforced if the borrower is a sovereign whose likelihood to repay does not only depend on its ability-to-repay, but also on its willingness-to-repay. Hence, the share of concessional debt in total public debt is a key figure in a country's public debt structure. It shows whether a country is able to issue bonds on domestic or external markets or whether it depends on the willingness of international institutions and other governments to supply funds. Figure 2-6 displays the average grant element inherent in public debt. The grant element of a loan is a measure of its concessionality. It is calculated as the difference between its nominal face value and the sum of the discounted future debt-service payments (net present value) of the borrower, expressed as a percentage of the nominal value of the committed loan. Hence, a loan entails a grant element whenever the interest rate charged for a loan is lower than the discount rate. The grant element has been rising over time and amounted to 50% in 2014. While grants are primarily extended by official creditors, private credit contracts also have a small grant element on average. Grants to low-income countries are more generous than to middle-income countries. Grants have been above the global average in Sub-Saharan Africa and the MENA countries.

Figure 2-6: Grant Element Worldwide



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

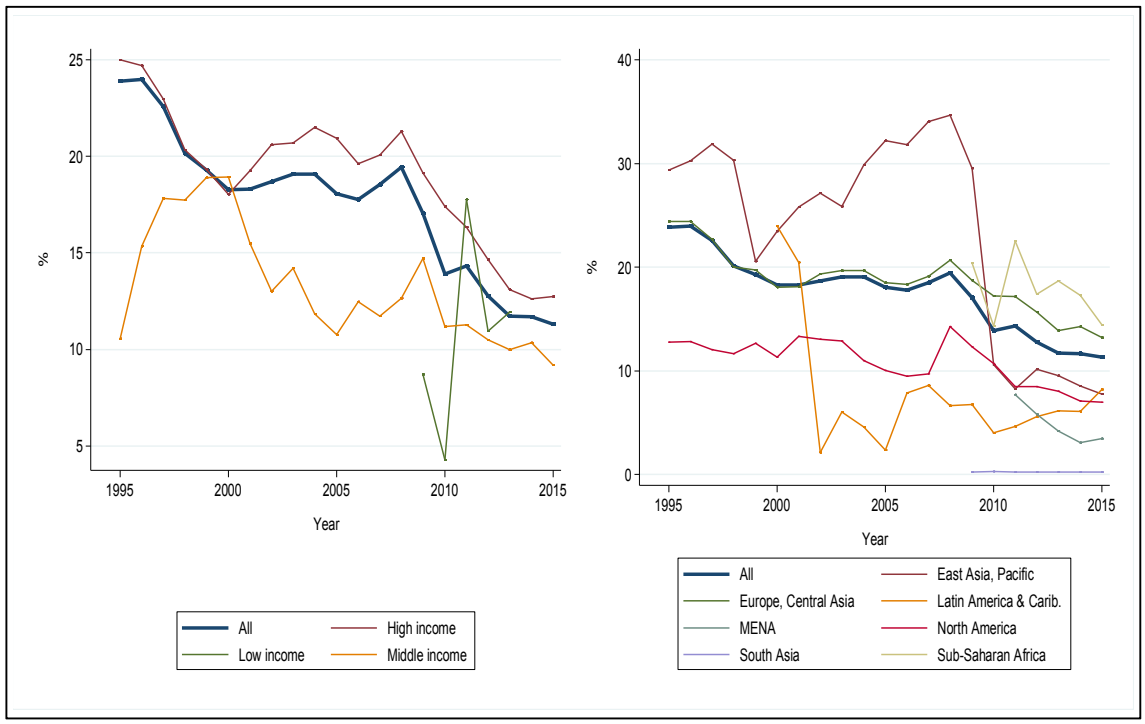
Refinancing Risk

Maturity

The maturity structure of public debt determines the share of debt that has to be refinanced in a given year. The share of short-term debt has been identified as an important determinant of financial and sovereign debt crises. In the period preceding a crisis, short-term debt financing usually becomes more important because investors become reluctant to long-term lending. As such, a high share of long-term debt is a sign of the confidence investors put in the economy. There are many studies on the maturity structure of public debt (see, among others, Arellano and Ramanarayanan 2012, Debortoli et al. 2014, Greenwood et al. 2015). Both governments and investors face trade-offs: while interest rates on short-term debt are usually lower than on long-term debt, short-term debt is positively associated with refinancing risk. From the perspective of investors long-term credits provide a hedge against future interest rate fluctuations, but short-term contracts are more effective in providing incentives to repay.

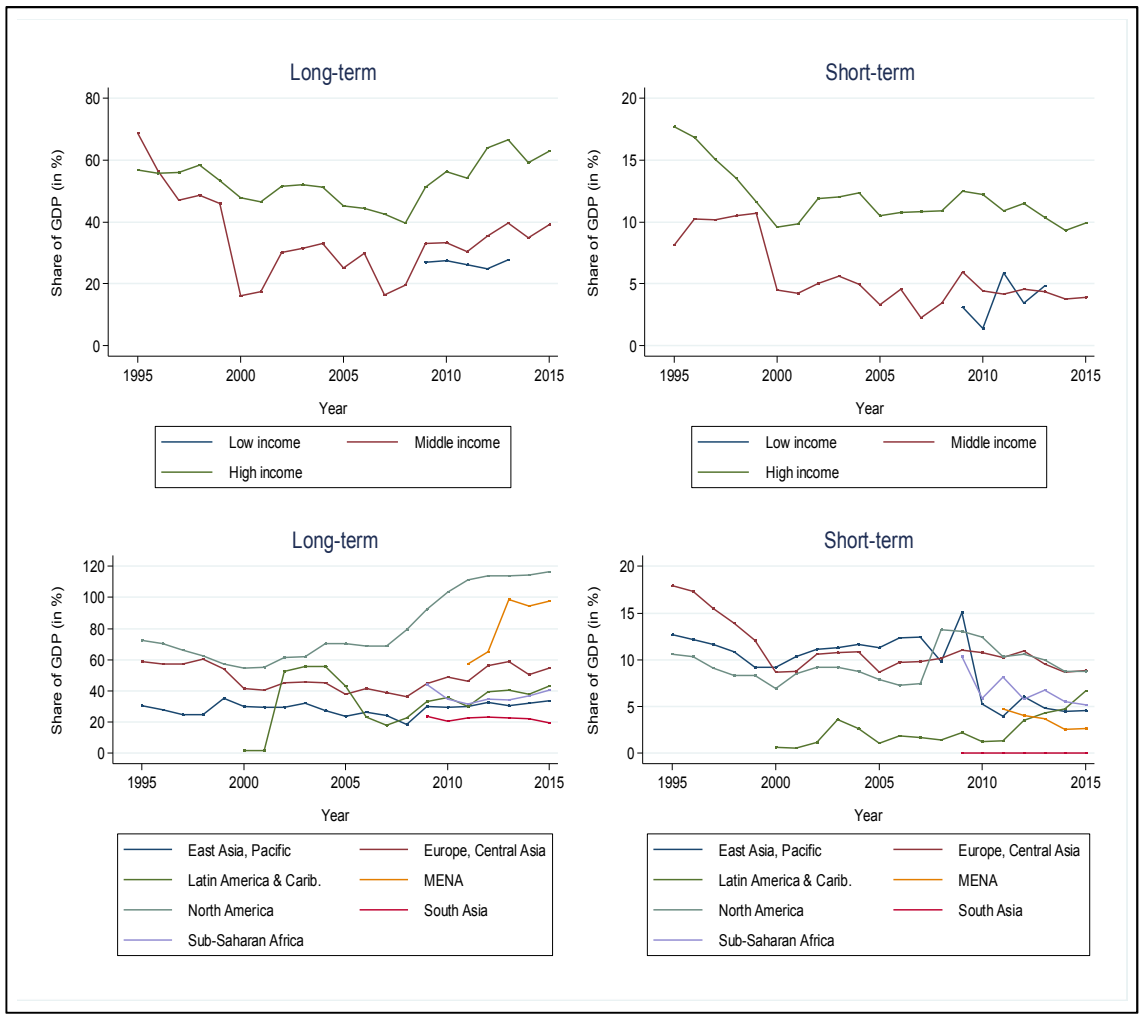
Short-term debt is defined as debt with an original maturity of one year or less. Since 1995 a substantial reduction in the share of short-term debt has taken place (see Figure 2-7) (IMF and World Bank 2016): The share of short-term in total public debt averaged across all countries decreased from 24% in 1995 to 11% in 2015. Low-income countries have a lower share of short-term debt than high-income countries. Figure 2-8 shows the development of long-term and short-term public debt expressed as % of GDP. The increase in public debt since the global financial crisis has been financed by long-term instruments; the share of short-term debt in GDP has remained relatively constant.

Figure 2-7: Share of Short-Term in Total Public Debt Worldwide



Sources: IMF and World Bank (2016), Quarterly Public Sector Debt database, calculations by the Ifo Institute
Note: Due to missing data the graphs for low income countries (left panel) and for Latin America & Carib., Sub-Saharan Africa, South Asia & MENA (right panel) cover a shorter time period only.

Figure 2-8: Long-Term and Short-Term Public Debt Worldwide



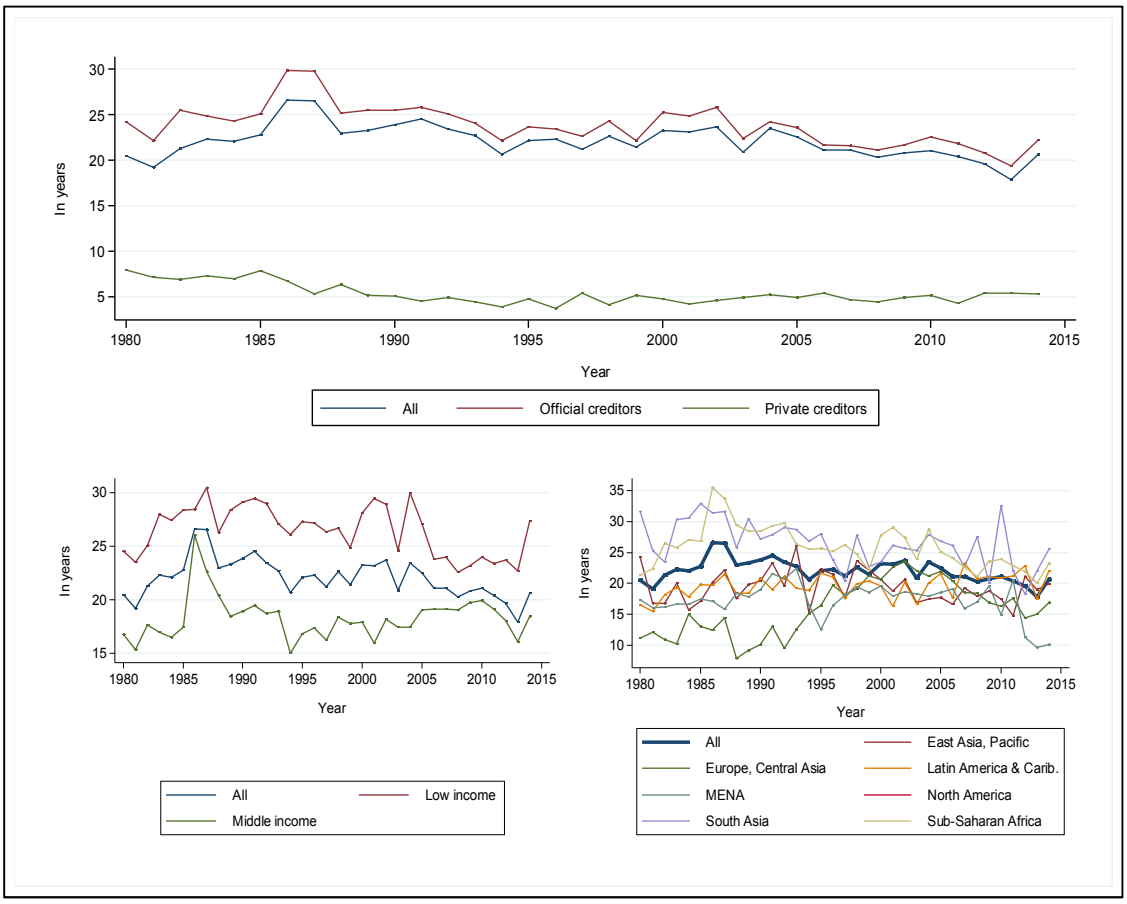
Sources: IMF and World Bank (2016), Quarterly Public Sector Debt database, calculations by the Ifo Institute
Note: Due to missing data the graphs for low income countries (upper panels) and for Latin America & Carib., Sub-Saharan Africa, South Asia & MENA (lower panels) cover a shorter time period only.

If a country pursues an active policy to lengthen the average maturity of its public debt by issuing relatively more long-term bonds, this manifests itself only with a lag in the average maturity of the stock of outstanding debt. As an alternative measure the average maturity on all new public and publicly guaranteed loans contracted during a year will be presented (see Figure 2-9). The average maturity for a given country is calculated by weighting maturities by the amounts of the loans.

The upper panel of Figure 2-9 shows that the average maturity of new debt commitments has been relatively stable over time and has fluctuated between 20 and 25 years. However, there is an important difference with respect to the nature of the creditor: Private creditors extend their credit for an average period of approximately 5 years. Creditors providing their financial resources for periods exceeding a decade are typically official creditors. Official creditors are international organizations such as the World Bank, regional development banks and other

multilateral and intergovernmental agencies and governments. The maturity of new contracts is significantly larger in low-income countries than in middle-income countries, which might be explained by the larger share of official creditors in low-income countries.

Figure 2-9: Maturity of New External Public Debt Commitments Worldwide



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

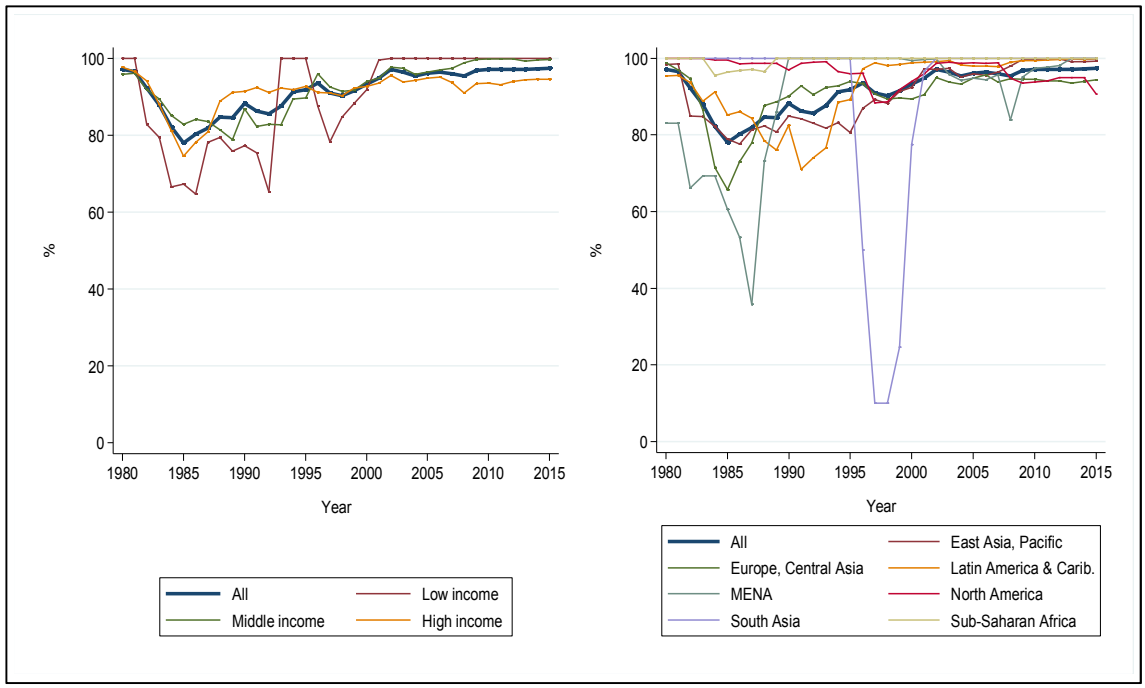
Interest Rate Risk

Interest rate types

Long-term debt allows governments to reliably forecast and plan the costs of outstanding debt in the medium term. However, this only holds if interest rates are fixed. If interest rates are variable, e.g. reset annually, long-term contracts reduce the rollover risk, but not the risk of rising costs of debt. Figure 2-10 shows the share of loans with fixed interest rates in total loans. Since 2000, low-income countries have relied almost exclusively on loans with fixed rates. Albeit small, the share of variable rate contracts is highest in high-income countries. The classification by regions shows a convergence to fixed interest rates over the past 15 years. Latin America, which relied on a significant share of loans with variable interest rates until the mid-1990s, has moved to fixed rate financing. The sharp drop in the share of fixed rate loans in South Asia in the second half of the 1990s can be explained by the Asian financial crisis of 1997/98. When credit ratings had improved afterwards, these countries retuned to fixed rate financing.

Figure 2-10: Interest Rate Types Worldwide

Share of fixed interest rate credits in total credits (in %)

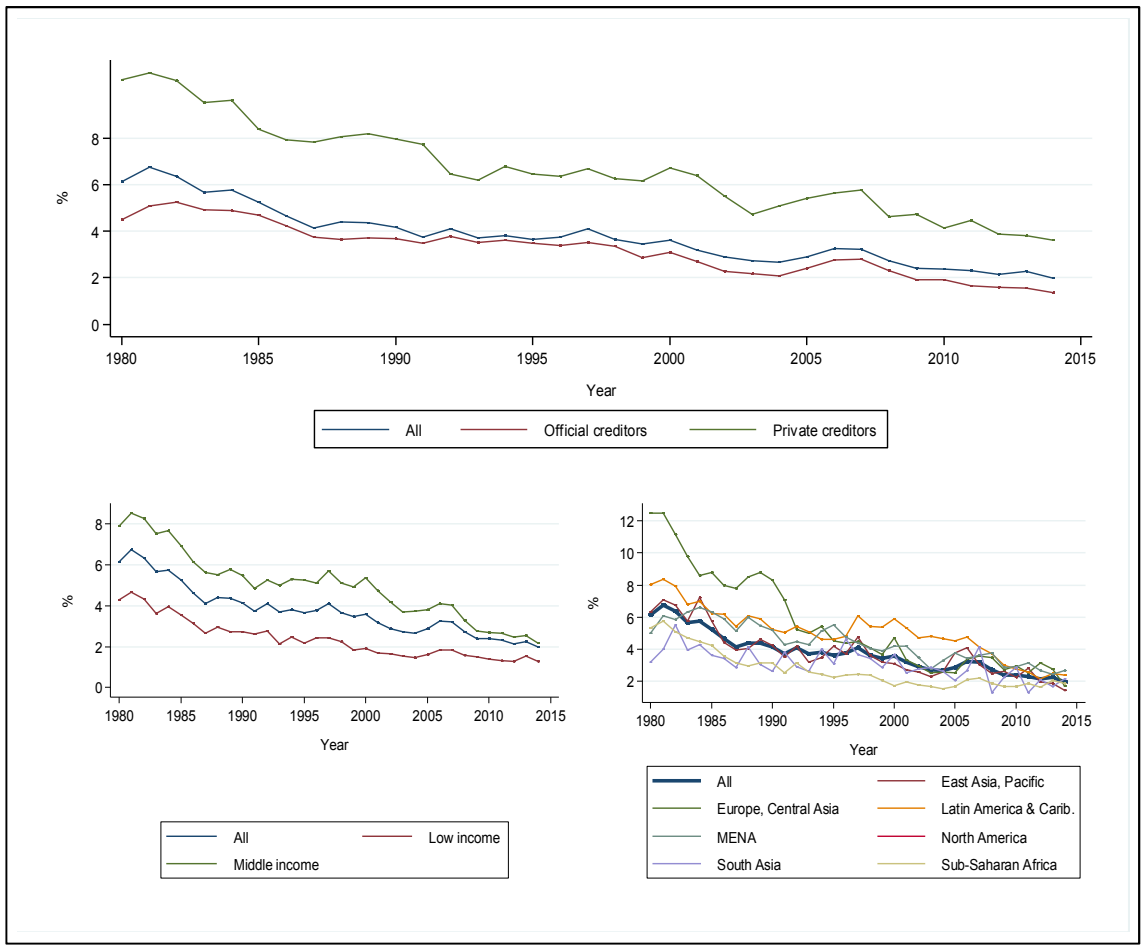


Sources: BIS Debt Securities Statistics (2016), calculations by the Ifo Institute.
Due to missing data the graphs for Sub-Saharan Africa, South Asia & MENA (right panel) cover a shorter time period only.

Interest rates

Interest rates determine the costs of outstanding debt. Besides the level of debt, interest rates influence the difference between general and primary public balance. Figure 2-11 highlights that financing costs have decreased over time as interest rates follow the global falling trend. Interestingly, the average interest rate is often lower than the U.S. lending rate to the private sector. This might be explained be the importance of concessional lending to governments. The separation between official and private creditors supports this hypothesis: Official creditors lend at preferential rates. While the difference between private and official creditors was substantial in the 1980s, it has become less pronounced since then. Low-income countries face lower interest rates than middle-income countries, because they have greater access to concessional lending.

Figure 2-11: Interest Rates on Public Debt Worldwide



Note: The graph displays the average interest rate on newly committed public debt contracts in a given year.
Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

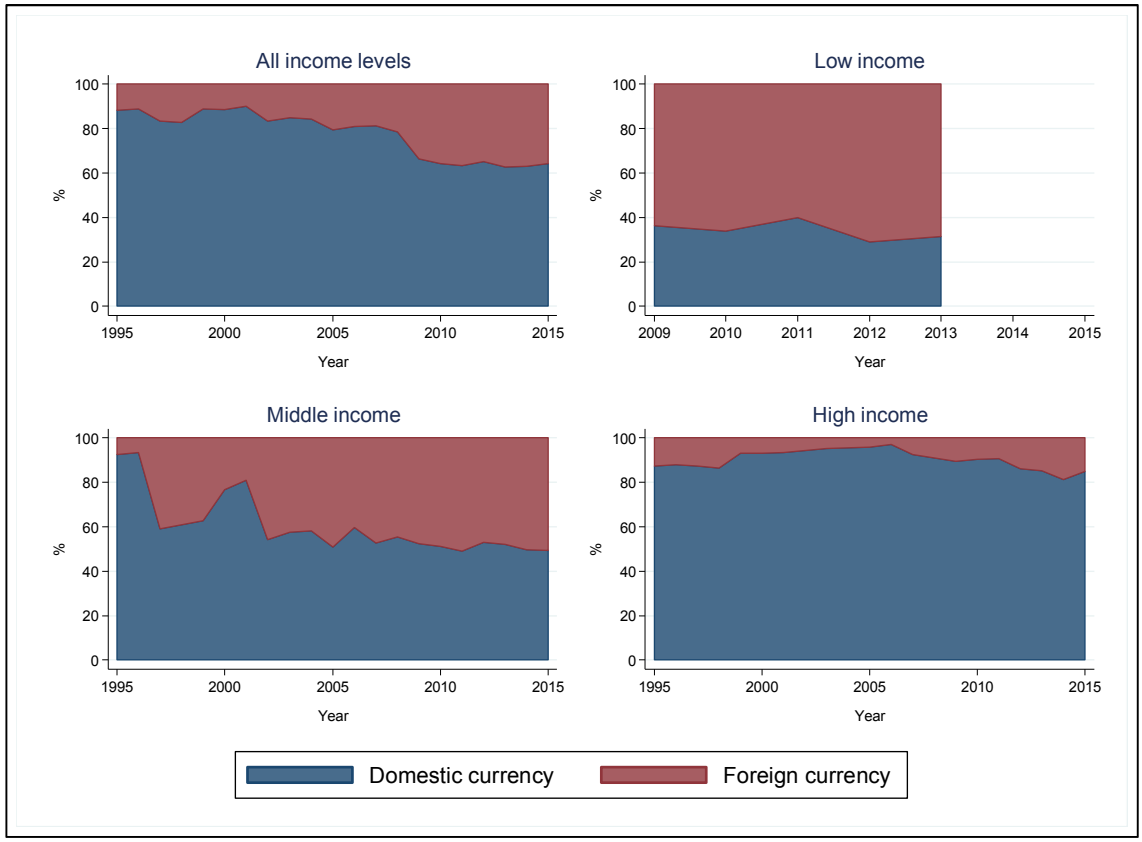
Currency Risk

Currency composition

The effect of exchange rate changes on the level of public debt depends on the currency composition of debt. Governments especially in emerging and developing countries face a trade-off. On the one hand, debt denominated in foreign currency is usually less expensive. Foreign interest rates are generally lower, because domestic interest rates include risk premia that arise from a higher possibility of a devaluation of the local currency. On the other hand, if the currency indeed devaluates, the debt burden expressed in local currency increases. To assess the risks of devaluations, debt denominated in foreign currency can be expressed relative to the central bank's international reserves or to export revenues.

Figure 2-12 shows that the share of debt denominated in domestic currency has decreased slightly since 1995. In 2015, it made up 64% of total debt on average. The differences between different income groups are significant: While high-income countries' debt is almost entirely denoted in domestic currency, debt in low-income countries is primarily denominated in foreign currency.

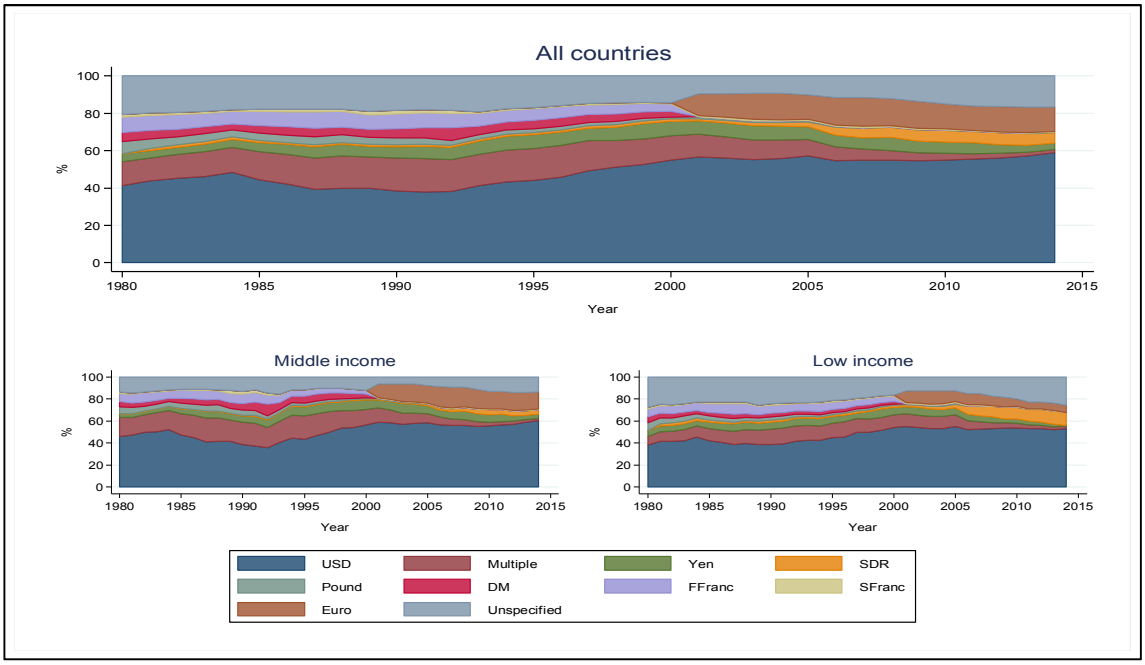
Figure 2-12: Currency Composition of Public Debt Worldwide



Sources: IMF and World Bank (2016), Quarterly Public Sector Debt database, calculations by the Ifo Institute.
Note: Due to missing data the graph for low income countries (top-right panel) covers a shorter time period only.

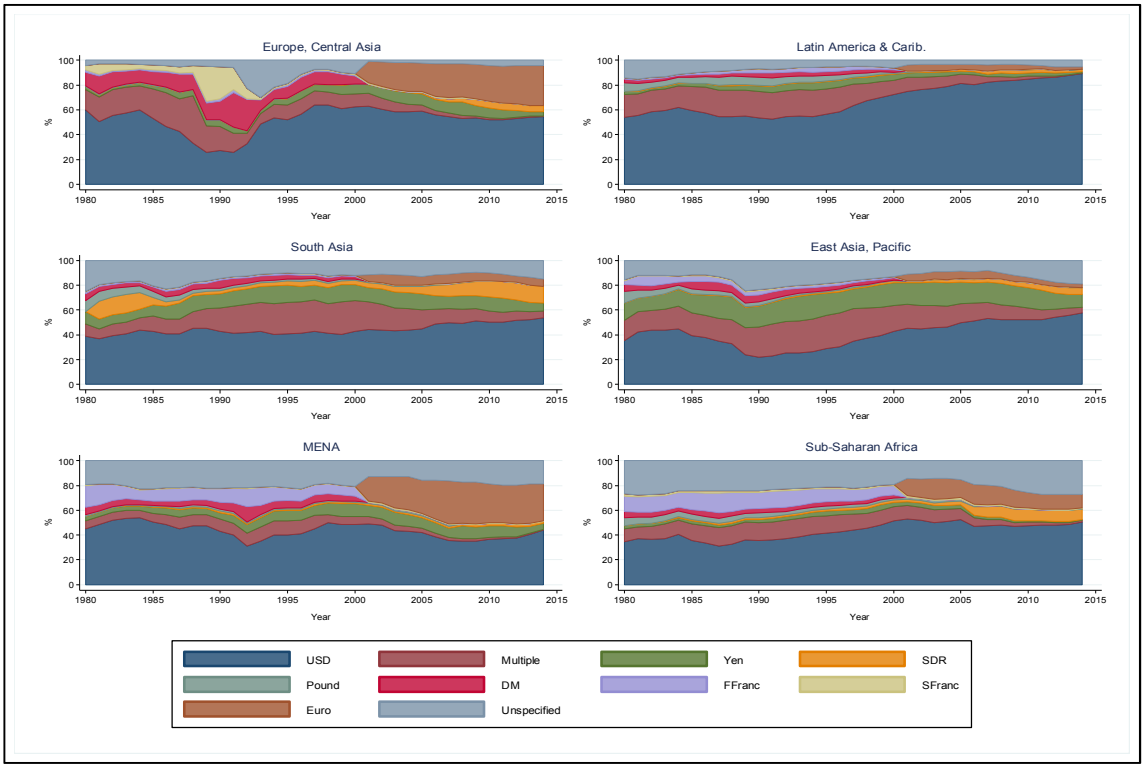
Which currencies dominate foreign-denominated public debt? The international role of the U.S. Dollar is revealed in public debt contracts: the share of the U.S. Dollar in total foreign-denominated public debt has been rising over time and equals 59% in 2014 (see Figure 2-13). The second most important currency is the Euro (13% in 2014), which took up the shares that German Mark and French Franc occupied before its introduction. The share of the Japanese Yen has been decreasing over time. It should be noted that there is an important role for multiple currency arrangements, too. Overall, no significant difference in the currency composition between middle- and low-income countries is observed. However, currency denomination depends on the region (see Figure 2-14). While in Europe, Central Asia and MENA the Euro is especially strong, Dollar loans are dominant in Latin America and the Caribbean (89% in 2014). Asia has a larger share of the Yen at the expense of the Euro. In general, apart from the global role of the Dollar, countries base loan contracts preferably on the dominant currency of their region. This is reasonable, because trade revenues are often denominated in this currency.

Figure 2-13: Currency Composition of Public Debt by Income Groups Worldwide



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

Figure 2-14: Currency Composition of Public Debt by Regional Groups Worldwide



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

2.2 Institutional Frameworks

This section focuses on the institutional organization of public debt management, the aims of public debt management and its relation to other macroeconomic policies. As far as possible this section follows the structure of the Debt Management Performance Assessment (DeMPA) methodology as described in Table 1-1.[2]

Governance and Strategy Development

Legal framework

While the level of public debt is primarily determined by the decisions at the political executive level, the structure of debt may be chosen by a Debt Management Office (DMO). With respect to the institutional characteristics of the DMO, two main areas can be distinguished. First, policymakers need to decide where the DMO is placed within the institutional landscape of a country. The DMO might be a department of the Ministry of Finance, an office within the central bank or an independent agency. Second, the legislator has to endow the DMO with the legal and organizational structure within which debt is managed.

While the DMO may propose a strategy and targets, these have to be approved at the political executive or legislative level. The existence of a principal debt management entity with clear objectives, a medium-term strategy and the requirement to report to the government is generally considered as best practice and may be regarded as a hypothetic but sufficient structure for public debt management. Like Currie et al. (2003, p. 27) put it, "each institutional choice of location and organization has advantages and disadvantages". There is no universal best practice; the appropriate institutional choice rather depends on the characteristics and preferences of a country. Nevertheless, public debt management in the OECD countries has followed a common trend since the 1990s: It has become emancipated from fiscal and monetary policies and is now considered as an activity with its own objectives.

Managerial structure

The typical functions of a DMO can be separated in three areas: (1) The *front office* is in charge of funding operations and executes the operations in financial markets. (2) The *middle office* is responsible for analyzing and monitoring risks. It assesses the performance of debt managers on the basis of the benchmarks outlined in the debt management strategy. (3) The *back office* is responsible for the settlement of transactions and for keeping financial records up to date. Theoretically, these three offices might be spread between different departments of the Ministry of Finance or even be located in different organizational units. Separation should not be a problem given that clearly defined objectives are in place and coordination is effective. In practice, however, poor coordination, low accountability and rivalries between the different units led to the consensus "that consolidating debt management functions into one office is one of the most important steps that can be taken to improve the overall quality of debt management" (Currie 2003, p. 22).

In the early DMOs, middle offices often were basically absent. DMOs were responsible for debt issuance and settlement without an explicit debt management strategy. When debt levels rose and interest payments amounted to substantial shares of government budgets in the 1980s,

[2] Given that the DeMPA categories "Borrowing and Related Financial Activities", "Cash Flow Forecasting and Cash Balance Management" and "Debt Recording and Operational Risk Management" refer to tasks of the DMO and not to its institutional form, these points are not addressed explicitly in this section. They are discussed in Section 1.2.

cost considerations and the management of risks became important components of debt management though. Consequently, public debt management adopted portfolio management practices of the private sector.

To implement those practices, trained staff was needed. As it turned out to be difficult to attract portfolio managers from the private sector given low wages of civil servants, some countries (e.g. Denmark, Ireland and Sweden) opted to create DMOs as independent agencies outside of other official institutions, so-called separate debt management offices (SDMOs). Besides their efficiency and professionalism, SDMOs are less exposed to political pressures. This is important as politicians may have an interest to lower current budget deficits and therefore favor cheap, but risky funding, e.g. a higher share of short-term contracts, more foreign currency debt or floating interest rates.

Debt management strategy

The rather general objectives of public debt management, which may be derived from government preferences with respect to costs and risks, have to be translated into a debt management strategy that is implementable. It should be based on medium-term targets, which may be numerically specified. Potential targets are the allocation of public debt in domestic and external currency debt, the division between fixed and floating interest rate debt and the percentage of total debt that has to be refinanced within 12 months (see also Table 1-2).[3] Publication of the public debt management strategy is highly recommended, because it increases transparency and thus accountability of the DMO.

Provided active trading takes place, targets may be complemented by performance benchmarks. However, for a number of reasons, active trading is rather absent in the global practice of public debt management. In expected terms, active trading only contributes to lower costs if debt managers possess superior information compared to other market participants. While this is likely true on the domestic market, many governments consider it unethical to benefit from their inside information. Many governments are dominant issuers of debt on their domestic market and may manipulate market conditions. However, this behavior would be detrimental to the development of domestic debt markets. Consequently, most governments abstain from active trading on the domestic market. On the foreign market, in turn, it is questionable whether governments possess the necessary information and capacity to beat the benchmark.

Debt reporting and evaluation

DMOs are typically responsible for the publication of data on public debt developments, borrowing amounts and structural changes in public debt. Since these data influence domestic and foreign investors' decision whether to provide financial resources to the public entity, it is in the own interest of the DMO to provide complete, reliable and timely data. These might be supplemented by a document containing debt forecasts and a risk analysis based on different stress tests scenarios. Finally, DMOs should make the debt management strategy public and provide an ex-post analysis explaining why targets may have been missed or revised. Overall, transparency is a key element of advanced public debt management.

[3] See Currie et al. (2003, p. 34) for a tabular compilation of published strategic targets in selected industrialized countries.

Audit, transparency and accountability

Once decisions with respect to the institutional form and strategy of the DMO have been taken, its success depends – among other factors – on its accountability, governance and monitoring by the political entity in charge of public debt management, in most cases the Ministry of Finance or Parliament. An efficient governance structure of DMOs depends on a number of considerations. DMOs have to be institutionalized with a clear mandate. Clearly defined objectives such as strategic targets and performance benchmarks help to improve accountability and limit principal-agent problems. The Ministry of Finance, parliament or the respective supervising authority should be endowed with the necessary resources to carry out their monitoring function.

Both DMOs within the ministry and separate Debt Management Offices (SDMOs) imply that authority is delegated. In such situations a classical principal-agent problem arises: while the Minister of Finance is responsible for the debt management strategy, its execution is delegated to the DMO. Due to asymmetric information the Minister of Finance cannot distinguish whether targets have been missed because of developments outside the control of the debt manager, or because of insufficient effort or skill of the agent. Agency risk increases with the degree of separation and autonomy of public debt management from the ministry. To limit agency problems, it is important to clearly specify the objectives of the DMO such that the agent's performance can be measured and to formulate an incentive-compatible contract for the agent. In addition, to facilitate delegation, public debt management functions should be consolidated in a single office with a clearly designated head who is directly answerable for the monitoring entity. If a SDMO is established, a board of directors might bridge the gap between SDMO and Ministry of Finance. The board might monitor the SDMO, evaluate its performance vis-à-vis the targets and ultimately sanction its decisions.

Coordination with Macroeconomic Policies

Coordination with fiscal and other public policies

When public debt management is implemented as portfolio management, the DMO follows a narrow objective function according to which costs are minimized for given risks. Another view argues that this strategy is inefficient and the objective function should also include the interplay of public debt management with other public policies. On one hand, the independence from the political process allows efficiency gains, because debt is managed by purely economic considerations. On the other hand, if other public policies are not taken into account, this might not be optimal because the coordination of different public policies might prove to be beneficial.

The view that debt management is a component of public policy argues that the analysis of risks and costs should focus on the entire public balance sheet instead of being restricted to its liability side. This strategy acknowledges currency and interest rate risks and, hence, focuses on budgetary risks. This form of public debt management aims at reducing financial risks by guaranteeing that the government can meet its obligations at any point in time. Therefore, public budget management has to examine the nature of government revenues and cash flows and try to prevent mismatches between revenues and debt payments. The structure of revenues and spending – maturity and currency denomination – should be as similar as possible. Given that tax revenues are usually in domestic currency, this approach implies that countries should primarily use debt instruments denominated in domestic currency. Examples of countries following this broader framework for debt management are Australia and New

Zealand. Since 1997, the New Zealand's DMO has been part of its Asset and Liability Management Branch and in Australia it is called Office of Financial Management.

Coordination with monetary policy

Until the 1980s, public debt management was mainly considered to be part of monetary policy. When debt levels in many OECD countries were rising during the 1970s and 1980s as a consequence of expansionary macroeconomic policies, debt management was considered a choice between inflation financing and debt issuance. Debt management offices operated as departments of central banks and governments controlled the supply of central bank liabilities in order to finance their expenditures – a phenomenon known as *fiscal dominance*.

Academic research as well as the experience of high and costly inflation rates in the 1970s and 1980s led to a rethinking of central banking: a consensus emerged that independent central banks equipped with a clear mandate for price stability – such as an inflation targeting framework – are important commitment devices. Many studies found a negative relationship between inflation and central bank independence (see Cukierman 1992, Eijffinger and de Haan 2016). The separation between monetary and fiscal considerations often included the legal prohibition for central banks to purchase government bonds. As an example, the Treaty on the Functioning of the European Union (2012) prohibits the European Central Bank to provide overdraft facilities to public entities and to purchase sovereign bonds directly on the primary market (Article 123).

Fiscal financing may give rise to excessive money growth, which then causes inflation according to the quantity theory of money. Besides this inconsistency between debt management and a price stability objective, there are other conflicts of interests if the central bank manages public debt:

1) Level of inflation: the central bank might target an inflation rate that is higher than what is optimal for the aggregate economy in order to inflate away the real value of debt.
2) Interest rate reaction: the central bank might be reluctant to raise interest rates even if this is indicated by standard monetary reaction functions. Higher interest rates would increase interest payments on public debt and contribute to a higher level of public debt.
3) Manipulation of financial markets: the central bank might align the timing of monetary policy with its debt management. If it injects liquidity just before the issuance of government bonds, this will lower their yields. Moreover, the maturity and currency structure of government debt might be chosen to support monetary policy.
4) Time horizon: while monetary policy is guided by short-term considerations, debt management optimally has a longer planning horizon.

A clear allocation of the responsibilities for monetary policy and debt management, which is a precondition for accountable institutions, suggests dividing these policies between two institutions. As an example, this reasoning accounted for the decision to transfer the British debt management from the Bank of England to a DMO within the Treasury in 1998.

2.3 Lessons Learned and Relevance for OIC Member Countries

In sum, the experience in OECD countries has revealed four issues crucial for the success of public debt management. First, public debt management should be based on a sound long-term strategy. Second, this strategy should be implemented by an institution capable of dealing with public portfolio management. Third, public debt management has to be modernized. Finally, suitable mechanisms to ensure accountability and successful delegation have to be designed. While these recommendations reflect best practice in OECD countries, they may not be directly transferable to emerging and developing countries. Since domestic debt markets are often underdeveloped and domestic financial savings limited, governments in emerging and developing countries have less domestic financing options. In particular, governments might be unable to issue domestic currency debt with long maturities and fixed interest rates. This implies that the preferred low-risk category of debt is unavailable. As a consequence, governments are constrained in the formulation of their strategic targets.

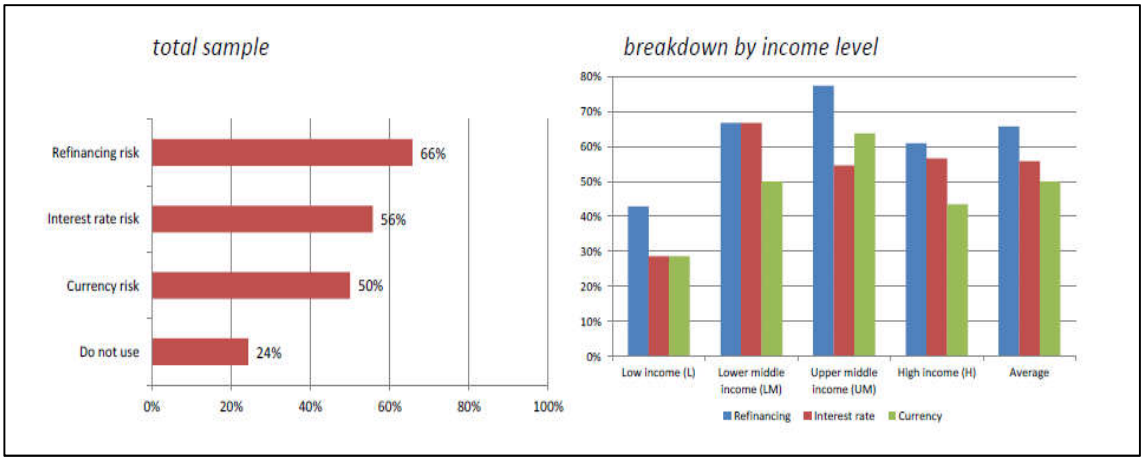
Public debt management might be even more important and beneficial in emerging and developing countries than in developed countries. Large volatilities in macroeconomic fundamentals, higher risks of contagion and inefficient tax systems characterized by low tax income make those countries more prone to public financing problems. Moreover, major externalities are attached to the government debt portfolio: given that public debt often constitutes the most important liability for the country, instabilities in government finances might endanger domestic financial stability as a whole. Government activity is important for domestic debt market development and a major determinant of the financial conditions faced by the private sector. With respect to the institutional arrangement, priority should be given to consolidating public debt management functions in one single administrative unit. However, there is no apparent need to locate the DMO strictly outside the Ministry of Finance. The advantage of a SDMO to attract better trained staff thanks to higher salaries is likely to be outweighed by the agency problems of a SDMO. Concerning the objectives, emerging and developing countries are advised to focus on risk reduction and to lower costs only in the second place. Reduced risks have positive spillovers to the whole economy and lower risk premia may eventually translate into lower interest costs.

Countries are likely to learn from each other. Existing institutional settings and public debt management documents might be taken as models by countries that take the first steps in implementing formal public debt management. Moreover, countries are likely to cooperate. Tasks such as the training of specialized staff, the development of capacities of the middle office and the creation of risk quantification models might be centralized. Given their commonalities, this opens the room for cooperation among the OIC member countries. International institutions like the World Bank and the IMF provide consulting support. The World Bank and the IMF developed jointly the Medium-Term Debt Management Strategy (MTDS), which helps countries to design an appropriate strategy. The MTDS toolkit reflects best practice in debt management (Cabral 2015, p. 4).

In 2013 the World Bank (Cabral 2015) conducted a survey that gathered information about countries' public debt management policies. Out of a sample of 117 participating countries 60% had a formal strategy in place. While countries in Europe, Central Asia and East Asian show shares above the average, Latin America and the Caribbean is the region where a formal strategy is less prevalent. For the subgroup of countries with strategies, their design, however, differs significantly: 77% publish their strategy, 76% aim at strategic targets, 71% use quantitative analysis and only a minority grounds the strategy on a legal framework. Although having a strategy, countries in Southeast Asia and MENA are most reluctant in publishing it.

Indicators on refinancing risk are the most prevalent strategic target, followed by targets on interest-rate risk and exchange rate risk (see Figure 2-15). The support of debt management by quantitative analysis, which reveals a certain sophistication of the DMO and its staff, is most prevalent in high-income countries. Compared to the results of a similar survey, which was carried out in 2007, the share of countries having a strategy has not increased. However, those countries having a strategy increasingly base it on target values.

Figure 2-15: Use of Strategic Targets by Type of Risk Worldwide



Source: Cabral (2015, p. 13).

2.4 Survey Results

After the review of public debt levels and their structure as well as the illustration of global practice in the institutional design of public debt management, the analysis is complemented by qualitative results on the present stage of public debt management around the world. A survey was conducted among international economic experts about debt management practices in their home countries and their assessment of risks encountered in public debt management.

The survey was executed as part of the World Economic Survey (WES) of the Ifo Institute.[4] The survey was launched in 1981 as Economic Survey International (ESI) and renamed in 2002. This quarterly survey aims at providing a timely picture about the economic conditions – the current situation and expectations about future developments – around the world. WES polls more than 1000 experts in more than 100 advanced, emerging and developing countries. Experts provide an assessment about the economic situation in the country where they are considered to be insiders. Panel members are normally located in the country on which they report. The selection of experts is based on their professional competence in economic matters and their ability to evaluate economic developments. The largest group of experts works for research institutes, universities or think thanks (30%). 16% are based at financial institutions, 14% work for firms and 13% are representatives of associations or chambers of industry or trade. The remaining 25% are made up of employees of ministries, central banks, embassies,

[4] For more detailed information about the survey and the latest results, please refer to the homepage of WES at https://www.cesifo-group.de/ifoHome/facts/Survey-Results/World-Economic-Survey.html. The survey design is illustrated at https://www.cesifo-group.de/ifoHome/facts/Survey-Results/World-Economic-Survey/WES-Design.html.

international organizations or are private consultants. About one in two WES experts holds a degree in economics and over 40% have a Ph.D. 76% are between 35 and 65 years old and 86% are male. Participation is strictly voluntary and experts do not receive a monetary compensation.

Besides the standard questions on economic conditions, which are repeated in each of the quarterly WES issues, WES also contains a one-off question on current economic or political relevant issues in the world. In the WES survey from the fourth quarter of 2016, experts were asked for their assessment of public debt management in their home country (the survey form is included in Appendix A, Figure A-0-1). The experts' answers provide new insights in the evaluation of public debt management in general and the functioning of the domestic market for public debt in particular.[5] The questions were answered during the month of October by more than 1070 experts in 113 countries.

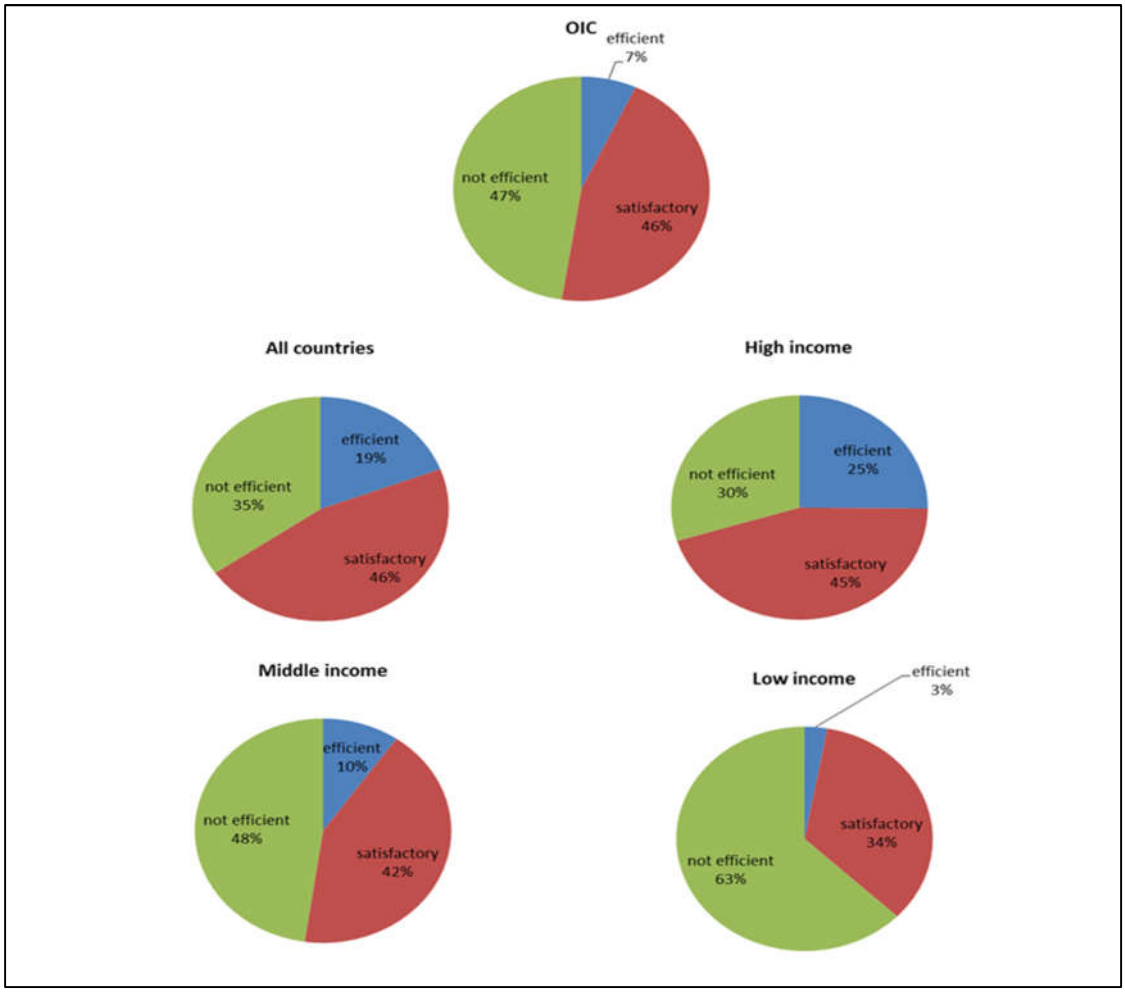
In the first question on public debt management, WES experts were asked to provide their opinion on the efficiency of public debt management. The precise wording of the question was: "How do you assess the public debt management of your country?" The possible answers were "efficient", "satisfactory" and "not efficient". On average experts consider public debt management in their country to be below satisfactory levels. If numbers were assigned to the answers such that the neutral answer "satisfactory"=0 and "efficient"=1 and "not efficient"=-1, the average across all responses amounts to -0.24. There is a marked difference between countries of different stances of development with the assessment improving in the level of income:[6] whereas high-income countries' debt management is assessed as satisfactory (-0.05), it is worst in low-income countries (-0.57). Results for OIC countries very much resemble those for middle-income countries. Only 7% of OIC experts assess public debt management as efficient in their country, while the answers "satisfactory" and "not efficient" are given with almost equal frequency.

Figure 2-16 shows the shares of the three categories in total answers: When moving from high- to low-income countries, the share of experts considering public debt management as "efficient" decreases, while the share of those answering "not efficient" increases. If differentiated by regional groups, public debt management is assessed best in Western Europe, whereas Africa, North America and countries of the Commonwealth of Independent States (CIS) are attributed the least efficient policies (not shown).

[5] Researchers interested in using these data may contact the LMU-ifo Economics & Business Data Center (EBDC).

[6] When income-groups are used, the average is calculated in a two-step procedure: First, the country average is computed as the simple arithmetic mean of the individual responses for the respective country. Second, the unweighted mean over those countries that belong to the income group under consideration is calculated. In contrast to the standard WES procedure country averages are not weighted by the countries' share in world trade since the purpose of the analysis is to draw a picture of public debt management of an average country independently of country sizes.

Figure 2-16: Assessment of Public Debt Management



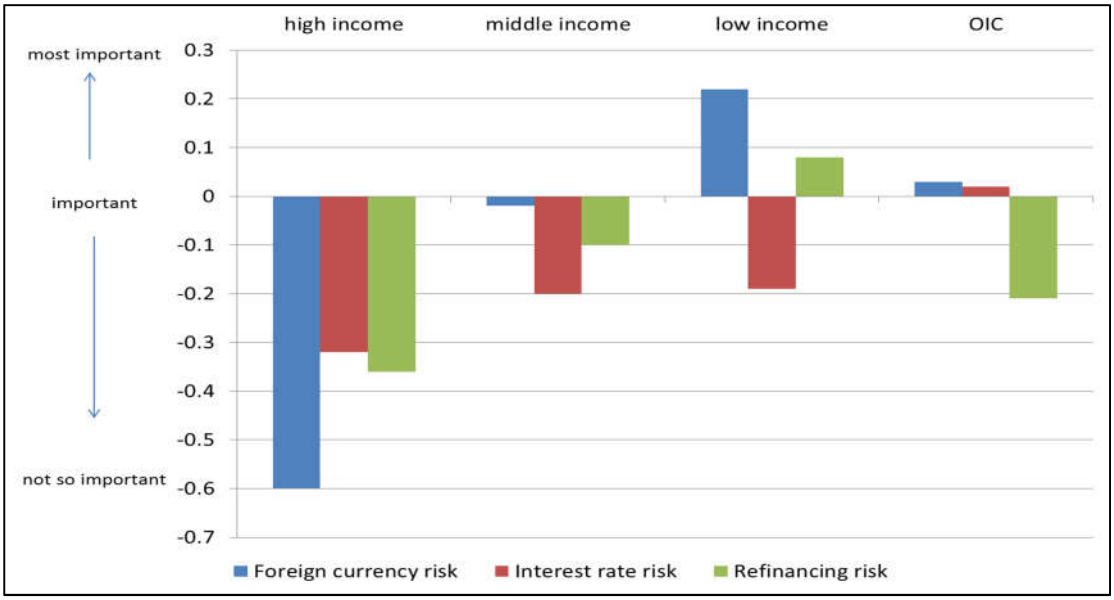
Source: Ifo World Economic Survey (WES) IV/2016.

As described in previous sections, the most important risks faced by public debt management are foreign currency risk, interest rate risk and refinancing risk. The task of public debt management consists in controlling those risks and in evaluating their effect on borrowing costs to determine a cost-risk portfolio that accounts for a country's preferences. WES experts were asked to assess the importance of these different kinds of risks in their country as "most important", "important" or "not so important". In the entire sample, refinancing risk is considered to be the most important risk, followed by foreign currency risk and interest rate risk. However, this result is driven by high-income countries. In middle- and low-income countries, foreign currency risk is ranked as most important.

Figure 2-17 compares the importance of risks in the different country groups. For high income countries foreign currency risk is least important while interest rate risk and refinancing risk receive almost equal attention of being less than important. This reflects the fact that high-income countries usually have access to financial resources denominated in their own currency. In middle- and low-income countries interest rate risk receives the lowest rank in importance. In these countries foreign currency risk is most important. OIC countries are

characterised by an environment where foreign currency risk and interest rate risk are evaluated to be almost equally important. Noteworthy is the low relevance of refinancing risk in the OIC sample. For all three types of risks individually holds that their importance is considered to be negatively correlated with the level of income: All three types of risk are attributed the highest importance in low-income countries and the lowest in high-income countries.

Figure 2-17: Importance of Risk Categories in Public Debt Management



Source: Ifo World Economic Survey (WES) IV/2016.

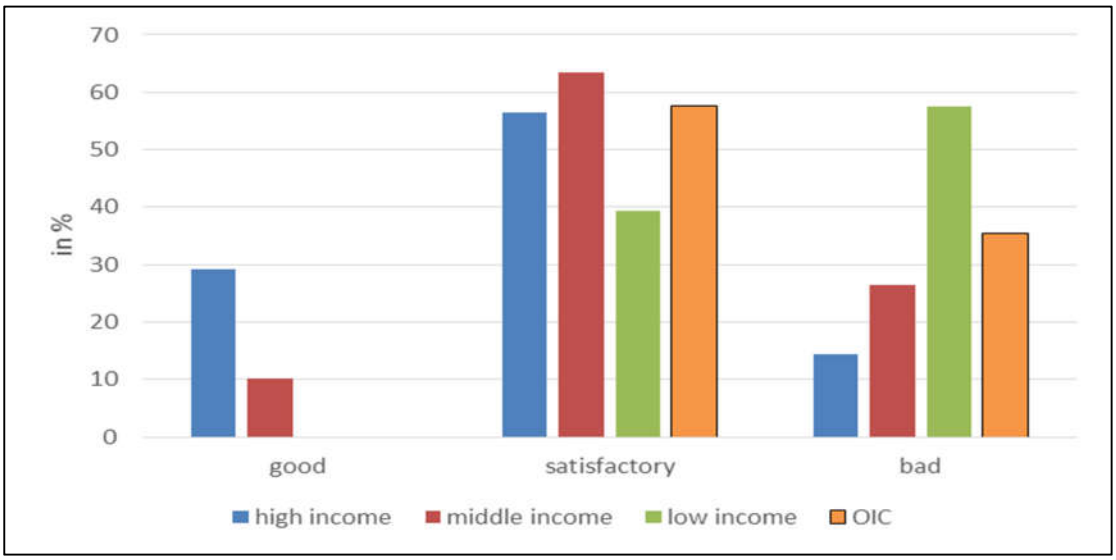
Domestic debt markets are an important source of financial resources for governments. A well-functioning domestic market for public debt helps to reduce risks linked to public debt because it provides additional diversification opportunities. Data suggest that low-income countries might try to expand their base of domestic creditors: while in 2015 high-income countries relied mostly on domestic creditors (59%), low-income countries only sold 31% of their liabilities to domestic agents. Moreover, given that in many emerging and developing countries the government is the largest debtor, it dominates debt markets and may assume a crucial role in developing a functioning domestic debt market, which has positive spillovers for the private sector.

WES experts were asked the following question: "How do you assess the functioning of the domestic public debt market?" Possible answers were "good", "satisfactory" or "bad, which were again attributed values from +1 to -1, respectively. In the entire sample, public debt markets are assessed to work below satisfactory levels (-0.12). Figure 2-18 depicts the distribution of unweighted individual answers. Public debt markets in high-income countries received the best assessment (+0.14), in low-income countries the worst (-0.43). Public debt markets in the group of OIC countries perform relatively unsatisfactory in the international comparison (-0.35).

These results are an indication for a positive correlation between the functioning of the domestic debt market and the quality of public debt management: low-income countries received the least favourable assessment of both their domestic public debt market

functioning and their public debt management. Public debt markets function best in North America, Western Europe and Oceania whereas the worst assessment is attributed to countries in African and CIS countries.

Figure 2-18: Functioning of Domestic Public Debt Market (in percent of individual responses)

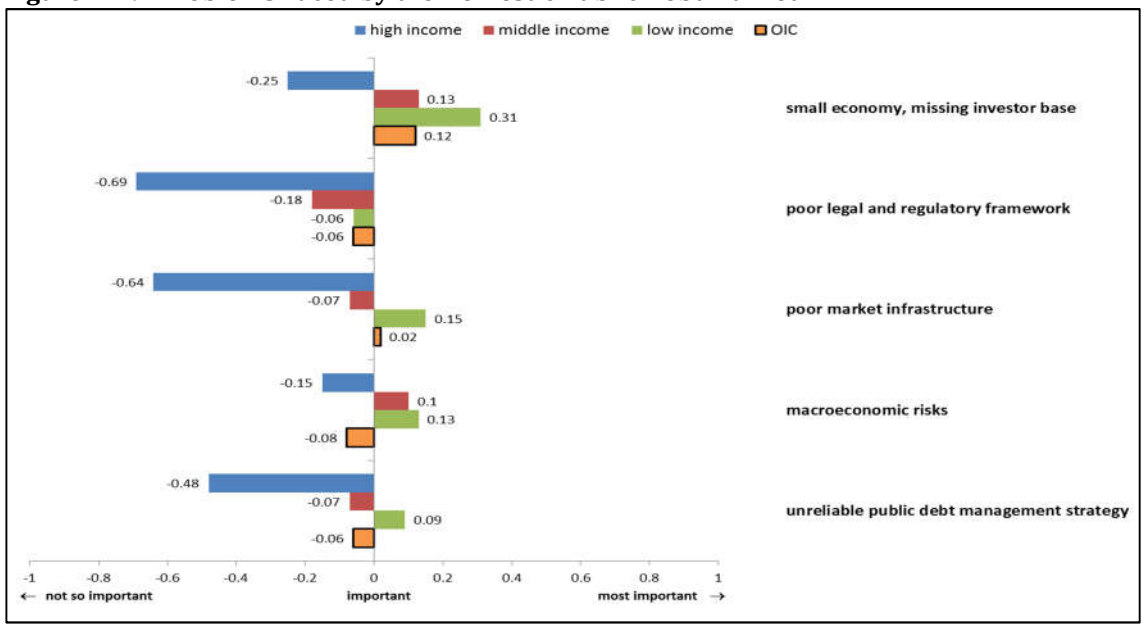


Source: Ifo World Economic Survey (WES) IV/2016.

There are various reasons for why domestic markets for public debt might be deficient. The economy might be small and an investor base missing, a poor legal and regulatory framework might be detrimental to investor confidence, market infrastructure in general might be poor, macroeconomic risks might be prevailing and an unreliable public debt management strategy might undermine the confidence in government bonds. WES experts were asked to rank these problems as "most important", "important" or "not so important".

The survey results suggest that macroeconomic risks and a small economy with a missing investor base are considered to be the most important problems faced by domestic public debt markets (see Figure 2-19). Poor legal and regulatory frameworks, in turn, is the least important problem among those listed. If country groups according to the level of income are formed, two observations are striking. First, the assessment of all individual categories worsens with a decreasing level of income. Second, the ranking differs markedly between income groups: in high-income countries macroeconomic risks rank as the most important problem, while the size of the economy and the investor base are considered least important. In middle-income countries the ranking equals the average of the entire survey. While in low-income countries poor regulations and weak legal systems are also considered to be the least important impediments on public debt markets, the limited size of the economy and the missing investor base are mentioned as most important. In OIC countries macroeconomic risks are seen to play a rather minor role. More problematic on the domestic public debt market are the poor market infrastructure and the missing investor base joint with the small size of the economy.

Figure 2-19: Problems Faced by the Domestic Public Debt Market



Source: Ifo World Economic Survey (WES) IV/2016.

In sum, the survey results provide new insights with respect to the question where experts see public debt management policies and domestic debt market development in OIC countries compared to the rest of the world. They offer indicators for governments and DMOs concerning which aspects of their public debt management might be reconsidered or improved. First, experts see room for improvement in the efficiency of public debt management. Second, while a majority considers domestic public debt markets to function satisfactorily, public policies are well advised to provide the necessary regulatory framework to further improve their functioning. Besides a small investor base, poor market infrastructure is found to be the most important impediment for properly functioning domestic public debt markets in OIC countries. Better functioning public debt markets would also help to retain more savings in the domestic economy, which would alleviate the problem of a small investor base.

Experts consider foreign currency risk and interest rate risk to be quite important in OIC public debt markets. OIC member countries might therefore focus on strategies to reduce vulnerabilities to those risk categories. They might target to issue a higher share of public debt in domestic currency. Moreover, a further lengthening of the maturity of newly issued debt instruments might help to reduce interest rate risk.

These survey results provide important information about priorities for a reform of public debt management in OIC countries. These findings complement the conclusions from the global best practices and the country case studies. In the following sections recommendations are based on a comparison between public debt management in the respective country and global best practice. In contrast to that approach, this section presented the evaluation of country experts. Their opinion is especially important because the experts might be potential investors, i.e. those working at financial institutions and firms, or they may influence the public view of the functioning of public debt markets, i.e. those working at think tanks, research institutes and universities. If governments succeed in improving experts' assessment of public debt markets, they may also be able to expand the investor base and issue debt at a lower cost.

3 Public Debt Management in the OIC Member Countries

This chapter examines public debt developments, debt structures and performance indicators for public debt management in the OIC member countries. Section 3.1 describes how debt levels and structures have evolved in the OIC member countries since 2006. The structure and performance of public debt might depend on the underlying institutional framework. Therefore, governance structures and public debt management strategies are discussed based on a survey among OIC member countries in Section 3.2. Islamic finance has become an important part of the financial systems in several OIC countries. Consequently, Islamic finance practices in OIC member countries will be described and the advantages and disadvantages of using sovereign Islamic bonds (*sukuk*) in public debt management will be discussed in Section 3.3.

3.1 Descriptive Statistics and Performance Indicators

This chapter describes how levels of sovereign debt have evolved over time in the OIC member countries. Moreover, it presents data on government budget balances and provides stylized facts of the structure of sovereign debt, including but not limited to its maturity, currency denomination and creditor structure. To examine whether developments depend on the level of income, which is commonly regarded as a measure of a country's stage of development, and to identify potential common features, countries are grouped into low-, middle-, and high-income countries. Furthermore, countries are grouped according to the OIC classification into the Arab, African and Asian region.

3.1.1 Public Debt Dynamics

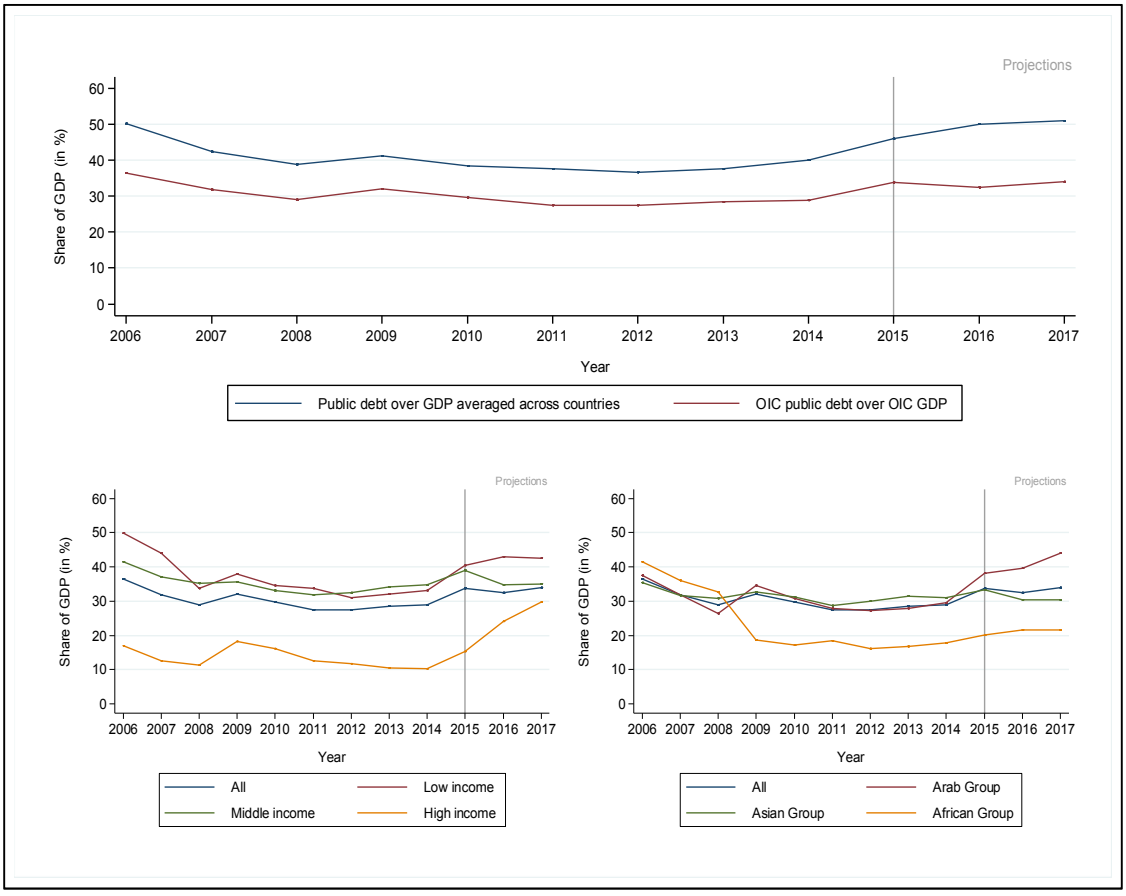
Figure 3-1 shows the evolution of sovereign debt as a percentage of GDP for the OIC member countries over the period 2006-2015 including projections until 2017. The upper panel of Figure 3-1 shows two different measures of average debt levels. The blue line corresponds to the unweighted average of public debt relative to GDP across OIC countries. The red line displays the ratio of the sum of public debt in all OIC countries relative to GDP of all OIC countries. After a moderate decline between 2006 and 2012, the average debt-to-GDP ratio in the OIC member states started to increase slightly in 2013. The average debt-to-GDP ratio increased from 36.7% in 2012 to 46.1% in 2015 and is projected to rise to 51.1% in 2017. This is a substantial increase over this short time period.

Since 2006 the average debt-to-GDP ratio in high income OIC countries has been lower than in low- and middle-income countries (see lower left panel of Figure 3-1). Average debt-to-GDP ratios in low- and middle- income countries are at similar levels in most years. Average debt-to-GDP ratios have started to increase across all income groups after 2013. The highest average debt-to-GDP ratios are expected in low-income countries in the next years, while average debt-to-GDP ratios in the middle-income countries are expected to decrease. The high-income countries are expected to experience the largest increase in the average debt-to-GDP ratio. Different dynamics can also be observed among the regional country groups: debt ratios in the African group have substantially decreased between 2006 and 2009 and have been only slightly rising again afterwards. Several African countries have been granted debt relief or restructuring under the Heavily Indebted Poor Countries (HIPC) Initiative or by external bilateral and multilateral creditors over the last decade.[7] The average debt-to-GDP ratio in the

[7] On sovereign debt restructurings, see, e.g., Das et al. (2012).

Asian group has been on a relatively stable path. The average debt-to-GDP ratio in the Arab group, however, has been strongly increasing since 2014 (see lower right panel of Figure 3-1).

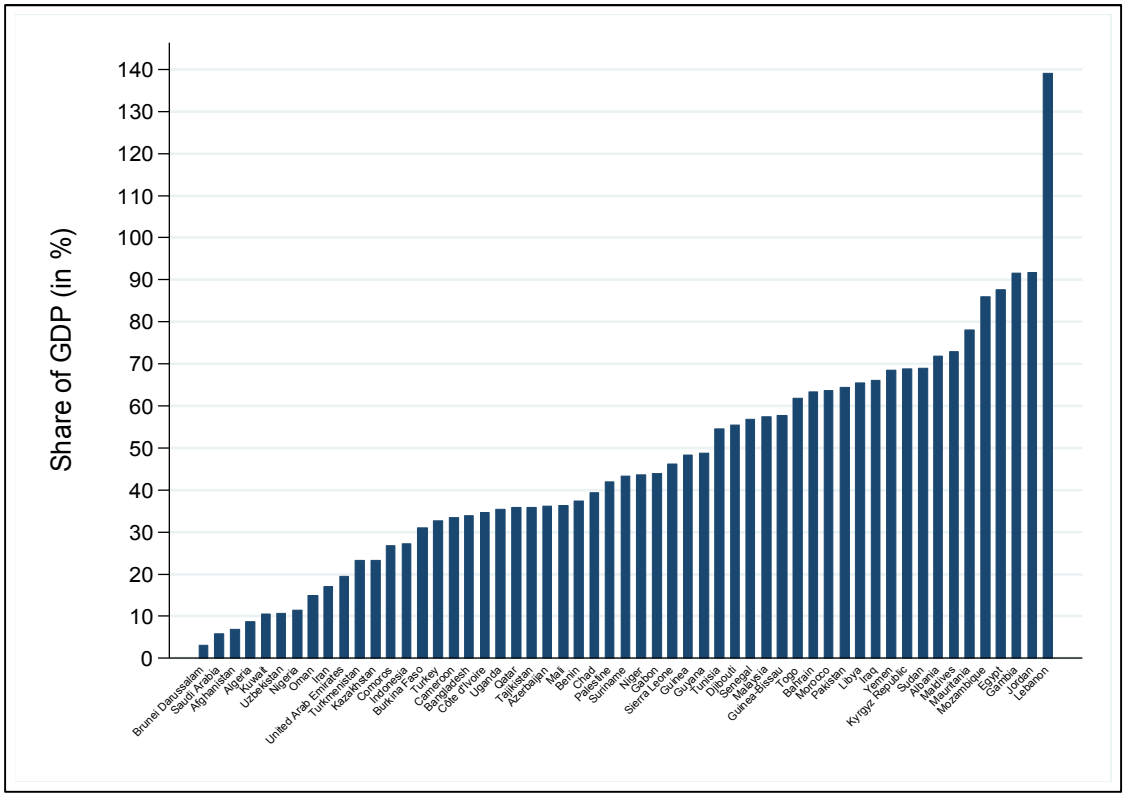
Figure 3-1: Gross Public Debt in OIC Member Countries



Sources: WEO (2016), calculations by the Ifo Institute.

The amount of outstanding gross public debt as a share of GDP is very heterogeneous among the OIC countries. Figure 3-2 shows the public debt-to-GDP ratios in the individual OIC countries in 2015. The highest debt-to-GDP ratios were observed in Lebanon (139.1%), Jordan (91.7%), Gambia (91.6%) and Egypt (87.7%). The lowest debt-to-GDP ratios were observed in Brunei Darussalam (3.1%), Saudi Arabia (5.8%), Afghanistan (6.8%) and Algeria (8.7%).

Figure 3-2: Gross Public Debt in OIC Member Countries (2015)

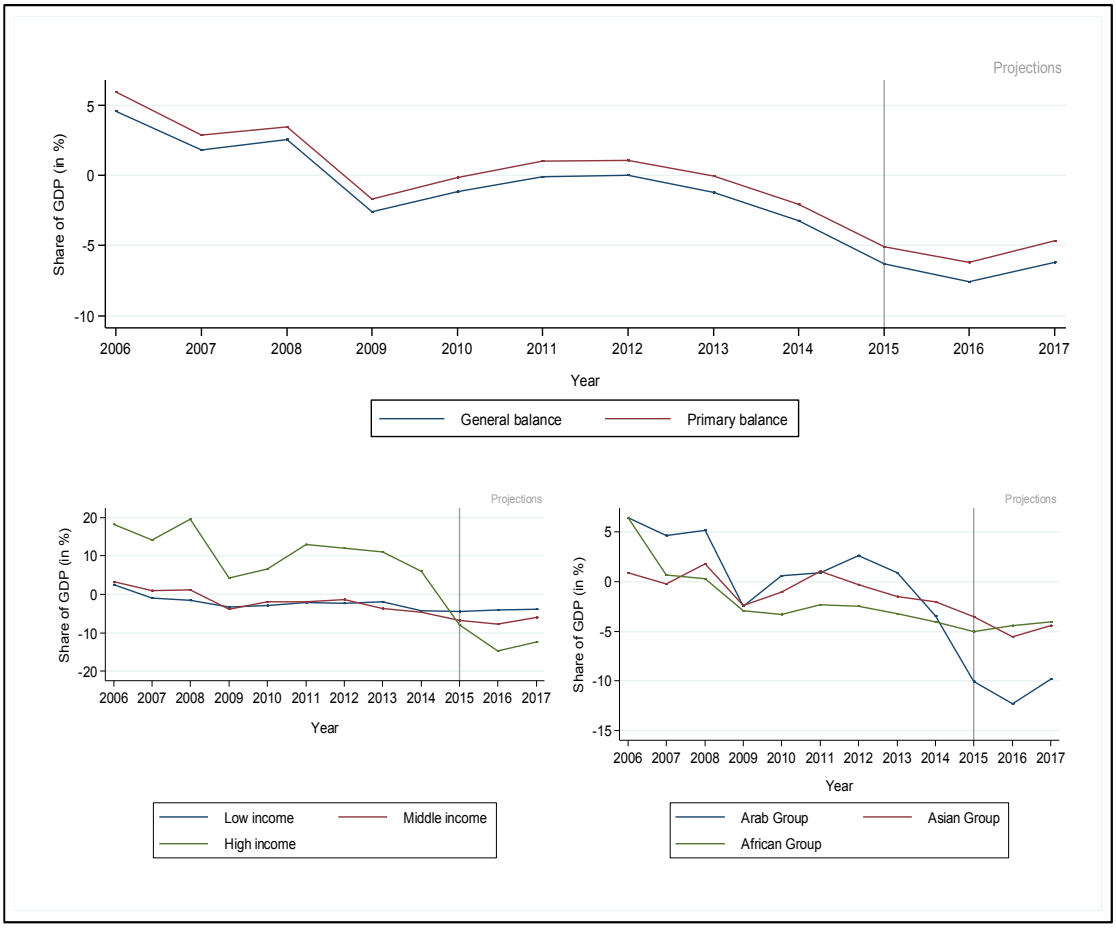


Note: Data for Somalia and Syria is not available.
Sources: WEO (2016), IMF Country Reports (see 4.1 Case Studies).

3.1.2 Government Budgets

To disentangle the effects of fiscal policy on government debt from exchange rate effects, government budget balances is considered. The upper panel of Figure 3-3 shows general and primary government net lending which excludes interest payments on outstanding debt. The average government net lending of the OIC countries was positive or balanced in most years between 2006 and 2012. During the financial crisis in 2009 and 2010, however, the average general net lending turned negative. Net borrowing started to increase strongly in 2013. Between 2013 and 2015 average borrowing as a share of GDP increased from 1.2% to 6.3%. While high-income OIC countries ran large surpluses between 2006 and 2014, the situation changed dramatically in 2015 and the average budget balance turned negative (see lower left panel of Figure 3-3). The average budget balance in low- and middle- income countries has been negative in all years since 2009. Low- and middle-income countries experienced a further deterioration of their budget balances in the last years, a development more pronounced in middle-income countries. Across all regional groups a decline in the budget balance can be observed, with the average net lending being largest in the Arab group in 2015 (see lower right panel of Figure 3-3).

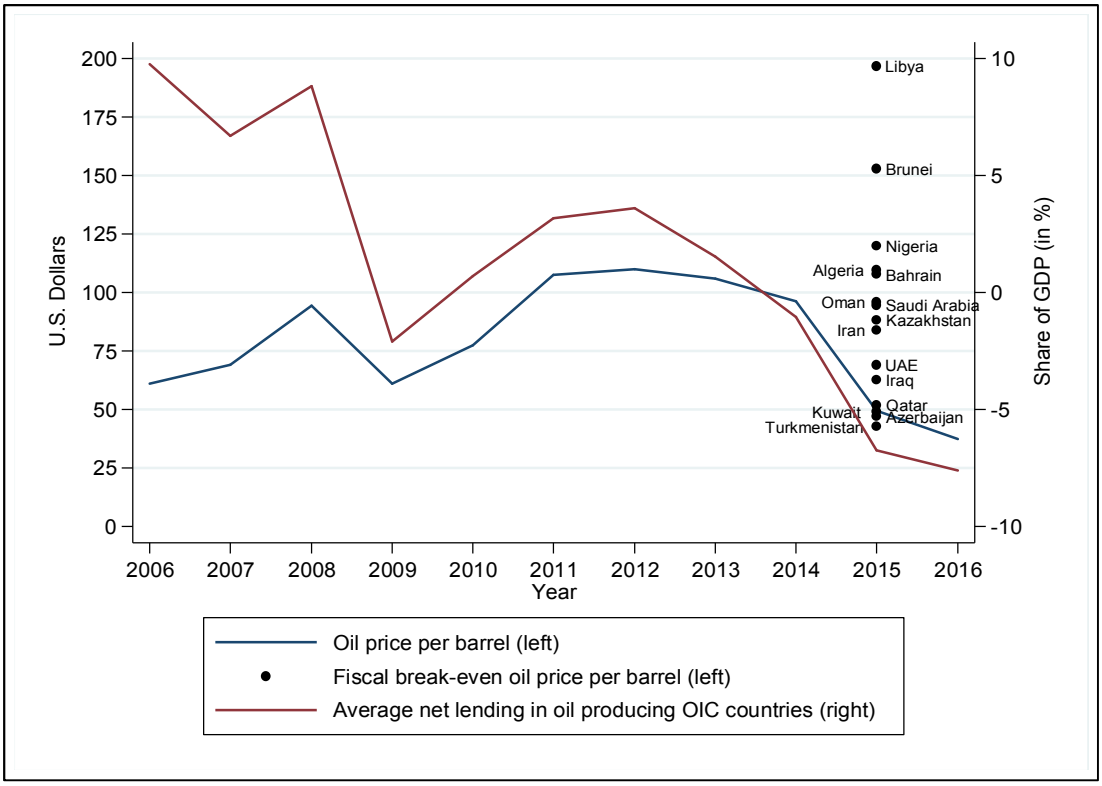
Figure 3-3: Government Net Lending in OIC Member Countries



Sources: WEO (2016), calculations by the Ifo Institute.

What gives rise to the increasing deficits and debt levels in the high-income countries and the Arab country group? Several of these countries strongly depend on oil revenues. The decline in oil prices starting in 2014 has had and will continue to have a substantial negative impact on the economies of the oil-producing countries. Figure 3-4 shows the average net lending in the oil producing OIC countries since 2006, as well as the decline in the oil price per barrel and fiscal break-even oil prices which oil producing OIC countries need to balance their budgets.

Figure 3-4: Oil Price Developments and Net Lending

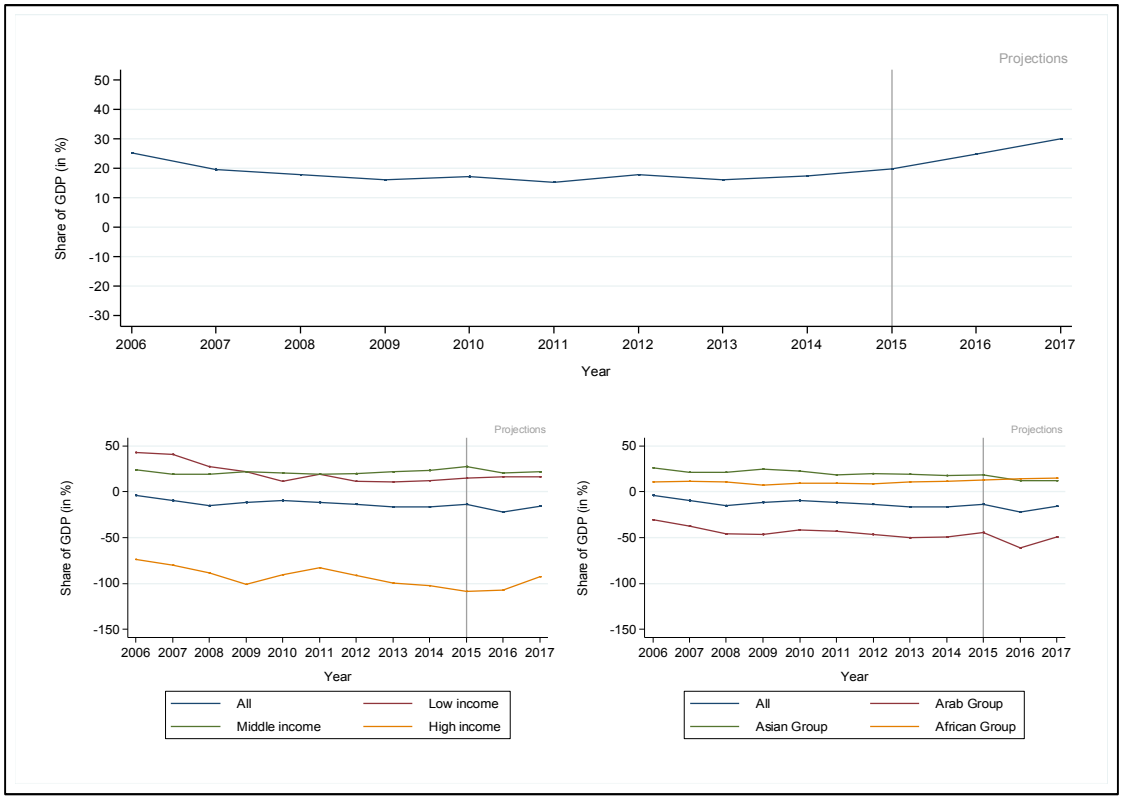


Sources: Regional Economic Outlook (2016), WEO (2016), OPEC (2016), Bloomberg (2015), RAM Ratings (Brunei) (2017), calculations by the Ifo Institute.

Several oil rich OIC countries have accumulated substantial government assets, which can be used to absorb the incurring deficits. The capacity of OIC countries to absorb deficits by selling government assets and the deterioration of fiscal buffers in some countries is illustrated in Figure 3-5, which shows net debt as a share of GDP calculated as gross debt minus government assets.[8] Net debt in OIC countries has increased since 2014, when governments started to sell assets to finance budget deficits.

[8] General government net debt refers to gross debt of the general government minus its financial assets in the form of debt instruments. Examples of financial assets in the form of debt instruments include currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable.

Figure 3-5: Net Debt in OIC Member Countries



Sources: WEO (2016), calculations by the Ifo Institute.

To deal with lower oil revenues, governments have taken various fiscal adjustment measures including cuts on current and capital spending (see, e.g., Sommer et al. 2016a). Governments have also increased taxes to tackle fiscal deficits. For example, the GCC countries have reached a general agreement to introduce a GCC-wide value-added tax (VAT), which could be an effective instrument to increase fiscal revenues (Alreshan et al. 2015, Sommer et al. 2016b). In a similar vein, introducing or increasing direct taxes, such as personal or corporate income taxes, might help reduce fiscal deficits. In addition to the measures mentioned above, most GCC countries have increased charges or decreased subsidies for fuel, water and electricity.

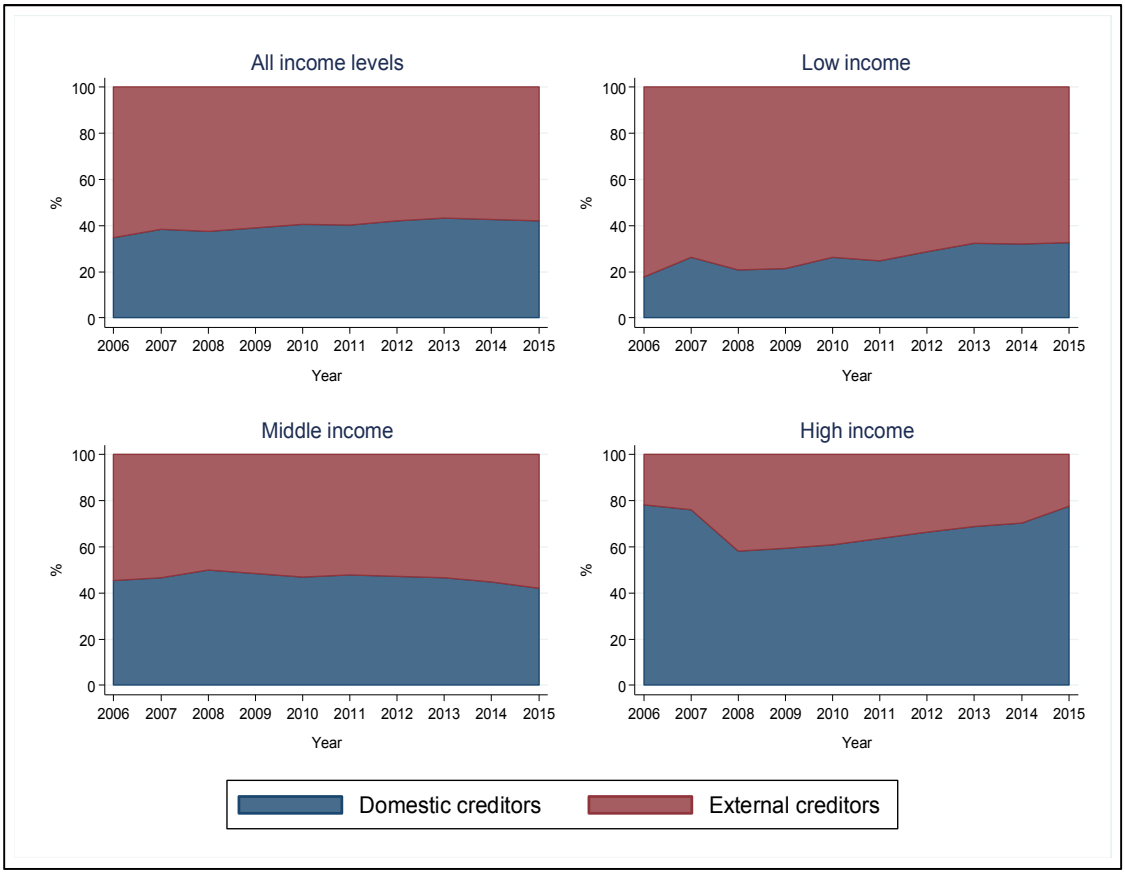
3.1.3 Debt Structures

The structure of public debt provides important information about the risks entailed in public indebtedness in the OIC countries. Creditor structures, maturity structures, the currency composition and interest types of public debt in the OIC member countries are considered.

Creditors

The average share of domestic debt in OIC member states has slightly increased since 2006 and was 42.2% in 2015 (see Figure 3-6). The share of domestic creditors in OIC countries lies above the worldwide average. Low-income countries have a higher share of external creditors than middle- and high-income countries. In high-income countries the share of domestic creditors has increased since 2008 and amounted to about 77.7% in 2015.

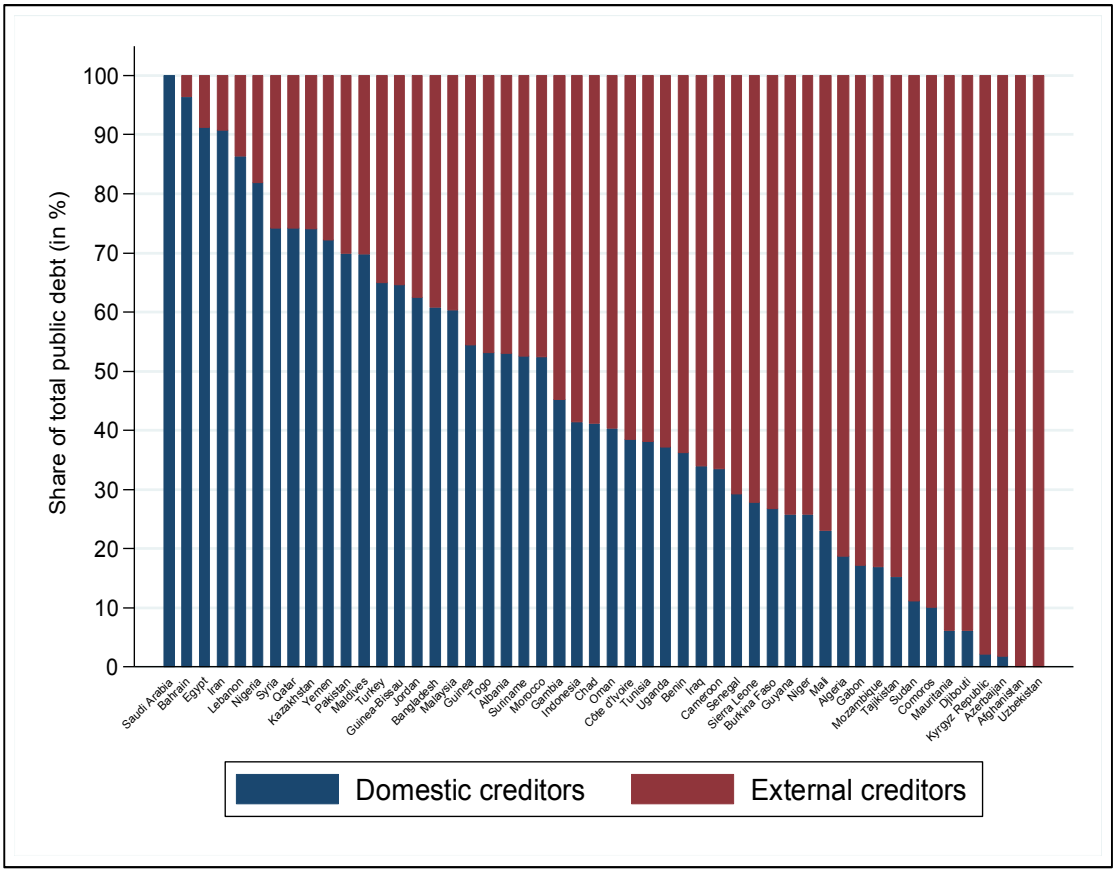
Figure 3-6: Creditor Structure of Public Debt in OIC Member Countries



Sources: IMF Country Reports (see 4.1 Case Studies), national central banks, national Ministries of Finance, Moody's, World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

OIC member countries differ considerably in their creditor structures. Figure 3-7 shows the shares of domestic and external debt in the OIC member countries in 2015. All public debt in Saudi Arabia was owed to domestic institutions, and in Bahrain, Egypt and Iran external public debt accounted for less than 10% of total public debt in 2015. However, some of the countries which were indebted mainly domestically plan to or already did access international debt markets. For example, Saudi Arabia also introduced a debt management office, which was responsible for the first international bond sale in 2016. Iran is planning to return to international debt markets. On the other hand, several OIC countries rely heavily on external debt. Afghanistan's and Uzbekistan's public debt comprised completely of external debt in 2015. In the Kyrgyz Republic, Djibouti, Mauretania and Azerbaijan less than 10% of total public debt is domestic.

Figure 3-7: Creditor Structure of Public Debt by Country (2015)

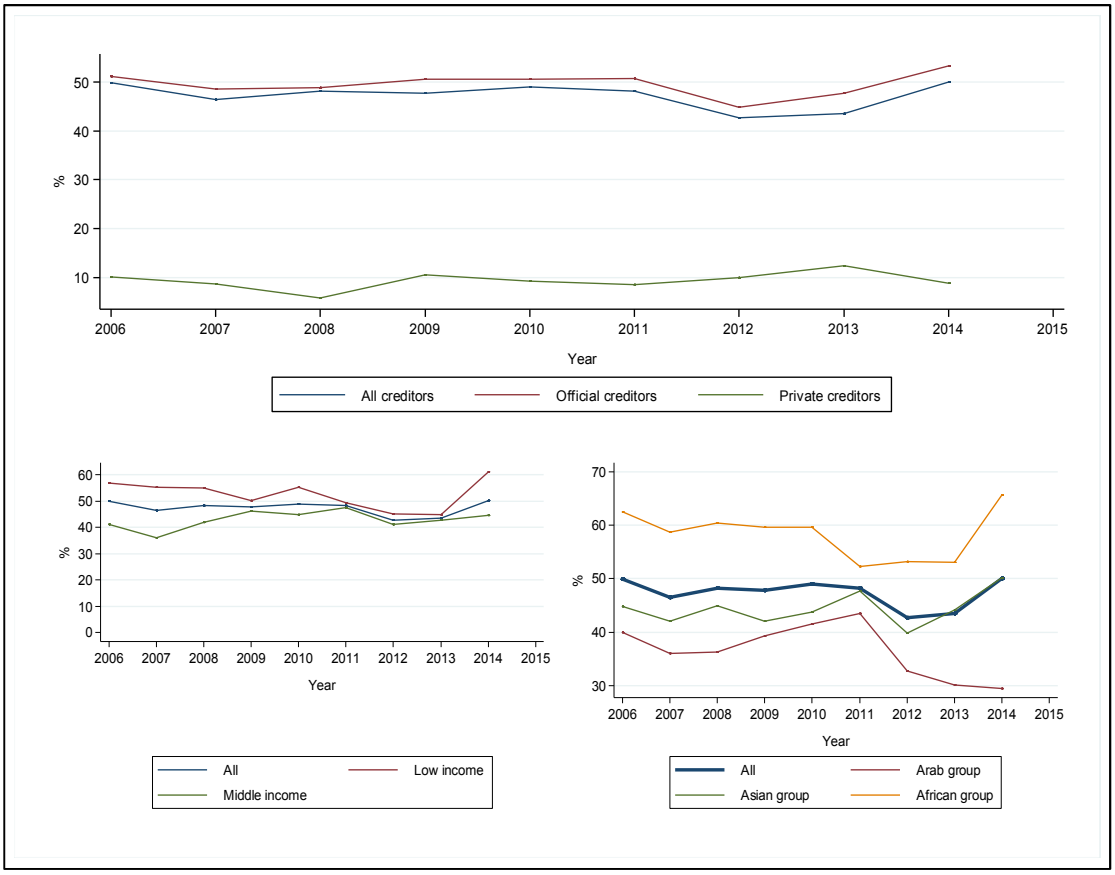


Note: Data for Brunei Darussalam, Kuwait, Libya, Palestine, Somalia, Turkmenistan, and UAE is not available. Sources: IMF Country Reports (see 4.1 Case Countries), national central banks, national Ministries of Finance, Moody's, World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

Grant Element

Figure 3-8 shows the grant element of loans, defined as the grant equivalent as a percentage of the amount committed. The average grant element in OIC countries has been about 50% since 2006, similar to the worldwide average. Grants are primarily extended by official creditors, while private credit contracts have a small grant element. Grants to low-income countries are more generous than to middle-income countries (see lower left panel of Figure 3-8). The grant element is particularly high in the African group (see lower right panel of Figure 3-8).

Figure 3-8: Grant Element in OIC Member Countries



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

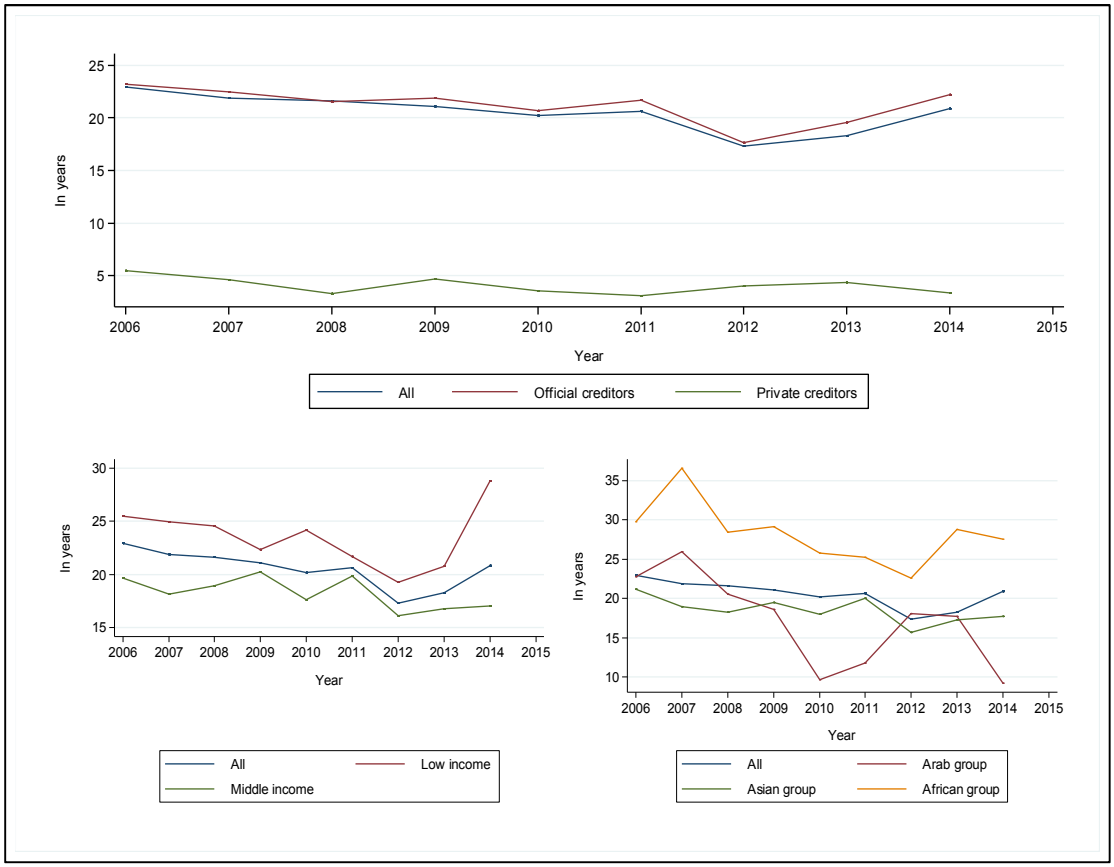
Refinancing risk

Maturity structure

The share of short-term debt (debt with an original maturity of one year or less) has decreased over the last decade in the OIC member countries, amounting to 10.2% of outstanding debt in 2015. This share is slightly higher than the worldwide average of 7.5%.

Figure 3-9 shows the average maturity of all new public and publicly guaranteed loans contracted by OIC countries during each year for 2006-2014. The average maturity of new debt commitments has fluctuated between 18 and 23 years. Private creditors extend their credit for an average period of approximately four years. This average maturity for private credits lies below the worldwide average of five years. Creditors who provide their financial resources for periods exceeding a decade are typically official creditors such as international organizations (e.g. the World Bank, regional development banks and other multilateral and intergovernmental agencies) and governments. The maturity of new contracts is significantly larger in low-income countries than in middle-income countries, which might be explained by the larger share of official creditors in low-income countries (see lower left panel of Figure 3-9). Consequently, the average maturity of new contracts is larger in the African group, which may also be explained by a larger share of official creditors (see lower right panel of Figure 3-9).

Figure 3-9: Maturity of New External Debt Commitments in OIC Member Countries



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

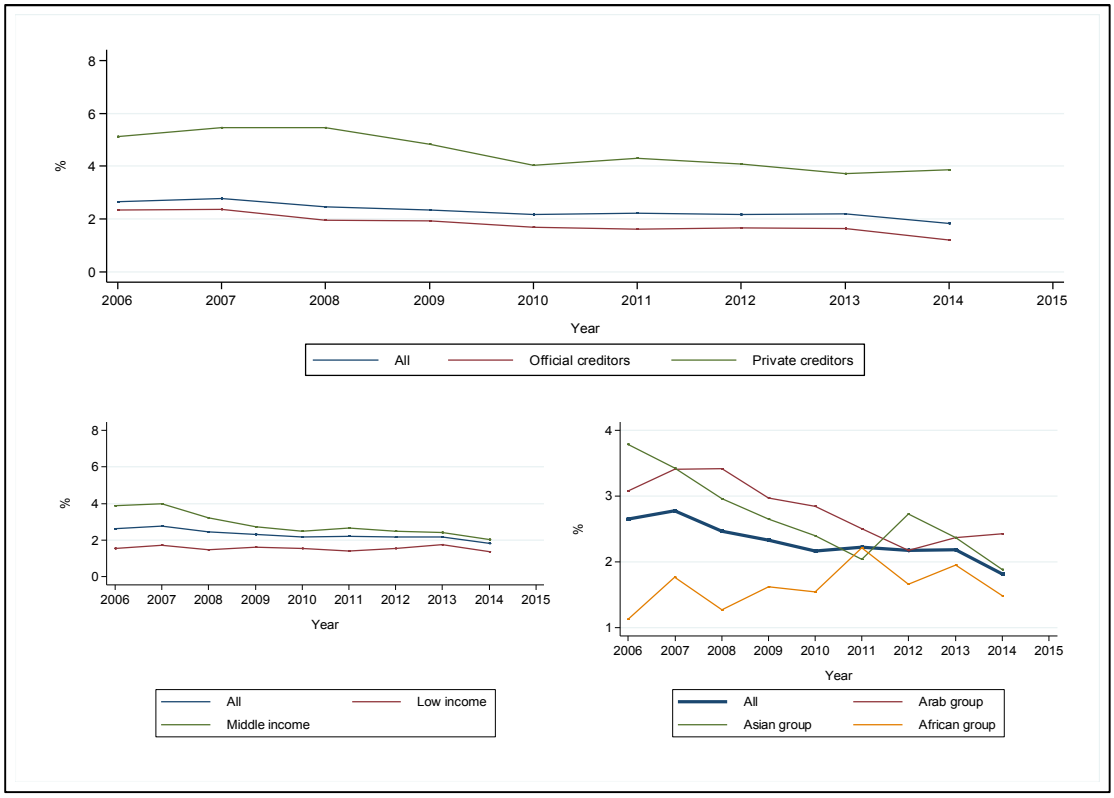
Interest rate risk

Interest rates

Over the last decade, many OIC countries had fixed interest rates. Since 2010 the share of loans with fixed interest rates in total loans has been almost 100% in OIC countries.

The upper panel of Figure 3-10 shows that the average interest rate on public debt has been relatively stable and low in OIC countries over the last decade (on average about 1.8% in 2014). Official creditors lend at preferential rates (on average about 1.2% in 2014). The average interest rate for private credits decreased to 3.9% in 2014, a rate being higher than the worldwide average. Low-income countries face lower interest rates than middle-income ones presumably because they have access to concessional lending as well as development and promotional loans. Average interest rates in the Arab and Asian group have decreased over the last years, while average interest rates in the African group have increased since 2006 (see lower right panel of Figure 3-10).

Figure 3-10: Interest Rates on Public Debt in OIC Member Countries



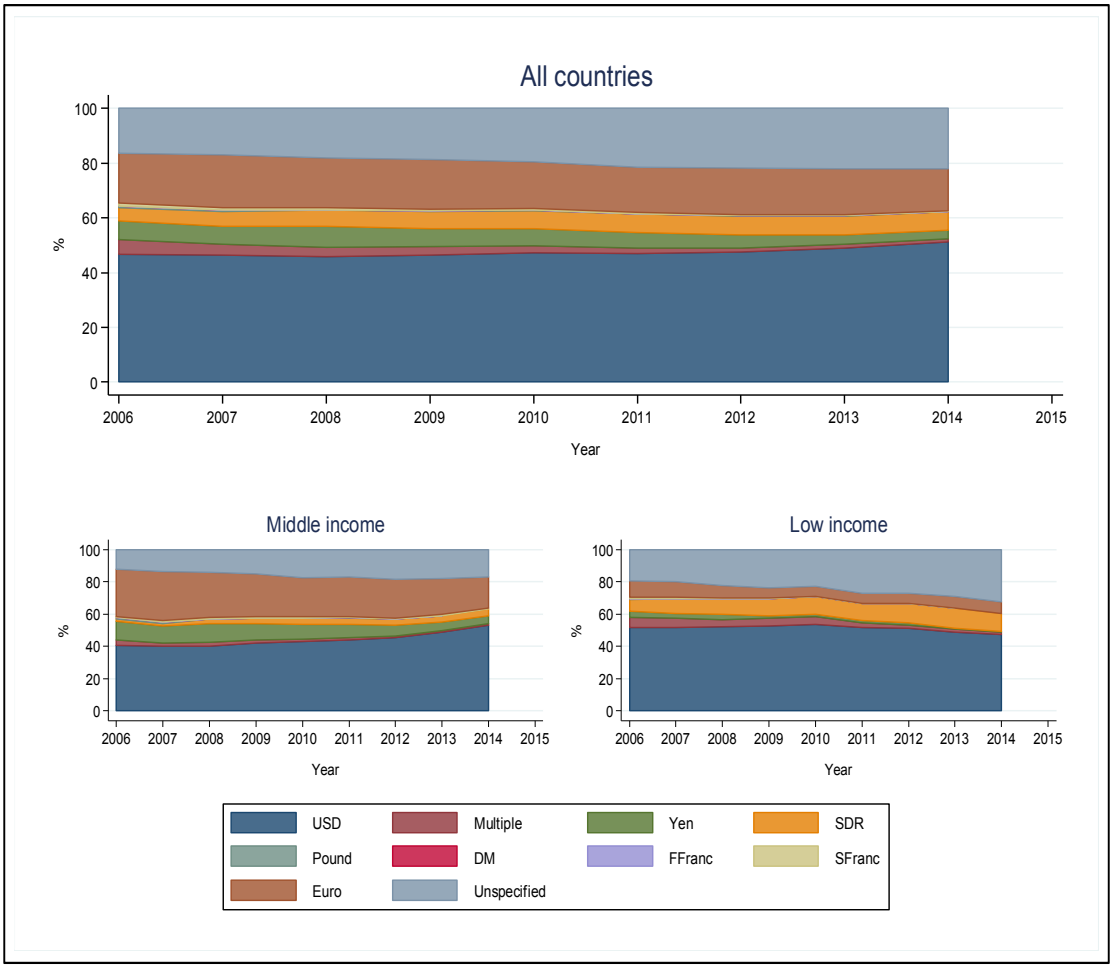
Note: The graph displays the average interest rate on newly committed public debt contracts in a given year.
Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

Currency Risk

Currency composition

The currency composition determines the effects of exchange rate changes on public debt. Figure 3-11 shows the currency composition of external public debt in the OIC countries over the period 2006-2014. In 2014, the largest share of external debt in OIC countries was denominated in U.S. Dollars (51.3%), followed by Euro (15.4%), Special Drawing Rights (6.6%) and Japanese Yen (3.2%). The share of external public debt denominated in U.S. Dollar and Special Drawing Rights (SDR) has increased between 2006 and 2014 while the share of external public debt denominated in Euro has been relatively constant. The share of external public debt denominated in Japanese Yen has decreased. The share of external debt denominated in Euro is higher in middle-income countries than in low-income countries (see lower left panel of Figure 3-11). In low-income countries the share of SDR is higher than in middle-income countries.

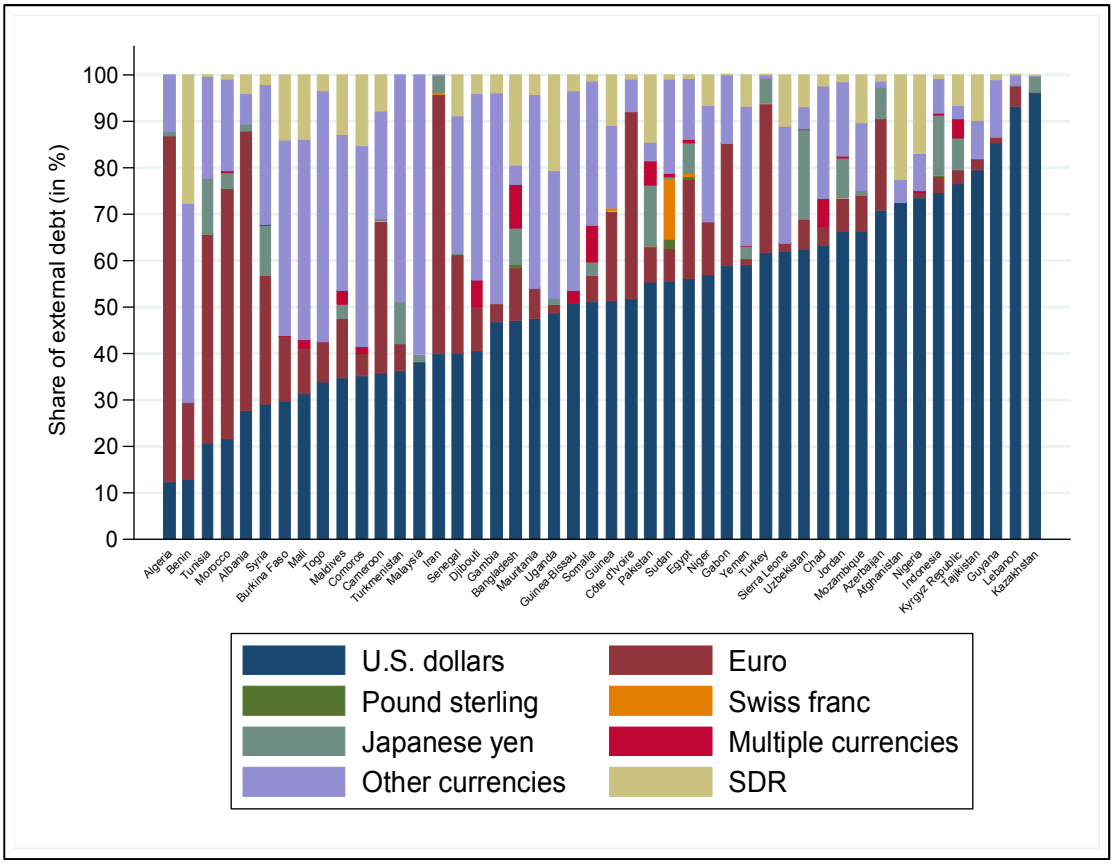
Figure 3-11: Currency Composition of External Public Debt in OIC Member Countries



Sources: World Bank (2016) International Debt Statistics, calculations by the Ifo Institute.

Figure 3-12 shows the currency composition of external public debt in individual OIC countries. Lebanon, Guyana, Indonesia and the Central Asian countries Kazakhstan, Kyrgyz Republic, Azerbaijan and Tajikistan mainly rely on external public debt denominated in U.S. Dollars. Albania and the North African countries Algeria, Morocco and Tunisia mainly rely on external debt denominated in Euro. Other countries, such as Bangladesh, Guinea, and Sudan have more diversified currency structures of their external public debt.

Figure 3-12: Currency Composition of External Public Debt by Country (2014)



Note: Data for Bahrain, Brunei Darussalam, Iraq, Kuwait, Libya, Oman, Palestine, Qatar, Saudi Arabia, Suriname and the UAE is not available. Source: World Bank (2016) International Debt Statistics.

3.2 Institutional Frameworks

To describe public debt management objectives in more detail in the OIC countries, a Public Debt Management Survey was carried out by the Ifo Institute from August to December 2016. The survey included questions on the institutional framework of public debt management and strategic targets and benchmarks (see Figure A-0-2 in the Appendix A).[9] With the help of the COMCEC Coordination Office and the German embassies in the respective OIC member countries, this survey was sent to institutions and persons responsible for public debt management in the individual countries. The survey was answered either directly by debt managers in the individual countries or by using information from debt management strategies and other documents which were publicly available. Until February 2016 the survey was (partly) filled out for 37 OIC member countries (71.1% of all OIC member countries).[10]

[9] The same questions on strategic targets and benchmarks as Cabral (2015) are used.

[10] The survey was filled out by debt managers from Azerbaijan, Bangladesh, Benin, Chad, Côte d'Ivoire, Egypt, Indonesia, Kazakhstan, Malaysia, Mauretania, Nigeria, Oman, Senegal, Tajikistan and Turkey. Using information from public debt management strategy documents, survey results from Cabral (2013) and other public information the survey could be (partly) filled out for 22 further OIC member countries.

Governance and Strategy Development

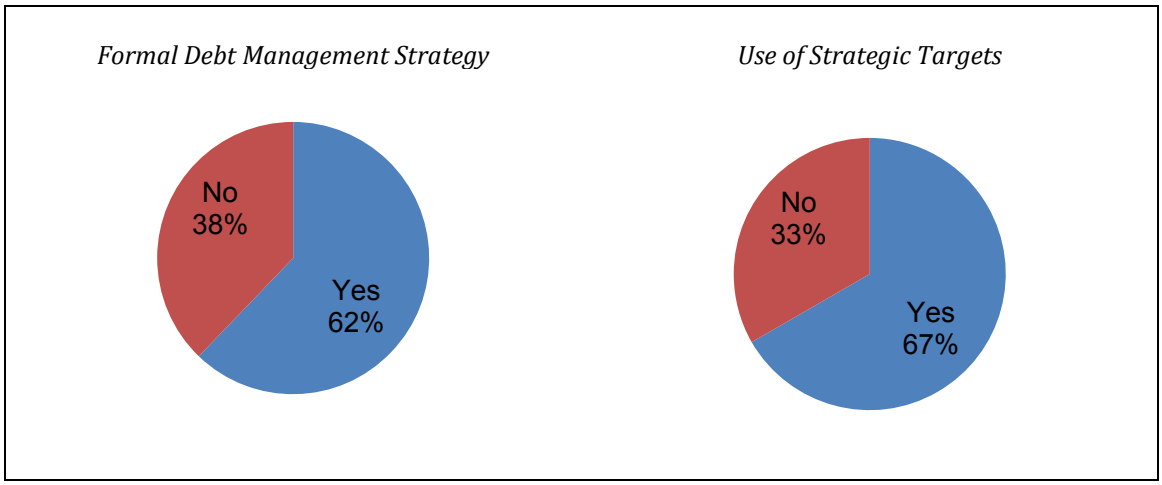
Legal framework and managerial structure

In most OIC member countries, a specialized department at the Ministry of Finance is responsible for public debt management. Alternatively or additionally, in a number of countries a department at the central bank carries out debt management operations. However, only a few countries have established fully independent debt management offices. In contrast, in several countries not one single entity is responsible for public debt management, but several departments in different institutions and committees, mostly located at the Ministry of Finance and the central bank, share relevant tasks.

Debt management strategy

Among the OIC member countries, 62% have established a formal debt management strategy (see Figure 3-13). This share is similar to the worldwide average of 60% (Cabral 2015). Among the OIC member countries with a formal public debt management strategy, 78% have published this document and 67% use strategic targets and benchmarks. The latter share is lower than the worldwide average of 77% (Cabral 2015).

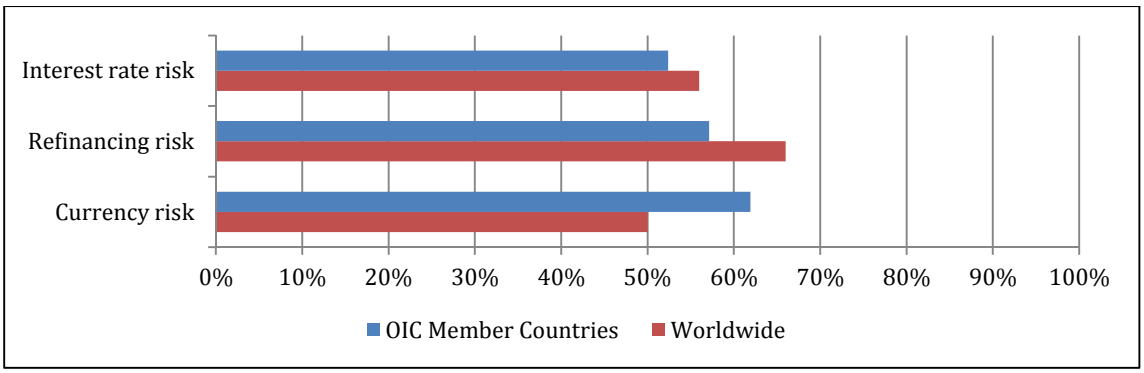
Figure 3-13: DeM Strategies in OIC Member Countries



Note: 37 observations. Sources: Ifo Public Debt Management Survey (2016), public debt management strategies, Cabral (2015).

Among the OIC member countries with a formal public debt management strategy, 62% have set targets for currency risk, 57% have set targets for refinancing risk, and 52% have set targets for interest rate risk (see Figure 3-14). In contrast, the worldwide survey by Cabral (2015) showed that it is most common to set strategic targets for refinancing risk (66%), followed by interest rate risk (56%) and currency risk (50%). Targets used for currency risk include the share of foreign currency debt in total debt, while targets used for interest rate risk include the share of fixed interest debt in total debt and the average time to refixing. Finally, targets used for refinancing risk include a ceiling on maturing debt within one year (in % of total outstanding debt) and the average time to maturity.

Figure 3-14: Use of Strategic Targets by Type of Risk



Note: 21 observations. Sources: Ifo Public Debt Management Survey (2016), public debt management strategies, Cabral (2015).

3.3 Islamic Finance in Public Debt Management

3.3.1 Islamic Finance

Islamic finance has become an important part of the financial system in several OIC countries. Broadly speaking, Islamic finance is based on sharia rules (see also Table G-0-2 in the Glossary). An important difference between Islamic finance and conventional finance is the avoidance of interest based finance instruments. The Islamic finance system relies on partnership and risk sharing, which means that the purchaser of an Islamic bond participates in the profits or losses of the underlying asset (principle of profit-and-loss-sharing). Profits and losses are connected to real economic activities and economic risks (Lewis and Alagoud 2001). As returns on investment should be derived from proprietary risk taking, not from purely financial risks, Islamic finance promotes real economic activity (Song and Oosthuizen 2014).[11]

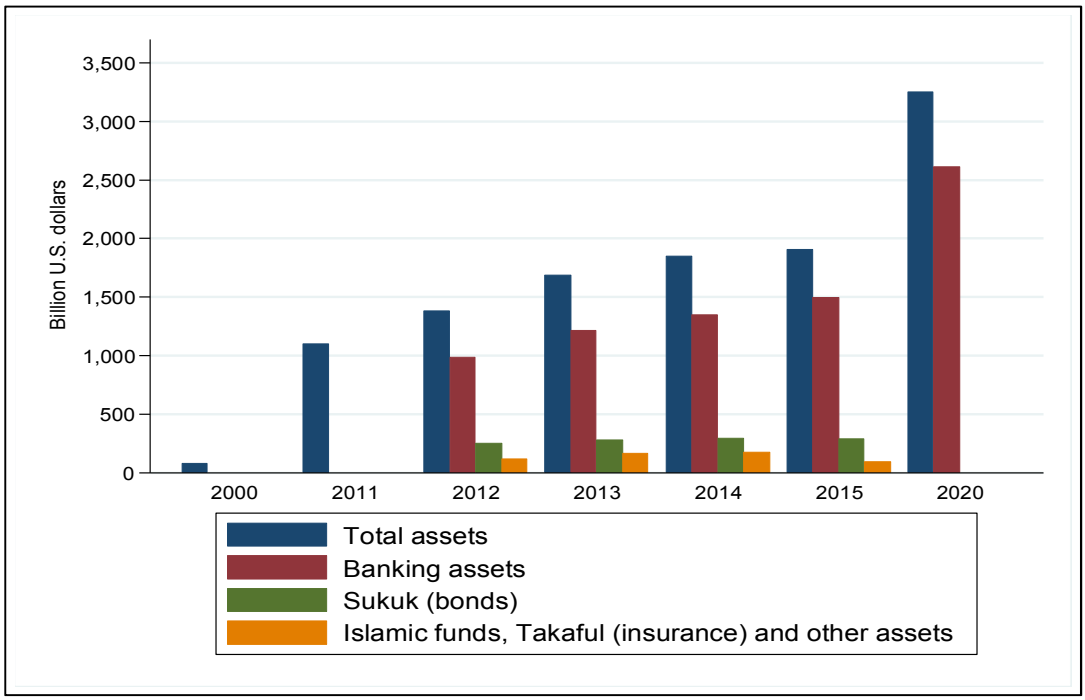
Between 2000 and 2015, the amount of global assets of Islamic finance increased by more than the twentyfold (see Figure 3-15). The global financial crisis starting in 2007 only slightly moderated the growth of Islamic finance assets. The majority of Islamic finance institutions remained relatively immune to the negative effects of the financial crisis (Baele et al. 2014, OIC 2012, Song and Oosthuizen 2014). Islamic banks did not own significant amounts of subprime and other toxic assets (COMCEC 2016a, World Bank 2012).

In 2015, global assets of Islamic finance are estimated to total $1.88 trillion (compared to about $1.81 trillion in 2014). The breakdown of Islamic finance assets in 2015 is as follows: $1,497 billion for banking assets, $291 billion for outstanding *sukuk* (meant as a broad category for Islamic finance bonds), $71 billion for Islamic fund's assets and $23 billion for *takaful* (meant as a broad category for Islamic finance insurance). The relatively moderate increase of Islamic finance assets in 2015 was caused by exchange rate depreciations in large Islamic finance markets, the withdrawal of a major issuer of *sukuk* bonds, namely the Central

[11] Besides the prohibition of any kind of interest, Islamic finance is bound to *shariah*-approved activities. Investment in certain areas, for example drugs or gambling, is forbidden. Social justice and the sanctity of contracts are important principles, too (Song and Oosthuizen 2014). Ambiguous contracts, for example, are not allowed under Islamic principles in order to prevent excessive uncertainty in contracts, to increase transparency and to prevent defraud (Mohieldin 2012).

Bank of Malaysia), and overall downward pressures in the global equity markets (IFSB 2016). The Islamic finance sector is forecasted to continue growing strongly in the future: until 2020, Islamic finance assets are projected to reach $3.25 trillion (Reuters 2015).

Figure 3-15: Global Assets of Islamic Finance

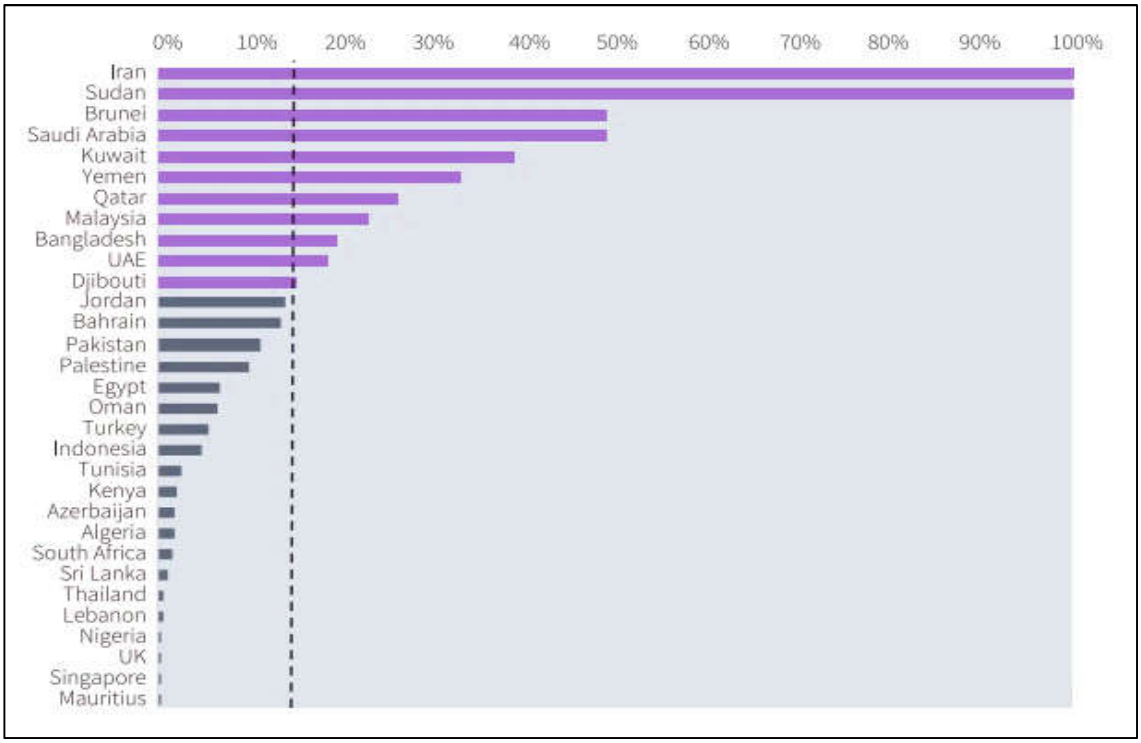


Note: Data for banking and takaful in 2015 refers to 2015H1, data for sukuk and Islamic funds refers to 2015M11. Projections for sukuk, Islamic funds and takaful are not available for 2020. Sources: IFSB (2016), OIC (2012), Reuters (2015), calculations by the Ifo Institute.

Islamic banks are supposed to focus on asset-based intermediation and risk sharing, whereas conventional banks conduct debt-based intermediation and rather focus on risk transfers (López et al. 2014). However, Islamic banks may sometimes mimic the characteristics of conventional lending products while complying with sharia principles. A large share of the liability side of Islamic banks is based on profit and loss sharing (Baele et al. 2014). In general, Islamic banks invest mostly by engaging in trade and industrial activities. Investments are based on partnerships or on shared profit agreements with depositors (Lewis and Algaoud 2001). Islamic banks tend to be better capitalized (Beck et al. 2010) and financially stronger (Čihák and Hesse 2010) than conventional banks. Moreover, Islamic finance limits excessive risk-taking and leverage (Baele et al. 2014).

To illustrate the size and importance of the Islamic banking sector, Figure 3-16 shows the Islamic banking share in total banking assets for individual countries. A banking share of 15% or more indicates that the Islamic financial sector is systemically important in the respective country. As the whole financial systems in Iran and Sudan rely on Islamic principles, the Islamic banking share is 100% in both countries. Other countries have established mixed systems consisting of conventional banks and *sharia* compliant banks (see also COMCEC 2016b). Figure 3-17 shows that Iran had the largest share of worldwide Islamic banking assets in 2015 (37.3%), followed by Saudi Arabia (19%), Malaysia (9.3 %) and the United Arab Emirates (8.1%).

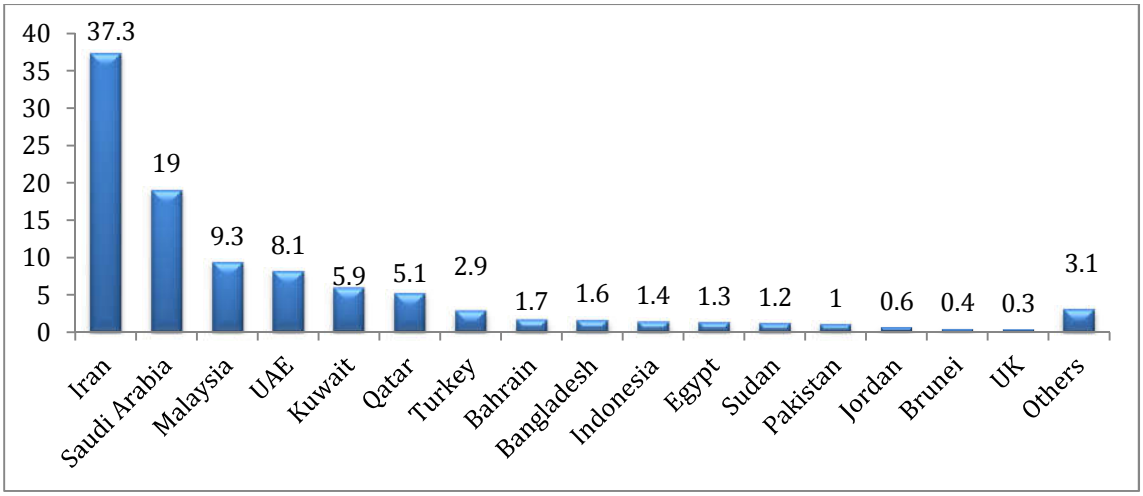
Figure 3-16: Islamic Banking Share in Total Banking Assets by Country (2015H1)



Source: IFSB (2016, p. 8).

Market shares of the Islamic banking sector are expected to grow by a considerable amount over the next years in Saudi Arabia, Malaysia, the United Arab Emirates, Kuwait, Turkey, and Indonesia, while stabilizing in Bahrain, Pakistan and Qatar. In general, worldwide growth rates of the Islamic finance sector have exceeded growth rates of the conventional banking sector by 190% on average. The average annual growth rate of the Islamic banking sector is estimated to equal 19% between 2014 and 2019 across Qatar, Indonesia, Saudi Arabia, Malaysia, the United Arab Emirates and Turkey (Ernst & Young 2015). Islamic banks also operate in countries where Muslims only account for a minority of the population, e.g., in Kenya, South Africa or the United Kingdom. Islamic finance is often considered a promising innovation and addresses a substantial minority in these countries (Lewis and Algaoud 2001, Song and Oosthuizen 2014). In the Eurozone, an Islamic bank has opened in Germany, while plans for an Islamic bank in Luxembourg are being developed (COMCEC 2016a).

Figure 3-17: Shares of Global Islamic Banking Assets by Country (2015)



Source: IFSB (2016, p. 9).

3.3.2 Islamic Bonds

Sukuk are private or public financial certificates commonly referred to as "*sharia* compliant" bonds. *Sukuk* are defined by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) as "certificates of equal value representing undivided shares in the ownership of tangible assets, usufructs and services or (in the ownership of) the assets of particular projects or special investment activity" (AAOIFI 2008). In contrast to common bonds, *sukuk* do not pay interest. The investor rather acquires a share of the underlying project that the *sukuk* bond is linked to. Investors either participate in profits in the form of equity holdings of the underlying asset or project, or in other forms of profit and loss sharing that yield flexible returns on the investment (*musharakah*). Another possibility is to earn fixed income by receiving rental payments from the issuer, similar to leasing (*ijarah*), or by engaging in a form of trust financing (*mudarabah*). At the end of the contract term, the issuer rebuys the investor's share of the asset at face value (Lewis and Algaoud 2001). Sovereign *sukuk* can be connected to projects that yield an assessable rate of return, for example a factory or a trading company (*mudarabah*), and to projects that do not yield a readily identifiable rate of return such as, for example, schools (*ijarah*). In both cases, investors that buy the *sukuk* certificate become co-owners (see also Table G-0-3 in the Glossary). Securities that allow investors to participate in government revenues in return for their investment in public services are another common funding instrument (Sundararajan et al 1998).

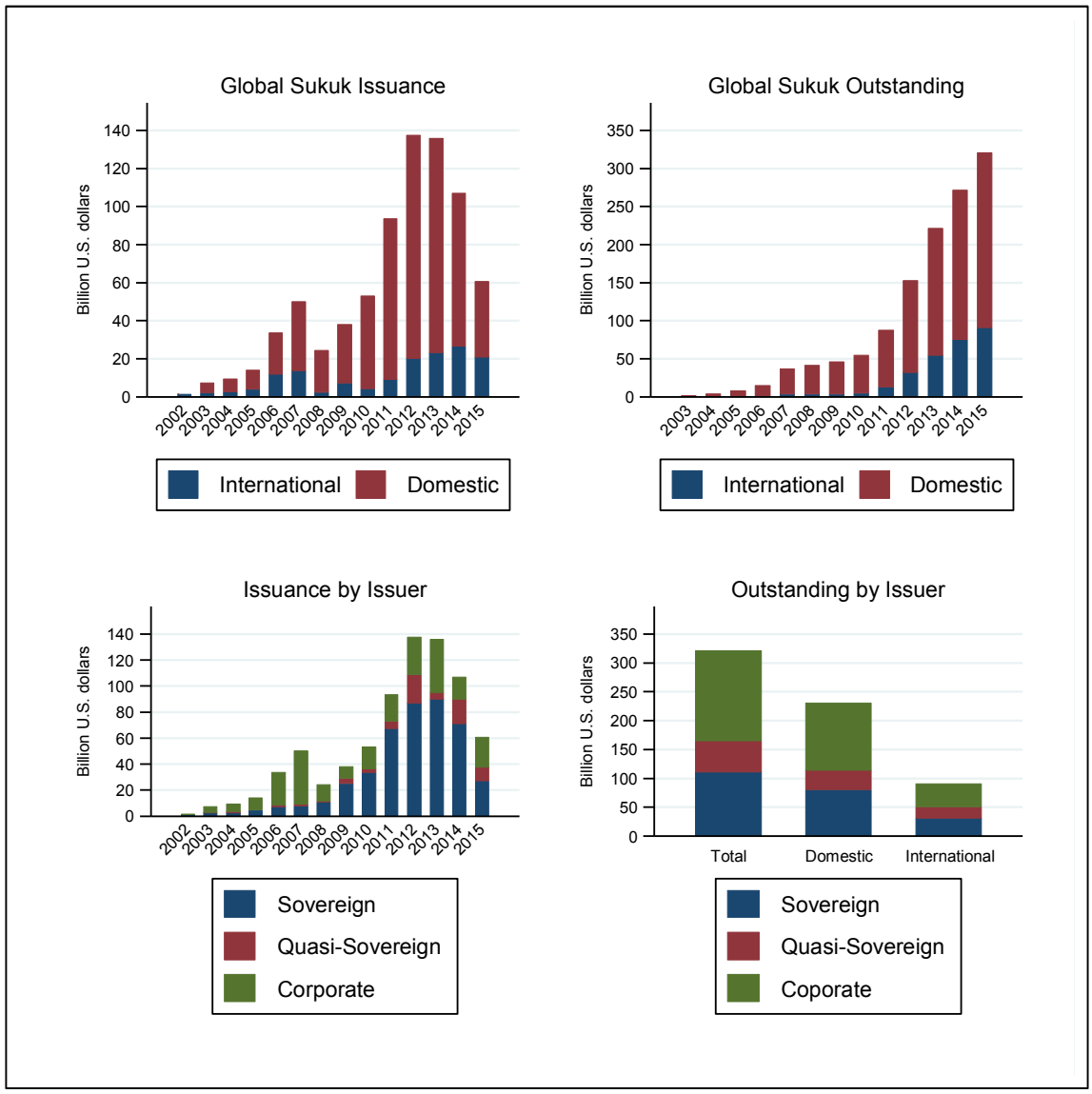
The first *sukuk* issuance by a government took place in 2002 in Malaysia and has become more common since then (Jobst et al. 2008). Figure 3-18 illustrates the trend of increasing *sukuk* issuance. In 2012 and 2013 the highest amounts of *sukuk* issuance were observed. In 2014 *sukuk* issuances slowed down and in 2015 *sukuk* issuances dropped to $60.69 billion. The decline in international *sukuk* in 2014 can partly be explained by uncertainties on the global financial markets. Additionally, there were several long-term *sukuk* that matured in 2014 and were not re-issued. The major decline of total *sukuk* issuance in 2015 came from a decrease in domestic *sukuk* caused by the decision of the Malaysian central bank – the most prolific issuer of sovereign *sukuk* – to stop its short-term liquidity management *sukuk* program (IIFM 2016). *Sukuk* issuance hit a record in the first quarter of 2016 in several countries, namely Malaysia, Indonesia, Turkey, Singapore and Pakistan. In these countries, issuance was up 22% from the

fourth quarter of 2015 (Fitch Ratings 2016). Overall, international *Sukuk* issuance amounted to about 34.4% of total *sukuk* issuance ($20,88 billion) while the domestic *Sukuk* issuance amounted to 65.6% of total *sukuk* issuance ($39,81 billion) in 2015 (see upper left panel of Figure 3-18).

The lower left panel of Figure 3-18 shows the breakdown of *sukuk* issuance by whether the issuer is a sovereign, a quasi-sovereign (e.g., Islamic Development Bank, International Islamic Liquidity Management, World Bank) or a corporation. *Sukuk* issuances by sovereigns and quasi-sovereigns have mainly caused the strong increase in *sukuk* issuance since 2008 (IIFM 2016). The *sukuk* market has shown to be quite stable between 1990 and 2014 with a default rate of only 0.6%. The reason for this resilience could be their asset-backed structure, as well as the fact that since the 2000s around 80% of *sukuk* bonds are issued by governments (COMCEC 2016a, World Bank 2012).

The upper right panel of Figure 3-18 shows how outstanding *sukuk* has increased since 2003. In 2015, total *sukuk* outstanding have reached $321 billion. About 28.2% of total *sukuk* outstanding is international ($90 billion) and 71.8% is domestic ($231 billion). The breakdown between sovereign/quasi-sovereign and corporate outstanding *sukuk* is about fifty-fifty (see lower right panel of Figure 3-18).

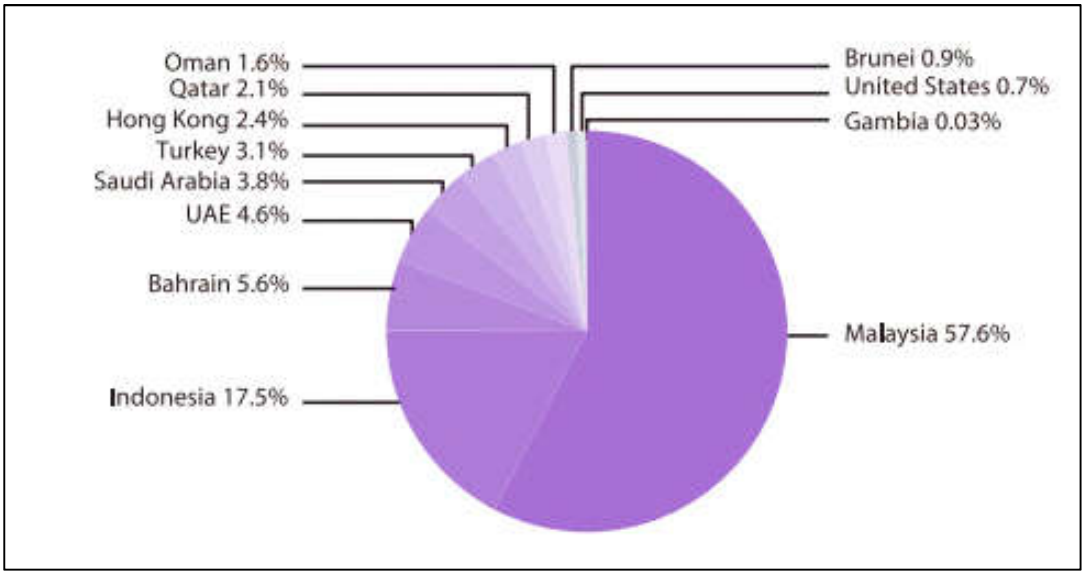
Figure 3-18: Global Sukuk Issuances and Outstanding



Source: IIFM (2016), illustration by the Ifo Institute.

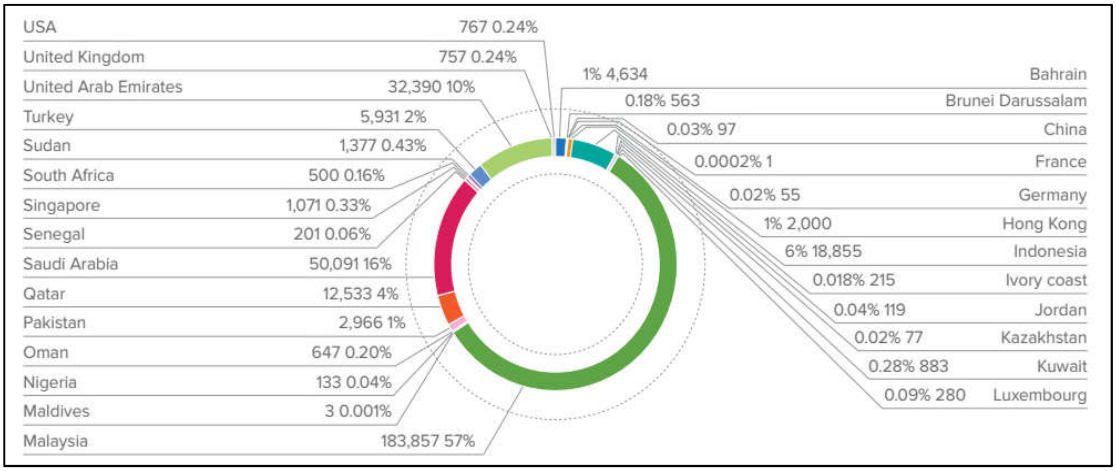
Figure 3-19 shows sovereign issuances by jurisdiction in 2015. Malaysia accounts for 57.6% of the sovereign *sukuk* volume, followed by Indonesia (17.5%), Bahrain (5.6%), the United Arab Emirates (4.6%), Saudi Arabia (3.8%) and Turkey (3.1%). These countries also account for the largest shares of total outstanding *sukuk* (see Figure 3-20).

Figure 3-19: Sovereign Sukuk Issuance by Country (11M2015)



Source: IFSB (2016, p. 16).

Figure 3-20: Sukuk Outstanding by Country (2015)



Source: IIFM (2016, p. 43).

Many countries are planning on issuing sovereign *sukuk* to signal their willingness to participate in the global Islamic financial sector. New *sukuk* markets in Africa and East Asia present promising opportunities for Islamic finance to access key emerging economies. For example, Côte d'Ivoire and Nigeria are planning to follow Senegal's example and issue sovereign *sukuk*. Even China, Singapore, Hong Kong and Japan are increasingly interested in Islamic finance (Reuters 2015).

Sovereign *sukuk* are likely to gain popularity in OIC and in non-OIC countries given that various growth drivers for the *sukuk* market exist (IFSB 2013). An important factor is growing preference for sharia compliant finance products, especially by Islamic state funds. Moreover, the issuance of *sukuk* bonds serves market development purposes by diversifying domestic

capital markets and attracting new investors from Islamic countries. Investors also benefit from new sovereign *sukuk* issuances because of the opportunity to diversify their portfolios. In the past, *sukuk* have been limited in their structural and regional diversity (Jobst et al 2008). Governments have provided incentives and initiatives in creating benchmark issuance for *sukuk*, such as tax-deductible expenses and monthly short-term papers for liquidity purposes. *Sukuk* bonds can obtain higher credit ratings because their asset-backed structure links the bonds to real economic activity and returns.

Among the OIC countries, about 64% use *sukuk* in public debt management. Among those countries participating in the Ifo Public Debt Management Survey, 62% plan to increase the share of Islamic finance products in public debt management in the next years. Malaysia and Côte d'Ivoire have even set strategic targets for the use of Islamic finance instruments in public debt management, especially concerning the share of Islamic bonds over total bonds.

Sukuk allows issuers to raise capital for various purposes, such as funding large-scale infrastructure projects. In several Islamic markets, funding gaps and infrastructure requirements exist. Infrastructure projects are especially suitable as an underlying structure for sovereign *sukuk* bonds given their asset-backed characteristics. Moreover, risk sharing related to the underlying project is possible (*musharakah*), and a structure allowing for fixed returns, depending on the investor's risk preferences (*murabahah, ijarah*). As investments in infrastructure are expected to increase in developing and emerging countries with Islamic banking playing an important role in many of these markets, *sukuk* issuance related to infrastructure is expected to further increase (MIFC 2013). In particular, the GCC countries – one of the key markets for Islamic finance – are expected to see substantial investments in roads, railways, telecommunication, electricity, water infrastructure, airports and seaports over the next decade. These governments may take advantage of Islamic bonds to finance such large-scale infrastructure investments. Even nowadays, a big portion of *sukuk* funds are already raised to finance infrastructure projects in GCC countries and Southeast Asia. In 2013, for example, 21.2% of total global *sukuk* was related to infrastructure. In Malaysia, the most prolific issuer of *sukuk*, the infrastructure share was 73.3% and in Saudi Arabia 21.9% in 2012. The governments of Indonesia, Pakistan, Kuwait and Brunei Darussalam have also raised a considerable amount of infrastructure funds by issuing sovereign *sukuk* (MIFC 2013).

However, *sukuk* have some shortcomings, too. Islamic finance instruments do not always minimize costs, which may be a priority for public debt management. The issuance of *sukuk* goes along with additional administrative costs and increased legal and accounting challenges, because cash flows from real assets need to be identified and the sharia compliant structure has to be administered. Thus, more time is needed for preparing and issuing *sukuk* bonds compared to conventional bonds. Due to higher administrative costs, *sukuk* are usually bought at a higher premium (Jobst et al 2008). Figure 3-21 shows that yields on various *sukuk* bonds were above the yield of US government securities.

Due to the project-based structure of *sukuk* bonds, their rather infrequent issuance and the fact that *sukuk* are yet not as widely held by international investors as conventional bonds, the *sukuk* market is exposed to the risk of an inefficient price system. Market prices are not useful as a reference rate for *sukuk* bonds with different structures (Sundararajan et al 1998). The non-price features that are warrant to raise the rates of return make *sukuk* bonds relatively illiquid and may restrict the progression of a secondary market. However, market-based methods and the presence of vital and efficient primary and secondary markets that use instruments such as discounting are often essential in the context of cost minimization (Sundararajan et al. 1998).

The avoidance of interest and the somewhat limited secondary market gives rise to concerns with regards to the tradability of *sukuk* bonds. This limited tradability, the high issuance costs and the rather limited volume of *sukuk* bonds may constrain market liquidity and hence a government's flexibility in fiscal policy and a central bank's flexibility in monetary policy.

Figure 3-21: Selected USD Sukuk Yields vs. U.S. Government Securities Yield

Note: CBB = Central Bank of Bahrain, DOF = Dubai Department of Finance, SECO = Saudi Electricity Company, SoQ = State of Qatar, Hazine = Hazine Mustesarligi (Turkish Under Secretariat), MGS = Malaysia Global Sukuk Wakalah, US 5Y = US 5-Year Generic Government Yield, US 10Y = US 10-Year Generic Government Yield. Source: IFSB (2016, p. 17).

3.4 Lessons Learned

The average debt-to-GDP ratio in the OIC member countries has increased from 36.7% in 2012 to 46.1% in 2015 and is expected to rise to 51.1% in 2017. However, the amount of outstanding gross public debt as a share of GDP is very heterogeneous among OIC member countries, ranging between 3% and 139%. The highest average debt-to-GDP ratios are expected in low-income countries in the next years. Average debt-to-GDP ratios in middle-income countries are expected to slightly decrease. High-income countries are projected to experience the largest increase in the average debt-to-GDP ratio. Different debt dynamics can also be observed at the regional level: several African countries have been granted debt relief or restructuring in the last decade. Consequently, debt ratios have substantially decreased between 2006 and 2009 in the African group and have only slightly risen again afterwards. The average debt-to-GDP ratio in the Asian group has been on a relative stable path. The average debt-to-GDP ratio in the Arab group has increased since 2014, as the decline in oil prices had a substantial negative effect on the economies of oil-producing countries. While the fiscal buffers of some OIC member countries are expected to be capable of absorbing the budget deficits potentially following lower oil revenues for a period of years, other OIC member countries may have to issue substantial amounts of additional debt obligations.

The average grant element in OIC countries has been about 50% since 2006, a share being similar to the worldwide average. Grants are primarily extended by official creditors, i.e. international organizations and governments, while private credit contracts have a small grant element. Grants to low income countries are more generous than to middle-income countries. The grant element is particularly high in the African group.

The share of short-term debt in total debt in the OIC member countries has decreased from 68.1% in 2006 to 54.5% in 2015. This share is slightly higher than the worldwide average of 52%. Official creditors sign contracts with maturities similar to the worldwide average at around 21 years on average. Private creditors extend their credit for an average period of approximately four years, which is below the worldwide average of five years. The maturity of new debt contracts is significantly larger in low-income countries than in middle-income countries, which might be explained by the larger share of official creditors in low-income countries. Hence, the average maturity of new contracts is largest in the African regional group.

The average share of domestic debt in total debt in OIC member states has slightly increased since 2006 and lies at around 41.5% in 2015, which is a share above the worldwide average. Low-income countries have a lower share of domestic debt (31%) than middle- and high-income countries (41.9%). In high-income countries the share of domestic creditors has increased since 2008 and hovered at around 77.7% in 2015. However, individual OIC member countries differ considerably in their shares of external debt.

The largest share of external debt in OIC countries was denominated in U.S. Dollars (51.3%), followed by Euro (15.4%), Special Drawing Rights (6.6%) and Japanese Yen (3.2%) in 2014. The share of external public debt denominated in U.S. Dollar and Special Drawing Rights (SDR) has increased between 2006 and 2014, while the share of external public debt denominated in Euro has been relatively constant. The share of external public debt denominated in Japanese Yen has decreased.

Since 2010, OIC member countries have relied almost exclusively on loans with fixed interest rates. The average interest rate on public debt has been comparatively stable and low in OIC member countries over the last decade (e.g. 1.9% in 2014), but obviously differs significantly for different countries. Those OIC member countries borrowing from official creditors do so at preferential rates (on average about 1.2% in 2014). The average interest rate for private credits was about 3.9% in 2014, a rate which was higher than the worldwide average. Low-income countries face lower interest rates than middle-income ones, presumably because they have access to concessional lending as well as development and promotional loans. Average interest rates in the Arab and Asian group have decreased over the last years, while average interest rates in the African group have increased since 2006.

Islamic finance has become an important part of the financial systems in several OIC member countries. Most importantly, many governments in OIC countries use *sukuk* in their public debt management. *Sukuk* are financial certificates commonly referred to as "*sharia* compliant" bonds, which do not pay interest. The investor rather acquires a share of the underlying asset or project that the *sukuk* bond is linked to. Overall, several OIC member countries plan to increase the share of Islamic finance instruments in the next years.

In most OIC member countries, a specialized department at the Ministry of Finance is responsible for public debt management. Alternatively or additionally, in a number of countries a department at the central bank carries out debt management operations. However, only a few countries have established fully independent debt management offices. In contrast, in several countries not one single entity is responsible for public debt management, but several departments in different institutions and committees, mostly located at the Ministry of Finance and the central bank, share relevant tasks.

Among the OIC countries, 62% countries have established a formal debt management strategy; this share is similar to the worldwide average of 60%. Among the OIC member countries with a formal public debt management strategy, 78% have published this document. Among the OIC member countries with a formal public debt management strategy, 68% use strategic targets and benchmarks, which is a share lower than the worldwide average of 77%. Out of these countries, 63% have set targets for currency risk, 58% have set targets for refinancing risk, and 53% have set targets for interest rate risk. In contrast, on a global view, it is most common to set strategic targets for refinancing risk (66%), followed by interest rate risk (56%) and currency risk (50%). Targets used for currency risk include the share of foreign currency debt in total debt, while targets used for interest rate risk include the share of fixed interest debt in total debt and the average time to refixing. Finally, targets used for refinancing risk include a ceiling on maturing debt within one year (in % of total outstanding debt) and the average time to maturity.

4 Public Debt Management in Individual OIC Member Countries

This chapter examines public debt management practices in individual OIC member countries.

The first subchapter includes case studies for 15 OIC member countries. The first section of each case study gives a short overview of public debt dynamics in the respective country. The second section describes public debt management practices. The analysis refers to the World Bank DeMPA Performance Indicators (see Table 1-1) and risk management guidelines from the IMF (see Table 1-2). In the second part, the first subsections describe the legal framework and the managerial structure of debt management, including coordination with other policies. The section also describes debt reporting, contingent liabilities and transparency aspects. The second subsections describe the debt management strategy, including risk management. The third subsections give an overview of debt operations, including a discussion of Islamic finance instruments used, and describes domestic borrowing. Based on the analysis of public debt management practices in the individual countries, policy recommendations are provided. The case studies are ordered by income groups: low-income (Islamic Republic of The Gambia, Republic of Mozambique, Togolese Republic and Republic of Uganda), lower-middle income (Arab Republic of Egypt, Republic of Indonesia, The Federal Republic of Nigeria and Republic of the Sudan), upper-middle income (Republic of Albania, Islamic Republic of Iran, Republic of Kazakhstan, Lebanese Republic and Republic of Turkey) and high income (Sultanate of Oman and Kingdom of Saudi Arabia). In the case studies, generally country short names are used.

The second subchapter compares public debt management practices among the case study countries.

Finally, the third subchapter compares public debt management practices in countries with Islamic finance systems with countries with conventional finance systems.

4.1 Case Studies

4.1.1 Islamic Republic of The Gambia

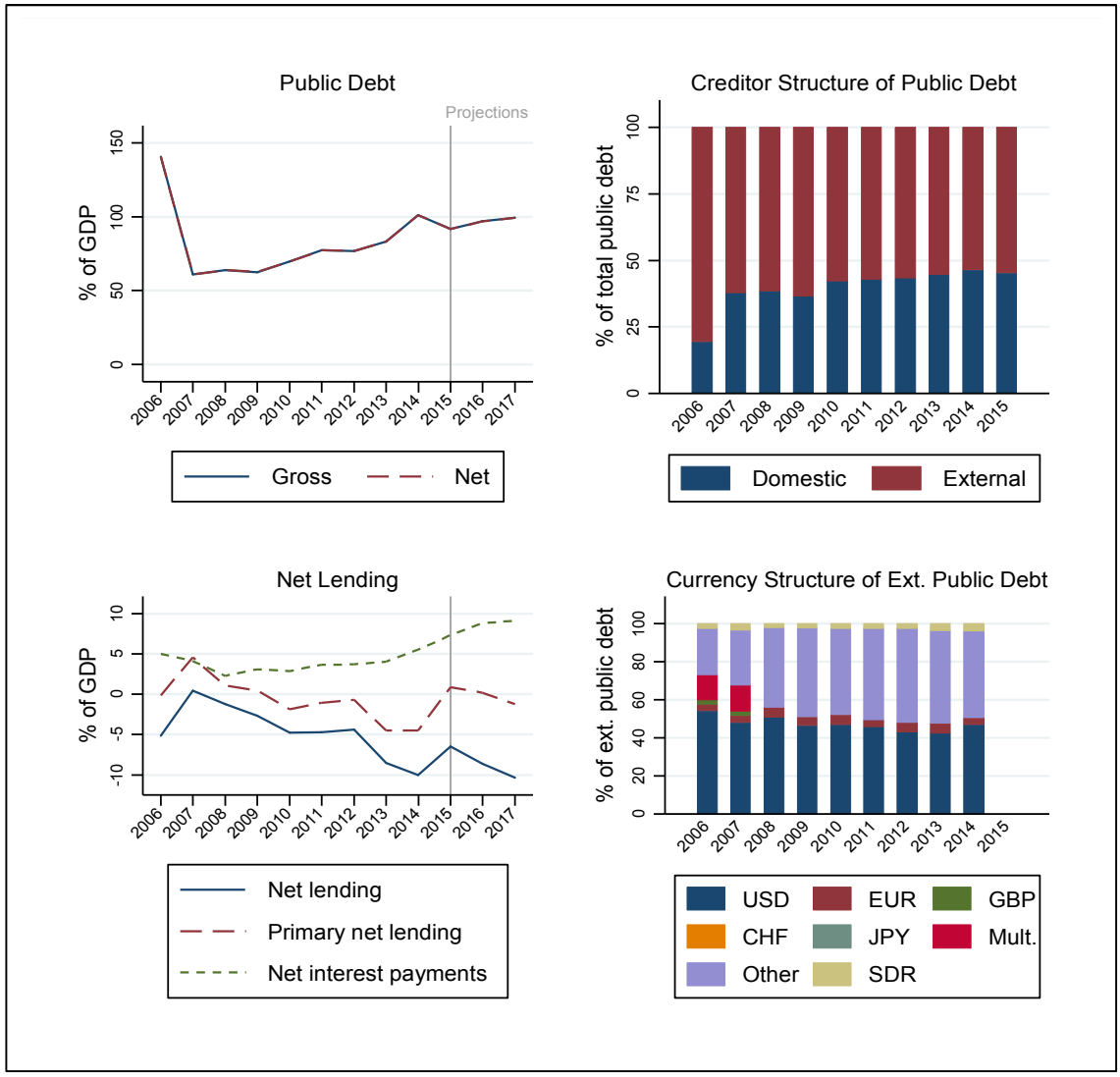
A) Public Debt Dynamics

Between 2000 and 2008, the Islamic Republic of The Gambia qualified for debt relief under the enhanced Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI) after having made significant progress in implementing its Poverty Reduction Strategy (AfDB 2001, IMF 2008).[12] However, between 2010 and 2014 general government debt in Gambia steadily increased from 69.6 to 101.1% of GDP (see Figure 4-1). Meanwhile, the elevated general government debt level has eroded international reserves. The gross official reserves' import coverage has declined from 6 months in 2012 to below 3 months in 2014 (IMF 2015). Even though the debt-to-GDP ratio slightly decreased to 91.6% $804.9 million in absolute terms in 2015, projections for the next years indicate an increase in debt. Explicit liabilities also include loans to public enterprises (World Bank 2003). There is no further data about contingent liabilities.

Gambia historically experienced low levels of economic growth characterized by repeated weather-related shocks. Real GDP growth over the period 2004-2014 was on average less than 0.5% per year, which is among the lowest in Sub-Saharan Africa (IMF 2015). Large fiscal deficits continue to impose major challenges for policy makers. After having achieved a budget surplus in 2007, the fiscal balance fell into a deficit exceeding 6% of GDP by 2010 (AfDB et al. 2015). A reform program, which aimed at limiting the government's domestic borrowing, was set up at the beginning of 2011. Little commitment to the program and loose fiscal policy, however, stalled the implementation of the reform program. The government's continued efforts to strengthen revenue administration and to eliminate subsidies for domestic fuel prices helped to raise revenues (IMF 2015). Despite these efforts on the revenue side, sizable extra-budgetary spending pressures and the fiscal burden arising from financial difficulties of key public enterprises increased the overall fiscal deficit. The fiscal deficit is largely financed by domestic borrowing, which increased from 4.4% of GDP in 2012 to around 8.6% of GDP in 2013. Interest payments amounted to 22.5% of government revenues in 2012, out of which 81% was interest on net domestic debt. The regional Ebola outbreak, together with the delayed summer rains in 2014, widened fiscal imbalances further. Without fiscal reforms the medium-term budget deficit is projected to increase to 10.8% of GDP in 2015 and 11.2% in 2016. The net domestic borrowing (NDB) rate is expected to reach 12% of GDP at the end of 2014 against the less than 2.5% projected at the beginning of the year (AfDB et al. 2015).

[12] Gambia received debt reliefs of $66.6 million (8.2% of GDP) in 1999 net present value (NPV) terms under the HIPC Initiative (IMF 2008).

Figure 4-1: Gambia – Public Debt Dynamics



Sources WEO (2016), IMF (2008, 2015), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

In 2014 the government of Gambia enacted a comprehensive Public Finance Law which provides necessary and required standard legislation provisions for public debt management, protection for the investor community, and strengthens the institutional arrangement of overall debt management processes and practices (MoFEA 2015). [13] The law also addresses the management of sub-national and public enterprises' debt and the roles of the internal and external audit as well as the National Assembly.

Managerial structure (incl. coordination with other policies)

The Ministry of Finance and Economic Affairs (MoFEA) is the only government body allowed to "borrow and/or on-lend money from any legal entity or person and to enter into a guarantee or indemnity with third parties" (MoFEA 2015, p. 23). The MoFEA determines the form, terms, conditions and instruments of borrowing. In issues relating to monetary policy the MoFEA consults the Central Bank of Gambia (CBG). The National Assembly has to ratify external loans and guarantees. The CBG is mainly a banker, financial advisor and fiscal agent of the government, "but in addition issues domestic government securities – mainly T-bills – in the primary market for implementation of both monetary policy and for funding the government's fiscal deficits" (World Bank 2010, p. 16). The MoFEA and the CBG coordinate via various communication committees (e.g. High-level Economic Committee, Macro-Economic Committee, Monetary Policy Committee, Treasury Bills Committee).

The Directorate of Loans and Debt Management (DLDM) at the MoFEA is responsible for the management and implementation of public debt operations. The front office at the DLDM is responsible for resource mobilization (external loans and credits negotiation); the middle office is responsible for the preparation of MTDS and coordinating the Debt Sustainability Analysis (DSA); and the back office is responsible for recording and reporting of debt statistics. The DLDM is supposed to increase its capacities and be more active in reporting, recording and managing domestic debt in the future (MoFEA 2015).

A Public Debt Management Advisory Committee has been established and was fully operational in 2014 (MoFEA 2014). The committee is responsible for advising on debt management reforms. In addition, the MoFEA is considering the creation of an ad-hoc working group with representatives from the MoFEA, CBG and market participants to evaluate domestic debt market developments (Morachiello et al. 2015).

Debt reporting

The MoFEA publishes an Annual Public Debt Bulletin, which includes a cost and risk analysis of the public debt portfolio (MoFEA 2013, 2014). The debt management strategy document also includes statistics of debt developments and debt structures (MoFEA 2012, 2015). A new comprehensive database on general government debt, which includes also liabilities of municipal councils, is currently being planned (Morachiello et al. 2015).

[13] Prior to the introduction of the Public Finance Law, the most important legal document referring to public debt management in Gambia was the Government Budget Management and Accountability Act (GBMA Act 2004, Article 35).

Debt management strategy (incl. risk management)

The objectives of the debt management strategy of Gambia, which are highlighted in the Public Finance Law, are primarily to ensure that the government meets its financing needs and payment obligations at the lowest possible costs over the medium- to long-term with a prudent degree of risk. The debt management strategy also promotes the development of the domestic debt market. The MoFEA created the first MTDS for the years 2010-2012 (MoFEA 2012). The 2010-2012 strategy aimed at maximizing domestic borrowing and significantly reducing external borrowing. External debt should mainly come from multilateral and bilateral concessional sources with a grant element of at least 35%.

Domestic debt increased over the period 2010 to 2012 because of the issuance of (short-term) T-Bills. The domestic debt portfolio was thus prone to high interest and refinancing risks. Consequently, the MTDS of 2011-2014 focused on addressing the challenges of the domestic debt portfolio. The key aims of the MTDS 2011-2014 were to target NDB at -0.9% of GDP at the end of 2014, to reduce domestic borrowing and to lengthen the maturity profile of the domestic debt by introducing three year nominal bonds and – in the medium term - five year bonds (MoFEA 2014). The implementation of the MTDS 2011-2014 was difficult due to fiscal dominance and an underdeveloped domestic debt market. Heavy domestic borrowing requirements gave rise to increasing interest rates and higher refinancing risks because of high costs of lengthening maturities (see also Table 4-1).

Table 4-1: Gambia – Cost and Risk Indicators for the Government's Debt Portfolio (2014)

Type of risk	Risk indicator	2010 Baseline	2014 Actual	2014 Targets
Solvency	Nominal debt as % of GDP	68.3	105.0	59.8
	PV of debt as % of GDP	57.5	90.0	46.1
Cost of debt	Implied interest rate	5.3	6.0	5.2
Refinancing risk	ATM external portfolio (years)	13	11.1	15.4
	ATM domestic portfolio (years)	3.8	2.6	4.6
	ATM total portfolio (years)	9.1	7.5	12.6
Interest rate risk	ATR (years)	9.1	7.3	12.6
	Debt refixing in 1 year (% of total)	34.2	40	15.4
	Fixed rate debt (% of total)	100.0	97.1	100.0
Exchange rate risk	FX debt (% of total)	57.0	57.9	72.7
	ST FX debt (% of total)	8.9	15.7	8.4

Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; ST = Short-term.
Source: MoFEA (2014).

The objectives of the MTDS 2015-2017 are to reduce public debt by decreasing NDB towards 1% of GDP and to increase external borrowings in particular from the concessional window (MoFEA 2015). Based on three different shock scenarios, the risks of four different debt management strategies are evaluated in the MTDS. The favored strategy envisions a progressive reduction of the NDB to 2% of GDP in 2015, 1% of GDP in 2016 and zero thereafter (MoFEA 2015). Domestic borrowing is financed at 100% by T-Bills and external borrowing is a mixture of semi- and concessional external borrowing. The MTDS 2015-2017 further discourages central bank financing as it creates inflationary pressure (MoFEA 2015).

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

Gambia issues T-Bills and T-Bonds. T-Bills are available with maturities of 91, 182 and 364 days, while there are three maturities for T-Bonds (3, 10 and 30 years) (AFMI 2016). All T-Bills and T-Bonds can be purchased by foreign investors, as long as they fulfill the general rules concerning foreign investment (AFMI 2016).

Islamic finance is still at an early stage of development in sub-Saharan Africa. The share of Islamic banks is still small, and Islamic capital markets are virtually nonexistent. Small *sukuk* issuances however took place in Gambia (Gelbard et al. 2014). *Sukuk-al-salaam* (SAS) bills, which have a maturity of 91 days (AFMI 2016), constituted 2.96% of the total domestic debt stock in 2013 and were first issued in November 2007. The notional asset, on which the financial transactions of SAS bills are based in Gambia, is gold. The CBG is thus empowered to sell gold and issue SAS bills on a book entry system. The title is surrendered back to CBG at maturity in exchange of cost plus mark-up (World Bank 2010). The minimum investment is GMD 25000 (about $595) (AFMI 2016).

Domestic debt market

The share of domestic debt has remained relatively stable since 2007 being slightly lower than the share of external debt (see Figure 4-1). Domestic debt constituted about 50% of the total public debt in 2014 (MoFEA 2014). Gambia uses a relative high portion of external funding because of the relatively low developed domestic debt market and a policy aiming to minimize crowding-out of private sector investment.

Few commercial banks dominate the domestic debt market. About 47% of total domestic debt in 2014 is held by commercial banks, 37.3% by the central bank and 15.8% by non-banks (MoFEA 2014). Domestic public debt comprises of 81% marketable and 19% non-marketable instruments (MoFEA 2014). T-Bills constitute 78% of the domestic debt portfolio (MoFEA 2014). The increasing T-Bill holdings of the central bank reflect that the central bank is financing the government deficit, which could increase pressure on inflation.

Foreign borrowing

The external debt portfolio is characterized by loans borrowed on concessional and semi-concessional terms, as Gambia has not contracted debt from commercial creditors. Multilateral creditors account for almost 70% of the external debt stock, while bilateral creditors account for 30% (MoFEA 2014). The major multilateral creditors are the Islamic Development Bank (IDB) and the International Development Association (IDA). The largest bilateral creditors are China, Venezuela, India EXIM Bank and the Kuwait Fund for Arab Economic Development. External debt is mainly used to finance projects and programs of the energy, transportation and agriculture sector.

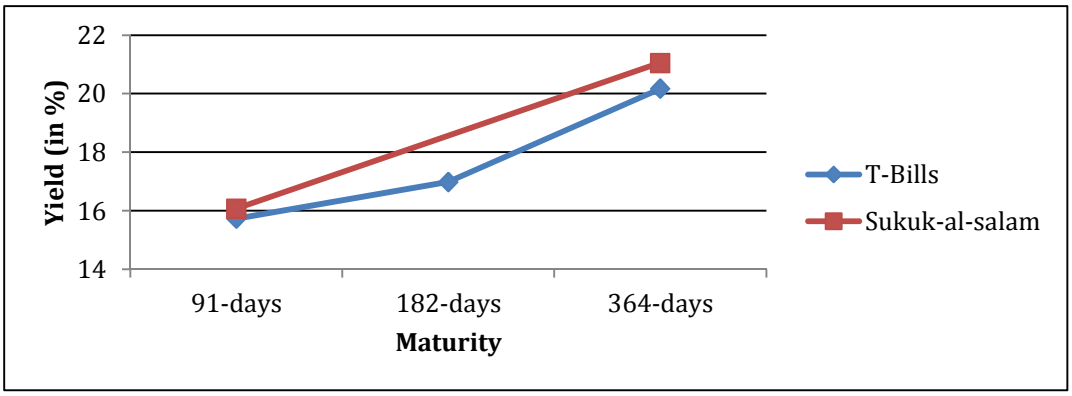
The external debt portfolio is composed of 46.8% of U.S. Dollars, 3.9% of SDRs, 3.8% of Euros, and 45.5% of other currencies in 2014 (see Figure 4-1).[14] As a result of the depreciation of the dalasi against all major trading currencies, the share of external public debt in local currency has increased (MoFEA 2014). The average time to maturity (ATM) of the external debt portfolio is 11.1 years, whereas that of the domestic debt portfolio is 2.6 years (see also Table

[14] Values taken from the World Bank. The MTDS describes the following currency composition in 2014: 56% U.S. Dollars, 22% Euros, 6% Pound sterling, 6% Japanese Yen, 5% Kuwait Dinars, 3% Saudi Riyals and 2% UAE Dirham.

4-1). The external debt portfolio has higher ATM due to financing mostly from multilateral and bilateral creditors. The refinancing risk of the external debt portfolio is therefore lower than that of the domestic debt portfolio. The domestic debt portfolio with mostly one year maturities poses a high rollover risk (MoFEA 2014). The interest rate exposure, which is indicated by the average time for refixing (ATR), is 2.6 years for the domestic debt and 10.7 years for the external debt portfolio (MoFEA 2014). In the domestic debt market variable interest rates hardly exist.

While the implied interest rate on external debt is quite low at around 1.7% (MoFEA 2014), domestic interest rates remain high in Gambia, which is the result of a constant crowding out of credit by the public sector (IMF 2015). Legal and institutional difficulties contribute to the elevated domestic interest rates. Currently, the yields of T-Bills are equal to 15.73% (91-day), 16.98% (182-day) and 20.17% (364-day). The rates of return on T-Bills and SAS bills follow the form of classical yield curves (see Figure 4-2).

Figure 4-2: Gambia - Yield Curves of T-Bills and Sukuk (2016)



Sources: Central Bank of the Gambia (2016), calculations by the Ifo Institute.

C) Policy Recommendations

Public debt management in Gambia needs to be improved although "efforts are underway" (IMF 2015, p. 9). The government has installed a public debt management office but still several institutions and committees are involved in debt management. The MTDS does not include numerical strategic targets and benchmarks regarding the risks the government's debt portfolio is facing.[15]

Domestic debt is confronted with high interest rate risk and refinancing risk because of short maturities. The government is advised to use more long-term debt instruments to lengthen the average time of maturity of domestic debt. The strong reliance of the government on borrowing from the banking sector gives rise to a crowding-out of private credit. The government is advised to take measures to develop the domestic debt market and diversify the creditor structure. It is recommended to strengthen market oriented practices and reduce debt at the central bank that currently holds about 37% of domestic debt.

External debt is influenced by the depreciation of dalasi. Monetary policy is likely to reduce the effect of depreciation on the national currency. The CBG needs to use the monetary policy tools

[15] Numerical targets are, however, included in the Annual Public Debt Bulletin.

under its control and manage the flexible exchange rate to lean against inflationary pressures (IMF 2015).

It is essential to rebuild fiscal buffers to sustain macroeconomic stability in Gambia. Budget restructuring is urgently needed including a strategy to overhaul public enterprises in the energy and telecommunication sectors to stem their demand on budget resources (IMF 2015). The government is encouraged to continue its efforts in improving supervision capacity to enhance financial stability (IMF 2015).

The quality of overall debt records is fairly good and relatively comprehensive but Gambia is recommended to improve the connection and the matching of the CBG and DLDM databases (PEFA 2015). Arrears are not systematically monitored and remained underreported (MoFEA 2015). So far no database for loan guarantees exists (MoFEA 2015) which gives rise to underestimated total public and publicly guaranteed debt.

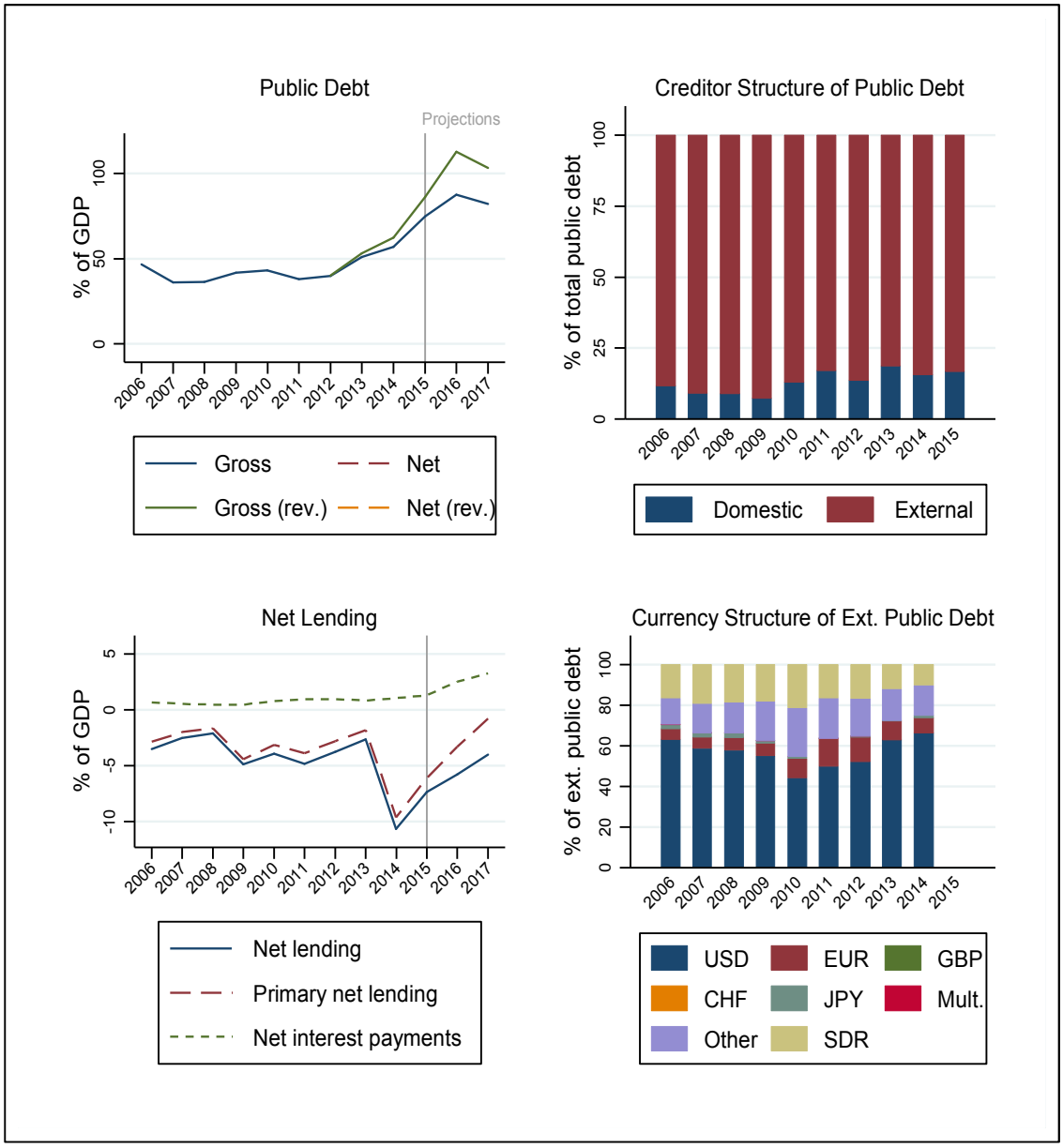
4.1.2 Republic of Mozambique

A) Public Debt Dynamics

While the Republic of Mozambique's general government debt ratio was relatively stable between 36% and 47% of GDP until 2012, debt has increased steadily after 2012 and currently equals about 86% of GDP (see Figure 4-3). One reason among others for the increase was the depreciation of the Metical (IMF 2016b). Net borrowing increased sharply to 10.7% of GDP in 2013 because of publicly guaranteed bond issued by the state-owned company EMATUM (AllAfrica 2016). In December 2015, the IMF (2015b) considered Mozambique's external debt level indicators to be close to a high risk rating. Mozambique's debt situation has become even more critical at the beginning of 2016 when the authorities of Mozambique admitted that an amount in excess of over $1 billion of external loans of two quasi-public companies granted in 2013 and 2014 had previously not been disclosed to the IMF (IMF 2016a, 2016b). Mozambique Asset Management (MAM), which is owned by 98% by the government of Mozambique, received a $535 million loan and Proindicus, a company intended to provide maritime security services and owned by half by the state, had been granted $622 million (IMF 2016c, IMF 2016a). Considering these contingent liabilities, the public debt level increased compared to previous estimations.

Following revelation of the undisclosed guarantees, the IMF stopped the disbursement of a $55 million loan and suspended lending, as the country had violated the terms of an agreement made in December 2015, in which the IMF had granted a $283 million rescue loan package under the condition that Mozambique fully discloses all borrowings and gives updates on any recognized changes related to public debt (Wernau 2016). The World Bank stopped any direct financial aid and held back any budgetary support. All major budget donors, including Sweden, the European Union, the United Kingdom and the African Development Bank, suspended their budget support, which amounted to $467 million for 2016 or 12% of total public expenditure (Wernau and Wirz 2016). Consequently, the IMF revised the debt data for Mozambique in October 2016: Including the loan guarantees, the debt-to-GDP ratio increased from 75% of GDP to 86% of GDP at the end of 2015 (IMF 2016c). Whereas the overall debt risk was considered to be *moderate* before the revelations, the IMF considers it to be *high* after. In June 2016, the IMF visited Mozambique to prevent a further deterioration of the economic performance and to evaluate the impact of the recently disclosed debt guarantees. The IMF also discussed measures to increase transparency and strengthen governance and accountability of the institutions responsible for public debt management (IMF 2016c).

Figure 4-3: Mozambique – Public Debt Dynamics



Sources: WEO (2016), IMF (2009, 2011, 2013, 2015b), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

The parliament authorizes the Ministry of Economy and Finance (MoEF) for borrowings and giving loan guarantees on behalf of the government by the annual approval of the state budget. Thereupon, the Cabinet Council develops the specific debt management strategy considering the trade-offs between expected cost, risks and other constraints. The Public Debt Unit (PDU) is responsible for executing the implemented strategy and reporting back to the Cabinet Council, which in turn reports back to parliament.

Managerial structure (incl. coordination with other policies)

After the DeMPA in 2008 (see World Bank 2008), Mozambique created a Public Debt Management Office (MEFMI 2016) and designed a general institutional framework. Most importantly, the debt management functions were shifted from the central bank to the MoEF. Today, the PDU, which is the main institution responsible for public debt management, is located within the National Directorate of Treasury at the MoEF. The PDU consists of three departments: The Loans Department, the Debt Strategic Planning Department and the Recording and Debt Service Department. Other institutions integrated in the debt management process are the National Directorate of Budget, the National Directorate of Public Accountability, the Mozambique Stock Exchange, the Ministry of Planning and Development and the Bank of Mozambique (*Banco de Moçambique)* (OECD 2014). The Bank of Mozambique serves as the government's agent in the debt issuance process (AFMI 2016).

In order to strengthen its debt management capacity further, the MoEF requested the Macroeconomic and Financial Management Institute of Eastern and Southern Africa (MEFMI) Secretariat for technical assistance for training staff in public debt management. A MEFMI team visited Mozambique in August 2016 to conduct workshops on "Foundations of Debt Management and Debt Management Performance Assessment (DeMPA)" (MEFMI 2016).

Debt reporting

The MoEF publishes annual debt reports, which include a cost and risk analysis of the public debt portfolio (IMF 2015b). Mozambique's debt sustainability analysis, the quality of debt recording and reporting, and the systems for contracting loans and issuance of guarantees were evaluated within a Public Expenditure & Financial Accountability (PEFA) Assessment in 2015 and received a good ranking grade (PEFA 2015). At that time, however, the hidden debt guarantees by the government had not yet been disclosed. Official documents do not include consistent information or analyses on contingent liabilities. Specific risk types, including risks from contingent liabilities, risks related to government's assets and liabilities, interest and exchange rate risks as well as environmental risks, are considered in recent fiscal reports but not fully quantified (IMF 2015a).

Debt management strategy (incl. risk management)

Mozambique created its first Medium-Term Debt Management Strategy (MTDS) for the years 2012-2015. Objectives of the MTDS were (MoEF 2012, pp. 12-13):

- Financing the activities of the government via credits;
- Ensuring debt service at the lowest possible cost consistent with minimizing risk;
- Maintaining debt sustainability over time;

- Contributing to the maintenance of stability and development of the financial sector;
- Promoting balanced and efficient functioning of financial markets;
- Contributing to poverty reduction.

In November 2015, Mozambique revised its public debt management strategy with technical assistance from the World Bank and the IMF. Key issue was the development of the domestic capital market (IMF 2015b). In order to provide a more efficient and transparent debt portfolio and minimize its costs, Mozambique developed a MTDS for the years 2015-2018, including the following objectives (MoEF 2015, p. 4):

- Identification of the type and size of contracted debt;
- Define priorities which should be considered when deciding on new financing;
- Identification and analysis of borrowing limits and indicators of debt sustainability;
- Minimizing the costs and risks of the debt portfolio;
- Establishing clear rules for new borrowings;
- Establishing institutional coordination mechanisms for the management of public debt.

Public debt management faces several challenges (see Table 4-2):

- Cost of debt: the weighted average interest rate was high at 9.5%, caused mainly by the high interest rates on domestic debt;
- Refinancing risk: more than 40% of domestic debt matures within one year;
- Interest rate risk: more than 70% of domestic debt has to be refixed within one year;
- Exchange rate risk: about 95% of Mozambique's debt is external.

Table 4-2: Mozambique - Cost and Risk Indicators for the Govt.'s Debt Portfolio (2014)

Type of risk	Risk indicator	Domestic debt	External debt	Total debt
Solvency	Nominal stock of public debt (Mio. $)	1102	7067	8173
	Nominal stock of public debt (% of GDP)	7	42	49
Cost of debt	Weighted average interest rate (in %)	9.5	1.8	2.9
Refinancing risk	ATM (years)	1.6	13.1	13.5
	Debt maturing in 1 year (% of total)	43.3	2.7	8.3
Interest rate risk	ATR (years)	1.1	13	12.6
	Debt refixing in 1 Year (% of total)	70.7	4.7	13.8
Exchange rate risk	FX debt (% of total debt)			94.5
	ST FX debt (% of reserves)			6.7

Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; ST = Short-term.
Source: MoEF (2015).

In order to ensure the medium-term debt sustainability, the strategy highlights the alignment of the available fiscal space with the project prioritization according to the Integrated Investment Plan (IIP), the State Budget and the Economic and Social Plan (PES). In particular, infrastructure projects under Public Private Partnerships (PPP) should be prioritized. Apart from that, foreign direct investment and the sale of public assets would strengthen private investment. Connected to debt management, the strategy considers the revenue side to be very important. By broadening the tax base, intensifying audit and inspection measures and by pushing forward the computerization of tax collection, greater efficiency in revenue collection could translate into revenue growth and smaller budget deficits (MoEF 2015). The strategy identifies various challenges regarding the implementation of the objectives, including

harmonizing public debt management with internationally recognized standards and procedures, and improving transparency of public fund and debt management (MoEF 2015).

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

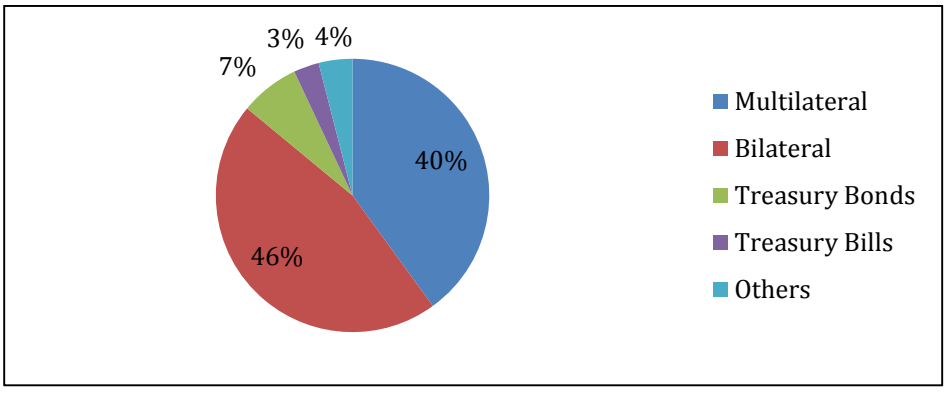
Mozambique uses T-Bills and T-Bonds traded via the domestic financial market. The market for T-Bills and repos is restricted to local investors. T-Bills are issued weekly with maturities of three, six and twelve months. Maturities for T-Bonds range between three and ten years. The Maputo Stock Exchange (*Bolsa de Valores de Moçambique*) also lists one perpetual bond (BVM 2016).

Mozambique has not yet issued Islamic bonds. Officials from the Bank of Mozambique participated at a workshop about Islamic finance, which was organized by the Islamic Research and Training Institute (IRTI) and held in February 2016 (IRTI 2016). During the workshop, Mozambique announced plans to introduce a legal framework for Islamic banking in the near future (IRTI 2016).

Domestic debt market

Mozambique's domestic financial market represents a small but growing sector of the economy. The banking industry is composed of 18 commercial banks, of which four foreign owned (Standard Bank, Millennium Bim, BCI and Barclays) dominate the market (AFMI 2016). Investors of T-Bills and T-Bonds are predominantly commercial banks, but also insurance companies and investment management companies. T-Bills and T-Bonds represent, however, only a small share of total public debt (see Figure 4-4).

Figure 4-4: Mozambique - Creditor Structure of Public Debt (2014)



Sources: MoEF (2015), calculations by the Ifo Institute.

Foreign borrowing

External debt represented 84.3% of total debt in 2015.[16] The dominance of external debt indicates a relative underdevelopment of domestic financial markets. As of 2014, 40% of Mozambique's public debt was held by multilateral creditors, among others the International Development Association (IDA), the Arab Bank for Economic Development in Africa (BADEA), the Islamic Development Bank (IDB), the European Investment Bank (EIB), the International

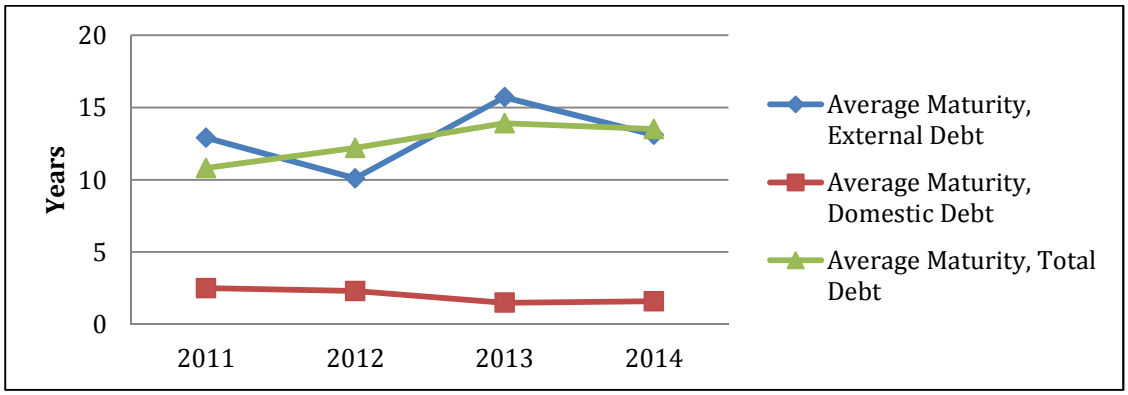
[16] Because of the undisclosed external loans, the share of external public debt is probably even higher.

Fund for Agricultural Development (IFAD), and the OPEC Fund for International Development (OFID). Bilateral creditors, which represent 46% of total central government debt, are for instance the Kuwait Fund, France, Russia, Romania, India, China, Nordea Bank, Libya, Iraq, Germany and Spain (OECD 2014). Most commercial creditors come from Brazil and China (OECD 2014).

The largest share of external debt is denominated in U.S. Dollar, which has decreased between 2006 and 2010 and increased again beyond 2010. The share of Euro-denominated debt, SDR and other currencies, however, decreased after 2010. As of 2014, U.S. Dollar denominated debt represents 66.3%, followed by other currencies (14.6%), Special Drawing Rights (10.3%) and Euro-denominated debt (7.7%). The remainder is debt denominated in Japanese Yen (1%).

The average maturity of external debt is much higher than the respective maturity of domestic debt (see Figure 4-5). Whereas the average maturity of external debt fluctuates between ten and sixteen years, the average maturity of domestic debt remained relatively stable between 2011 and 2014 ranging from 1.5 years to 2.5 years. With respect to total public debt, a positive trend in the average maturity can be observed.

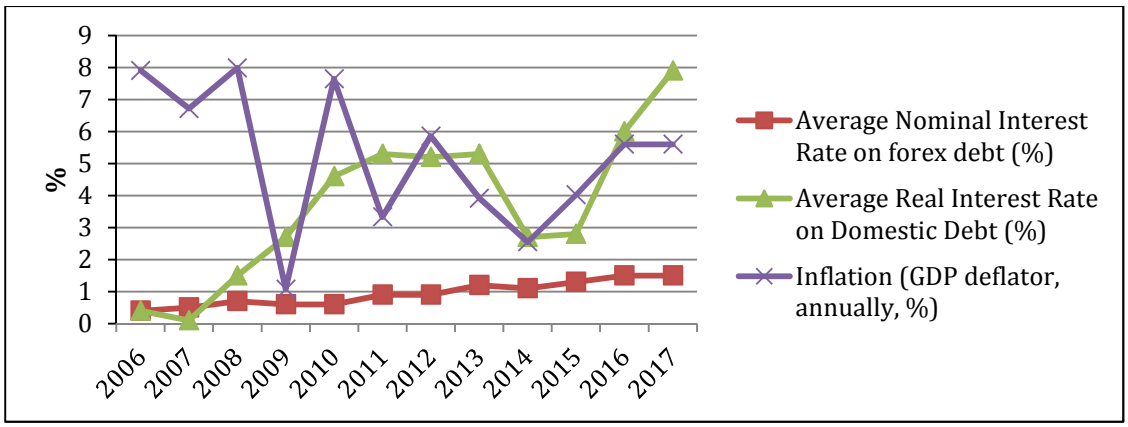
Figure 4-5: Mozambique - Average Maturity of Public Debt



Sources: MoEF (2012, 2015), calculations by the Ifo Institute.

The weakness of domestic debt markets is also reflected in interest rate developments. Whereas the nominal interest rate on forex debt increased slightly from 0.4% in 2006 to 1.5% in 2016, the average real interest rate on domestic debt increased in the same period from 0.4% to 6% (see Figure 4-6). The fluctuations in the interest rate can be attributed to the highly volatile inflation, which ranged from 1.1% to 7.9%, but also to the increasing interest rates, which the government had to pay on newly issued government securities. While the yields on government securities with a four year maturity increased from 7.5% in 2013 to 12.75% in 2016, the interest rates on 3 year government securities increased from 8.9% in 2013 to 11% in 2016 (BVM 2016). This increase is predominantly the result of the increased mistrust following the revelation of the previously undisclosed loans.

Figure 4-6: Mozambique - Interest Rates and Inflation



Sources: IMF (2009, 2011, 2013, 2015b), calculations by the Ifo Institute.

C) Policy Recommendations

Mozambique has made progress in improving public debt management frameworks in the last years. The Public Debt Management Unit at the Ministry of Finance is the main institution responsible for public debt management. The government has developed a medium-term debt management strategy that is published online. The targets of the debt management strategy remain, however, vague. There are no numerical targets regarding the risks the government's debt portfolio is facing.

Mozambique is exposed to high exchange rate risks because of the large share of external debt. Whereas authorities in Mozambique described the country's external debt as sustainable and the risk of debt vulnerability with respect to external shocks as moderate at the end of 2015 (IMF 2015b), the adverse effect of the U.S. Dollar appreciation on the debt-to-GDP ratio poses a higher risk in the light of the revelation of previously undisclosed loans. Developing a domestic debt market and increasing domestic borrowing could reduce the exchange rate risk.

Regarding domestic debt, the Mozambique is exposed to refinancing risk because the short average time to maturity and high share of debt maturing within one year, and interest rate risk because the average time to refixing is high and the share of debt to be refixed within one year is high.

Improving public disclosure and accountability is important, in particular following the revelation of undisclosed loans in 2016. Whereas the local authorities already pushed forward an investigation about the undisclosed debt through the Attorney General and a Parliamentary Inquiry Commission, an international independent audit of the affected companies could help restoring confidence. In the light of the recent revelations, it is even more important to tighten fiscal and monetary policies substantially and to ensure exchange rate flexibility, which is needed to restore macroeconomic sustainability and reduce inflationary pressures (IMF 2016c).

It is recommended to modernize the Revenue Authority in order to broaden the tax base and increase tax revenues, which would give rise to a reduction of the public deficit (IMF 2015b). Apart from that, Mozambique could create a fiscal risk unit responsible for evaluating all kinds of risks with respect to potential changes in key underlying macroeconomic assumptions and related to public and publicly guaranteed debt, PPPs and SOEs (IMF 2015b).

4.1.3 Republic of Togo

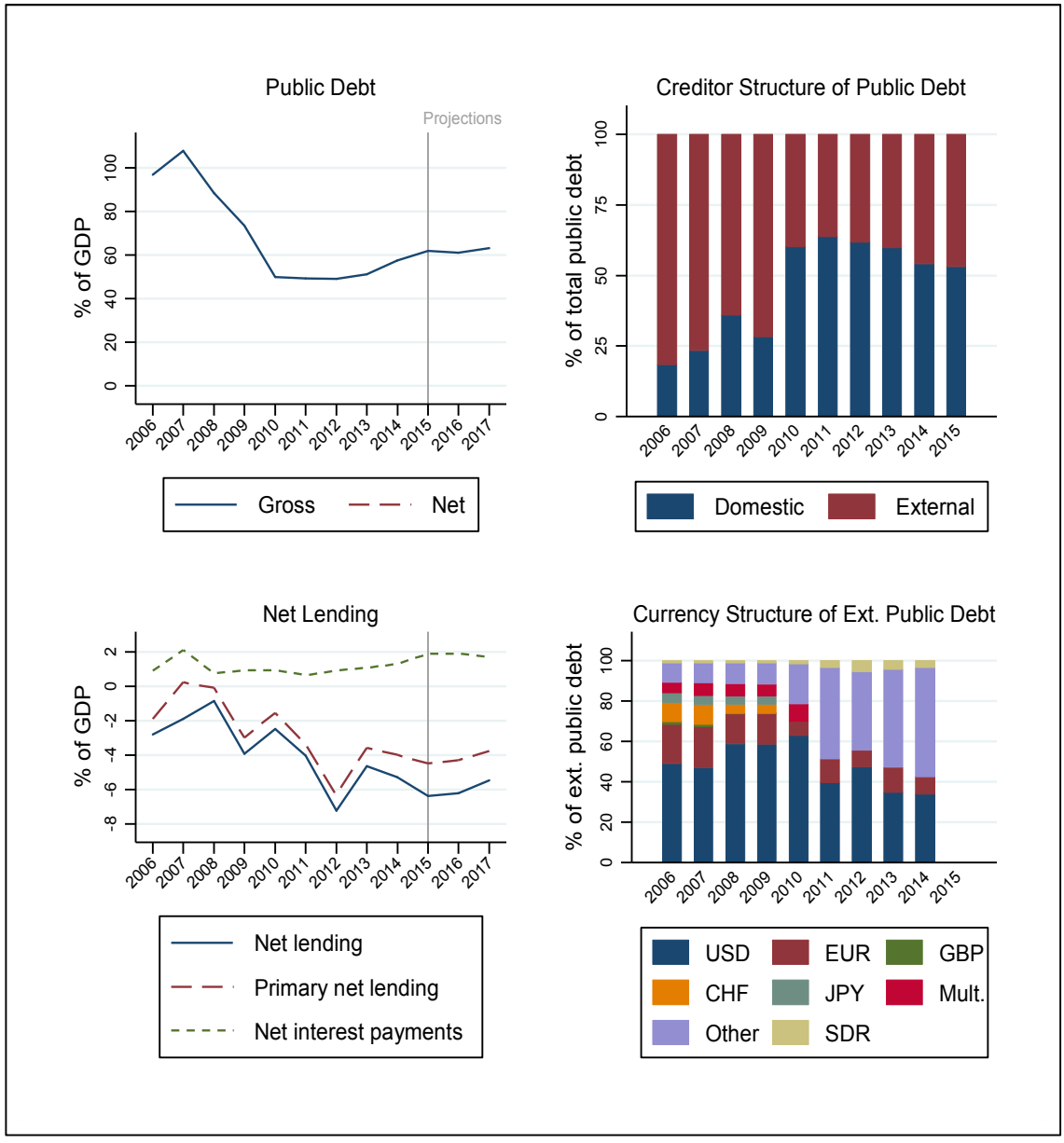
A) Public Debt Dynamics

After having reached a maximum general government debt ratio of 107.8% of GDP in 2007, the Togolese Republic's debt ratio significantly decreased to 49.3% by 2011 (see Figure 4-7). The debt reduction was mainly the result of debt reliefs under the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI) (IMF 2015c).[17] Recently, Togo's general government debt has risen to about 61% of GDP by 2016, largely caused by debt financed public investments accompanied by stagnating revenues (IMF 2015b). Although having a debt level still below the threshold of 70% set by the West African Economic and Monetary Union (WAEMU), Togo is facing debt and liquidity pressures (AFMI 2016, IMF 2015b). Togo has also faced problems arising from contingent liabilities, predominantly from guaranteed loans of state owned enterprises (SOEs), which gave rise to increasing debt levels when guarantees became due (IMF 2009a).

Togo's general and primary budget balances were negative in most years between 2006 and 2015. Whereas net borrowing narrowed up to 0.85% of GDP in 2008, the debt reliefs through the HIPC and MDRI gave room for fiscal expansion. Increased spending for public investments could not be offset by an increase in revenues because operations at the newly created Office of Togolese Revenue (OTR) did not start as early as provisioned (IMF 2015b). According to the government of Togo, infrastructure investments were necessary to stimulate private sector participation in the economy (IMF 2015b). Although current spending has been considerably reduced, except for the wage bill and oil price subsidies, the revenue shortfalls in privatization and cutbacks in donor budget support contributed to the debt accumulation in recent years (IMF 2015b). For the future, however, the IMF projects a narrowing of the net lending balance (see Figure 4-7).

[17] The HIPC, which had started in 2008, reached the completion point in 2010 and granted Togo a debt relief of about $270 million (8.5% of GDP) in terms of net present value (NPV) (IMF 2008). The MDRI debt relief from the International Development Association (IDA) and the African Development Fund (AfDF) contained $404 million (12.8% of GDP) in NPV terms.

Figure 4-7: Togo – Public Debt Dynamics



Sources: WEO (2016), IMF (2007, 2009b, 2011, 2013, 2015b), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

Public debt management in Togo is regulated in national and regional laws and decrees. Effectively, the President has delegated the primary legislation power to negotiate and sign international debt contracts to the Minister of Finance. Secondary legislation is conducted according to decree No. 2008-050 of May 7, 2008, entitling the Ministry of Finance to negotiate bilateral and international contracts with respect to finance and economy. Borrowing has to be approved by the Parliament (Art. 9). These rules are complemented by regulation no. 09/2007/CM/UEMOU of June, 22, 2007, which describes a set of debt management instruments and frameworks, including disclosure and coordination and control of policies.

The creation, organization and attributes of the *Comité National de la Dette Publique* (CNDP) are recorded in decree No 2008-067/PR of June 21, 2008. The CNDP is supposed to make statements about government bonds and securities. Enactment No 338/MEF/DGTCP/CAB says that all financial offers and demand have to be approved by the CNDP. The *Direction de la Dette Publique* (DDP) is responsible for the emission, management, as well as monitoring of guarantees.

Managerial structure (incl. coordination with other policies)

After the reorganization of the Ministry of Economy and Finance (MoEF) in 2013 and the reform of public finance management (MoEF 2016), the most important institution related to debt management is the DDP, which is located at the Treasury Department. The DDP actively manages the debt portfolio, provides legal advice on public funding agreements and is responsible for recording and maintaining all data related to public debt. Furthermore, it issues new debt, recovers matured debt and monitors the debt service (PEFA 2016). The DDP also examines together with the CNDP all internal and external finance requests that concern the resources of the state. The CNDP was created in 2008 in order to develop, coordinate and monitor the implementation of the national public debt policy and management. Furthermore, the CNDP is responsible for ensuring the coherence of that policy with development goals and the financial capacity of the state (PEFA 2016).

The Central Bank of the States of West Africa (BCEAO), which serves as the central bank for the member countries of the West African Economic and Monetary Union (UEMOA), delivers the material organization of auctions on behalf of the MoEF (AFMI 2016).

Debt reporting

The CNDP has published the "Analyse de la Viabilite de la Dette du Togo" including short- and long-term debt developments projections based on different macroeconomic scenarios (CNDP 2015). The debt management strategy document (*Rapport de Stratégie d'Endettement*) includes statistics of debt developments and debt structures. This document is, however, not published online and only available in paper form.

Debt management strategy (incl. risk management)

The MoEF considers the reduction and restructuring of public debt as a key priority on their agenda (MoEF 2014). The DDP prepares an annual debt management strategy, which has to be supported by the CNDP and which includes domestic and external public debt (PEFA 2016).

Generally, the authorities plan to improve the use of resources for project financing and development and pursue a prudent debt policy primarily based on the mobilization of grants and concessional external financing and the development of the government securities market with long maturities. To ensure the proper implementation of the strategy, the government strives to respect the commitments made with regard to the development of the domestic financial market and the commitments in the framework of the pact of convergence, stability, growth and solidarity between the member states of the UEMOA.

The public debt management strategy for 2015 aimed at using concessional and semi-concessional external borrowing and gradually extending the maturity of domestic debt instruments to reduce the portfolio's exposure to refinancing risk. The average time to maturity of domestic debt was, however, still short with 3.2 years in 2015 (see Table 4-3). To cover refinancing needs, the debt management strategy of 2016 set the objective of using concessional and semi-concessional external borrowing (target creditors are, among others, BOAD, AfDB/ADF, IDA, IFAD BADEA, IDB, Kuwait Fund, Saudi Fund, China, China EXIM Bank and India EXIM Bank) and domestic borrowing with a maturity of three to ten years (MoEF 2015).

Table 4-3: Togo - Cost and Risk Indicators for the Government's Debt Portfolio (2015)

Type of risk	Risk indicator	Domestic debt	External debt	Total debt
Solvency	Nominal public debt (mio $)			
	Nominal public debt (% of GDP)	29.3	17.3	46.7
Cost of debt	Average interest rate (in %)	4.6	1.6	3.3
Refinancing risk	ATM (years)	3.2	9.1	5.7
	Debt maturing in 1 year (% of total)	29.2	5.4	18.9
Interest rate risk	ATR (years)	3.2	9.1	5.7
	Debt refixing in 1 Year (% of total)	29.2	5.4	18.9
	Fixed rate debt (% of total)	80.3	100.0	88.8
Exchange rate risk	FX debt (% of total debt)			43.1
	ST FX debt (% of reserves)			3.9

Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; ST = Short-term.
Source: MoEF (2016).

To increase the mobilization of tax resources the performance of the Office of Togolese Revenue is supposed to improve. The government also strives for signing a program with the IMF and improving the quality of its policies and institutions to benefit from IDA resources and donations from other partners.

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

Togo uses both T-Bills and T-Bonds for domestic financing. T-Bills are available with maturities of seven days, one month, three months, seven months, one year and two years (AFMI 2016). The nominal value of T-Bills is set at XOF[18] one million (about $1,707) or a multiple of this amount (AFMI 2016). T-Bonds have maturities between two and seven years. Their nominal value is equal to XOF 10,000 (about $17) or a multiple of this amount (AFMI

[18] Togo's currency is CFA-Franc BCEAO (Franc de la Communauté Financière d'Afrique, XOF) (BCEAO 2016).

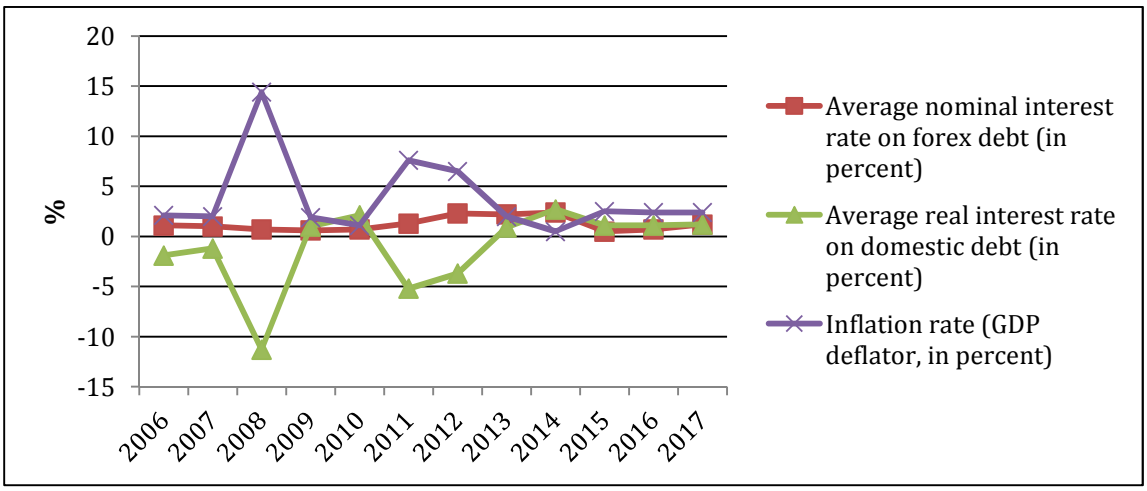
2016). T-Bills are mostly bought by banks and other financial institutions, predominantly by WAEMU commercial banks (IMF 2015a). The secondary bond market is underdeveloped as the banks pursue mainly a "buy & hold strategy". Although T-Bonds can be traded over-the-counter (OTC) like T-Bills, they are predominantly traded at the Regional Bond Exchange (BRVM) of the West African states (AFMI 2016).

Whereas T-Bonds and T-Bills are predominantly used to finance the deficit, Togo also uses external loans to finance public enterprises and public investments. For instance, in 2012 Togo signed funding agreements worth $194 million with the Islamic Development Bank (IDB). The money is supposed to be used for financing road construction, improvements in the educational system and electrification of rural areas (News Ghana 2016).

Between 2006 and 2014 nominal interest rates on foreign debt ranged between 0.6% and 2.4% (see Figure 4-8). Whereas interest rates have been quite low since 2006, they started to rise after 2010 as a result of the increase in commercial bank's share in external government debt (see Figure 4-9). Debt from official creditors is typically contracted at lower interest rates than loans from commercial creditors. Due to the strong fluctuations in the inflation rate, real interest rates were partly negative. Whereas inflation equaled 14.4% in 2008, the inflation rate declined over the years and is expected to stabilize at around 2.5%.

In 2016, Togo issued its first sovereign *sukuk* bond with a maturity of ten years and a rate of return of 6.5%. The transaction covered XOF 150 billion, which equals $251.4 million (Zodzi and Peyton 2016).[19]

Figure 4-8: Togo - Interest Rates and Inflation



Sources: IMF (2007, 2009b, 2011, 2013, 2015b), calculations by the Ifo Institute.

Domestic debt market

The structure of Togo's public debt has changed strongly between 2006 and 2015 because of the debt reliefs under the HIPC and the MDRI. While in 2006 the share of domestic debt equaled 18.5%, this share has increased to 53.1% by 2015 (see Figure 4-7). Togo managed to

[19] The issuance was organized by the Islamic Corporation for the Development of the Private Sector (ICD) and the lead auditor was Deloitte Togo. Togo received management assistance from the Africaine de Bourse, Atlantique Finances, BOA Capital Securities SA, Coris Bourse, EDC Investment Corporation and SGI Togo (Owermohle 2016).

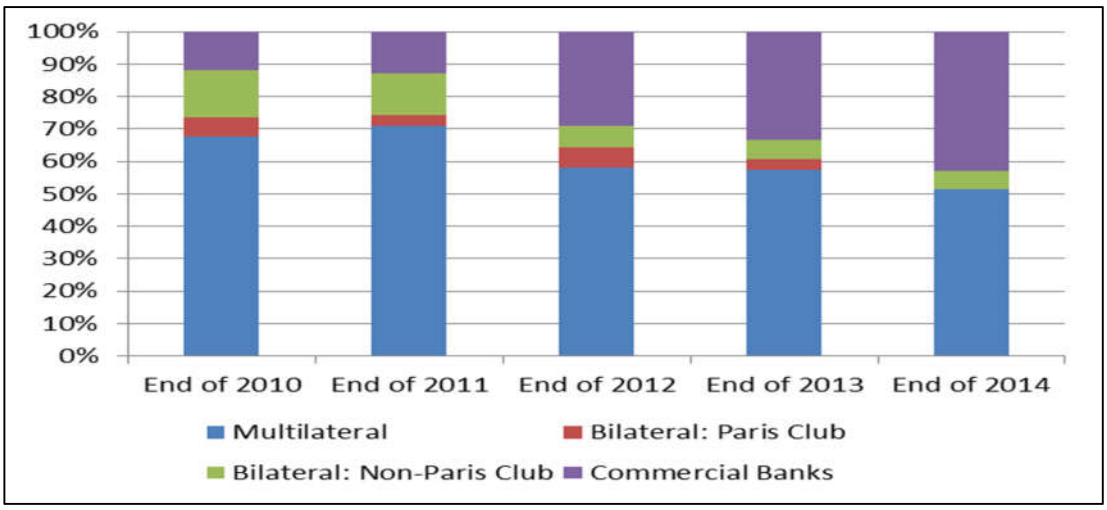
reduce domestic debt arrears from around 18% of GDP in 2010 to 11% of GDP in 2014. At the same time, the amount of outstanding T-Bills and T-Bonds doubled from 9.2% of GDP (2010) to 18.4% of GDP (2014), which are the highest ratios within the WAEMU. Because of the increasing use of domestic borrowing instruments with short-term maturities (T-Bills), Togo's rollover and refinancing risks have increased (IMF 2015b).

The government intends to support the expansion of the domestic debt market through (i) regular and predictable bond emissions; (ii) transparency and adherence to emission schedules; (iii) regular presence on the market for cash management operations; (iv) almost exclusive reliance on the issuance of government securities by invitation to tender for the mobilization of resources programmed in the budget; (v) soliciting individuals, pension funds and insurance companies in the public securities issuance operations because share of government securities held by these investors is low and (vi) intensification of actions for actual operation of the secondary market (MoEF 2016).

Foreign borrowing

External debt currently represents about 46.9% of total debt. The creditor structure of central government external debt changed strongly as a consequence of the debt relief. The share of multilateral external debt decreased from around 68% of total external debt in 2010 to 51% in 2014 (see Figure 4-9). The share of central government external debt from commercial banks increased significantly from 11.8% in 2010 to 42.9% in 2014. As loans from commercial banks are typically contracted at less favorable conditions than loans from official creditors, pressure on Togo's external debt has increased (IMF 2015b, 2015c). Through the debt reliefs, both the share of bilateral debt from Paris-Club creditors and from Non-Paris Club creditors has decreased significantly. External debt from Paris-Club creditors has fully vanished until 2014. Besides, liabilities of state-owned enterprises, which are not considered in Figure 4-9, represent around 11% of the total general government debt.

Figure 4-9: Togo - Creditor Structure of External Public Debt



Sources: IMF (2015c), calculations by the Ifo Institute.

The currency structure of Togo's external general government debt changed significantly between 2006 and 2014 (see Figure 4-7). The share of Dollar-denominated debt increased from 48.9% to 63%. Afterwards, however, the share of Dollar-denominated debt declined

steadily to 33.9% in 2014. The share of all other currencies increased from 9.8% to 54% in that period. Recently, the importance of Special Drawing Rights (SDR) has risen, while the Swiss Franc and the Japanese Yen disappeared completely in 2011. The share of Euro-denominated debt shows also a negative trend and equaled 8.7% in 2014. The high share of external debt denominated in foreign currencies exposes Togo to exchange rate risks (IMF 2015b).

C) Policy Recommendations

Togo is advised to strengthen and improve public debt management in particular data collection, disclosure and risk analysis. Furthermore, the role of the DDP and the CNDP may well be strengthened. Staff is recommended to be trained adequately to increase the efficiency of debt and treasury cash management. Apart from that, it is important to improve public disclosure of debt data and relevant strategic. For instance, the annual debt management strategy is currently not publicly available. T-Bonds and arrears should be included in the government's classification of public debt (IMF 2015b). Domestic arrears ought to be cleared.

To reduce the debt level, Togo is recommended to implement key reforms to improve the fiscal balance. Reforms include reducing fuel subsidies and increasing the efficiency of public investment expenditures. The underdevelopment of the financial sector such as the relatively lax single large exposure limit and the large amount of illegal financial institutions engaged in microfinance activities also need to be addressed (IMF 2015b).

Togo faces several risks considering the structure of public debt. The large share of foreign currency debt exposes Togo to exchange rate risks. The increasing use of domestic borrowing instruments with short-term maturities increases Togo's refinancing risk. These issues should be addressed within a prudent debt management framework. The government is therefore recommended to develop a medium-term debt management strategy following international guidelines. The current annual debt management strategy lacks some important elements. The strategy does not take into account outstanding T-Bills and risks that may result from pre-financing agreements (PEFA 2016).

4.1.4 Republic of Uganda

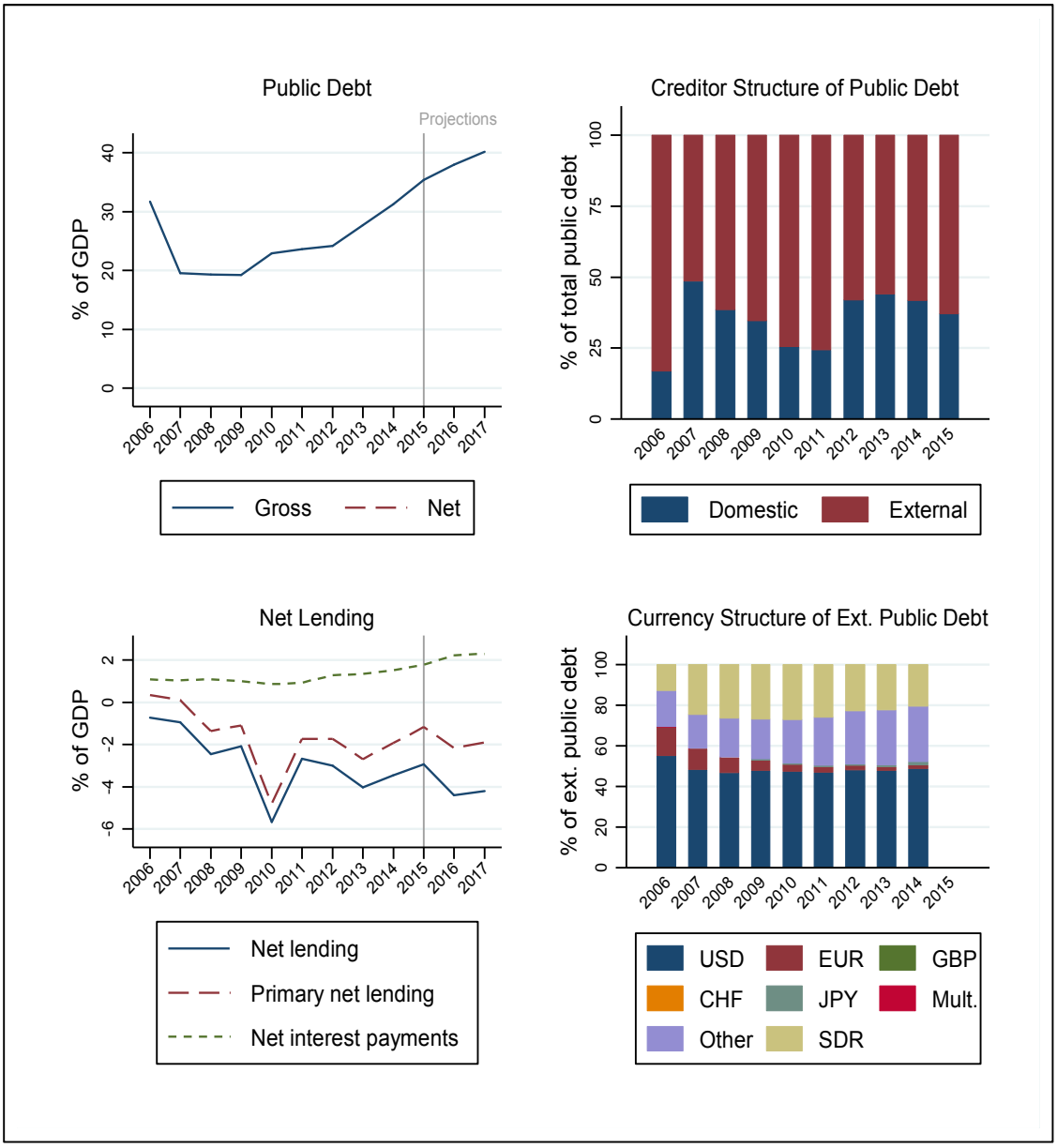
A) Public Debt Dynamics

Between 2006 and 2007, the general government gross debt of the Republic of Uganda decreased from 31.7% of GDP to 19.6% of GDP (see Figure 4-10), which can be attributed to delayed effects of the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI), which started in 1998 (IMF 1998).[20] In 2009, Uganda's debt-to-GDP ratio began to increase steadily from 19.2% to around 35.6% in 2015, which was mainly attributed to borrowing used to finance public investment projects (IMF 2015b). Contingent liabilities constitute about 13.7% of GDP (MEFMI 2015). Projections show that the general government debt level will further increase to around 40.2% in 2017. The IMF, however, forecasts that Uganda's general government debt distress will remain manageable in the future as it is expected to remain well below precarious benchmarks (IMF 2015a).

General government net lending balance has always been negative since 2006. Reaching a level of 5.6% of GDP in 2010, net borrowing reflects funding of infrastructure investments (IMF 2015a). As a result of tightened spending control measures and improved revenue collection, the net borrowing balance decreased to around 3.0% of GDP in 2015 (IMF 2013, 2015). Beyond 2015, however, net borrowing is expected to increase to 4.4% of GDP in 2016 as a result of scheduled public investments. In particular, the authorities plan to continue upgrading the infrastructure network, which is mainly funded by non-concessional borrowing (IMF 2015b). The investment package is expected to include expenditures on hydropower plants, transmission networks, roads and pipelines in preparation to the envisaged commencement of large-scale oil production (IMF 2015b). Major creditors are the China EXIM Bank, the Japan Bank for International Cooperation, and the Islamic Development Bank (IMF 2015b). Net interest payments have increased steadily from around 1.1% in 2006 to 1.8% in 2015, a trend which is expected to continue.

[20] Total MDRI support released in 2005/06 and 2006/07 totaled to $3.6 billion (IMF 2008).

Figure 4-10: Uganda – Public Debt Dynamics



Source: WEO (2016), IMF (2008, 2013, 2015), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

According to the Public Finance Management Act 2015, the Minister of Finance is the sole responsible authority for raising money by loans and issuing guarantees for and on behalf of the government in order to finance the budget deficit, for the management of monetary policy, to obtain foreign currency, for on-lending to approved institutions, and for defraying an expenditure which may lawfully be defrayed (PFMA 2015, Article 36).

The accountability of the Minister of Finance is ascertained by the so-called Budget Code, which requires the Ministry of Finance, Planning and Economic Development (MoFPED) to present information regarding guarantees of loans and grants to the Ugandan parliament (MoFPED 2013). As specified by the Constitution of Uganda, the parliament is responsible for approving new loans (Constitution of Uganda 1995, Article 159). Moreover, the management of public debt is evaluated by the Office of the Auditor General (OAG 2015).

Uganda has a legislation on contingent liabilities, especially those arising from state guarantees, and established a unit within the Ministry of Finance to manage contingent liabilities. Furthermore, the parliament has to authorize guarantees. This process is implemented in the national constitution (MEFMI 2015). *Managerial structure (incl. coordination with other policies)*

The Minister of Finance is authorized to secure loans by issuing government bills, government bonds or any other appropriate financing method, including but not limited to a fluctuating overdraft (PFMA 2015, Art. 36). Furthermore, the MoFPED is responsible for directing and organizing the public debt management system, "including policy formulation, regulation and mobilization of resources as well as establishment of a legal framework to govern public debt functions" (OAG 2015, p. 11).

In any event, the responsibilities for debt management duties within the MoFPED remain relatively vague (OAG 2015). In the past, various independent divisions of the MoFPED considered themselves responsible for different areas of the debt management process, combined with a partly improvable communication between the different entities. A centralization of debt management functions has been planned since 2013, but has been delayed until recently due to missing approval of the new MoFPED structure by the Ministry of Public Service (MoFPED 2013, OAG 2015). However, all debt management functions are now centralized in the *Directorate of Debt and Cash Management*, which integrates front office functions (i.e. debt issuance), middle office functions (i.e. research and analysis) and back office functions (i.e. settlement, drawdown and recording) (OAG 2015, MoFPED 2013).

Other institutions such as the Bank of Uganda (BoU), the Office of the Accountant General and line ministries support the MoFPED in the debt management process (MoFPED 2013). For example, the BoU serves as an advisor to the government and is responsible for the determination of "the type of domestic debt to issue, the asset mix, the calendar, the volumes to be issued and issuing of domestic debt in a given year" (OAG 2015, p. 11). The Office of the Accountant General keeps the records of both domestic and external public debt levels and executes debt service payments and loan drawdown (OAG 2015).

Although the BoU supports the MoFPED in the area of debt management, it conducts monetary policy separately from the fiscal policy of the government. Whereas the BoU uses predominantly repos and reverse repos for monetary policy purposes, the proceeds from

primary issuance of securities for monetary policy are deposited in a separate, blocked account to which the government does not have access (MoFPED 2013).

Debt reporting

Each year, the Minister for Finance, Planning and Economic Development presents to parliament a report on the state of Ugandan public debt, grants and guarantees that includes a detailed description of the structure of the debt portfolio (see, for example, MoFPED 2014, Republic of Uganda 2015, 2016). The debt strategy document also includes statistics and cost and risk analysis of the existing debt portfolio (MoFPED 2016). Both documents are published online.

Debt management strategy (incl. risk management)

The objective of the government concerning public debt management is to "meet the Government's financing requirements at the minimum cost, subject to a prudent degree of risk, (…) ensure that the level of public debt remains sustainable, over the medium and long-term horizon while being mindful of the future generations and (…) promote the development of the domestic financial markets" (MoFPED 2016, p. 8-9).

The Public Debt Management Strategy (PDMS) is prepared by the MoFPED in collaboration with the Bank of Uganda. The government considers prudent public debt management to be an important policy field as the government's debt portfolio can have a huge impact on the overall economy (MoFPED 2016). The PDMS 2016-2021 includes an assessment of the cost and risk characteristics of the current debt portfolio and compares the respective indicators with the benchmark objective values (see Table 4-4). Finally, it presents the medium-term guidelines for public debt management.

Table 4-4: Uganda - Cost and Risk Indicators of the Government's Debt Portfolio

Type of risk	Risk indicator	June 2015	June 2016 (estimated)	2020 (projections)	Indicative Constraint
Solvency	PV of debt (% of GDP)	23.6%	27.2%	34.5%	Less than 50%
	PV of external debt (% of GDP)	10.3%	16.3%	-	Less than 30%
	PV of domestic debt (% of GDP)	13.4%	10.9%	-	Less than 20%
Cost of debt	WAIR (%)	4%	4%	-	Max. 6%
	External debt WAIR (%)	1%	1%	-	Max. 2%
	Domestic debt WAIR (%)	8.3%	8.3%	-	Max. 16%
	Interest payments (% of GDP)	1.3%	1.2%	2%	Less than 2%
Refinancing risk	Debt maturing in 1 year (% of total)	22.4%	14.1%	9.3%	Max. 15%
	ATM external debt (years)	18.7	16.8	13.2	Min. 15-years
	ATM domestic debt (years)	2.8	3.9	3	Min. 3-years
	ATM total debt (years)	12.2	11.9	11.3	Min. 3-years
Interest rate risk	ATR (years)	12.2	11.6	11.1	Min. 10-years
Exchange rate risk	FX debt (% of total)	59.2%	62.1%	80.8%	Less than 80%

Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; PV = Present value; FX = Foreign exchange; ST = Short-term; WAIR = Weighted average interest rate.
Source: MoFPED (2016, p. 24).

The average time to refixing (ATR) is expected to decrease from 12.2 years in 2015 to 11.6 years in 2016, mainly due to new external debt contracted on variable interest rates. Interest rates remain moderate as the portfolio is constituted of a large share of long-term concessional loans with fixed interest rates (MoFPED 2016). Higher concerns arise with respect to refinancing risk. The average time to maturity (ATM) is expected to decline from 12.2 years in 2015 to 11.9 years in 2016 (see Table 4-4). This follows from the changes in the external debt portfolio, too. Another indicator for a slightly increased refinancing risk is the share of debt which matures within one year. With 22.4% in 2015, this share lies far above the benchmark of 15%. However, it is only considered to be a short-lived problem, as the country faces a single peak of debt which matures in 2016. Due to the relatively high share of debt denominated in foreign currencies, the exchange rate risk remains present. The PDMS mentions explicitly the vulnerability concerning U.S. Dollar denominated debt, which represents the largest share of external debt (see also Figure 4-10).

For the next years, the PDMS outlines an expansionary fiscal policy to finance the large amount of infrastructure projects, which are expected to drive growth in the medium and long-run (MoFPED 2016). Most of the investments will be financed by foreign sources. Although concessional loans are preferred, non-concessional loans are probably necessary in the medium term given the external finance constraints of Uganda. However, they will be only used if the expected return on the financed projects substantially outweighs the financing costs of the loan (MoFPED 2016). Other restrictions indicate that loans for social service delivery and development have to be contracted on highly concessional terms (grant element < 50%), while productivity enhancing investments can be contracted on less concessional terms (grant element < 35%).

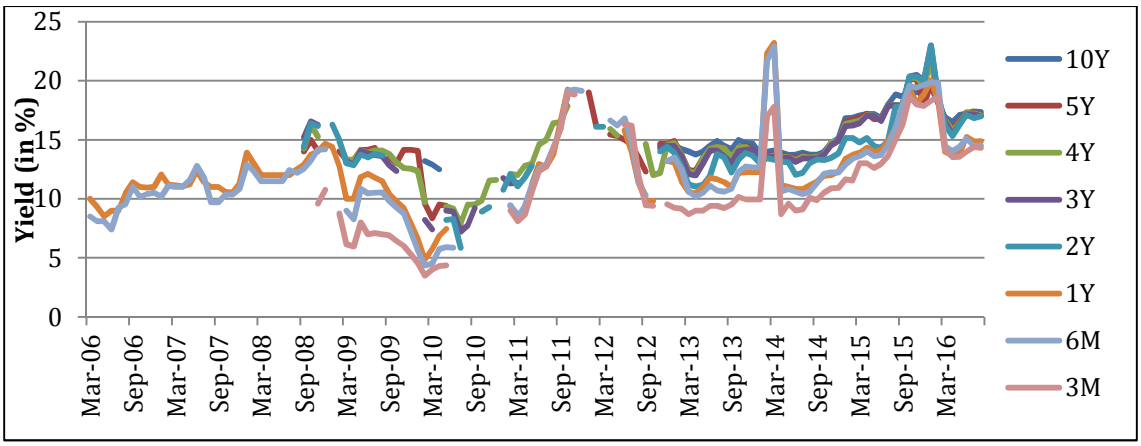
Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

Currently, the BoU issues T-Bills with maturities of 91, 182 and 364 days (AFMI 2016). Treasury securities are issued for the purpose of cash and liquidity management, which not only helps to separate monetary from fiscal policies, but also encourages the overall development of the domestic financial sector (MoFPED 2013). Treasury securities are held predominantly by commercial banks (45.8% at the end of 2014) followed by pension funds (24.8%) and offshore investors, which account for 13.2% (AFMI 2016). T-Bonds are available with maturities of two, three, five and ten years (AFMI 2016). In 2013, a first 15-year bond was issued, which reflects the goal of the government to lengthen maturities (Ojambo 2013). In 2014, there were considerations to issue a $ 1 billion bond in the Eurobond market (Giokos and Ojambo 2014). However, these plans were suspended due to the stronger U.S. Dollar, which has made it more expensive for Uganda to borrow in Dollar-denominated debt (Ojambo 2015). However, there are no restrictions for the participation of foreign investors in the domestic bond market (AFMI 2016).

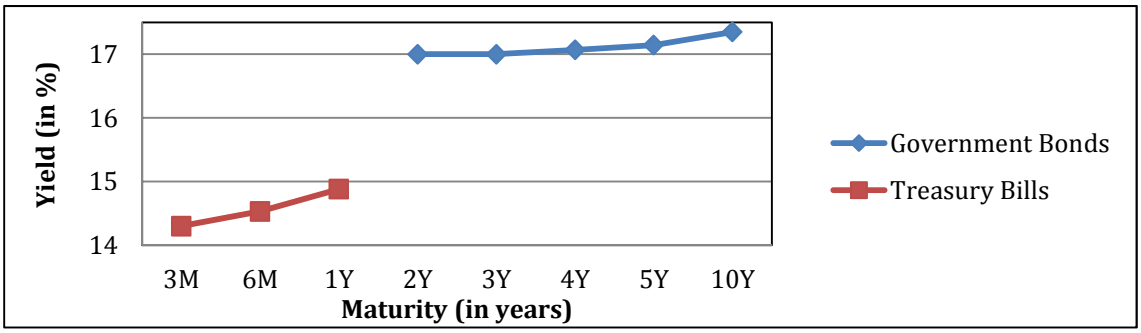
The yields on T-Bonds and T-Bills have been on an upwards sloping trend since 2006 (see Figure 4-11). For instance, the yield on the one-year T-Bill increased from around 10% in 2006 to 14.9% in August 2016. This raise in interest rates can be attributed to the increasing general government debt levels (see Figure 4-10). During the first quarter of the financial year 2015/16, some issuances were highly undersubscribed, which forced the government to borrow cautiously from the domestic market and might have been the trigger for the increase in yields in 2015 (MoFPED 2016). As of August 2016, both the yield curve of T-Bonds and T-Bills exhibited the classical expected form, which means that debt with longer maturities has higher yields (see Figure 4-12).

Figure 4-11: Uganda - Yields on T-Bonds and T-Bills



Source: Investing (2016), calculations by the Ifo Institute.
Note: Due to missing data some graphs might not be continuous.

Figure 4-12: Uganda - Yield Curves of T-Bonds and T-Bills (2016)



Source: Investing (2016), calculations by the Ifo Institute.

Although the history of larger-scale Islamic banking in Uganda can be traced back to 2008, when the BoU first received an application from an institution that wanted to operate as an Islamic bank, the BoU legalized the roll out of Islamic banking products only recently (The EastAfrican 2016). With the Financial Institutions (Amendment) Bill, Uganda set the rules for Islamic banking in Uganda, for instance the creation of key governance structures such as a *sharia* advisory board (The EastAfrican 2016). The Bill also allows the government to issue *shariah*-compliant bonds and the creation of a special Islamic index on the Uganda Stock Exchange (Mugerwa 2016). As part of the Rural Income and Employment Enhancement Project, the state-run Microfinance Support Centre (MSC) plans to start Islamic Micro-Finance Loans by 2017 (Ojambo 2016).

Domestic debt market

Between 2006 and 2015, domestic debt represented less than 50% of total general government debt (see Figure 4-10). Due to the HIPC and MDRI debt relief, which cancelled a large amount of external debt, the share of domestic debt increased from 16.9% in 2006 to 48.4% in 2007. Between 2007 and 2011, however, the share of domestic debt decreased steadily to 24.2% which can be attributed to new external borrowing used to finance several infrastructure projects (IMF 2015a). The share of domestic debt has increased once again to

39.4% in 2015. This increase reflects the efforts of Uganda to diversify funding sources through the development of the domestic debt market, which has been accompanied by the issuance of marketable securities for central bank recapitalization (IMF 2015b). Increasingly, foreign investors have participated in the domestic debt market. They held around 13% of local-currency denominated government securities in 2014 (IMF 2015b). T-Bills accounted for 34% and T-Bonds for 66% of the domestic debt stock in 2015.

Foreign borrowing

External debt consists mainly of concessional long-term loans (MoFPED 2016). New external public debt commitments have an average time to maturity (ATM) of around 36 years. As of end 2015, the major external creditor of Uganda is the International Development Association (IDA), which accounted for 56% of total external public debt (MoFPED 2016). The African Development Fund (ADF) was the second-largest creditor with around 21% followed by China (10%), whose share has increased significantly since 2006 (MoFPED 2016, IMF 2015b). The International Fund for Agricultural Development held 4% of the external debt, while other multilateral creditors also accounted for a share of 4%. The remainder consisted of other bilateral creditors (3%) and the Japan International Cooperation Agency (2%).

The currency composition of external debt, which had remained relatively stable between 2006 and 2014, is dominated by the U.S. Dollar (see Figure 4-10). Its share accounted for 48.7% of total external debt in 2014. Due to the high share of IDA debt, the share of SDRs hovered around 20.8%. The remainder consisted of other currencies such as Euro (1.8%) and Japanese Yen (1.5%).

C) Policy Recommendations

Although Uganda managed to improve its legal and institutional framework concerning debt management, the MoFPED still encounters itself in the process of restructuring. Apart from bringing this process to an end, it is important to strengthen the revenue side to take pressure from public borrowing. The tax performance remains improvable. Thus, Uganda is advised to continue working on an effective tax policy and remove deficiencies in data integrity (IMF 2015a).

In order to improve competition and the growth of the secondary market, Uganda might introduce a real-time reporting of bid and offer prices, and foster a greater incorporation of electronic trading (OAG 2015). It is important to broaden investor's participation by lowering barriers (OAG 2015).

Domestic arrears are recommended to be considered in the debt management strategy and in the detection of contingent liabilities (MoFPED 2016). With respect to guaranteed loans, Uganda is advised to strengthen monitoring and compliance systems to mitigate the risk of default (OAG 2015).

With respect to the debt portfolio, Uganda might intensify its effort to stay within the set parameter limits. In particular, the relatively short average maturity of domestic debt and the relatively high debt service-to-revenue ratio is important to be monitored carefully (IMF 2015a). Moreover, the government is advised to ensure that external public debt does not exceed 80% and could prefer longer-term debt instruments over T-Bills to even out the maturity profile and reduce the risk for refinancing (OAG 2015, MoFPED 2016).

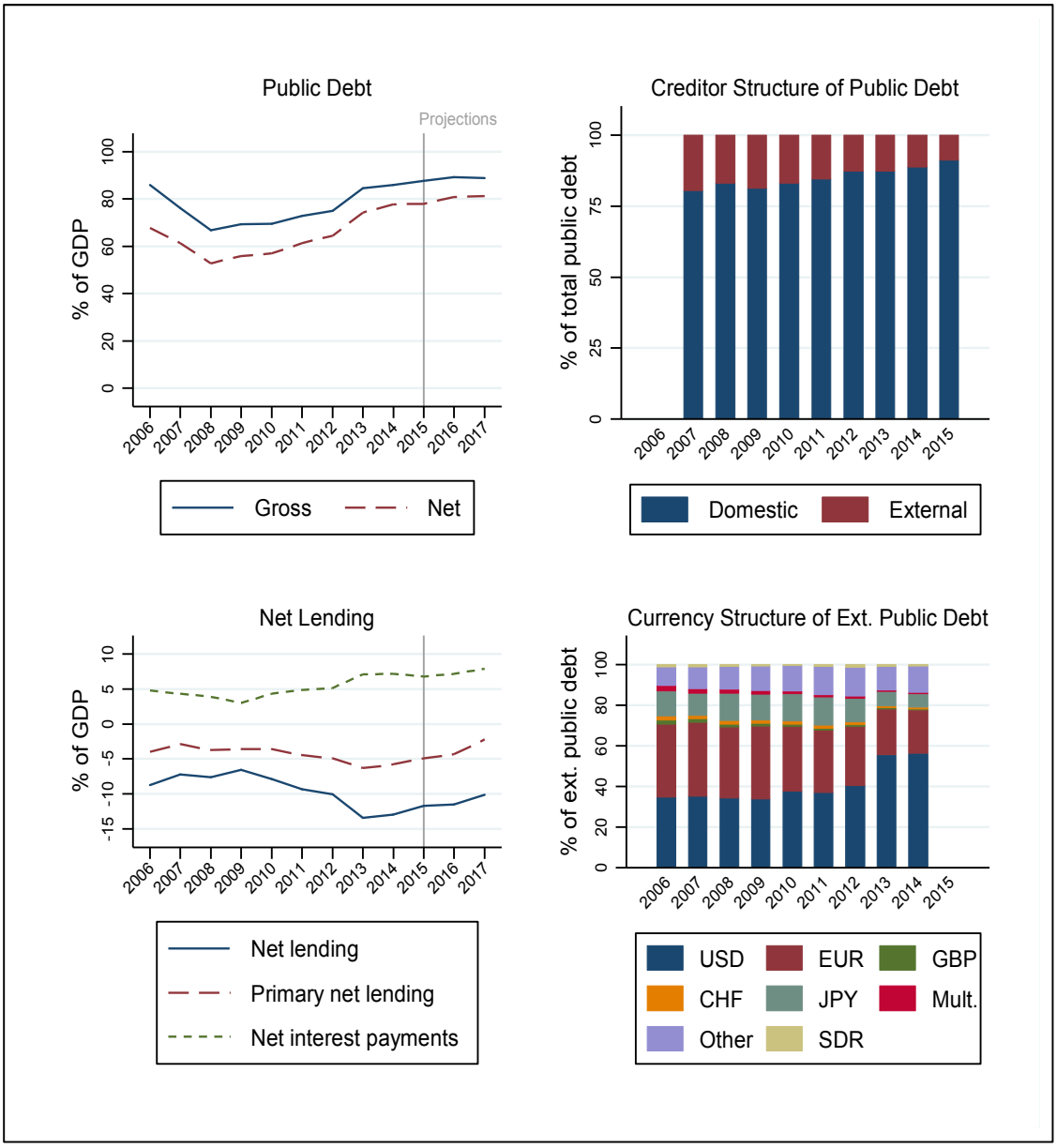
4.1.5 Arab Republic of Egypt

A) Public Debt Dynamics

The Arab Republic of Egypt has experienced relatively high levels of general government debt in the last decades. While the government managed to reduce the debt level before the outbreak of the global financial crisis, general government debt has increased from 66.8% to 87.7% of GDP between 2008 and 2015. The increase in debt is expected to slow down, bringing the debt-to-GDP ratio to 88.8% in 2017. Net general government debt amounted to about 78% of GDP in 2015 (see Figure 4-13).

Since 2006, Egypt's budget balance has been negative (see Figure 4-13). Increasing expenditures for public wages, interest payments, subsidies and public investments accompanied by falling tax revenues after the outbreak of the revolution, gave rise to a strong increase in deficits between 2011 and 2013. In 2013, net borrowing amounted to 13.4% of GDP because of a revenue shortfall in the petroleum sector and two economic stimulus programs including public spending for infrastructure and social welfare. Interest payments are high, amounting to about 6.8% of GDP in 2015. Since 2014, the government has introduced fiscal consolidation measures to reduce the deficit, such as subsidy cuts, tax reforms and the reduction of public wages (IMF 2015). Since 2013, Egypt has received support from Saudi Arabia, the United Arab Emirates and Kuwait to stabilize the economy. Aid came both in kind, mainly oil shipments, as well as in cash grants and deposits in the Central Bank of Egypt (Reuters 2015). In August 2016, the Egyptian government, the Central Bank of Egypt and the IMF reached an agreement on a three-year Extended Fund Facility (EFF) of about $12 billion. The EFF supports the government in its economic reform program, including measures to reduce the budget deficit and general government debt (IMF 2016).

Figure 4-13: Egypt – Public Debt Dynamics



Source: WEO (2016), IMF (2010, 2015), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

The legal basis of the government of Egypt's borrowing activities is the annual budget law formally approved by the parliament. Drawing up the budget is regulated in law no. 53/1973 as amended by law no. 87/2005 and law no. 109/2008. The Ministry of Finance (MoF) has the responsibility for issuing T-Bills and T-Bonds according to Article no. 127 of the Egyptian Constitution.

In 2016 a Public Financial Management Reform Unit was established to ensure the monitoring of fiscal risks emerging from public entities. Furthermore, the unit will consider the introduction of limits to government guarantees. The so called Contingent Liability Committee (CLC) has the mandate to control the general government portfolio and transactions that result in contingent liabilities (MoF 2016b).

Managerial structure (incl. coordination with other policies)

The Debt Management Unit (DMU) within the MoF is responsible for carrying out the debt management strategy, in particular planning funding requirements and restructuring of public debt. A working group reviews debt management policies and approves the debt management strategy (Ministerial Decree no. 515). The Central Bank of Egypt (CBE) acts as a fiscal agent for the MoF managing for example the auction process of government securities. The CBE is also responsible for recording and keeping track of Egypt's external debt.

Debt reporting

The MoF monthly publishes a report on the Egyptian economy ("The Financial Monthly"), which also contains statistics on the public debt profile. The debt management strategy document further includes a cost and risk analysis of the debt. Both documents are also published online. Furthermore, it is planned to publish a quarterly report showing recent developments of contingent liabilities and other fiscal risks arising from public entities (MoF 2016b).

Debt management strategy (incl. risk management)

Public debt management in Egypt has the objective to satisfy the financing needs of the state "at the lowest long-term cost relative to general level of interest rates, at an examined degree of risk consistent with prudent fiscal and monetary policies frameworks" (MoF 2006, p.1). The MoF considers various types of risk connected to the issuance of debt such as refinancing risk, currency risk, interest rate risk, and liquidity risk (see also Table 4-5).

The DMU has several general principles regarding debt management, including (i) a market-oriented funding strategy based on projected budgetary requirements, determining frequency, volume, timing and maturities for all debt issues to ensure a prudent government debt structure, and (ii) a debt issuance policy that promotes the development of the primary dealer market, expansion of customer base and the creation of liquid government securities market.

The objectives of public debt management are specified in the Medium-Term Debt Management Strategy (MTDS), which covers a time period of three years (currently 2015-2018). Debt management is supposed to ensure that "the treasury funding requirements and payment obligations are met at a relatively low cost over the plan's term, consistent with a prudent degree of risk" (MoF 2015, p.5). An additional objective is the development of the

domestic securities market. One of the key objectives is reducing the refinancing risks by lengthening the maturity structure of the domestic tradable debt and consolidating a domestic yield curve.

Regarding market developments, the following challenges are described (MoF 2015, p. 8):

- Focusing on a limited number of benchmark maturities, namely three, five, seven and ten years, possibly issuing longer maturity as new benchmark;
- Increasing the number of re-openings of each security in order to raise the target amount outstanding to approximately EGP 12-15 billion per T-Bond life time. This may increase liquidity enhancing activity in the secondary market;
- Organizing the issuance schedule to avoid the crowding out of securities through alternating the issuance weeks for T-Bills and T-Bonds with different maturities.

Regarding sources of financing, the following challenges are described (MoF 2015, p. 11):

- Diversifying the investor base and adding non-banking financial institutions;
- Developing the secondary market, increasing the issuance of longer-term bonds and adding new instruments to deepen the market;
- Paying more attention to the effects of government borrowing on the private sector in order to limit the crowding out effect, within the context of the government's need to raise funds from the domestic market.

Based on a macroeconomic baseline scenario, various risk assumptions on different shock scenarios are considered in the MTDS and multiple financing options are presented and evaluated using a cost-risk analysis framework.

Table 4-5: Egypt – Cost and Risk Indicators for the Government's Debt Portfolio (Mid 2015)

Type of risk	Risk indicator	Domestic debt	External debt	Total debt	Targets (tot. debt)
Cost of debt	Interest payments as % of GDP	5.4	0.2	5.6	
	Weighted avg. interest rate (in %)	12.3	3.3	11.3	
Refinancing risk	ATM (years)	2.2	2.5	2.2	2.5
	Debt maturing in 1 year (% of total)	55.1	56.3	55.2	50.0
	Debt maturing in 1 year (% of GDP)	24.1	3.2	27.3	
Interest rate risk	ATR (years)	2.2	2.5	2.2	
	Debt refixing in 1 year (% of total)	55.1	56.3	55.2	
	Fixed rate debt (% of total)	100.	100.0	100.0	
Exchange rate risk	FX debt (% of total)			11.3	15.0
	ST FX debt (% of reserves)			56.7	

Note: Classification of domestic and external debt based on currency denomination. Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; ST = Short-term.
Source: MoF (2015, p. 10).

Borrowing and related financial activities

Operations (incl. Islamic finance)

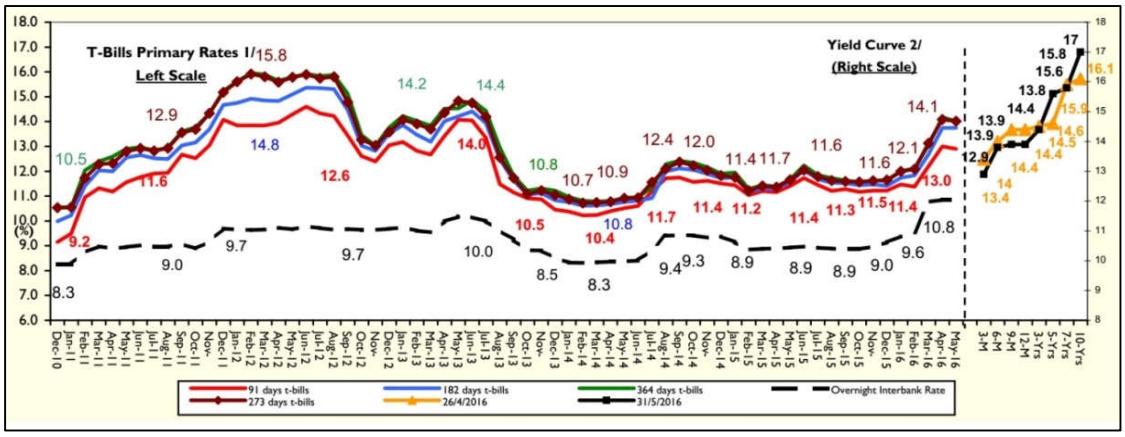
In 2015, 28.5% of outstanding government debt consisted of T-Bills denominated mainly in Egyptian Pound (25.4%) and to some extent in Euro and U.S. Dollars (3%). T-Bonds denominated in Egyptian Pound accounted for 28.5% and Eurobonds for 1.4% of outstanding debt. The remainder (41.7% of outstanding debt) is non-tradable debt (notes issued for the

CBE, pension fund notes, facilities from banking system accounts and Treasury Single Account, actuarial deficit notes, Barwah company notes, pension funds time deposits and housing notes).

T-Bills have maturities of 91, 182, 273 and 364 days. T-Bonds have an average maturity of 3.48 years (as of May 2016). The average time to maturity of domestic debt was 2.20 years in 2015 (compared to 0.34 years in 2004) and is on an increasing path. The average time to maturity of external debt is slightly higher at 2.50 years. The share of debt maturing in less than one year is high at 55% of total public debt (see also Table 4-5).

Interest rates on T-Bills started to increase in 2011 because of political and economic risks (see Figure 4-14). In 2013 interest rates declined because of inflows of aid from Gulf countries. In 2014, however, interest rates started to increase again because of the government's high borrowing needs and the devaluation of the Egyptian Pound (Alexbank 2015). In April 2016, interest rates on T-Bills were between 13.0% and 14.1%, depending on the maturity structure.

Figure 4-14: Egypt - Interest Rates on Government Securities



Note: 1/ Monthly average in Primary Markets, 2/ Secondary market rates.
Source: MoF (2016a, p.42).

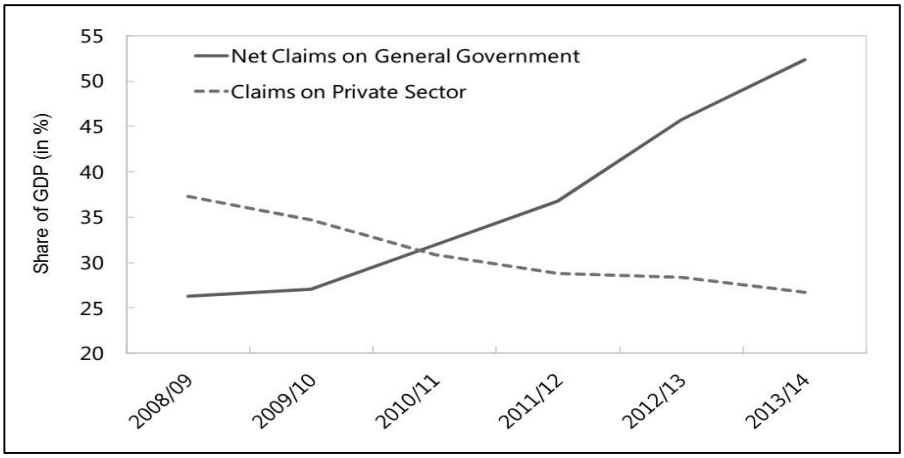
Egypt has not issued *sukuk* so far. However, the MoF plans to diversify "the sources of financing through the issuance of new instruments such as *sukuk* to finance development and infrastructure projects as well as enlarging the investor base by attracting retail investors and incorporating more non-banking financial institutions" (MoF 2015). *Sukuk* issuance by both the government and the private sector is regulated in a law from 2012. Egypt plans to issue sovereign *sukuk* with *ijara* contracts in 2016. *Sukuk ijara* are lease-based financial instruments, i.e. bondholders are owners of the asset and are entitled to receive revenues from leasing (Abaza 2015). The government is currently working on amending the *sukuk* law in order to attract new investors domestically and internationally. Moreover, the government plans to tap new sources of financing (particularly from the informal sector) by issuing other new instruments such as project bonds and *sukuk* to finance development and large infrastructure projects (Egypt Economic Development Conference 2015).

Domestic debt market

The major part of Egypt's public debt is held by domestic creditors (about 90%). Tradable domestic debt is financed through T-Bills (54%) and T-Bonds (46%). The largest domestic creditors of the government are Egypt's three state banks, holding about 50% of the T-Bills

(Alexbank 2015). Private banks and foreign bank branches hold about 29% of the T-Bills. Regarding T-Bonds, 75.1% are held by banking institutions. High interest rates on government debt and preferences for safe lending reduce the incentives of banks to provide credit to the private sector, leading to a crowding-out of bank loans to the private sector. While net claims on the general government have steadily increased since 2009, claims on the private sector have declined (see Figure 4-15). Banks tend to invest in instruments with shorter maturities to avoid asset and liability mismatches with short-term bank deposits.

Figure 4-15: Egypt - Credit to the Economy



Source: IMF (2015, p. 10).

To improve the domestic debt market the government is carrying out several reforms. On the primary market a new issuance strategy is being developed, Floating Rate Notes (FRNs) will be reintroduced and investments banks will be included as primary dealers. On the secondary market, the government is establishing new electronic trading and auction platforms, constructing an official yield curve for government securities, using market mechanisms such as Repos and Short-Term Liquidity Facilities, and including market players such as non-primary dealer banks and bond dealers. Furthermore, the Primary Dealers Decree reviews the code of conduct (duties and incentives) and market making activities, and quotes obligations.

Foreign borrowing

External public debt amounted to about 7.9% of GDP in 2015. Creditors of external debt are foreign governments (mainly Paris Club bilateral debt) and regional and international organizations such as the IMF, the World Bank, the Islamic Development Bank and the African Development Bank. These organizations provide loans with to finance specific investments and development projects. External debt also includes deposits held by the Egyptian central bank (Alexbank 2015). The MTDS envisages raising funds from the international capital markets in the amount of $3-5 billion on a yearly basis over the period 2015-2018 (MoF 2015).

External debt is mainly denominated in U.S. Dollars (56.1%), Euro (21.4%) and Japanese Yen (6.6%). The share of external debt in U.S. Dollars has increased over the last decade, while the share denominated in Euro and Japanese Yen have decreased (see also Figure 4-13).

C) Policy Recommendations

The institutional framework of public debt management in Egypt generally follows guidelines proposed by the World Bank and the IMF. There is a debt management agency responsible for debt management located at the MoF. The medium-term debt management strategy considers several risk indicators and has identified challenges for market development and sources of financing. The debt management strategy is transparent as the document is published online. The MoF also monthly publishes information on the public debt profile. Some data in the monthly report is, however, not up-to-date.

Despite the formally sound debt management framework, Egypt's high level of domestic public debt is worrying. The large amount of outstanding debt and high interest rates give rise to high interest expense and impede budget consolidation efforts. Without the high debt service costs, more money could be spent on education, health and social welfare programs, as well as infrastructure projects, where current investments are considered to be insufficient (see also Alexbank 2015).

Two main challenges regarding the risk profile of the public debt portfolio can be identified:

First, the refinancing risk of Egypt's debt portfolio is high. The average time to maturity is low amounting to 2.2 years and the share of debt maturing in one year is high at 55.2%. The debt management strategy has already identified lengthening the average time to maturity and lowering the share of short-term debt as a key priority and improvements have been achieved in the last years. However, without more ambitious targets regarding the maturity structure, refinancing risk is likely to remain high.

Second, the government strongly depends on the domestic banking sector. The high borrowing need by the government gives rise to a crowding out of the private sector in the domestic debt market. When corporations and small and medium enterprises have difficulties getting credit, this may negatively affect the economy and weaken economic growth. The high share of domestic debt held by commercial bank indicates relatively low efficiency of the financial system (Abbas and Christensen 2007). As the government has already recognized in the debt management strategy, it is important to further diversify the creditor base of domestic public debt. The government currently carries out several reforms to improve the domestic debt market.

External debt is low and manageable (see also Sakr 2016). Because external debt mainly exhibits medium- to long-term maturities, it is unlikely that the government will face difficulties in refinancing external debt. Interest rates on external debt are lower than interest rates on domestic debt. Generally, Egypt is advised to seek for more external funding to reduce the dependency on the domestic banking sector. To attract foreign investors, confidence in the economic stability and fiscal policy reforms are important. The IMF has urged the government, for example, to reform subsidies, to introduce exchange rate flexibility and to improve the business environment (Jarvis 2015).

The government may increase the use of Eurobonds to attract external investors. Additionally, issuing *sukuk* may help diversifying the government's debt portfolio. Such Islamic finance instruments are also likely to attract investors from other (Islamic) countries, thereby diversifying the investor base and increasing the share of external financing. Hence, it is recommended to accelerate the amendment of the new *sukuk* law, which would provide additional foreign investment opportunities and thereby relieve the government from its domestic financing dependency.

4.1.6 Republic of Indonesia

A) Public Debt Dynamics

After the Asian Financial Crisis in 1997/98, during which the debt-to-GDP ratio had shot up to more than 70% (World Bank 2016a), relative debt levels had fallen quickly and significantly after the relatively swift recovery of the Indonesian economy. They continued to decrease throughout the first decade in the 2000s and reached their trough in 2011 and 2012 at 23.1 and 23% respectively (see Figure 4-16). Since then, general government debt has risen faster than GDP with the debt-to-GDP ratio reaching 27.4% in 2015 and being projected at 27.7% in 2016 (Directorate General of Budget Financing and Risk Management 2016a).

This has several reasons. First, commodity prices which had rebounded after the Global Financial Crisis started to decline in 2011, which reduced export proceeds in particular because a large part of manufacturing has been resource-based. Growth slowed from around 6% in 2010 to around 5% thereafter. Oil prices started to decline from around $110 per barrel in March 2014 to around $45 in the second half of 2016, which further reduced government revenues. While these developments would have reduced tax and non-tax revenues in any case, a second factor is that expeditious restructuring of the economy towards sectors that have gained comparative advantage as a consequence of altered relative prices is hampered by inadequate infrastructure and rigid labor markets (Hamilton-Hart and Schulze 2016, IMF 2016, World Bank 2016b). Thus, the decline in growth and in revenue is more persistent than it otherwise would have been. Third, since mid-2011 the Indonesian Rupiah (IDR) has depreciated substantially from 8500 IDR/$ in early August 2011 to 13500 IDR/$ at the end of 2016, thereby raising the domestic value of the foreign currency-denominated part of the outstanding debt. At the same time tax revenues were falling due to declining growth rates and decreasing commodity export proceeds. Fourth, tax administration has traditionally had substantial unrealized efficiency potentials and, in relation to this, tax compliance has been relatively low. As a consequence, revenue-to-GDP figures have been low in international comparison; in 2014 it was below 11% (IMF 2014). Even though multiple efforts are under way to enhance revenues, notably a tax amnesty and various initiatives to improve tax compliance, tax administration and the tax system, reforms will bear fruit only in the medium term. Fifth, the new administration, which took office in October 2014, has placed emphasis on overhauling the insufficient infrastructure, which has put further pressure on the budget. The budget deficit as a share of GDP has been 2.6% in 2015 and it is projected by the government to be 2.41% in 2017 (Ministry of Finance 2017).

Although the budget deficit has widened and the outstanding debt increased, the overall debt levels are not yet alarming. If the increase in debt over GDP is temporary and might eventually be brought down again, in particular if funds are invested productively and spur growth, the recent increase in Indonesia's indebtedness is no reason for concern.

Figure 4-16: Indonesia – Public Debt Dynamics

Sources: WEO 2016, IMF Country Reports, calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

The legal framework for the debt management is laid down in a number of laws, in particular Law 24/2002 on Government Securities, Law 17/2003 on State Finances, Law 1/2004 on the State Treasury, Law 15/2004 on Management Oversight and Fiscal Responsibility, Law 19/2008 on Sharia Securities and a number of governmental regulations. Debt can only be issued through the budgetary process and thus needs parliamentary approval. For the last two fiscal years, the budget law already gives the government flexibility to raise more funds (using accumulated cash surplus and/or debt instruments) if the state budget deficit is projected to exceed the target as in the budget. Such additional financing is then reported in Central Government Financial Report for the relevant fiscal year. Yet, the deficit must not exceed the limit of 3% of GDP as stipulated in Law 17/2003.

Managerial structure (incl. coordination with other policies)

Debt is issued and managed by the Directorate General of Budget Financing and Risk Management (DGBFRM), which is a part of the Ministry of Finance of the Republic of Indonesia. The Director General responsible for Budget Financing is bound by parliamentary approval on debt uptaking and by instructions from the minister of finance and the president. He coordinates policies with the Ministry of Planning and the Bank of Indonesia in regular meetings in order to avoid repercussions in other policy areas and to coordinate monetary and fiscal policies. The DGBFRM is a first-echelon unit directly below the minister; it underwent several institutional changes and has been established in its present form in 2015 by the Minister of Finance through regulation no. 234 of 2015 (Directorate General of Budget Financing and Risk Management 2015).

The Directorate General of Budget Financing and Risk Management has seven directorates and a support unit. Front office functions are carried out by the Directorate of Loans and Grants, the Directorate of Government Debt Securities, the Directorate of Sharia Financing, the Directorate of State Financial Risk Management, and the Directorate of Government Support and Infrastructure Funding Management. The Directorate of Financing Strategy and Portfolio, the Directorate of Evaluation, Accounting, and Settlements and the Secretariat of the Directorate General as supporting and coordinating unit complement the front office units.

The Directorate General is given management targets in a performance contract between the minister of finance and the Directorate General, which formulates strategic objectives. These are measured through key performance indicators using the balanced scorecard methodology.

Debt reporting

Public debt is reported in much detail and very transparently. All important documents are available online at the DGBFRM's homepage (Ministry of Finance 2017), most of them are available also in an English version. Specifically, DGBFRM publishes an annual report, the medium-term State Debt Management Strategy, the annual debt strategy, and monthly the general government debt profile. It annually provides information on domestic government securities trading per month, ownership of domestic tradable government securities, debt maturity profile, external debt statistics, public sector debt statistics and additional information. The disclosure of information is in accordance with Law No. 14 of 2008 on Public Information Disclosure that mandates state and non-state public institutions to provide transparent information.

Debt management strategy (incl. risk management)

Two documents lay out the debt management strategy: the Medium-Term Debt Management Strategy document and Annual Debt Financing Strategy document. The Medium-Term Debt Management Strategy for the period 2014-2017 was detailed in Ministry of Finance Decree no. 113/2014 dated 23. April 2014 and has been published as Directorate General of Debt Management (2014). The annual debt management document is issued by a decree of the Director General of Budget Financing and Risk Management and has been published since 2014.

Debt management has to make three fundamental choices, after the decision on budget size and the financing of the budget through taxes, non-tax revenue and debt has been made, i.e. the size of the budget deficit has been determined. The first central choice pertains to the currency denomination of the debt issued. Foreign currency debt (mostly global bonds) is less expensive, the market is more liquid than the domestic market for government debt, and foreign borrowing prevents a possible crowding out in the domestic bond market. Yet, increased foreign currency exposure increases the exchange rate risk; in particular if the exchange rate depreciates the domestic value of the debt is increased. The medium-term debt financing strategy targets for the issuance of new debt a foreign currency share of 25% for the years 2015 to 2017 with a priority of dollar denominated loans and securities (Directorate General of Debt Management 2014, p. 22).

The second central choice is what share of newly issued debt instruments should have fixed interest. Obviously, the fixed interest rate debt makes calculation of future debt obligations easier and thus reduces interest rate risk; yet this often comes at the cost of higher interest rates. Variable interest rate debt is cheaper in times of declining interest rates; however the demand for variable rate debt is lower and its secondary market is less liquid. At the end of 2015, the coupon on tradable (fixed interest) government securities was 8.69% while the variable rate securities had an interest rate of 5.71% (Directorate General of Budget Financing and Risk Management 2015, p. 47 and personal communication). The shares of new debt with fixed interest targeted in the *State Debt Management Strategy 2014-2017* are 95.5% for 2015 and 94% for 2016-17.

The third central choice relates to the maturity structure of public debt. The maturity structure indicates the refinancing requirement at any point in time and thus the need to issue new debt beyond the current budget deficit. Alternatively, the maturity structure can be altered through debt switching and buy-back operations, both of which the Ministry of Finance undertakes. The *State Debt Management Strategy 2014-2017* stipulates the share of new debt with tenors up to three years not to exceed 15% for the period 2015-17.

While the above targets refer to the issuance of *new* debt, the medium-term strategy document also stipulates goals for the overall debt portfolio (Directorate General of Debt Management 2014, p. 22, Table 4.2). They are reported in Table 4-6 below:

Table 4-6: Indonesia - Target indicators for debt portfolio risk

Target Indicator	2014	2015	2016	2017	Range
FX Debt to Total Debt Ratio (%)	42.0	41.0	40.0	39.0	± 2.0
Fixed Rate Debt to Total Debt Ratio (%)	86.0	87.0	88.0	89.0	± 2.0
Debt Mature in 3 Years to Total Debt Ratio (%)	22.0	22.0	22.0	22.0	± 2.0
Average Time to Maturity (ATM) (yr)	9.5	9.5	9.0	9.0	± 0.5

Source: Directorate General of Debt Management 2014, Table 4.2.

The actual values for these and related indicators for the three major risk types – exchange rate risk, interest rate risk and refinancing risk – as well as the cost of debt are detailed in Table 4-7 below.

Table 4-7: Indonesia - Cost and Risk Indicators of the Government's Debt Portfolio

Type of risk	Risk indicator	2011	2014	2015	Nov 2016 (provisional)
Solvency	Debt (% of GDP)	23.1	24.7	27.4	27.7[c]
Cost of debt	Interest payments (% revenues)	7.5	8.4	9.9	10.2[a]
	Interest payments (% total debt)	5.2	5.3	5.2	5.0
	Interest payments (% of GDP)	1.2	1.3	1.4[b]	1.5[c]
Refinancing risk	ATM total debt (years)	9.32	9.73	9.40	9.02[d]
	Debt maturing in less than 1 year (% of total)	8.2	7.7	8.4	6.6[d]
	Debt maturing in less than 3 years (% of total)	22.7	20.1	21.4	23.0[x]
	Debt maturing in less than 5 years (% of total)	34.6	33.9	34.7	36.5[d]
Interest rate risk	Variable rate ratio	18.8	14.8	13.7	12.3[d]
	Refixing rate	25.9	21.0	20.7	17.5[d]
Exchange rate risk	FX debt (% of total debt)	45.1	43.4	44.5	41.8[d]
	FX debt (% of GDP)	10.4	10.7	12.2	11.6
	External debt interest (% total interest payments)	29.2	11.2	9.4[b]	9.8[c]

Note: ATM = Average Time to Maturity; FX = Foreign exchange; [a]: third quarter 2016, [b]: provisional, [c]: based on budget projections for 2016. [d]:based on realization at 31 December 2016
Source: Directorate General of Budget Financing and Risk Management 2016b, pp. 33, 42, 46, 47.

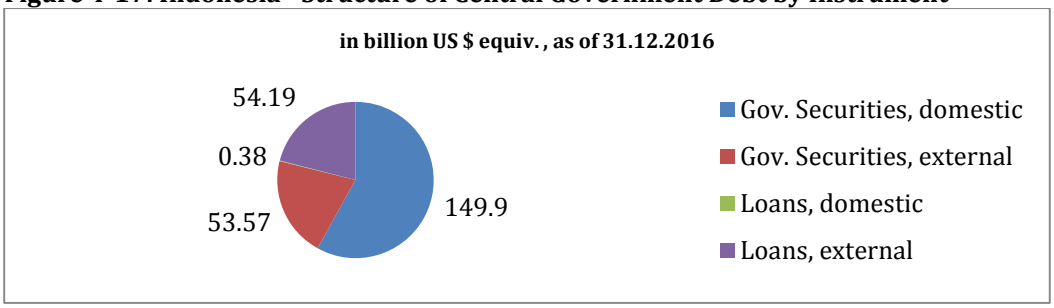
Four short-term trends are discernible. In the past five years, debt levels have increased in overall values, but also significantly as a share of GDP (see above). In 2011 overall debt stood at 23.1% of GDP and is now 27.7%. The cost of debt has thus risen in this period accordingly from 1.2% of GDP to 1.5%. Refinancing risk has largely been unaltered; the term structure of the debt seems solid. Interest rate risk has been reduced substantially, which may in part explain the increase in the cost of debt. The share of external debt in total debt has decreased while the amount of external debt as a share of GDP has slightly increased.

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

The government finances its debt through loans and securities. As of December 31st 2016, loans make up 21% of total government debt, while 79% are in securities. Basically all loans are from foreign creditors, while around three quarters of the securities are sold domestically. This is detailed in Figure 4-17. The structure of the debt has shifted substantially from loans to securities in the past; in 2011 one third of the central government debt was still in loans.

Figure 4-17: Indonesia - Structure of Central Government Debt by Instrument



Source: MoF (2017b)

The change in structure is detailed in Table 4-8 below.

Table 4-8: Indonesia - Outstanding Central Government Debt 2011-2016 (in billion USD)

	2011		2012		2013		2014		2015		2016[a]	
Loans	68.5	34%	63.0	31%	58.7	30%	54.5	26%	54.6	24%	54.2	21%
Securities	131.0	66%	138.9	69%	136.5	70%	155.2	74%	174.2	76%	202.2	79%
Total	199.5	100%	201.9	100%	195.2	100%	209.7	100%	228.8	100%	256.4	100%

Source: Directorate General of Budget Financing and Risk Management (2016b, p. 20) [a]: provisional figures, refer to 31 December 2016.

Table 4-8 shows that while loans have only slightly increased in nominal terms, the accumulating debt has been financed largely by an increase in securities. The structure of the loans explains why: out of the 733 trillion IDR ($54.2 billion) loans outstanding at the end of 2016, 728 trillion IDR ($53.8 billion) were external; of that amount 313 trillion IDR ($23.1 billion) were bilateral loans with Japan accounting for almost two thirds thereof. 370 trillion IDR ($27.4 billion) were multilateral loans, of which the World Bank held 63%, the Asian Development Bank 34%, and the Islamic Development Bank 1.3%. Only 45.6 trillion IDR ($3.4 billion) were held by commercial banks, and 5 trillion IDR ($0.4 billion) by suppliers (Directorate General of Budget Financing and Risk Management 2016b, p. 24 and personal communication). In other words, the bulk of loans consist of bilateral or multilateral intergovernmental loans, partly under concessionary terms, which cannot accommodate the growing needs to finance rising budget deficits.

65% of all securities are IDR denominated and tradable, 9% are non-tradable, and 26% are foreign currency denominated and tradable. In the latter category, 88% are dollar denominated, the rest is split between Yen and Euro. The increasing use of securities has made Indonesia less reliant on a few international institutions and governments as multilateral and bilateral creditors and thus has reduced political risk; at the same time it has made debt financing more responsive to market forces and international sovereign credit ratings.

Sharia government securities have been issued since 2008 on the basis of Law No. 19/2008. Following the Ministry of Finance Regulation 206/PMK.01/2014, the Directorate of Shariah Financing has been established within the DGBFRM. Sharia bonds are issued in the domestic market including the retail market, but also as *Global Sukuk* denominated in foreign currency. Since May 2015 the *Global Sukuk* has been listed at the Dubai NASDAQ exchange (Directorate General of Budget Financing and Risk Management 2015). The Islamic Government Bonds (*Surat Berharga Syariah Negara, SBSN*), including a number of subgroups such as the Indonesian Haj Funds Sukuk (*Sukuk Dana Haji Indonesia, SDHI*) or Islamic Treasury Bills (*Surat Perbendaharaan Negara-Syariah*), account for % of all government securities or almost 12% of

all government debt as of November 30, 2016.[21] In the past five years their volume has more than pentadrupled while total debt in securities has risen by factor 2.1 (Directorate General of Budget Financing and Risk Management 2016b and personal communication).

In addition, the government provides credit and investment guarantees for projects in infrastructure, including but not limited to water provision, electricity, toll roads and energy projects.

The limit on cumulative guarantee liability is stipulated by the medium debt strategy plan to be 2.57% of GDP at the end of 2017. In 2015 it stood at 0.25% of GDP (Directorate General of Budget Financing and Risk Management 2015).

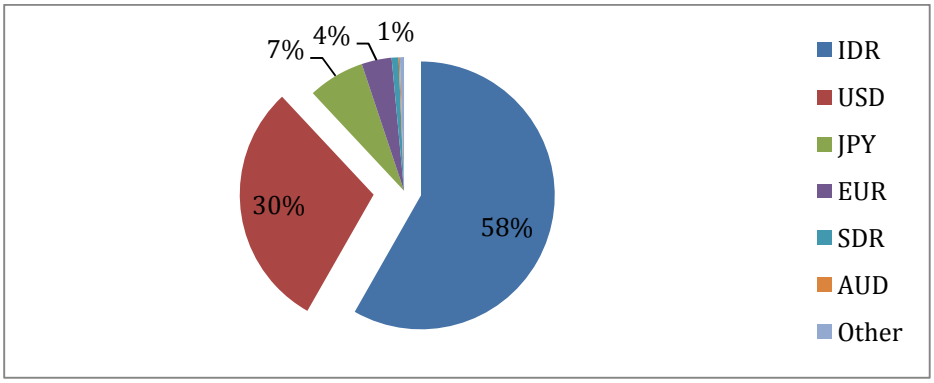
Domestic debt market

The domestic market in the narrow sense consists of the tradable domestic securities, which makes up half of the total outstanding government debt.[22] It is held by commercial banks (23%), the central bank (8%), institutional investors such as insurances, mutual funds or pension funds (23%) and non-residents including foreign governments and central banks (38%). Nine percent are held by individuals and others (Directorate General of Budget Financing and Risk Management 2016b, p. 56 and personal communication). While it may be desirable to raise the share of domestic currency-denominated debt further in order to reduce the exchange rate risk, given the development stage of Indonesia and the growth of the domestic financial market the potential to do so without repercussions may be limited in the short run.

Foreign borrowing

42% of the outstanding government debt at the end of 2016 was denominated in foreign currency (see Figure 4-18). This ratio has largely been unaltered in the past five years, but the dollar denominated debt instruments have gained in importance at the expense of Yen denominated instruments. Notably, more than one third of IDR denominated tradable securities is held by non-residents, indicating that IDR denominated bonds are increasingly attractive to non-residents.

Figure 4-18: Indonesia - Currency Composition of Central Government Debt



Source: MoF (2017b)

[21] See Directorate of Islamic Financing (2015) for an excellent review of Sharia-compliant Government Financial Instruments.

[22] In addition there are non-tradable securities (7% of total debt) and domestic loans (less than 0.1% of total debt).

C) Policy Recommendations

Debt management and debt policy cannot be assessed in isolation. The size of the debt is a result of decisions made on the size of the expenditures and the size of the revenues. The assessment of the size of the deficit is in addition dependent on the structure of spending and taxation. A higher government deficit may be acceptable if the additional funds are put to productive use such as transport infrastructure or education which may have high returns, while a deficit of the same size would be a reason for concern if it was used for rather inefficient investments such as energy subsidies or unproductive government consumption. As the government of Indonesia has focused on improving infrastructure a possible increase in budget deficit in the future may be a reflection of increased productive public investment.

First of all the central government debt is managed competently, effectively and transparently. Nevertheless there are certain recommendations for the Indonesian Government.

The share of foreign currency denominated debt might be reduced as the domestic capital market further develops. This would reduce exchange rate risk; yet it requires that domestic industries have sufficient funds available and are not unduly crowded out. Thus, a gradual approach is called for. It is central to fiscal policy to keep the government budget deficit in check while spending effectively and productively. This has major implications for the revenue, expenditure and debt dimension.

Additionally overall government revenues should be enhanced as Indonesia has a low revenue-to-GDP ratio in international comparison. This requires an improved tax administration and a broadening of the tax base as tax compliance is suboptimal. Key elements include a simpler tax system with fewer exemptions and lower thresholds, in particular a reduction in exemptions for VAT and corporate income tax, and a simplified tax code, a move towards risk-based auditing, electronic tax filing and cross checks between VAT statements, possibly a moderate increase in the VAT rate, and a change in attitude towards a regulatory partnership between tax authorities and tax subjects. The government has launched multiple initiatives to that effect already including a tax amnesty program and the central challenge will be to implement these changes effectively (Hamilton-Hart and Schulze 2016). Furthermore, regulatory policies those are likely to increase economic growth may also increase revenues and thereby reduce the size of the budget deficit. Such policies include more liberal trade and investment policies, the abolition of the remaining energy subsidies and an effective competition policy.

Moreover, the public expenditures that enhance productivity and competition should be prioritized. The current government's focus on improving physical infrastructure in key areas is very sensible as Indonesia's infrastructure is ailing compared to its regional competitors (World Bank 2016). The increase in expenditures that this implies could be mitigated by reducing non-essential spending in other sectors and by improving revenue generation.

Lastly, since revenue-improving measures will be effective only with a time lag, a *temporary* increase in the deficit is acceptable. However, in order to maintain investors' confidence in Indonesia's macroeconomic stability it is advisable to strictly honor the three percent deficit ceiling laid down in Law No. 17/2003. Hence, term government deficit should be reduced again in the medium.

4.1.7 The Federal Republic of Nigeria

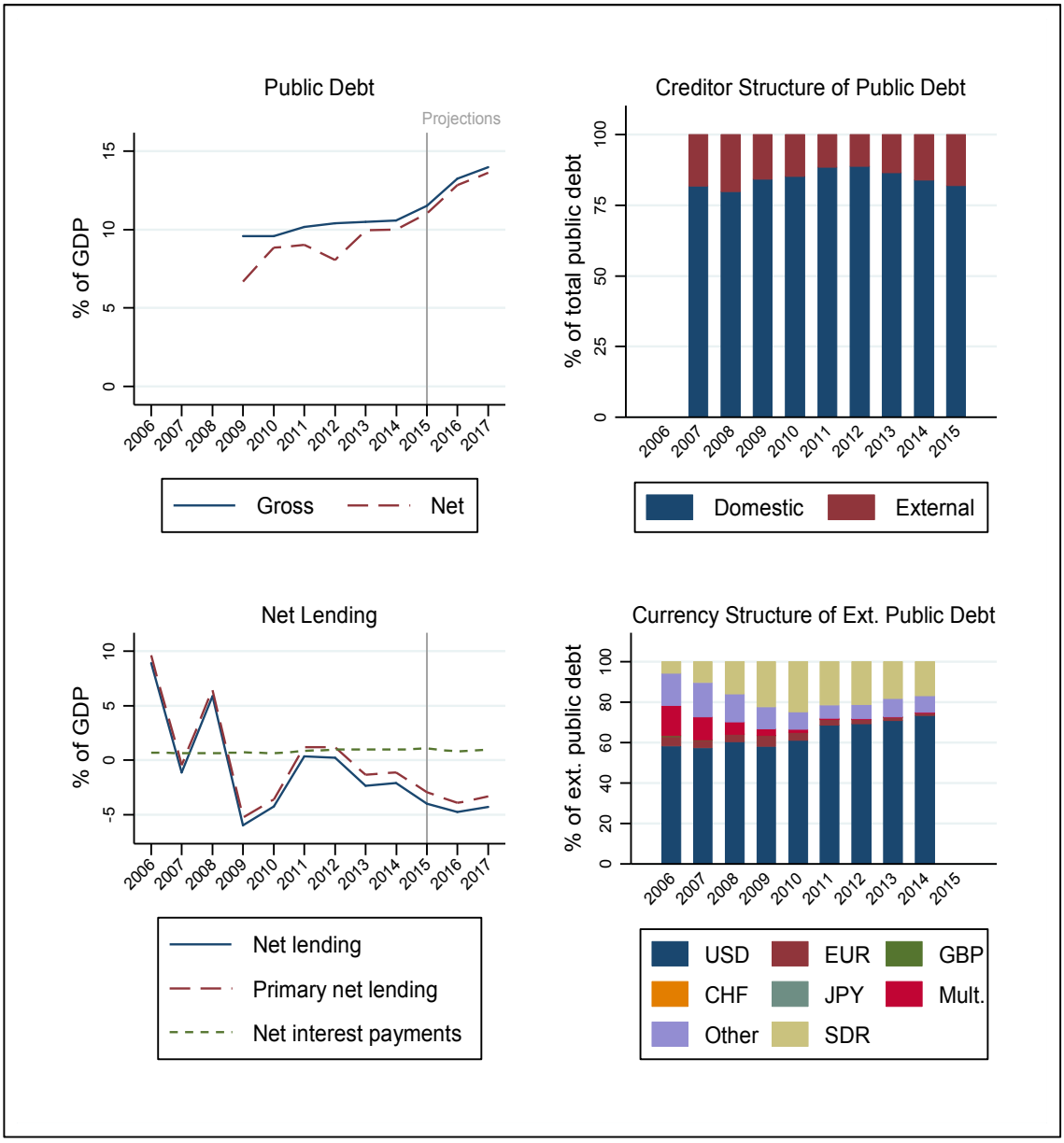
A) Public Debt Dynamics

General Government Debt of the Federal Republic of Nigeria has been relatively low compared to other OIC countries, fluctuating between 9.6% of GDP in 2009 and 11.5% of GDP in 2015. The oil price decline since 2014 has given rise to an increase in net borrowing and for 2017 a debt ratio of about 14% is expected (see Figure 4-19). [23] Since oil and other resources are mainly traded in U.S. Dollar, Nigeria also depends heavily on the U.S. Dollar. Even if oil prices will recover, the latest events show the need for economic diversification, e.g. in the agriculture and energy sector. Even though the country is a leading crude oil exporter, it has to import petrol because of a lack of refineries. One obstacle for investments has been the fixed foreign exchange rate, which was implemented in 2015. Until June 2016 the central bank pegged the currency at 198 Naira/U.S. Dollar to promote non-oil industries. Although being still controlled by the Nigerian central bank, the Naira fluctuated, however, in the last months (Mitchell 2016).

Although Nigeria has relatively low general government debt, the interest payments to revenue ratio has increased to about 32%. To ensure medium-term debt sustainability, the Nigerian government needs a fiscal adjustment of 3% of GDP. This task has become more challenging since the country has slipped into recession. The central bank reacted by reducing the domestic real interest rates, but the overall primary balance lies at -1% of GDP. The Nigerian government has already made efforts for fiscal consolidation, but it should go further (IMF 2016, Patience 2016).

[23] The oil and gas sector accounts for about 35% of GDP and over 90% of export revenue (OPEC 2016).

Figure 4-19: Nigeria - Public Debt Dynamics



Source: WEO (2016), IMF (2016), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

According to Section 4 Subsection 2 of the Constitution of Nigeria, the National Assembly has the exclusive legislative power about the federal governments' borrowing, and has in this capacity adopted the following laws governing public debt management in Nigeria: (1) The Debt Management Office (Establishment, etc.) Act of 2003 established the Debt Management Office (DMO), a single, semi-autonomous and professionally run agency where all public debt management functions are centralized, with retroactive effect to August 2000. (2) The Investments and Securities Act of 2007, in its Part XV regulates the procedure for the issuance debt by federal, state, and local governments on national capital markets, and Part X of the Fiscal Responsibility Act of 2007 contains general restrictions on public debt aimed at fiscal discipline. For example, under the Fiscal Responsibility Act of 2007, Section 41 Subsection 1 a), all tiers of government are required to borrow at concessional terms and long maturities. However, according to Section 41 Subsection 2 of the Act, the Government may borrow from capital markets if approved by the National Assembly. Furthermore, Section 42 Subsection 1 of the Act provides for a general limit on public debt. (3) Other relevant legislation includes the Treasury Bills Act, the Treasury Certificate Act, the Government Promissory Notes Act, CAP 164, and the Central Bank of Nigeria (CBN) Act 2007 (see DMO 2008 for details). The law in Nigeria law requires the budget to accompany an appendix on contingent liabilities in the form of tax risks and provide information on how to manage them (MoF and Public Credit 2011).

Managerial structure (incl. coordination with other policies)

Before 2000 several departments in the Ministry of Finance, the Office of the Accountant General of the Federation and the Central Bank were responsible for debt management functions and coordination between these departments lacked efficiency. As a result of a huge external debt overhang (external debt amounted to about 86.4% of GDP in 2000), public debt management was professionalized and centralized at the DMO in 2000 (Nwanko 2011). The DMO is separated into front, middle and back offices designed to fulfill different functions, distinguishing those offices responsible for executing transactions from those responsible for checking compliance: The front office executes market transactions, the middle office checks compliance and the back office administers the accounting system.

Debt reporting

The DMO also established new standards in terms of transparency. The agency regularly publishes several documents: each year, it publishes an "Annual Report and Statement of Accounts", which contains an appraisal of the government's debt management strategy, a detailed decomposition of domestic and external public debt, as well as sustainability and risk analyses. In addition, it prepares an annual "Debt Sustainability Analysis Report," in which it reviews the current debt portfolio using simulation techniques. As part of this analysis, the DMO also derives a recommendation with regard to the borrowing limit for the upcoming fiscal year in order for debt to stay consistent with the overall limit on the federal government's debt. Moreover, the DMO prepares a quadrennial "debt management strategy" and a quinquennial "strategic plan," both of which outline the medium-term debt strategy. Lastly, it also issues borrowing guidelines for all tiers of government. Nigeria has not yet developed a framework for assessing, recording and tracking contingent liabilities.

Debt management strategy (incl. risk management)

The National Debt Management Framework for the years 2013-2017 sets the following debt management objectives (DMO 2013, p. 3):

- Efficiently managing the nation's public debt in terms of well-diversified and sustainable debt portfolio, supportive of government and private sector needs;
- Meeting the government's financing needs at minimal cost and with prudent degree of risk over the medium to long-term;
- Ensuring the growth and development of the country's domestic and international securities markets.

The DMO prepared the first medium-term debt management strategy (MTDS) for the years 2012-2015 (DMO 2012). In 2016, the DMO and other stakeholders[24] developed the MTDS for the years 2016-2019 (DMO 2016). The MTDS describes how the government's primary budget balance should optimally be financed, with respect to macroeconomic developments and market conditions such as interest and exchange rates, inflation, output and external reserves. Public debt management faces three main challenges (see also Table 4-9):

- Cost of debt: the weighted average interest rate was high at 10.77%, caused mainly by the high interest rates on domestic debt;
- Refinancing risk: more than 30% of domestic debt matures within one year;
- Interest rate risk: more than 30% of domestic debt has to be refixed within one year.

Table 4-9: Nigeria - Risk Indicators for the Government's Debt Portfolio (2015)

Type of risk	Risk indicator	Domestic Debt	External Debt	Total Debt	Targets (tot. debt)
Solvency	Nominal debt (% of GDP)	8.91	2.20	11.11	
	NPV of debt (% of GDP)	8.91	1.44	10.35	
Cost of Debt	Interest payment (% of GDP)	1.16	0.04	1.20	
	WAIR (%)	13.00	1.74	10.77	
Refinancing risk	ATM (years)	5.35	14.39	7.15	Min: 10
	Debt maturing in 1 year (% of total)	36.08	1.16	29.15	Max. 20
	Debt maturing in 1 year (% of GDP)	3.21	0.03	3.24	
Interest rate risk	ATR (years)	5.35	13.86	7.04	Min: 10
	Debt refixing in 1 year (% of total)	36.08	6.40	30.19	
	Fixed rate debt (% of total)	100.00	94.77	98.96	
Exchange rate risk	FX debt (% of total)			19.84	40
	ST FX debt (% of reserves)			0.44	

Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; NPV = Net present value; ST = Short-term; WAIR = Weighted average interest rate.
Source: DMO (2016).

[24] Stakeholders include the Federal Ministry of Finance, the Federal Ministry of Budget and National Planning, the central bank, the Budget Office of the Federation, the National Bureau of Statistics, and the Office of the Accountant-General of the Federation.

The preferred debt management strategy based on current economic conditions can be summarized as follows (DMO 2016, p. 8f):

(1) Increasing external financing focusing on issuing more long-term external debt in order to reduce cost of debt and to lengthen the average maturity. To achieve a significant reduction in debt cost requires that the government accesses relatively cheap long-term external financing. The DMO therefore plans to maximize available funds from concessional and semi-concessional sources, taking into account what may be readily available within a given period, and later accessing other external sources.

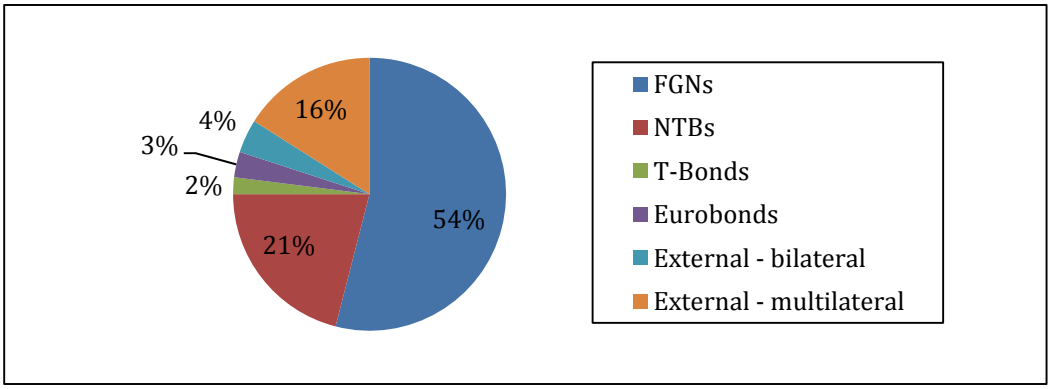
(2) Further lengthening the maturity profile of the domestic debt portfolio by reducing the issuance of new short-term debt instruments and/or refinancing maturing Nigerian Treasury Bills (NTBs) with external financing. The introduction of new debt instruments into the domestic debt market is expected to have relatively low impact on debt cost , while the impact on the maturity profile of total domestic debt could be significant, hence reducing the risk of bunching, roll-over risk, and the associated debt servicing costs.

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

Nigeria's total central government debt is composed of Federal Government of Nigeria Bonds (FGN), Nigerian Treasury Bills (NTB), Treasury Bonds (T-Bonds), Eurobonds, external bilateral debt and external multilateral debt. FGNs constitute more than 50% of total debt (see Figure 4-20).

Figure 4-20: Nigeria - Public Debt Composition by Instruments (June 2016)



Source: DMO (2016).

FGN come with maturities of three to 20 years. While the yield curve of FGN was nearly flat in 2014, the yield curve in 2015 exhibited the classical expected form, which means that debt with longer maturities has higher yields (see Figure 4-21).

Islamic finance instruments are not yet used in the Nigeria's public debt management, as the framework is currently being finalized. Currently, two major laws regulate the issuances of *sukuk* in Nigeria: the Investments and Securities Act 2007 and the rules set by the Security and Exchange Commission of Nigeria (SEC). They specified its rules on Islamic financing in February 2013 (SEC 2013). According to these rules state governments and agencies on all levels are entitled to issue *sukuk* after having seeked the SEC's approval (Oladunjoye 2014). The first corporate *sukuk* was issued by Nigeria's Osun State and had a volume of 10 billion naira (or $62 million). The first Nigerian banks with Islamic Banking Services were the Stanbic

IBTC Plc. and the Jaiz Bank Plc. (Sapovadia 2015, Oladunjoye 2014). At the beginning of 2016 the SEC and the DMO agreed to cooperate in order to issue Nigeria's first sovereign *sukuk* and in October 2016 the Nigerian central bank published guidelines to specify the granting of *sukuk* (SEC 2016, CBN 2016). The DMO plans a first issuance of a sovereign *sukuk* in 2016/2017, in line with the MTDS 2016-2019.

Figure 4-21: Nigeria - Yield Curve of FGNs

Source: DMO (2015, p. 56).

Domestic debt market

Since 2005, government budget deficits have been mainly financed by domestic borrowing in the bond market (Central Bank 2013). Domestic creditors are the central bank (holding 9.9% of domestic debt), banks (37.2%), non-bank public (51.1%) and the Sinking Fund (1.8%). Non-bank public creditors are mainly pension funds, government agencies, non-bank financial institutions and insurance companies.

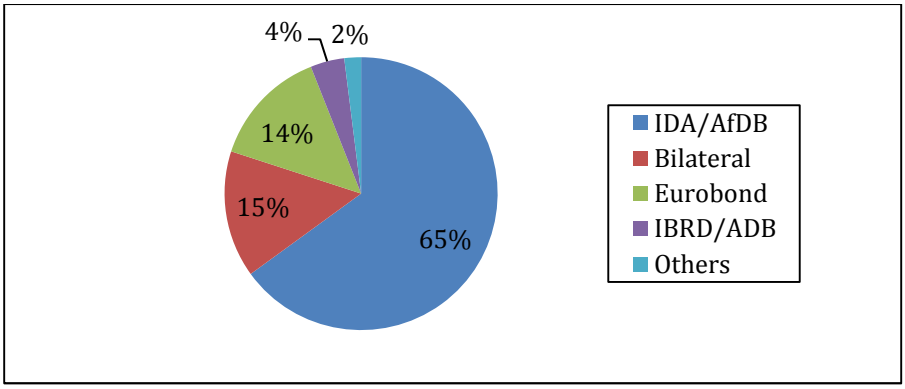
The government plans to introduce Retail Bonds, Inflation-linked Bonds and *sukuk* on the domestic debt market.

Foreign borrowing

The share of external debt (defined as debt denominated in foreign currency) in total debt was low at 19.8% in 2015. The external debt portfolio is composed of 73.5% of U.S. Dollars, 16.9% of SDRs, 1.1% of Euro, 8% of other currencies in 2014 (see Figure 4-19).[25] Main creditors are IDA/AfDB holding 65% of external debt and IBRD/ADB holding 4% of external debt. Bilateral creditors (China EXIM Bank, French Development Agency, Japan International Cooperation Agency and Kreditanstalt fuer Wiederaufbau) hold 15% of external debt. Eurobonds constitute 14% of external debt (see Figure 4-22). 82.2% of external debt is concessional (DMO 2015).

[25] Values taken from the World Bank. The MTDS describes the following currency composition in 2015: 38.3% U.S. Dollars, 59.6% SDR, 1.2% Euro.

Figure 4-22: Nigeria – Creditor Structure of External Public Debt (2015)



Source: DMO (2016, p. 5).

The government plans to increase the share of external debt in total debt by maximizing available funding from concessional and semi-concessional external sources. Foreign debt instruments to be used are issuing Eurobonds, Diaspora Bonds and International *sukuk*. To reduce the exchange rate risk the government intends to issue long-term foreign debt instruments for funding infrastructure projects.

C) Policy Recommendations

Nigeria has established a very professional public debt management. The DMO acts as an independent agency responsible for debt management. The DMO is even sharing its experience of debt management and is currently advising South Sudan in developing a debt management office (Emejo 2015). Transparency is high as the DMO publishes various and detailed reports about all relevant aspects of the government's debt portfolio and also other institutions such as the SEC and the central bank adhere to these standards. There could be, however, more information about the structure of domestic creditors (for example about the composition of "non-bank public" creditors).

The share of Nigeria's domestic debt in total debt is high (about 80%). Domestic debt is characterized by high interest rates, and a high share of debt maturing and refixing within one year. The DMO thus targets a debt composition of 60% domestic and 40% external debt and aims at accessing long-term external borrowing to reach this target. Nigeria has, however, attained the status of a middle-income country and is therefore less likely to have access to concessional funding in the future (Uwalek 2016). The expected limited account to concessional funding and the recent exclusion from the J.P. Morgan local government bond indexes might make it difficult to achieve the current targets of debt composition, even in the medium term. Nigeria is recommended to diversify and expand the sources of foreign lending (see also Oladunjoye 2014). Nigerian authorities are currently expending the institutional infrastructure for the issuance of Islamic bonds which might attract foreign lenders and can support the general effort to expand foreign borrowing (see also IMF 2016).

As the DMO pointed out Nigeria still is recommended to diversify the economy to reduce its dependency on oil exports and foreign exchange risks. During the last years the proportion of U.S. Dollar in external debt increased constantly. This is aligned with the dominant role of Nigeria's oil exports, but may be reduced when it comes to a diversification of the country's economy. In particular strengthening the revenue side of the budget might reduce risks of the government's debt portfolio.

4.1.8 Republic of the Sudan

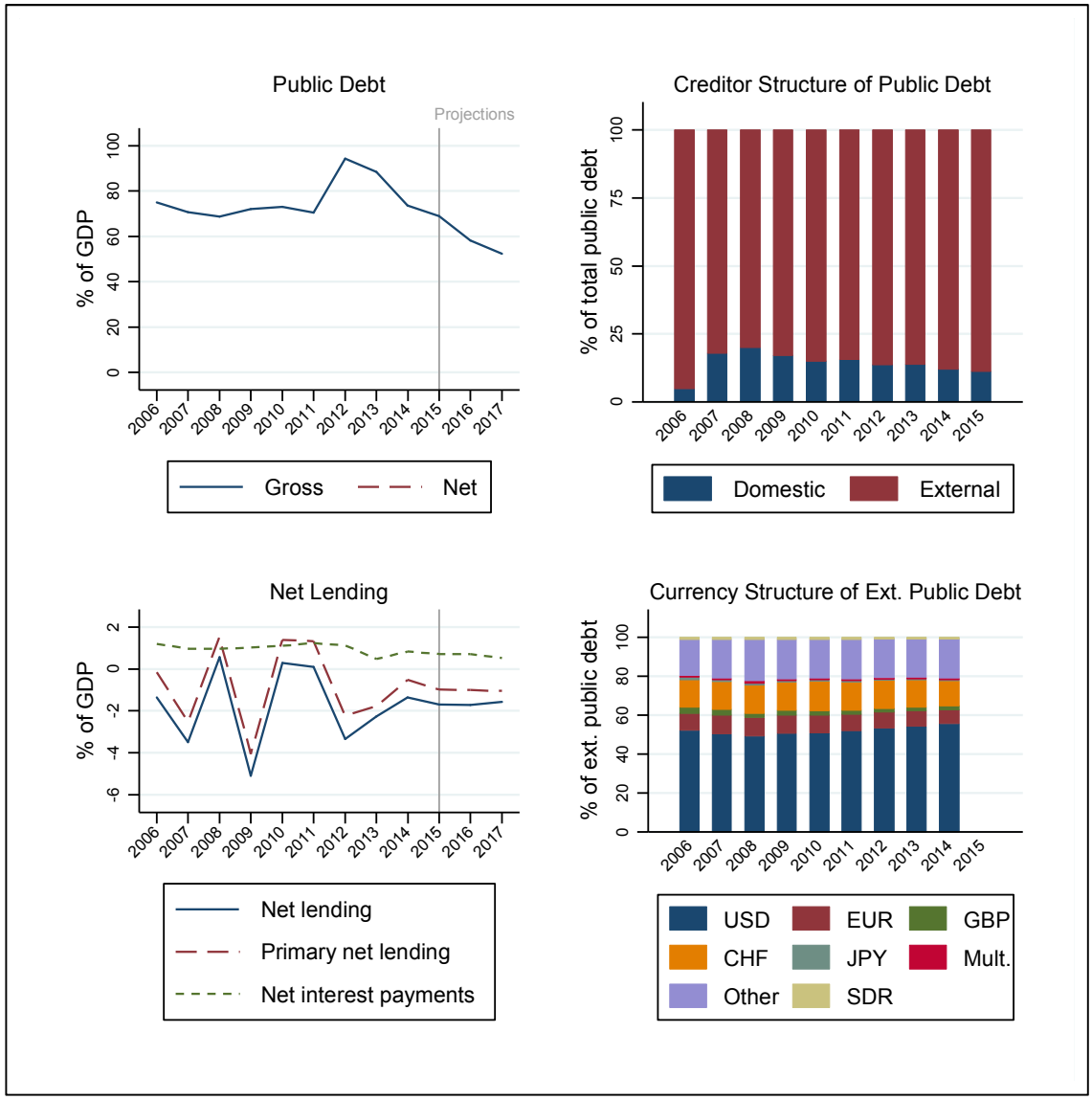
A) Public Debt Dynamics

Between 2006 and 2011, the debt-to-GDP ratio of the Republic of the Sudan remained relatively stable between 69% and 75% of GDP (see Figure 4-23). However, there was a sharp increase in general government debt from 70.6% of GDP in 2011 to 94.2% of GDP in 2012, some of which may be attributed to the secession of South Sudan in July 2011. As a result of the secession, Sudan lost about 75% of its oil output and 60% of its fiscal revenue. Moreover, the country had to struggle with expensive armed conflicts and increased security threats (AEO 2012, IDA and IMF 2013a).

After the adoption of broad political and economic reforms (ADB 2014 p. IV), Sudan managed to decrease its general government debt level steadily. In particular, a financial austerity package, which was introduced in June 2012 and which contained expenditure cuts, tax increases, and the reduction of subsidies on fuel, sugar and wheat, helped to achieve this decline (UNDP 2014). In 2015, the debt level increased to 69% of GDP. The decline of the general government debt-to-GDP ratio is estimated to continue towards 52.4% in 2017. However, the expected decline in general government debt was less the result of strong efforts to pay down debt, than rather the result of the substantially overvalued exchange rate and high inflation (see also Figure 4-24), which inflates the Dollar value of GDP (EIU 2016). Thus, the country's debt position remains critical, although the plain figures seem to signal an easing of the general government debt situation at first sight. The EIU Credit Rating Agency rates Sudan's sovereign risk at the second-lowest rating C, indicating a weak capacity and commitment to honor its obligations, and gives a negative outlook due to political instability and the weakness of the Sudanese economy, which faces a transformation away from an oil-based economy towards a more diversified economic structure, including the promotion of other natural resources and agriculture (UNDP 2014, EIU 2016).

Following the secession of South Sudan, the governments of Sudan and South Sudan agreed in September 2012 to the so-called "zero option" solution, whereby Sudan would retain all the external liabilities after the secession under the condition that the international creditors make clear commitments with respect to debt relief measures (IMF 2012). Previously determined to be settled in 2014, the two countries agreed to extend the deadline of this solution until October 2016 (IMF 2014a). Although some countries, including France and the Netherlands, announced their support of a debt relief program, Sudan has yet to seek the support of more Paris Club Creditors, which represent an important amount of public debt (UNDP 2014, EIU 2014). The IMF and the World Bank support the "zero option" solution and consider Sudan currently as a Pre-Decision-Point Country within the Heavily Indebted Poor Countries Initiative (HIPC) (IMF 2014b, 2016b). Sudan made good progress in political and economic reforms as it adopted the Interim Poverty Reduction Strategy Paper (I-PRSP) and a new Staff Monitored Program by the IMF (ADB 2014 p. IV). Moreover, Sudan has strengthened its efforts with respect to payments to new creditors for project financing. However, the general political requirements for a debt relief are still not met.

Figure 4-23: Sudan – Public Debt Dynamics



Sources: WEO (2016), IMF (2007, 2010, 2012, 2013b, 2014a, 2016a), calculations by the Ifo Institute.

Sudan's primary budget balance fluctuated strongly between 2006 and 2012 (see Figure 4-23). Major disruptions were caused by the global financial crisis, when the general government net lending declined to -5.08% in 2009. Although there was a short-lived recovery in the following years, the secession of South Sudan and the subsequent decline of oil revenues, down from 11.5% of GDP in 2010 to only 1.5% of GDP in 2012 (IMF 2014a), gave rise to another sharp decline of the budget balance. Due to resolute efforts of the Sudanese government with regards to macroeconomic stability and growth following the shock of the secession, the budget balance improved and is expected to stabilize around -1.7% of GDP in 2015. Policy adjustments, growth and poverty reduction programs as well as institutional reforms helped to achieve this narrowing of fiscal deficit, which is also estimated to be relatively stable even beyond 2015 (IMF 2016a).

B) Public Debt Management

Governance and Strategy Development

Legal framework

The High Committee for Budget Preparation, consisting of representatives from the Ministry of Finance and National Economy (MoFNE) and the Central Bank of Sudan (CBoS), as well as representatives from academia and the private sector, is responsible for the coordination of public debt management in Sudan. The committee decides on the borrowing composition and the borrowing limits of the year, based on proposals by the Domestic Debt Unit within the MoFNE and the External Debt Unit of the CBoS (Osman 2013). The presented borrowing mix has to be submitted and approved by the National Assembly. According to the Bank of Sudan Amendment Bill from the year 2005, the CBoS is in addition responsible for the issuance and management of government securities. Apart from that, the CBoS is allowed to grant temporary financing to the government up to 15% of the total projected public revenues for the fiscal year (Osman 2013).

Managerial structure (incl. coordination with other policies)

Several international institutions have supported the development of more efficient debt management practices in Sudan. For instance, the World Bank conducted a Debt Management Performance Assessment (DeMPA) in 2012. Furthermore, Sudan developed an "Arrears Clearance and Debt Relief Strategy" (ACDRS) under the technical assistance of the African Development Bank in 2013 and benefitted from training with respect to debt sustainability analysis (DSA) and debt management performance assessment (DeMPA) (ADB 2014). Additionally, a World Bank mission visited the country in 2013 in order to "develop a reform plan for building debt management capacity and improving performance over the medium term" (World Bank 2013, p. 2). This included areas such as the legal framework of debt management, the organizational structure, operational management and domestic debt market development. In the latter case, the reforms specifically attempt to enhance options for domestic financing through the introduction of *sharia*-compliant short-term debt instruments (World Bank 2013). A second World Bank mission in 2015 reviewed the reform process in the light of changes in regulatory and macroeconomic conditions (World Bank 2015).

In line with the evaluation of the World Bank, Sudan currently seeks to review and strengthen the institutional setting of debt management, which continues to be highly fragmented (World Bank 2013). In 2015, Sudan created the new Debt Management General Directorate at the Ministry of Finance and Economic Planning (MoFEP), which is designated to bundle all operations regarding both external and domestic public debt management. Moreover, UNCTAD and Sudan have agreed on a new technical debt management assistance project (DMFAS 2015). The main part of the project, which is funded by the African Development Bank (ADB), represents the installation of the latest DMFAS system (DMFAS 6) at the MoFEP. The project attempts to deliver advisory and capacity-building support, for instance training sessions for Sudan's debt officers in various aspects of debt management (DMFAS 2015).

The Sudan Financial Services Co. LTD (SFS) supports the Central Bank in regulating liquidity and in raising special funds in the financial sector. For instance, the SFS organizes the auctions relevant to the selling and buying of the Government *Musharakah* Certificates (GMCs), Government Investment Certificates (GICs) and the Central Bank of Sudan *Ijarah* Certificates (*shihab*) (AFMI 2016). The large number of institutions involved in public debt management in Sudan makes it difficult to evaluate the degree of accountability of the respective institutions.

Debt reporting

Although the MoFNE already introduced a computerized Government Resource Planning system (GRP), the Domestic Debt Unit at the MoFNE still struggles to keep the domestic public debt on record. The collected data is issued monthly, quarterly and annually as part of the respective budget reports, whereas the external public debt is tracked separately by the CBoS and has been published in an annual report since 2000 (Osman 2013). The CBoS also publishes a detailed overview of the creditor structure of Sudanese external public debt in its quarterly "Economic and Financial Statistical Review". Contingent liabilities are not reported.

Debt management strategy (incl. risk management)

Both the Minister of Finance and National Economy and the governor of the Central Bank of Sudan avow for the improvement of public debt management policies in Sudan (IMF 2014). The principal objective of debt management in Sudan is "to meet government financing needs within lower possible cost and acceptable level of risk using Shari's compliant instruments" (Osman 2013, p. 4). Nevertheless, no specific document is published which specifies this general objective and outlines the particular debt and risk management indicators.

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

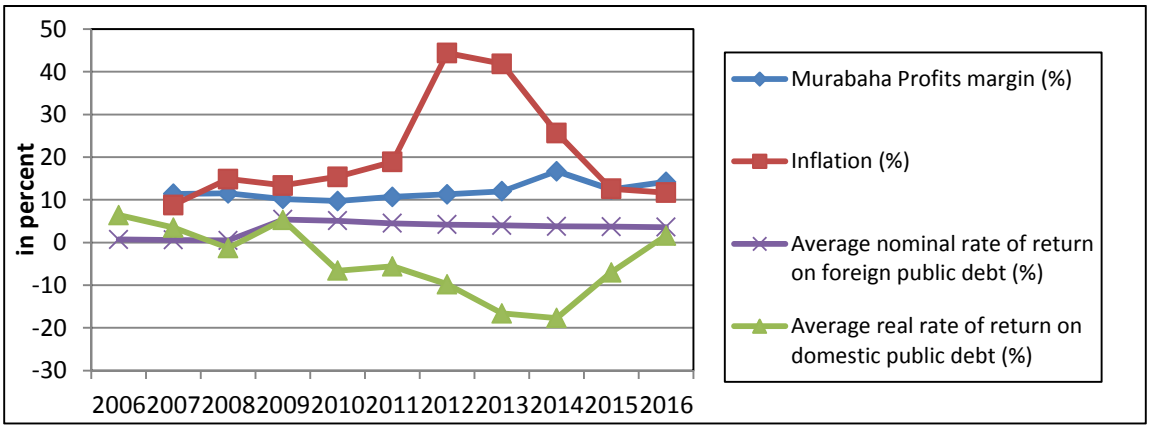
The financial system in Sudan relies to a high degree on the banking sector and has operated under Islamic principles since 1983 (IMF 2014a, 2016). There exist no interest rates, and rates of return are based on Islamic modes of financing. The government, in particular the CBoS, uses various short- and long-term Islamic finance instruments for debt and liquidity management. The CBoS uses Central Bank *ijarah* Certificates (*shihab*) for open market operations. These instruments have a maturity of 10 years and a nominal value of 1000 pounds. Returns are fixed and distributed monthly. Furthermore, the CBoS uses *sukuk* bonds for the management of liquidity (AFMI 2016). In order to conduct monetary policy and to achieve its operational target (growth in money supply), the CBoS controls the profit margin rate of the Islamic finance instrument *murabaha.* This profit margins rate is widely used by Sudanese banks as a kind of base rate (CBoS 2016b).

The government issues two types of *sukuk* bonds. Government *Musharaka* Certificates (GMCs), also called *shahama*, are short-term securities, which are issued by the MoFNE (AFMI 2016) and mainly used for liquidity and cash management. Apart from that, the government issues long-term Government Investment Certificates (GICs), which are known as *besrah* and are available with maturities ranging from two to six years. The nominal value of the instrument is distributed in profits quarterly or bi-annually (AFMI 2016). Compared to the market for GMCs, which has been growing steadily since 1999 because of the specific characteristics of these instruments such as high profitability, low risk, short-term maturity and high liquidity, the market for GICs has been stagnating since its introduction in 2003 (IIFM 2016). The secondary market of government *sukuk* takes place at the Khartoum Stock Exchange (KSE). Main regulating bodies are the *Sukuk* Regulation Committee (SRC), the *Shariah* Supervisory Board and the High *Shariah* Supervisory Board (IIFM 2016).

Between 2007 and 2013, the *murabaha* profits margin was stable ranging from 9.7% in 2010 to 11.5% in 2008 (see Figure 4-24). However, between 2008 and 2015, inflation was always substantially higher, which led to negative real rates of return. For instance, the average real rate of return on domestic general government debt was -17.7% in 2014. Only after the government has conducted structural reforms, the inflation started to decrease in 2014 and is

expected to continue to fall to single digits by 2017 (IMF 2014b), which would allow average real rates of return to increase again.

Figure 4-24: Sudan - Rates of Return and Inflation



Sources: CBoS (2016a, 2016b), IMF (2007, 2010, 2012, 2013b, 2014a) calculations by the Ifo Institute.

The return on government securities depends on the public finance accounts of the government, whereas the return of securities issued by the CBoS is determined in advance (IMF 2013a). For the year 2015, the average return on GICs was equal to 20% p.a. (CBoS 2016b), while the GMCs market yield was 11.8% p.a. (CBoS 2016a). Currently GMCs are expected to achieve a yield of 18% p.a. (CBoS 2016b). The average nominal rate of return on foreign currency general government debt is much lower and more stable than the domestic *murabaha* profits margin and hovers at around 4% (see Figure 4-24).

Domestic debt market

The majority of Sudan's general government debt is external (see Figure 4-23). Domestic borrowing is likely to increase which would lead to additional macroeconomic risks as borrowing from domestic banking sources is expected to increase inflation further (UNDP 2014, AEO 2012). In July 2016, the annual inflation rate stood at 16.5% (Abdelaziz and Noureldin 2016).

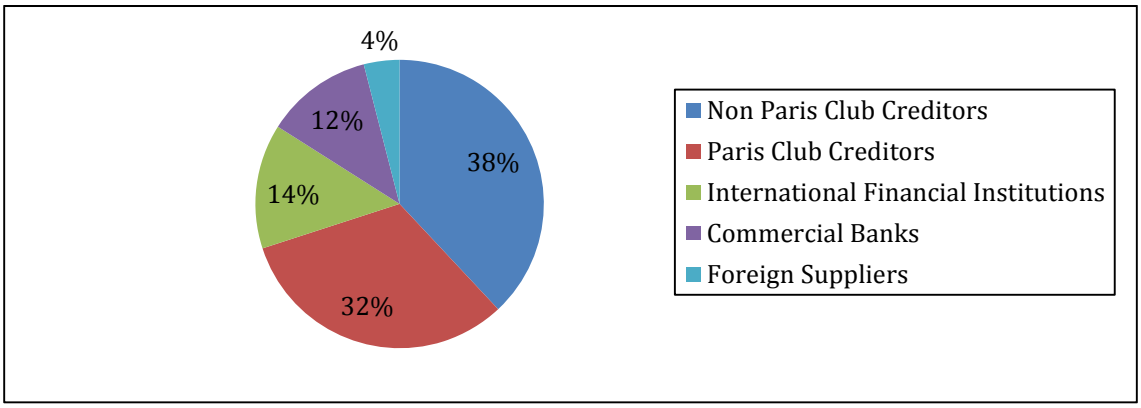
The largest share of government *sukuk* is held by commercial banks (41%) followed by companies and funds (25%) and the Central Bank of Sudan (22%). Only 12% of total government *sukuk* is owned by individuals (IIFM 2016).

Foreign borrowing

Since 2008, the share of external public debt in total public debt has continuously grown from around 80% to nearly 90% today. A huge part of this increase is the result of accumulated late-interest as approximately 86% (2013) of Sudan's external debt is in arrears (ADB 2014, EIU 2016). Due to U.S. sanctions, the unfinished "zero-option" agreement and the related high debt of Sudan, external borrowing options are limited. In order to finance infrastructure and other development projects, the government continues to seek loans from GCC states, as well as China and India (UNDP 2014). A large share of Sudan's external debt is owed to the Arab Gulf states, in particular Saudi Arabia and Kuwait (Leo 2010, Sudan Tribune 2012). As of end 2013, these and other Non-Paris Club Creditors represented the largest share of Sudan's external debt (see Figure 4-25). Paris Club creditors hold 32%, while the remainder is held by

international financial institutions (14%), commercial banks (12%) and other foreign suppliers (4%) (ADB 2014).

Figure 4-25: Sudan – Creditor Structure of External Public Debt (2013)



Source: ADB (2014).

Within Sudan's public and publicly guaranteed debt, the largest share is Dollar-denominated debt, which has accounted for an increasing share since 2008 and was equal to 55.5% in 2014. Other currencies which represent substantial shares of external public debt are the Swiss Franc (12.9%) and the Euro (7.3%). The remaining 24.3% represent other currencies, including but not limited to Pound Sterling and Japanese Yen. The currency structure is expected to remain relatively stable, mainly because the debt load is already high and the potential for new external loans is limited. Between 2013 and 2033, the IMF (2014) estimates that new external loans will represent about 0.4% of GDP.

C) Policy Recommendations

Facing huge challenges following the secession of South Sudan in 2011 and the unsecure economic environment due to the low oil price, it is important for Sudan to develop a credible policy dialogue, in particular with respect to the high public debt levels (ADB 2014). Overall, it is recommended to reduce the substantial foreign debt overhang. It is thus important to develop the domestic debt market and diversify the domestic investor base.

In order to reach an agreement concerning debt relief, Sudan has to show the international community that it strengthens its efforts both in stabilizing the political environment and improving macroeconomic conditions (ADB 2014). The IMF has repeatedly encouraged the authorities to continue their engagement with international partners to secure comprehensive support for debt relief and the lifting of sanctions, which would "pave the way for foreign investment and financing for growth and poverty reduction" (IMF 2016a). One important determinant of future borrowing requirements is the settlement of a dispute between Sudan and South Sudan about fees for the transit of South Sudanese oil, which represents a key revenue source for Sudan (UNDP 2014). Due to the global decline of oil prices, Sudan is under pressure to further decrease these fees, which would leave the country with higher borrowing needs (EIU 2016). It is important to reduce the fiscal deficit and pursue a tight monetary policy to achieve lower inflation (IMF 2016a).

It would be helpful to strengthen the legal and institutional framework to ensure a professional process of borrowing at different levels, both domestically and externally (Osman 2013), and to strengthen the public disclosure of economic data. Although the MoFNE has

already introduced a computerized Government Resource Planning system (GRP), the Domestic Debt Unit at the MoFNE still has problems to keep record of the domestic public debt (Osman 2013). In order to evaluate the macroeconomic conditions correctly institutions such as the MoFNE and the CBoS are advised to regularly publish detailed, up-to-date and consistent data (UNDP 2014).

With respect to Islamic finance, Sudan is recommended to review and develop new monetary and fiscal policy strategies. The prohibition of interest rates poses a challenge for the development of an efficient interbank market. The central bank cannot use standard debt-based instruments in the interbank money market and government security market to influence liquidity and implement monetary policy operations. However, the central bank can use equity-based instruments such as joint venture (*musharaka*) or possibly trustee partnership (*mudaraba*) facilities, whose trading values reflect market expectations of economic performance and rates of return. In any event, ex-ante calculating adequate profits and rates of return for equity-based instruments linked to government or central banking operations is a very complex task (IMF 2013a) and the financier is exposed to a significant loss risk. Recent innovations such as the so-called *declining mudaraba*, in which the bank's share in the facility decreases in line with pre-specified returns of investment, might prove useful to address these issues.

4.1.9 Republic of Albania

A) Public Debt Dynamics

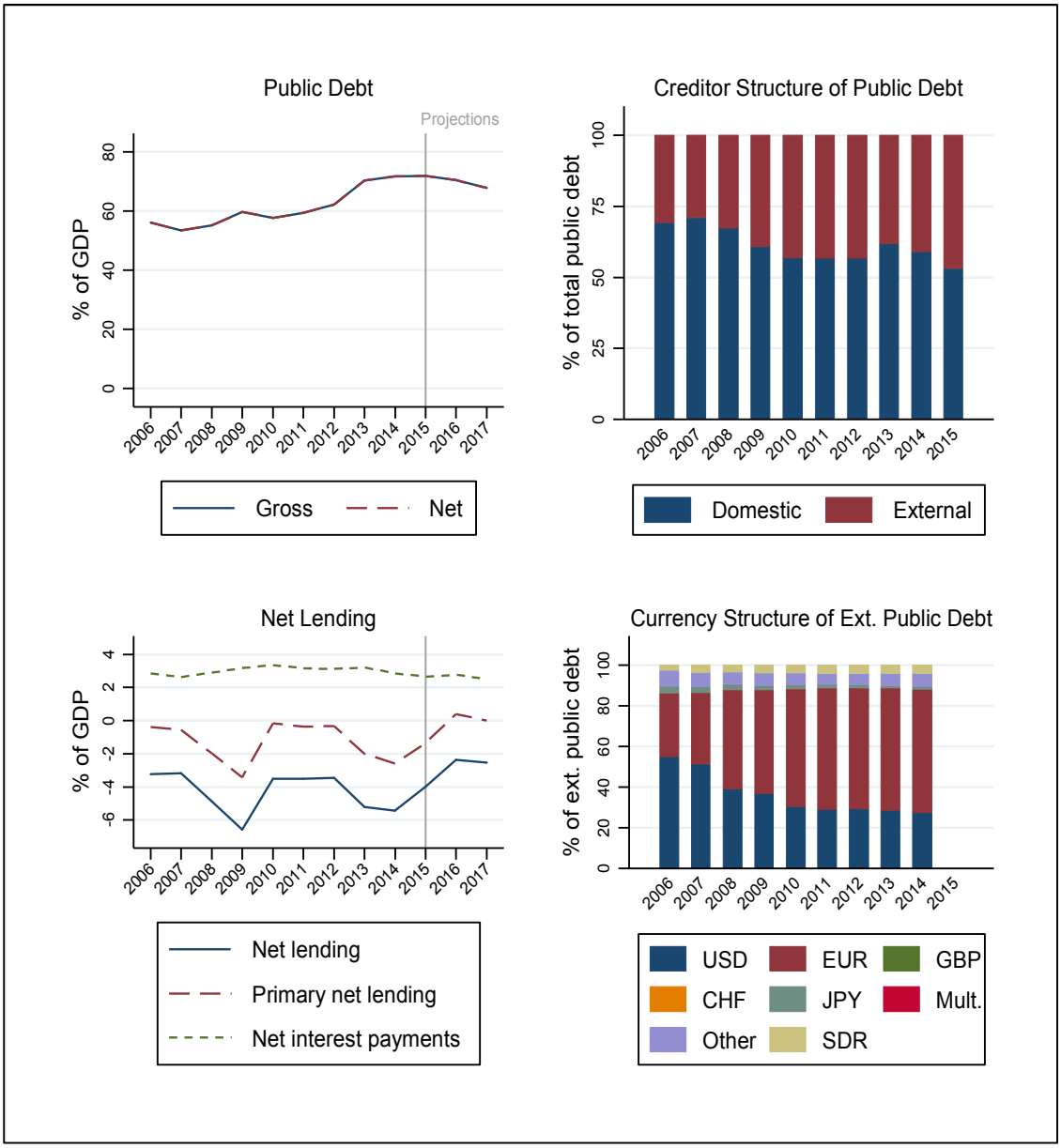
In the aftermath of the global financial crisis, economic growth in the Republic of Albania was low. The country suffered from economic difficulties in key Euro area trading partners and stagnant bank lending of its mostly foreign-owned banks. Low growth combined with high primary deficits increased general government debt by 9% of GDP between 2007 and 2012. In 2012, government had to remove the legal ceiling for the share of general government debt in GDP, which had been set at 60%. The recognition of a substantial stock of domestic arrears and unpaid bills is responsible for a one-time shift of general government debt by five percentage points relative to GDP in 2013. In 2015, general government debt increased by 2.3 percentage points relative to GDP and peaked at 72.1% (see Figure 4-26), a number among the highest in its peer group of countries in Central, Eastern and Southeastern Europe (CESEE). Publicly guaranteed debt plays a minor role making up 5.4% of total government debt. It is mainly devoted to projects for the supply of basic goods (water, energy, transport). Government activity results from the poor technical and financial performance of the sector of energy production and distribution. Given government's interest in an adequate energy supply, this poses fiscal risks that cannot be quantified ex-ante.

Albania has run persistent and large public deficits. While they amounted to 10% of GDP in the later 1990s, they were reduced to 6% of GDP in the early 2000s. Deficits were the result of poor tax collection and overoptimistic revenue forecasts on the one side and weak expenditure controls on the other. Fiscal stimuli during the financial crisis beginning in 2008 contributed to rising levels of general government debt. Net interest payments have been larger than 2% of GDP over the period under consideration starting in 2006. This lowered the general government balance substantially. While the primary budget balance was almost balanced between 2010 and 2012, it amounted to -1.2% in 2015.

The Albanian government is pursuing a significant fiscal consolidation (IMF 2016). In particular, debt levels are expected to start declining in 2016. Government aims at reaching levels below 60% by 2019. While the primary budget balance is projected to turn positive in 2016, the IMF is less optimistic about the future path of budget balances than the Albanian Ministry of Finance, which forecasts a steady increase in the budget balance reaching a surplus of 2.4% in 2018 (MoF 2016a).

Budgetary risks stem from contingent liabilities in the electricity sector, spending commitments in PPPs and government arrears. Additionally, increased borrowing through SOEs further enhances the risk through the rising number of guarantees. Due to the government's expansive fiscal policies in transport and energy infrastructure, guarantees increased by 1.7 percentage points to 9.4% of GDP in 2015 (European Commission 2016).

Figure 4-26: Albania – Public Debt Dynamics



Sources: WEO (2016), IMF (2016), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

Public debt management in Albania has seen major reforms and improvements in recent years. An official public debt management strategy has been formulated in close cooperation with international institutions like the World Bank and the IMF. The reform includes the application of new analytical tools, the definition and communication of strategic objectives and improved planning over the medium term. Progress is evaluated continuously and reforms are implemented on an ongoing basis. A major achievement of the Public Finance Management Reform of 2007-2013 was the introduction of a Medium Term Budget Program (MTBP) as an instrument to add a longer perspective to public finance planning and to promote long-term sustainability of public finances. This reform has been accompanied and legalised by new laws.[26]

Managerial structure (incl. coordination with other policies)

In 2008, government established the General Directorate of Public Debt Management (GDPDM) within the MoF as a major step in the reform process. It is headed by a Director General who reports to the Deputy Minister of Finance. It manages central government debt, prepares a medium-term debt management strategy and drafts an annual debt management report.

The Law on the Bank of Albania from 1997 mandates a clear separation between monetary policy operation and public debt transactions. Nevertheless, the Bank of Albania is allowed to extend credit to government, albeit the amount is limited to 5% of the average annual ordinary government revenue. Credit has to be denoted in domestic currency and has a maximum maturity of six months.

In late 2010, a World Bank team undertook a Debt Management Performance Assessment (DeMPA) for Albania (World Bank 2011). At that time, having assessed 50 countries, Albania was among the few that had sound debt management practices in a large number of DeMPA areas and, in addition, had substantially improved since an earlier assessment in 2007. While governance, strategy development and coordination with other economic policies were identified as strong areas, external borrowing and operational risk management showed room for improvement.

According to the 2011 PEFA assessment (Gustafsson et al. 2011), public finance management had improved considerably since 2006 although indicators still show moderate levels. In particular, actual revenues and expenditures deviated substantially from those projected. Albania's reform of the country's public financial management system is assisted by external partners, namely international organizations such as the World Bank and the IMF and governments of partner countries. On the one hand, they provide financial support for investments in IT and training of staff. On the other hand, they help through their experience and technical expertise.

[26] Law no .9965, dated 18.12.2006, "On State Borrowing, State Debt and Guarantees of the Republic of Albania", for the central government, and Law no. 9896, dated 04.02.2008, "On Local Borrowing", for local government.

Debt reporting

The Albanian MoF publishes indicators on the level, composition and creditor structure of domestic and external general government debt on its homepage (see MoF 2016c and links thereon). The MoF also publishes detailed statistics on the level and evolution of debt in its triennial MTDMS (see., e.g. MoF 2016a). Reports on the exact amount of contingent liabilities do not exist. Quantifications of total public payment arrears and contingent liabilities are available.

Debt management strategy (incl. risk management)

Albania's debt management strategy is based on both, quantitative and qualitative analyses: the quantitative part compares costs and risks of four alternative debt management strategies under different economic scenarios with special focus on refinancing, interest rate and exchange rate risks. Its forecast horizon covers five years. These analyses are based on analytical tools provided by the World Bank and the IMF. The qualitative part analyses special topics, e.g. strategies to develop the domestic financial market for sovereign bonds. The 2009 strategy document came up with the following recommendations: reduce the share of debt denominated in domestic currency (Lek) to below 60%; increase the average duration of debt; have all external borrowing denominated in Euro; stop to use the Bank of Albania as a source of funding.

In 2014, the MoF published its "Public Finance Management Strategy 2014-2020" (MoF 2014a), which pursues the objective of long-run sustainability of public finances. The overall objective of the public finance management reform strategy is to "achieve a better balanced and sustainable budget with a reduced debt ratio through stronger financial management and control and audit processes and where budget execution is properly linked to Government policies" (MoF 2016a, p.5). The strategy was developed in cooperation with national and international institutions as it incorporates targets set by international donors, namely the IMF, the World Bank and the EU. Goals encompass increased accountability and transparency in public finances, fiscal discipline and efficient management of resources. In this regard, the following steps will be taken:

1) Revision of the accounting standards to make them compliant with the EPSAS standards;
2) Implementation of an integrated financial management system;
3) Law amendment to prevent government corruption;
4) Systematic training for staff.

The section on debt and cash management develops a strategy to better match revenue flows with payment needs aiming at minimizing costs at a given level of risk. In this regard, the government will review the current institutional arrangement, formulate a comprehensive debt management strategy and develop a strategy for the development of domestic markets for sovereign bonds.

The current MTDMS is a logical extension of the reforms in process and continues to focus on the reduction of refinancing and interest rate risk (MoF 2016a). For the objectives in the medium term, please refer to Table 4-10. In this regard, the following policies are planned and started:

- Financing on the domestic market by long-term securities with fixed interest rates (issuance of 7-year and 10-year bonds)
- Financing on external markets at concessional terms provided by international institutions

- Evaluation of an additional Eurobond issuance, which might have positive spill-overs on domestic and external financing conditions thanks to the build-up of a positive reputation
- Contribute to further develop the domestic securities market

Table 4-10: Albania – Cost and Risk Indicators for the Government's Debt Portfolio (2015)

Risk type	Risk indicator	Indicator 2015	Objective (2018)
Refinancing risk	ATM of domestic debt (in years)	2.0	Min. 2.2
	ATM of total debt (in years)	4.9	Min. 4.7
	Domestic debt matured in 1 year (% of total)	55.9	Max. 46.0
	Total debt matured in 1 year (% of total)	31.6	Max. 26.0
Interest rate risk	ATR of domestic debt	1.8	Min. 2.0
	ATR of total debt	3.2	Min 3.0
	Domestic debt reevaluated within 1 year (% of total)	67.7	Max. 60.0
	Total debt reevaluated within 1 year (% of total)	58.1	Max. 55.0
Exchange rate risk	FX debt (% of total)	48.5	50.0-55.0

Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; ST = Short-term.
Source: MoF (2016b).

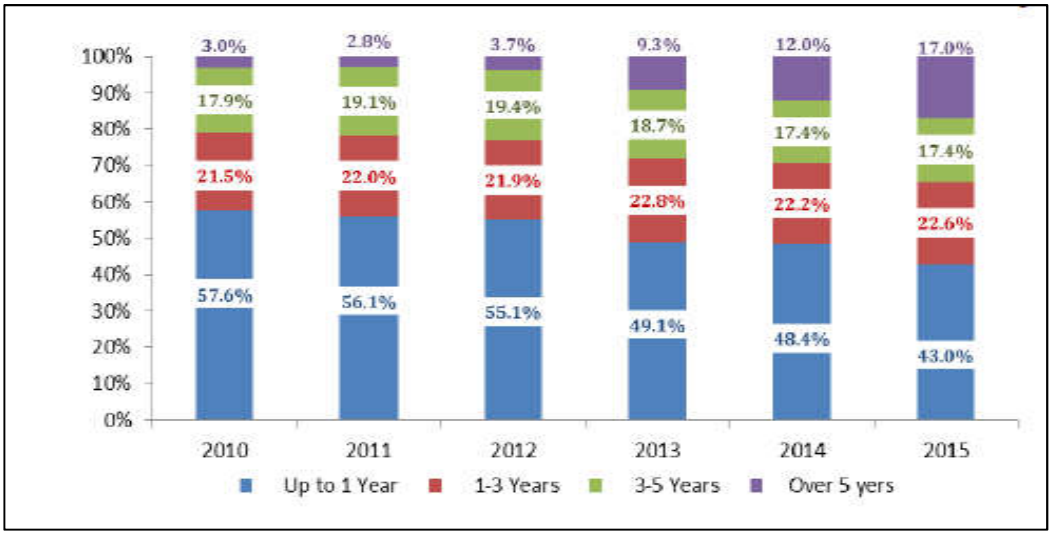
During 2015, debt management successfully engaged in operations to increase the maturity of public debt (MoF 2016b): first, it focused on the issuance of long-term bonds (7-year and 10-year bonds). Second, it actively repurchased bonds of low remaining maturities. Concerning foreign debt, the issuance of a €450 million five-year Eurobond in November 2015 and donor financing with the IMF and the World Bank have lowered rollover risk in the near future.

Debt management, however, missed its target for the currency composition of debt according to which debt denoted in domestic currency should make up at least 55% of total debt. However, the reliance on foreign debt enabled Albania to further decrease refinancing and interest rate risks because foreign markets provide financial resources at longer maturities than domestic markets. This highlights the trade-off between the different risk categories. Moreover, given the narrow domestic investor base, refinancing on international markets might be favourable for the domestic economy. It prevents that government drains domestic financial resources and makes it easier for private domestic investors to get their projects financed locally.

While the average maturity of outstanding debt amounts to 4.9 years, there is an important difference between domestic and foreign debt: the average maturity of domestic debt equals two years, while foreign debt has an average maturity of 8.1 years. The share of long-term debt (debt with a maturity exceeding two years) has increased steadily in recent years (see Figure 4-27). During 2015, the average maturity of domestic debt increased by 0.2 years and that of foreign debt by 0.5 years.

During 2015, the share of debt with fixed interest rates has slightly decreased to 68.2%. The entire domestic debt is contracted at market interest rates, whereas foreign debt is equally divided between debt at market rates and debt at concessional terms.

Figure 4-27: Albania – Public Debt Composition by Instrument Maturity



Source: MoF (2016a).

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

Borrowing in the domestic market is undertaken by issuance of sovereign bonds in domestic currency through an auction process managed by the Bank of Albania, which acts as an agent for the MoF. The government issues bonds with a variety of maturities: T-Bills with zero coupons are issued for three, six, nine and twelve months. Coupon-bearing T-Bonds exist for maturities of two, three, five, seven and ten years. Only 5-year bonds have a floating interest rate, which is annually re-set depending on market conditions.

The Albanian banking system is characterised by the dominance of subsidiaries of EU-based banking groups: in 2015, of a total of 16 commercial banks nine were linked to EU-based banks. According to the World Bank (2014b) only one bank is classified as an Islamic bank: the United Bank of Albania is owned by a Saudi-Arabian financial institution.

For public finances sovereign *sukuk* seem to play no role so far. Official documents like the current MTDMS (MoF 2016a) do not mention *sukuk* financing as an option. In its Stability Report, loan agreements with other Islamic countries did not meet the conditions for Islamic banking and were not *sharia* compliant. An example is a loan contract with the Saudi Arabian fund for development, which in 2011 agreed to lend $25 million to the Albanian government for the construction of a highway. Interest payments were part of the contract.

Domestic debt market

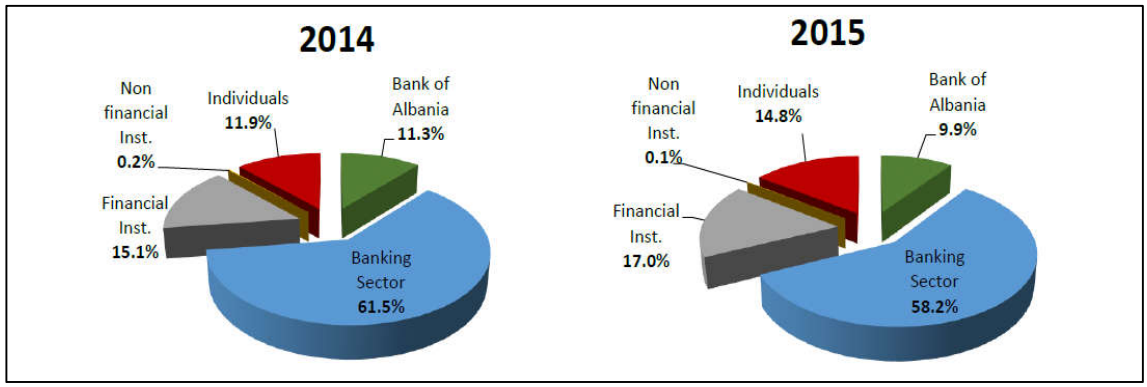
At the end of 2015, general government debt had the following characteristics: 52.8% was domestic liabilities, whereas 47.2% was external debt (see Figure 4-26). While domestic debt was held entirely in tradeable instruments, only 13.4% of external debt was tradeable in international markets. The major part of external debt consists of loans for development projects, budget support by the IMF and the World Bank as well as liabilities guaranteed by the World Bank, which are not traded on financial markets.

The share of government debt denoted in domestic currency amounts to 51.4%. It decreased by 5.5 percentage points during 2015. While domestic debt is mostly denoted in domestic currency (97.2%), external debt is entirely denoted in foreign currencies. Among foreign currencies, the Euro is dominant making up 70% of foreign currency debt. This concentration on the Euro is motivated by the relative stable exchange rate between the Albanian Lek and the Euro, the intensive trade links with the Euro area and Albania's plan to become a member of the EU.

Albania has a functioning, albeit narrow domestic debt market. Government securities auctioned in 2015 were bought by the banking sector (50.3%), the Bank of Albania (20.1%), individuals (15.5%), financial institutions (13.5%) and non-financial institutions (0.7%). The concentration of securities in the banking sector reflects the narrow investor base. Moreover, a secondary market for government securities is missing. Compared to 2014 these numbers show a tendency towards the intended diversification: While the share of the banking sector has decreased, individuals and nonfinancial institutions have become more important players.

Figure 4-28 shows the breakdown of outstanding debt between types of holders. The figures of outstanding debt and new purchases, show that the lower share of the banking sector in new purchases is covered by a larger share of the Bank of Albania. This indicates that the Bank of Albania has become a more important player on the market for government securities. An important question is however whether these transactions are motivated by monetary policy or by government financing needs.

Figure 4-28: Albania – Creditor Structure of Domestic Public Debt



Source: MoF (2016a).

Foreign borrowing

External public borrowing has consisted of multilateral and bilateral official credits, syndicated bank borrowing and Eurobonds. Among the most important multilateral creditors have been the World Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Council of Europe Development Bank and the Islamic Development Bank. Official credits have been the government's preferred source of external financing because of its concessional nature. These generally have been related to a reform programme. The most important bilateral creditors have been Germany (through KfW Development Bank), Italy and Austria. In 2010, Albania issued its maiden Eurobond amounting to €300 million. Before entering the Eurobond market some prerequisites had to be fulfilled – including the existence of a sovereign credit rating – such that the first Eurobond issuance was considered an important step in accessing external financial markets.

C) Policy Recommendations

The Albanian government has implemented challenging reforms in public debt management with the intention to adopt global best practices. The success is remarkable: first, the creation of the General Directorate of Public Debt Management and the formulation of a clear strategy have contributed to the accountability and transparency of public debt management. Second, the structure of public debt has been moved in line with the strategic objectives. As a result, interest rate and refinancing risks have been reduced.

The analysis, however, reveals a number of risks: rollover risk is still high: (1) the average maturity of outstanding marketable debt is low. In 2015 financing needs amounted to more than 37% of GDP. (2) A substantial part of public debt is held by domestic banks. This creates a vicious link between public finances and the banking sector: public default would damage the banking sector and difficulties in the banking sector endanger government's success in placing its bonds on the domestic market (World Bank, 2014a). These risks are enhanced by the fact that the government revenues relative to GDP are low. This restricts fiscal leeway and makes it more difficult for government to run substantial surpluses in order to reduce public debt levels. Therefore, it is important to improve the tax system focusing on tax compliance and an expansion of the tax base.

The Bank of Albania purchased substantial shares of sovereign bonds: in 2014 and 2015, where data is available, the Bank of Albania purchased about 20% of newly issued government securities while it held about 10% of all outstanding government securities. This poses the risk that monetary and financial policies are not clearly separated and that the central bank cannot implement an independent monetary policy. Public debt management is well recommended to further diversify its investor base.

The average maturity of domestic sovereign bonds is still relatively low. Public budget management might benefit from the low interest rate environment to lengthen the average maturity of debt to reduce refinancing risk and reduce the amount of bonds issued annually.

It is important to achieve a balance between domestic and foreign borrowing. Overreliance on domestic borrowing by the public sector may lead to a crowding-out of private sector credit. Given that the domestic investor base is limited, access to foreign investors makes the government more independent from domestic developments. After the successful issuance of Eurobonds public debt management should try to turn this instrument of exceptional financing into a general one. Eurobonds might be issued on a regular basis. In general, Albania should reduce its reliance on concessional external debt and broaden its base of international investors. While a stable macroeconomic development and close links to the EU might be helpful preconditions, a clear commitment to the public debt management strategy might be helpful in itself. In this sense, it is important that Albania continues its process of fiscal adjustment in order to build-up a good reputation.

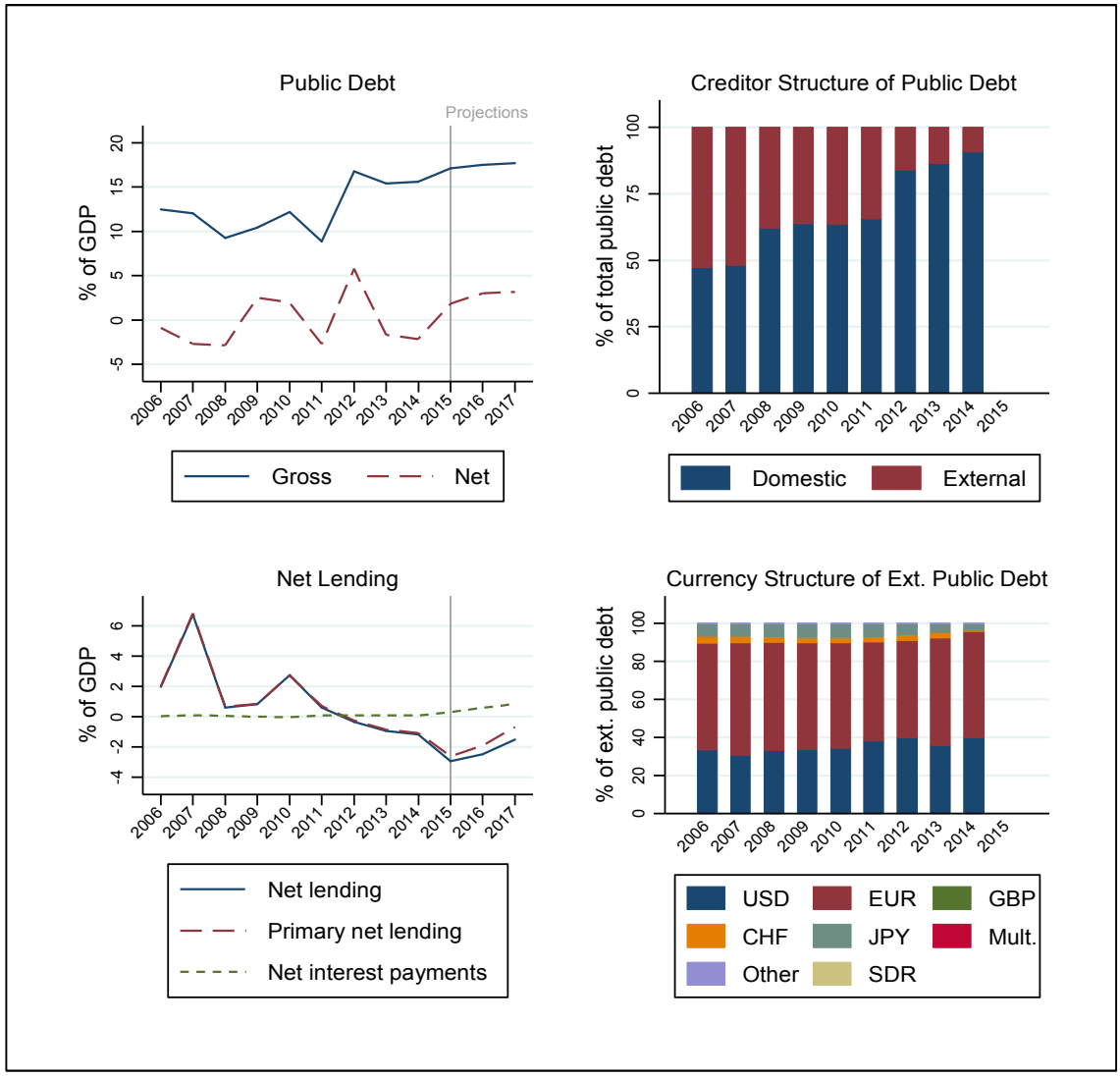
4.1.10 Islamic Republic of Iran

A) Public Debt Dynamics

General government debt of the Islamic Republic of Iran is at a moderate level compared to other OIC member countries. However, between 2006 and 2015 the debt-to-GDP ratio increased from 12.5% to 17.1% (see Figure 4-29). After a temporary decline in 2011, the debt ratio rose sharply from 8.9% to 16.8% of GDP in 2012. The increase may be attributed to large-scale social housing projects, and an injection of public revenues into the construction sector. Following the hold of many infrastructure projects and the expansion of the taxation system in the aftermath of declining oil prices, general government debt is expected to remain relatively stable, increasing only slightly to 17.7% of GDP in 2017. The IMF (2015a) even expects a decline of the debt ratio if arrears are settled. General government net debt fluctuated between -2.8% of GDP in 2008 and 5.8% of GDP in 2012. Overall, general government net debt is expected to stabilize at around 3% of GDP. Estimations have put contingent liabilities through trade financing of domestic banks of 7 percent of GDP ($9.2 billion) in March 2014 (Bova et al. 2016).

Between 2006 and 2011, Iran's budget balance was positive, but the budget surplus became smaller over time. Iran experienced an economic downturn following the sanctions imposed by the United Nations, the United States and the European Union (EU) in 2010 and 2012 (IMF 2014, 2015a). In particular, the intensification of sanctions imposed by the EU in 2012 (External Action Service 2012) gave rise to a drop in economic activity. The decline of oil prices starting in 2014 and the related decline in oil revenues have also contributed to increasing deficits (Mojarrad 2015). Net borrowing reached its maximum at 2.9% of GDP in 2015. As the UN sanctions are scheduled to be lifted step by step (UN Security Council 2015), primary net lending is expected to narrow and supposed to stabilize at around 1% of GDP, while net lending is expected to stabilize at around 1.5% of GDP in 2017. Budget consolidation is a result of increasing domestic revenues and the impact of a subsidy reform approved in 2010 (Mojarrad 2015). Debt service costs started to increase in 2014, coming along with the increase in general government net debt. In general, the relief of economic sanctions in Iran provides a wide range of opportunities for economic improvement in Iran, which may be strengthened by accompanied structural reforms (see also Versailles 2016). The government has been especially active in deregulating the electricity, gas and oil markets since 2005. In any event, electricity and gas and oil industries remain vulnerable to exchange rate fluctuations and are in need for modernization investments.

Figure 4-29: Iran – Public Debt Dynamics



Sources: WEO (2016), IMF (2014, calculations by the Ifo Institute.
Note: Due to missing data the bar for 2015 concerning the creditor structure of public debt (top-right panel) is missing.

B) Public Debt Management

Governance and Strategy Development

Legal framework

There is no legal framework concerning public debt management yet. However, the Ministry of Economic Affairs and Finance (2016) signs responsible for the repayment of debts incurred by ministries and state owned enterprises. A legal foundation steering fiscal policy is also not established yet, as criticized by the IMF (2015a). The IMF suggests developing a legal framework including the possibility to impose costs on policy makers who do not comply with fiscal rules.

Managerial structure (incl. coordination with other policies)

To improve debt management practices and strengthen transparency and accountability, Iran created a debt management unit (DMU) in 2015 which is an integrated part of the Treasury Department. As the central institution responsible for debt management, the DMU identifies all government debt and associated risks (Shahriari et al. 2016). The DMU also develops a medium-term fiscal strategy and issues a well-developed range of Islamic debt instruments, including *sukuk*, Islamic Treasury Bills or Islamic Settlement Bills (Shahriari et al. 2016). Other institutions such as the Central Bank of Iran (CBI), the Money and Credit Council (MCC), the Supreme Audit Court of Iran (SAC), the Vice-Presidency for Strategic Planning and Supervision, the Iran Privatisation Organisation (IPO) and the Organisation for Investment, Economic & Technical Assistance of Iran (OIETAI) support the DMU with their specific knowledge (Akrami 2014). Overall, The Islamic Republic of Iran adheres to good governance criteria.

Debt reporting

The information infrastructure and the public sector accounting and auditing procedures have improved over the past, but do not fully meet international standards until now (Akrami 2014), which gives rise to incomplete debt data. A strategic document, which contains specific objectives and indicators for debt and risk management, is not available (IMF 2015d). Formal accounts for contingent liabilities do not exist.

The Iranian government took efforts to improve public debt management and reporting practices. From July to August 2015, a Technical Assistance Mission by the Fiscal Affairs Department of the IMF visited Iran and gave some advice to the Iranian government (Hansen 2015). In particular, the Iranian government intends to improve the quality of data which is expected to be updated on a regular basis in the near future (IMF 2015b). Iran also participated in the Tenth Debt Management Conference which took place in 2015 as part of the UN Conference on Trade and Development in Geneva (UN 2015).

Debt management strategy (incl. risk management)

The Ministry of Economic Affairs and Finance (MEAF) of Iran considers debt management as an important part of their general strategy to reduce fiscal vulnerability and strengthen financial systems.

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

In 1983, the Usury-Free Banking Act abolished interest-rate practices in Iran within three years (Warde 2000). Apart from that, credit expansion and foreign exchange available to banks were strictly regulated by the Central Bank and the Supreme Council of Banks. Due to these

strict national regulations, basically all assets in Iran are considered to be Islamic finance assets. Iran represents 37.3% of the global Islamic banking assets (IFSB 2016). While interest payments are forbidden in Iran's unique form of sharia compliant banking system (Vizcaino 2015), the usage of profit and loss sharing within the framework of financial intermediation is allowed (Ahmad 1994). As the CBI cannot access the traditional instrument of setting the bank rate, it sets maximum and minimum profit sharing ratios, which may be adjusted from time to time to steer credit expansion (Ahmad 1994). The CBI also determines so-called 'provisional rates' which are minimum and maximum expected rates of return from various facilities to the banks and maximum rates of commission the banks are allowed to charge for investment accounts (Ahmad 1994). The deposit rates are updated regularly by the Money and Credit Council (MCC) and vary regarding maturity. The banks' provisional deposit rate ceiling is set at 20%, proportionate to the maturity of deposits (CBI 2015a). The minimum expected lending rates for transaction contracts are set specifically for each economic sector, e.g. for manufacturing and mining, construction and housing, agriculture, trade and services and exports (CBI 2015b). The expected maximum profit rate of Profit-/Loss-Sharing (PLS) contracts concluded between banks and credit institutions and their clients is set at 24%. The maximum lending rate on loans and facilities extended by banks and credit institutions for non-PLS contracts currently equals 21% (CBI 2015a).

In contrast to the private banking system, transactions among the government and other elements of the public sector including the CBI and nationalized commercial banks are legally based on a fixed rate of return. This may be problematic, as the fact that the government can take loans under a conventional fixed rate within an interest-free banking system implies that bank charges would be indexed to this rate instead of representing profits of borrowing entities (Iqbal and Mirakhor 1987).

In 2015 Iran has started to expand its Islamic bond market. There are various types of instruments such as *murabahah*, *musharakah*, *ijarah*, and different types of *sukuk* with various maturities. In September 2015, Islamic Treasury Bills (ITBs) were introduced in Iran (Kalhor 2016). These ITBs are zero coupon bonds sold at a discount to their face values. The acquired profit is non-taxable and they are non-transferable (Goodarzi and Kalhor 2016). ITBs have a one year maturity and are traded predominantly at the Iran Fara Bourse, an over-the-counter-market operating in capital markets for listed and unlisted securities (Iran Fara Bourse 2016). The effective rate of return of ITBs is expected to be higher than the official bank deposit rate that is set by the central bank (Bozorgmehr and Arnold 2015). Sovereign *sukuk*, *ijarah* and Sovereign Settlement Bills were issued for the first time with the beginning of the Iranian fiscal year in March 2016 (Kalhor 2016).

The Iranian fiscal year 2016 included the issuance of 225 trillion rials ($7 billion) of debt, which contain 75 trillion rials ($2.5 billion) of ITBs while the remainder represents *sukuk* (Kalhor 2016). Short-term instruments such as ITBs are predominantly used for cash management, ensuring an efficient cash flow and securing the government's liquidity.

The effective borrowing cost rate on total government debt at the end of the year remained relatively stable at around 1% between 2011 and 2015. In 2016, borrowing costs have been expected to increase to 4.8%, and this positive trend is projected to continue. The IMF emphasized that these borrowing cost rates are high due to the inefficiency of the deposit and lending rates caps set by the CBI, and that market-determined borrowing cost rates would better reflect liquidity and risks (IMF 2015a). New international issuances of government bonds are expected to come with a yield of around 8% (Fitch 2015).

Domestic debt market

Iran's general government debt is largely held domestically, which is why Iran Debt Management is mainly subject to refinancing rather than exchange rate risks. Between 2008 and 2011, the share of domestic general government debt to total general government debt remained on a high level between 62.1% in 2008 and 65.6% in 2011. In 2012, the share of domestic debt increased to 83.9%. Until 2017, these high levels of domestic general government debt prevail due to the economic sanctions, which led to a weak involvement in international economic relations (Atkinson 2015). While total (public and private) external debt represents approximately 2.7% of GDP in 2015, this share is expected to rise in the future when the sanctions will be lifted (IMF 2015a).

Loans owed to the banking system represent a large share of domestic general government debt (IMF 2015d). The claims of the banking systems on the public sector (including state-owned companies) equalled 1676.9 trillion rials (about $53 billion) in March 2015 (CBI 2015a). The government indebtedness to banks in 2015 amounted to 1191.3 trillion rials ($37.6 billion) or 60% of general government gross debt, and the government's indebtedness to the central bank was equal to about 9.2% of general government gross debt. The bond market represents less than 3.2% of the overall financing needs in the Iranian fiscal year that ended in March 2015, while approximately 89.2% was facilitated by money markets and 7.6% by the stock exchange (Kalhor 2016). Between 2011 and 2015, only 5% of the transactions in Iranian capital markets took place in the bond market (Kalhor 2016). However, Iran plans to further develop the domestic bond market by lowering transaction costs to reduce debt service costs of the government over the medium- to long-term (IMF 2015a). Such a domestic securities market is supposed to increase financial stability and to improve financial intermediation as it fosters greater competition and the evolution of related financial infrastructure, instruments and services (Kalhor 2016).

Foreign borrowing

Iran issued international debt for the last time in July 2002 (IMF 2002). The Euro-denominated bonds worth of about $1 billion were paid off full in 2007 (Fitch 2015). Iran is currently planning its return to international debt markets in order to finance the recovery after the nuclear deal prepared the way out of isolation (Montevalli 2016), which is expected to open up opportunities to transform the debt practises in Iran (Iyigün and Tozy 2016).

External public debt is denominated predominantly in Euros and U.S. Dollars. The share of Euro-denominated public debt in total external public debt decreased slightly from 56.53% in 2008 to 50.8% in 2012. U.S. Dollar has the second largest currency share, which equalled 33.15% in 2008 and increased continuously to 39.9% in 2014. The share of Japanese Yen shows a decreasing trend from 7.40 in 2008 to 3.5% in 2014. The same pattern can be observed with the share of the Swiss franc, which started with 3.7% in 2008 and disappeared almost completely in 2014 (0.6%). Future external public debt, which is expected to be issued after the sanctions are lifted, is likely not to be denominated in U.S. Dollar, but either in Iranian Rials or in Euro (Wright 2015).

C) Policy Recommendations

It is recommended to further improve the institutional framework of public debt management in Iran, clearly defining and making public the operations, members and competencies of the newly created DMU. The relations and interactions between the various entities integrated in debt management might also be strengthened. In particular, the precise division of competencies between the DMU, the CBI and the MCC remains rather vague. This specifically includes the tasks of the CBI which should remain its independence. Moreover, a transparent legal framework for debt management is required (Hansen 2015). The development of a general strategy for debt management and a medium-term debt management strategy by the DMU following international standards would make the framework more comprehensive.

One of the most pressing issues concerns collecting, managing and publishing debt data. For example, government finance statistics should go beyond the coverage of the central government and also include subordinate public entities. The role of semi-public institutions, especially those lead by members of the military or religious community, may be better clarified, given their importance with regards to economic activities and public debt holdings. Statistics may be released more regularly (IMF 2015a). Although data on public and publicly guaranteed debt is published, further improvements are still necessary as the classifications do not meet the standards of the IMF External Debt Guide (IMF 2015b).

Moreover, more transparency regarding the supervision of the banking sector as a large creditor to the government is recommended, at it currently lacks clear transparency on ownership and operations. It is advisable to restructure the high number of non-performing loans and banks in general, and solve issues with unlicensed financial institutions, which are partly responsible for these high borrowing cost rate levels threatening macro-economic stability (IMF 2015a). Given the importance of the banking sector for public borrowing needs, the government should ensure sufficient liquidity in the market. This may be of special concern given that banks mostly hold illiquid assets in the housing and construction sector, while simultaneously managing comparatively high debt.

It is important to re-evaluate the nexus between fiscal and monetary policy regarding the concerns connected to the implementation of Islamic banking in Iran. The fact that the government is the only actor that is allowed to borrow at a fixed rate, also influences the other bank charges which are supposed to reflect actual profits of the borrowing entities (Iqbal and Mirakhor 1987). Various solutions have been presented to solve this issue, among others the replacement of the fixed rate by a variable rate of return tied to nominal GDP growth or the allowance for the government to access a portion of the demand deposits at the central bank on a non-interest basis (Iqbal and Mirakhor 1987). Despite these issues related to Islamic banking practices, the IMF supports Iran's transition from loan markets towards market-based approaches to finance government debt, which include explicitly the issuance of *sukuk* and other Islamic debt instruments (IMF 2015a).

Finally, the expected lift of sanctions provides great opportunities for international cooperation. Foreign direct investments may lessen the pressure on public accounts to finance needed investments in the oil and gas sector. Moreover, it opens room for a deepened economic cooperation within the region and with other OIC member states.

4.1.11 Republic of Kazakhstan

A) Public Debt Dynamics

Compared to other OIC member countries, the Republic of Kazakhstan's general government debt levels are moderate. General government debt increased from 7% to 26% of GDP between 2006 and 2016.[27] Additional liabilities not recorded in the budgetary system ("quasi-debt") amount to about 30% of GDP.[28] Before the recent oil price decline, the steady increase in debt was accompanied by an even larger accumulation of financial assets because of high oil revenues. Consequently, general government net debt decreased from around -11% in 2006 to -19% of GDP in 2014 (see Figure 4-30).

This situation has changed very significantly in 2014 because of the sustained low oil prices and decreasing export revenues (especially from Russia and China). To finance increasing budget deficits and to avoid a major recession, $16 billion were transferred from the National Oil Fund (NFRK) to the budget in 2015, an amount being above the limit of $8 billion allowed according to the rules. External monitors criticized the break of the transfer rules because this may have negative effects regarding sustainable debt financing. The oil fund's revenues are estimated to be at around $5 billion on average per annum during "normal" times, but are significantly lower at present. It is planned to reduce the transfers from the NFRK to the budget to $5 billion in 2016. The NFRK's assets fell from $77.2 billion in August 2014 to $63.5 billion at the end of 2015 and have been estimated to equal about $60 billion by the end of 2016. According to interview sources in November 2016, it is intended to return to sustainable oil fund reserves even at the cost of more severe budget cuts.

Net lending decreased from 7.7% of GDP in 2006 to -1.3% of GDP in 2009 because of declining oil revenues during the global financial crisis. In 2015, net borrowing was 5.3% of GDP following the decline in oil prices. The non-oil budget deficit in 2008 was 3.7% and steadily rose to 13% in 2015. The government intends to reduce the non-oil deficit to 10% in 2016 and to 7% in 2020. For 2025 a non-oil deficit of not more than 6% is intended, which would be sustainable according to the MoF and the World Bank. At present, major budget cuts can be observed.

Since mid-2015, the value of the Tenge has devaluated towards the U.S. Dollar by about 50%. To avoid a major recession, an infrastructure investment program for the period 2015-2017 has been launched to stimulate the economy, which is partly financed by the NFRK and by some external financial institutions such as the World Bank, the Asian Development Bank and the European Bank for Reconstruction under the Programme Framework Agreement (PFA). $9 billion will be contributed by Kazakhstan and another $9 billion by external sources. Fitch Ratings has recently downgraded Kazakhstan to 'BBB' because it regarded the government's funding of infrastructure investment out of the NFRK and financing troubled state-owned enterprises as non-sustainable.

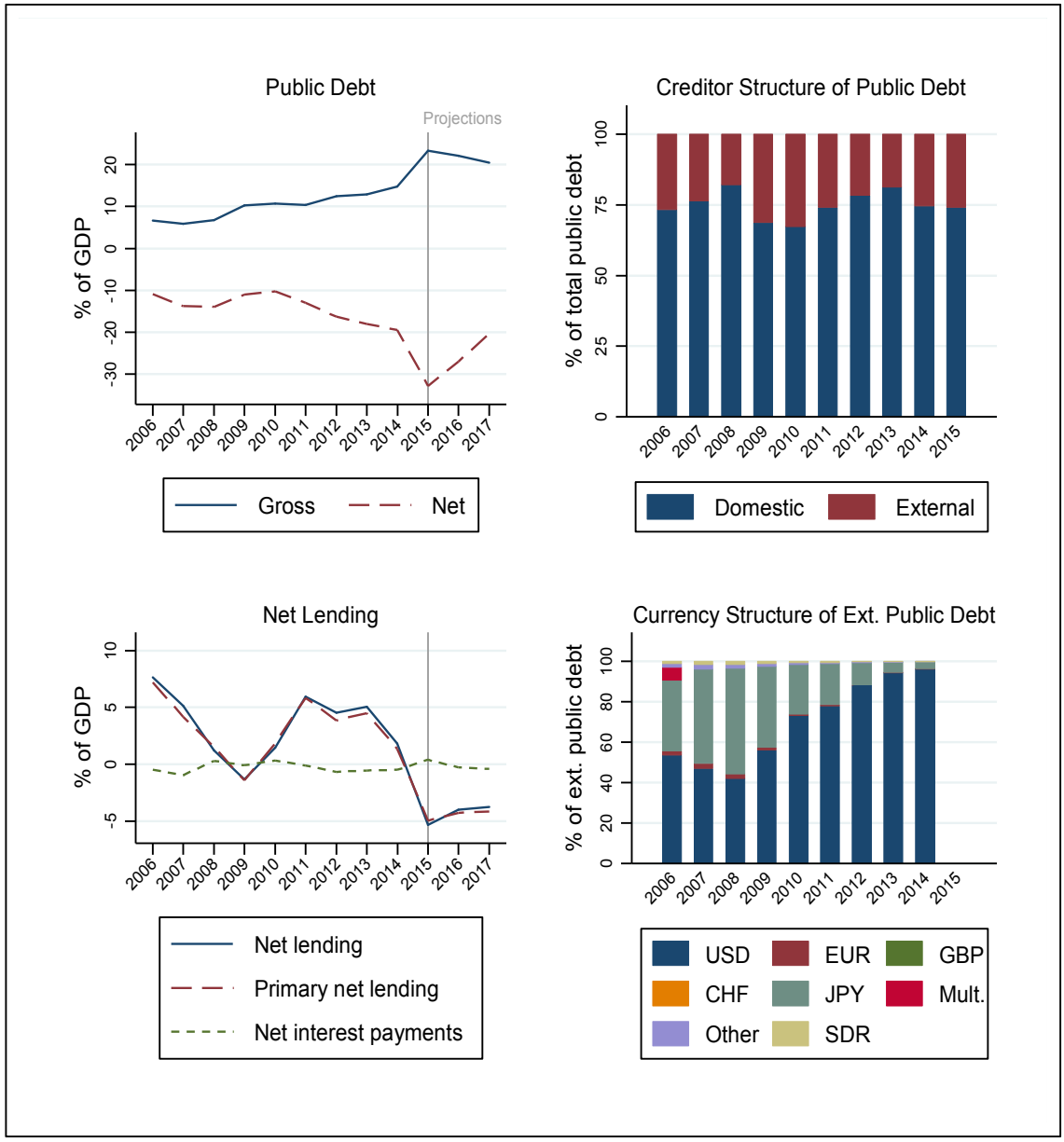
Contingent liabilities impose a potential risk to public debt. The risk is mainly due to the large quasi-fiscal sector. The national welfare fund (Samruk Kazyna), has estimated 50% of GDP in assets and 30% of GDP in external debt. The highly pronounced banking sector with unstable outlook may need further recapitalization in the future, imposing additional contingent

[27] Estimates by the MoF in November 2016. These figures slightly deviate from the figures in the IMF WEO 2016.

[28] Quasi debt relates mainly to liabilities of the three major public holdings: Samruk-Kazyna, Baitarek and Kazagro.

liabilities. In case of a bank capital shortfall, the needed monetary injection may well be above 4% of GDP (Moody's 2016).

Figure 4-30: Kazakhstan – Public Debt Dynamics



Sources: WEO (2016), IMF (2015), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

An important legal document regarding debt management in Kazakhstan is the budget code (in particular Section 12).[29] State borrowing in Kazakhstan is defined as borrowing by the government Kazakhstan, local executive bodies and the National Bank of Kazakhstan (NBK) (Republic of Kazakhstan 2008, Article 199). Resolution No. 906 (2009) defines the limits on state borrowing (World Bank 2011).

Managerial structure (incl. coordination with other policies)

Several institutions are responsible for public debt management in Kazakhstan. The Ministry of National Economy is formally responsible for overall coordination and strategic planning of public debt management. This unique concept is based on the view that Kazakhstan is a developing country and therefore debt management strategies have to be in line with development planning which is the core competence of this Ministry.

The MoF is responsible for budget financing (incl. issuing of government bonds), debt monitoring and debt statistics. The Department for the Administration of Government Obligations (Debt Office) at the MoF is the *de facto* coordination and planning office according to interview sources, the reason being that the Debt Office has the best information and is involved strongly in coordination issues. The Treasury is responsible only for operational activities such as payment transactions.

The NBK takes part in the debt management coordination by monetary policy operations (issuing short term bills of exchange to reduce liquidity of the commercial banking sector to reduce inflation) and currency policy (free floating exchange rate for the past one and a half years with severe devaluation effects). The NBK acts independently according to the law, but the Minister of Finance is a full member of the NBK Council of Directors.

The NBK administers the NFRK, which financially supports the government budget. The NBK also administers the Unified Pension Fund which is owned by the contributors. When the many privately run pension funds were unified and taken over (in administrative terms) by the NBK in 2013, the MoF used it as an important source of debt financing. The fund was used up to 47% to buy inflation-adjusted government bonds (dividends are inflation-bonded plus 0.01% to 0.1%). This financing tool is discussed controversially. The use of the fund should rather be at its own decision and not forced by government to invest in low yielding government bonds. The NBK intends to issue medium-term bills-of-exchange in the future partly to substitute for the issuing of the controversial pension fund bonds. Overall coordination, especially decisions regarding the use of the NBK administered funds is done by the Coordination Council chaired by the President of the Republic. Members are the Prime Minister, the Ministers and to a certain extent representatives of international financial institutions, who have an observation status. At a lower level, the Coordination Council chaired by the Minster of National Economy, attended by relevant Ministries and representatives of the Budget Committee, prepares and recommends decisions for the Presidential Coordination Council.

[29] Other important legal documents are *Rules of Budget Execution and its Cash Service* approved by Decree of the Government, RK No. 22 (2009), *Rules of Registration and Recording of Government and Government Guaranteed Loans, Loans Supported by Government Sureties, Government Guarantees and Sureties*, approved by Decree of the Government, RK No. 739 (2010) and Concept No. 234 *On management of State and gross external debt* (2006) (World Bank 2011).

Debt reporting

Monitoring of debt developments, internal reporting of monitoring results and providing debt statistics are main tasks of the Debt Office. Monitoring and related reporting is carried out according to IMF standards. The Ministry of Economy provides "consolidated" reports of total public debt which also include quasi-debt developments and debt related operations of the National Bank. These monitoring reports are published quarterly.

Debt management strategy (incl. risk management)

The general purpose of state borrowing is to fund the budget deficit, to promote the development of the domestic debt market and to refinance government debt (Republic of Kazakhstan 2008, Article 205).

Debt management includes the annual assessment and forecast of state and state guaranteed borrowing, the identification of limits on government debt on the provision of state guarantees, and the categorization of debt amounts into forms and conditions (Republic of Kazakhstan 2008, Article 203). Debt management also includes measures to optimize and diversify the debt structure and debt service (use of various derivative financial instruments such as options, swaps, forwards, futures and other transactions), and debt refinancing strategies and risk management (Republic of Kazakhstan 2008, Article 203).

Although there is no published debt management strategy following international guidelines, the Strategic Plan of the MoF addresses some areas of debt management (MoF 2011). For the period 2011-2015, the key means to reduce debt were the monitoring of government debt and the "full and timely implementation of obligations to creditors on payment of remuneration (interests) on governmental loans" (MoF 2011, p. 7). In order to secure the accountability, transparency and efficiency of the involved institutions, the introduction of a risk control system to monitor the activity of administrators through an external supervision was established in 2012/2013.

The general strategy of the MoF and the medium fiscal plans serve as general guidelines to public expenditure and debt management. The MoF further publishes detailed descriptions of the government securities, coupon dates and auction rules on its website (MoF 2016).

Borrowing and Related Financial Activities

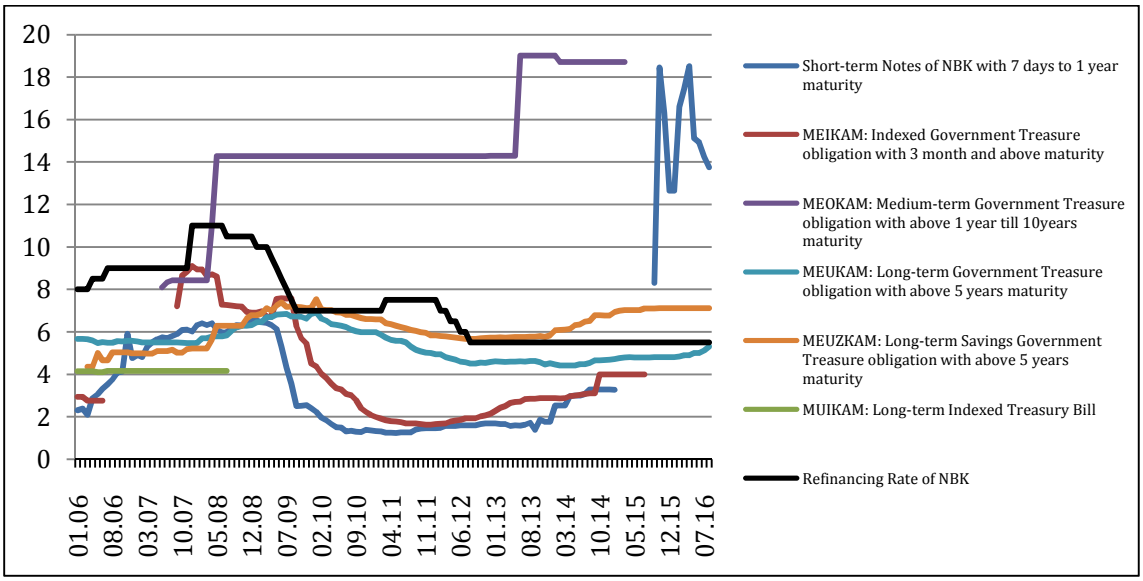
Operations (incl. Islamic finance)

The government of Kazakhstan is allowed to use both loans and government securities for the purpose of borrowing (Republic of Kazakhstan 2008, Article 200). Government securities might have short- (up to 1 year), medium- (1 to 5 years) and long-term (over 5 years) maturities and may be issued in certificated and non-certificated forms. They can be issued at nominal or present value with fixed and non-fixed (floating) rates of remuneration (Republic of Kazakhstan 2008, Article 200).

Kazakhstan uses various debt instruments (see Figure 4-31). The borrowing costs depend primarily on the refinancing rate set by the NBK. A major disruption of the yields on government securities was caused by the loose monetary policies worldwide during the global financial crisis in 2008/2009, which led to a sharp decrease of yields on short term securities. Medium- and long-term obligations were affected less strongly. For instance, the yield on Indexed Government Treasury obligations with three months to one year maturity (MEIKAM) decreased from 9.1% at the end of 2007 to around 2% at the end of 2010. Long-term government Treasury obligations (MEUKAM) and Long-term Savings Government Treasury

obligations started to increase in 2014, which can be attributed to the general increase in public debt levels after 2013 and the oil price decline in 2014/2015. The recent large fluctuations of the yield on short-term notes of the NBK may be the result of the decision of the government to float the Tenge in 2015.

Figure 4-31: Kazakhstan - Yields on Government Securities



Sources: National Bank of the Republic of Kazakhstan (2016), calculations by the Ifo Institute.

Kazakhstan is actively participating in the international bond markets. In 2014, Kazakhstan has issued its first international dollar-denominated bond since 2000 (Cox 2014). The issuance was worth of $2.5 billion and consisted of 10-year bonds (1.5 billion) with a yield of 1.5 percentage points above mid-swaps and 30-year bonds with a yield of 2 percentage points over mid-swaps. Long-term maturities were chosen in order to build out a yield curve (Porzecanski and Pronina 2014). In 2015, Kazakhstan issued the same amount with the same maturities again (Pronina 2015).

With the introduction of the law on Islamic banks and Islamic finance in 2009, Kazakhstan has approved Islamic finance. The laws specify the rules concerning Islamic finance instruments and allow the issuance of Islamic finance instruments both for private and public institutions (NBK 2013). The first Islamic Bank in Kazakhstan opened in 2009 (a subsidiary of the bank Al-Hilal from the United Arab Emirates). With the transfer of the Financial Centre from Almaty to Astana (supposed to be implemented in 2017) the bank is intended to open a major Islamic finance market. The first quasi-sovereign *sukuk* was issued in 2012 by the state-owned Development Bank of Kazakhstan in Malaysia and amounted to around $73 million (Vizcaino 2015). The NBK held an international workshop about "Islamic Modes of Finance and Sukuk" in 2012 (NBK 2012) and legislative amendments have been adopted in order to facilitate Islamic finance further.

There is no use of Islamic finance in public debt management until now, although the budget code makes provision for issuing state securities in the form of state Islamic securities. The state Islamic securities are allowed to be issued in accordance with the basic principles of Islamic finance and certify "the right of the holder to receive income from the assets on the basis of the sublease agreement" (Republic of Kazakhstan 2008, Article 206). The introduction

of sovereign *sukuk* is expected to create a benchmark for the issuance of corporate *sukuk* and is planned to increase flexibility to the funding of strategic projects supporting the industrialization of the country (NBK 2016). This statement, however, has not been followed by implementation action up till now.

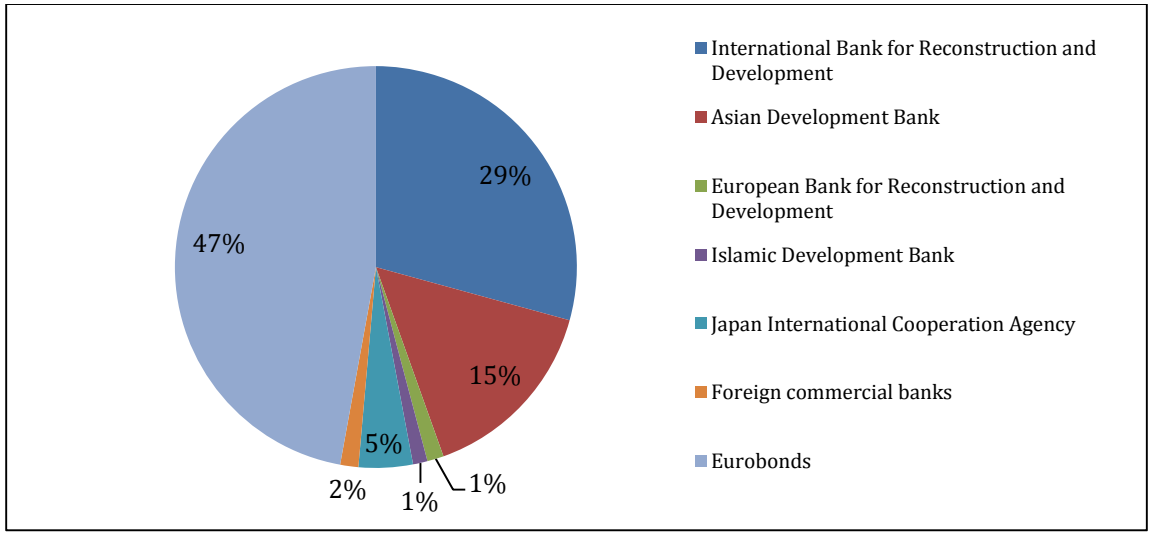
Domestic debt market

Kazakhstan's general government debt is largely domestic debt, whose share remained relatively constant between 2006 and 2015 at around 74% (see Figure 4-30). Domestic general government debt of Kazakhstan can be categorized into long-term treasury liabilities (59%), long-term treasury balanced liabilities (33%) and medium-term treasury liabilities (8%). The United Pension Fund (almost $20 billion) has been used up to more than 45% to purchase bonds issued by the MoF.

Foreign borrowing

The largest share of external debt (47%) consists of international bonds issued at the Eurobond market (see Figure 4-32). With a share of 29%, the International Bank for Reconstruction and Development represents the second-largest part of external debt. Other creditors are the Asian Development Bank (15%), the Japan International Cooperation Agency (5%), the European Bank for Reconstruction and Development (1%) and the Islamic Development Bank (1%). The share of external debt owed to foreign commercial banks equals 2%.

Figure 4-32: Kazakhstan – Creditor Structure of External Public Debt (2016)



Sources: NBK (2016), calculations by the Ifo Institute.

External debt, which is dominated by long-term debt (99% in 2016), is predominantly denominated in U.S. Dollar, whose share increased between 2008 and 2014 from around 42% to 96%. The reason for the high U.S. Dollar share is a policy to lend predominantly from International financial Institutions which is cost efficient and risk reducing. Over the same period, the share of Pound Sterling in external debt decreased from 53% to around 3%. The remainder represents SDRs and other currencies, including but not limited to Euro (Figure 4-30).

C) Policy Recommendations

According to the World Bank Debt Management Performance Assessment in 2011, Kazakhstan appears to be very strong in some areas concerning debt management such as the legal framework, governance, operational risk management, coordination with fiscal and monetary policies as well as debt recording and reporting (World Bank 2011). Kazakhstan has established an institutional and coordination system which is able to handle public debt well in the short-term. Fiscal policies are prudent, the monitoring of debt is well designed and the existing debt management policies are rather transparent. However, medium- and long-term debt strategies and risk management need to be further improved. Debt management is done more or less on an annual basis. According to interview sources, "back office" work is still rather deficient, but "front office" activities have been developed rather successful.

A long-term fiscal policy and strategy as well as related risk management has not been fully developed. Therefore it is recommended to increase back office capacities (analytical and conceptual tasks such as analysis, planning, forecasting and strategy development) especially at the Debt Office to enable appropriate strategy development according to international standards. To meet this requirement, increasing the personnel capacities of the back office could be in particular a very rewarding investment. Furthermore, developing a medium-term fiscal policy strategy with defined target indicators going along with the development of an appropriate medium-term debt management strategy with the target to settle fiscal debt at sustainable levels would deteriorate risks concerning public debt. For this task it is recommended to parallel this approach by implementing a controlling strategy for the medium-term debt and risk management strategy.

The use of the National Oil Fund for debt management is somewhat erratic and not sustainable at the beginning of 2017. The use of the United Pension Fund for large scale and forced public debt financing is inhabits certain risks. The NBK's intension to issue medium-term bills-of-exchange could substitute debt financing by the pension fund at least to a certain extent. Adjusting the National Oil Fund rules for strict application during "normal" times and some defined flexibility in crisis times seems to be a good solution. The fund should be kept sustainable in a medium- and long-term perspective. It should be avoided to deviate from the agreed upon rules. The forced use for public debt financing of the Pension Fund should be reduced step by step. Consider substitution for this financing resource by the issuing of medium-term bills of exchange (by the NBK).

Concerning the institutional setup and by looking at the distribution of responsibilities, the coordination responsibility presently allocated to the Ministry of National Economy can be reviewed. A separate "independent" Debt Management Agency might be created or the coordination responsibility might be allocated to the Debt Office at the MoF. However, the change of responsibility should not affect the close coordination of debt management with development and investment planning.

Lastly, including measures to reduce the quasi-public debt development is recommended. This means to review the need for SOEs as well as their privatization. Quasi-public debt might be included in overall public debt management. Furthermore, Islamic finance sources (*sukuk*) might be more systematically explored as potential additional public debt financing sources, especially under the purpose to reduce certain debt related risks. However, efforts are needed to reduce the cost for *sukuk* lending because Islamic finance instruments are considered to be significantly more expensive than conventional lending tools in Kazakhstan at the moment.

4.1.12 Lebanese Republic

A) Public Debt Dynamics

With a gross debt ratio amounting to about 139% of GDP (and a net debt amounting to about 131% of GDP) the Lebanese Republic had the highest debt ratio among all OIC member countries in 2015. After general government debt had decreased from over 180% to 130% of GDP between 2006 and 2012, debt started to increase again in 2013 and gross debt is projected to reach about 148% of GDP in 2017 (see upper panel of Figure 4-33). Additional liabilities (e.g. government obligations to the National Social Security Fund (NSSF), hospitals, and private sector contractors) are estimated to equal between 3.9% and 7.8% of GDP (Credit Libanais 2016). Even though the primary balance was positive in most years between 2006 and 2015, Lebanon's net borrowing was often very high because of high interest payments. Net interest payments were reduced from 13.9% of GDP in 2006 to 8% of GDP in 2013, but are projected to rise to 11% of GDP in 2017.

Contingent liabilities in Lebanon arise from transfers to Electricité du Liban (EdL), the main power utility of Lebanon, the National Social Security Fund (NSSF), and liabilities to the commitment to the fixed exchange rate. Furthermore, contingent liabilities can result from state owned companies heading towards privatization. Lebanon may be vulnerable to contingent liability shocks since the size of its banking sector is large compared to the overall economy (IMF 2015b).

B) Public Debt Management

Governance and Strategy Development

Legal framework

In 2008, the Lebanese government adopted the Public Debt Directorate Law (no. 17), which aims at institutionalizing debt management functions at the Ministry of Finance (MoF). The law allows the Lebanese government to issue new debt of up to $400 million. Additional foreign currency issuances must be ratified by the budget or by a stand-alone law. All foreign currency debt issuances are subject to authorization by a resolution of the Council of Ministers and transactions are conducted by the MoF.

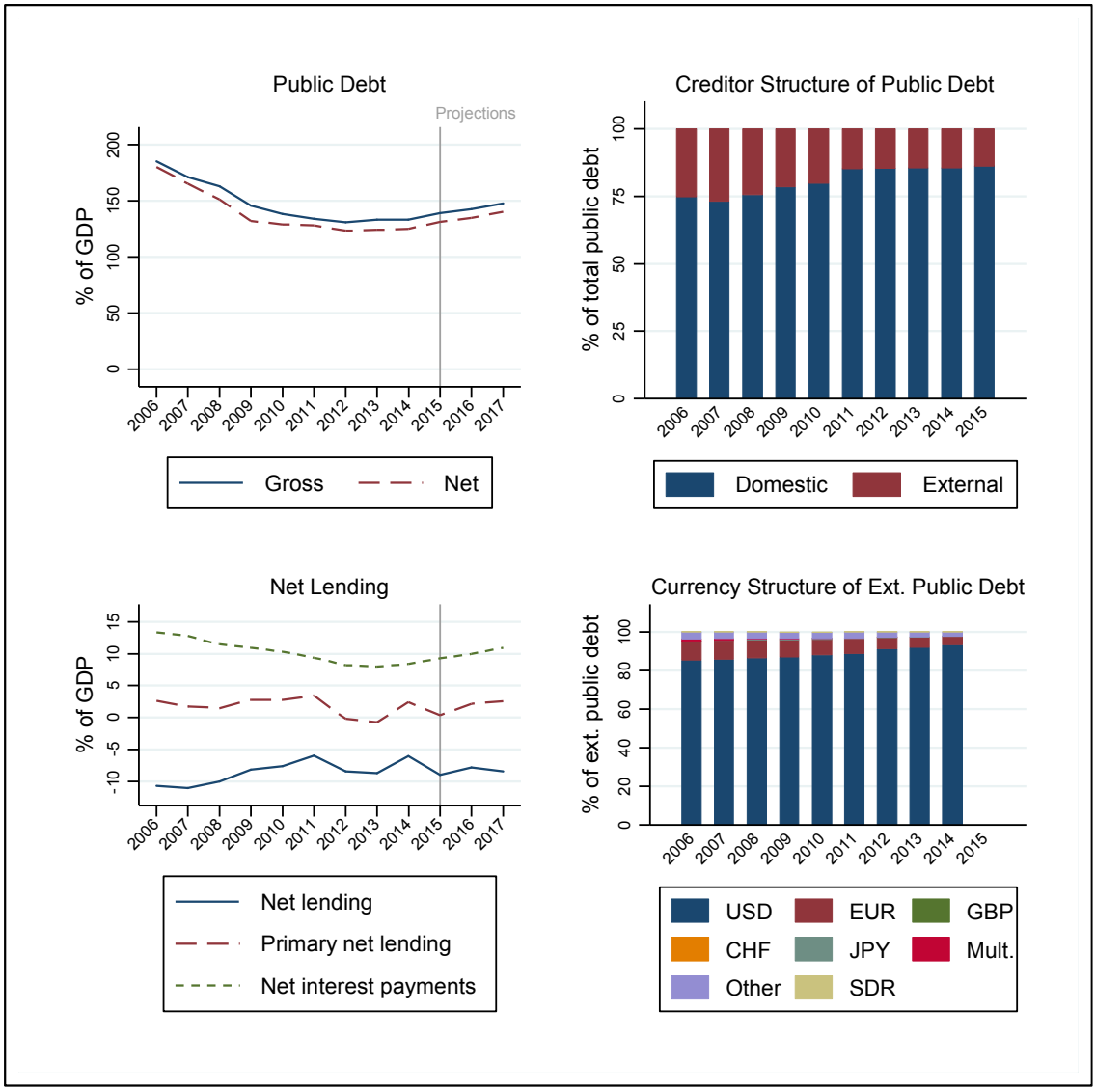
Organizational structure (incl. coordination with other policies)

The mandate for public debt management is held by the Public Debt Directorate (PDD), a division of the MoF. While the PDD is the primary institution regarding debt management, other institutions are also involved in the debt management process: front office responsibilities are held by the MoF (Eurobond issuances in foreign currencies), the Council for Development and Reconstruction (bilateral and multilateral project loans in line with its mandate) and the Banque du Liban (management of domestic debt auctions). Back office responsibilities are held by the MoF (foreign currency debt) and the Banque du Liban (domestic debt as well as bilateral and multilateral project loans). The coordination between public debt management and monetary policy is institutionalized in the so-called High Debt Committee (MoF 2014).

Debt reporting

To inform the public about the debt profile of the Lebanese government, the MoF publishes a "Quarterly Bulletin about Debt and Debt Markets". This bulletin includes detailed debt data and is published online. The MoF also publishes auction calendars and auction results regarding government bills and bonds as well as information on ratings and investments.

Figure 4-33: Lebanon – Public Debt Dynamics



Sources: WEO (2016), IMF (2015a), calculations by the Ifo Institute.

Debt management strategy (incl. risk management)

The PDD has developed a medium-term debt management strategy (MDTS) for the years 2014-2016, which is embedded in the macro-fiscal framework of the government and updated annually. While the main objective of the strategy is "to ensure that the government's financing needs and its payment obligations are met at all times, at the lowest possible cost over the medium to long run and consistent with a prudent, acceptable degree of risk" (MoF 2014, p. 2), the strategy also puts emphasis on the development of primary and secondary domestic debt markets. Restrained domestic financing capacities have presented an obstacle for economic development in Lebanon. For this purpose, the strategy stresses the importance of proactive support of market development, for example through a transparent and predictable domestic

debt issuance strategy. Moreover, public debt management should create a yield curve of government bonds and bills to support the transmission process of monetary policy.

The strategy identifies the refinancing risk of maturing debt and potentially adverse interest rate movements as primary risk factors (see also Table 4-11). Given these risks, the strategy proposes the further extension of both the average time to maturity and the average time to refixing of the debt portfolio as it guards government finances from the negative implications of prospective increases in interest rates. In order to cover redemptions and interest payments of foreign currency debt, the strategy aims to increase annual foreign currency borrowing by raising the ceiling on annual foreign currency borrowing (currently 30% of total borrowing). To enable higher foreign currency borrowing, additional legislature might be needed. According to the strategy, the quantification of borrowing and risk targets will remain an internal matter of the MoF with support from the High Debt Committee and actual performance will be compared to these targets regularly (MoF 2014).

Table 4-11: Lebanon – Cost and Risk indicators for the Government's Debt Portfolio (2013)

Type of risk	Risk indicator	Domestic debt	External debt	Total debt	Targets (tot. debt)
Cost of debt	Interest as % of govt. revenues	24	17	40	
	WAIR (in %)	6.7	5.9	6.4	
Refinancing risk	ATM (years)	3.5	5.6	4.3	> 4.3
	Debt maturing in 1 year (% of total)	20.4	8.9	15.7	
	Debt maturing in 1 year (% of GDP)				
Interest rate risk	ATR (years)	3.5	5.5	4.3	> 4.3
	Debt refixing in 1 year (% of total)	20.4	9.9	16.1	
	Fixed rate debt (% of total)	96.3	98.8	97.3	
Exchange rate risk	FX debt (% of total)	41.3			

Note: Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing; FX = Foreign exchange; ST = Short-term; WAIR = Weighted average interest rate. Classification of domestic and external debt based on currency denomination.
Source: MoF (2014).

Borrowing and Related Financial Activities

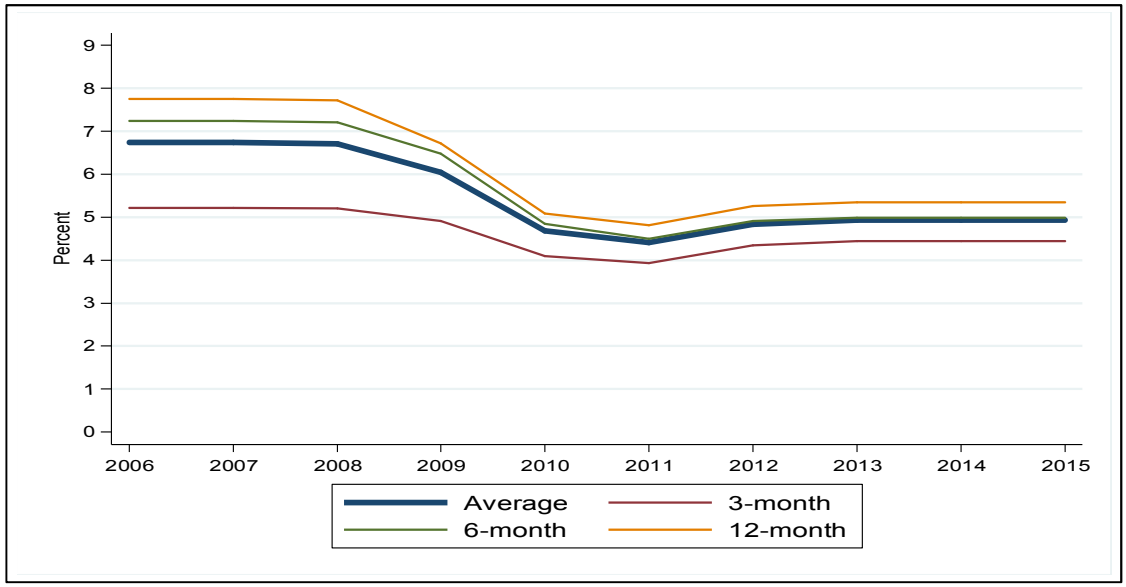
Operations (incl. Islamic finance)

The government issues T-Bills (maturities of three, six and twelve months) and T-Bonds (maturities of 2-15 years). Over 97% of domestic-currency debt has a maturity of two years or more. Since 2012, Lebanon has also issued domestic-currency debt with maturities of eight years or more. In March 2016, the average time to maturity of domestic currency debt (T-Bills and T-Bonds) was 3.41 years, up from 1.6 years in 2009. Short-term T-Bills are usually used for cash management. The government has also idle cash reserves, i.e. public sector deposits in commercial banks and the Banque du Liban.

The average yields on Lebanese T-Bills have decreased since 2002 when the international donor convention in Paris restored confidence in the government and in the economy (Credit Libanais 2016). Between 2006 and 2015 the average yield of Lebanese short-term rates (three, six and twelve months) decreased from 6.74% to 4.93% (see Figure 4-34).

Compared to other Islamic countries, Islamic finance in Lebanon is of low importance. In 2013, Islamic bank deposits accounted for only around 0.4% of total bank deposits (Henry 2016). Although this marks a slight increase from 0.33% in 2007 (Beck et al. 2013), the Lebanese Islamic banking sector still is very small in comparison to the conventional banking sector. At the moment, only four banks in Lebanon are *shariah* compliant (Al Baraka Bank Lebanon, Arab Finance House, BLOM Development Bank and Lebanese Islamic Bank). Islamic windows of conventional banks do not exist as only independent Islamic banks are legally allowed to offer Islamic banking services and products (El Hachem 2014, Halal Times 2015). In contrast to other countries in the region, Lebanon does not issue debt in the form of *sukuk*. Besides the lack of sovereign *sukuk* issuance and the prohibition of Islamic banking activities for conventional banks, a number of legal restrictions such as the double taxation of Islamic banks inhibit further development of Islamic banking in Lebanon (Daily Star 2014, El Hachem 2014).

Figure 4-34: Lebanon - Yields on T-Bills



Source: Credit Libanais (2016).

Domestic debt market

The share of domestic general government debt in total general government debt was about 86.2% in 2015 (see Figure 4-33). In March 2016, 43.9% of outstanding domestic currency debt (T-Bills and T-Bonds) was held by commercial banks, 39.8% by the central bank and 12.5% by public institutions. The banking sector currently holds around 53% of total gross (foreign and domestic) general government debt.

Foreign borrowing

The share of external public debt in total public debt has consistently decreased since 2006 and is currently among the lowest of all OIC countries (13.8%). In a similar vein, the share of foreign-currency public debt in total public debt declined from 50.4% in 2008 to 38.5% in 2015. Lebanon has, however, recently increased the share of foreign currency debt to 41% of total debt by exchanging $2 billion of local currency debt into Eurobonds (Barrington 2016). Foreign-currency public debt is largely held by domestic financial institutions. This explains why the share of foreign-currency public debt is higher than the share of external public debt

in total public debt. The share of multilateral debt (debt extended by the IMF or the World Bank) in foreign currency debt is comparably low at 2.8%.

In March 2016, 88.9% of outstanding foreign currency debt was kept in market-issued Eurobonds, 6.2% in private sector loans and 4.7% in debt related to the Paris conventions II and III. Average time to maturity of foreign currency debt has steadily decreased from 7.24 years in 2008 to 6.07 years in March 2016. Public and publicly-guaranteed foreign currency debt is mostly denominated in U.S. Dollars (around 92% of foreign currency debt in 2015) while debt denominated in Euros accounts for only around 4.5%.

C) Policy Recommendations

Public debt management in Lebanon follows guidelines proposed by the World Bank and the IMF. There is a Public Debt Directorate located at the MoF responsible for debt management. However, there are still several institutions involved in public debt management. As long as all public debt management functions are not centralized at the Public Debt Directorate, it is important that regularly exchange of information and coordination is ensured. Lebanon's debt management strategy considers several risk indicators and sets objectives for the public debt portfolio. The debt management strategy is published online and the MoF quarterly publishes information on the public debt profile.

Regarding public debt developments, Lebanon is currently stuck in a vicious circle: increasing debt necessitates higher debt servicing payments, which in turn increase budget deficits. These budget deficits result in higher borrowing needs, new debt and, consequently, in increasing debt stocks. Reducing Lebanon's public debt stock should be a high priority for policy makers in Lebanon. One possible instrument against rising public debt is the privatization of public sector assets and companies. Privatization would increase government revenue through the return on sales of public sector assets and also increase foreign direct investment, competition in the respective markets and efficiency in the management of state owned companies. Because of the currently high country risk, public sector assets might, however, be undervalued if they were offered for sale at the moment. Alternatively, the formation of Public-Private Partnerships can bring some of the benefits of privatization (such as lower expenses for the state) while leaving control over the assets in the hands of the public sector, which makes them politically more feasible than privatizations. To achieve a reduction in public debt, changes in the tax system might be necessary, such as a slight increase of the VAT (IMF 2015a) or increases of corporate and interest tax rates (Neaime 2015, Credit Libanais 2016). It is also important to improve the tax collection system.

The Public Debt Directorate and the Lebanese Central Bank are recommended to continue making use of financial engineering schemes that lower the government's cost of borrowing and support fiscal sustainability. In particular, these schemes might be used to reduce the yields on government bonds and, as such, the cost of debt. The maturity of public debt might be expanded. These objectives could be achieved, for example, through swaps of domestic currency debt to foreign currency debt which generally has lower yields and higher maturity. In these regards, Lebanon has recently used swaps of domestic currency debt to Eurobonds. The MTDS 2014-2016 also describes the intention to raise the share of foreign currency debt. However, the use of these instruments is limited as the share of foreign currency debt is already high amounting to 41% of total debt. Another scheme would be the swap of long-term bonds with low coupon to a lower number of bonds with higher coupon. While this scheme increases the cost of debt through higher coupon, it lowers the value of the outstanding public debt stock.

The share of external debt could be increased by attracting foreign investors. Reducing the share of domestic debt counteracts potential crowding-out of private credit on the domestic debt market. But if creditors' expectations about the political stability of Lebanon continue to decline, however, the cost of debt will increase.[30] Economic measures to reduce public debt will prove futile if the Lebanese government cannot convince creditors of its capacity to act and undertake extensive reforms. The Lebanese government is recommended to pass the first budget law proposal note since 2006 and fill the presidential void that exists since 2014 in order to create the necessary preconditions for future expenditure rationalizations, which potentially improve public finances.

Reducing legal impediments restricting Islamic finance may foster increasing market shares of Islamic banks particularly since there is considerable potential for Islamic banking in Lebanon (El Hachem 2014, Naser et al. 2014b, Henry 2016). Moreover, Islamic banks in Lebanon have been found to be as efficient as their conventional competitors (Bader et al. 2008, Hassan et al. 2009). While the public might be willing to invest in Islamic financial services and products, a large share of the Lebanese population is not yet aware of these investment possibilities (Daily Star 2014). The Lebanese government may foster the development of Islamic finance by issuing debt in the form of *sukuk* bonds. Issuing *sukuk* may also attract investors from other Islamic countries, therefore diversifying the investor base and increasing the share of external debt.

[30] In July 2016, Fitch Ratings downgraded its credit rating for Lebanon from "B" to "B-", citing, among other reasons, the "persistent political risks" (Fitch Ratings 2016).

4.1.13 Republic of Turkey

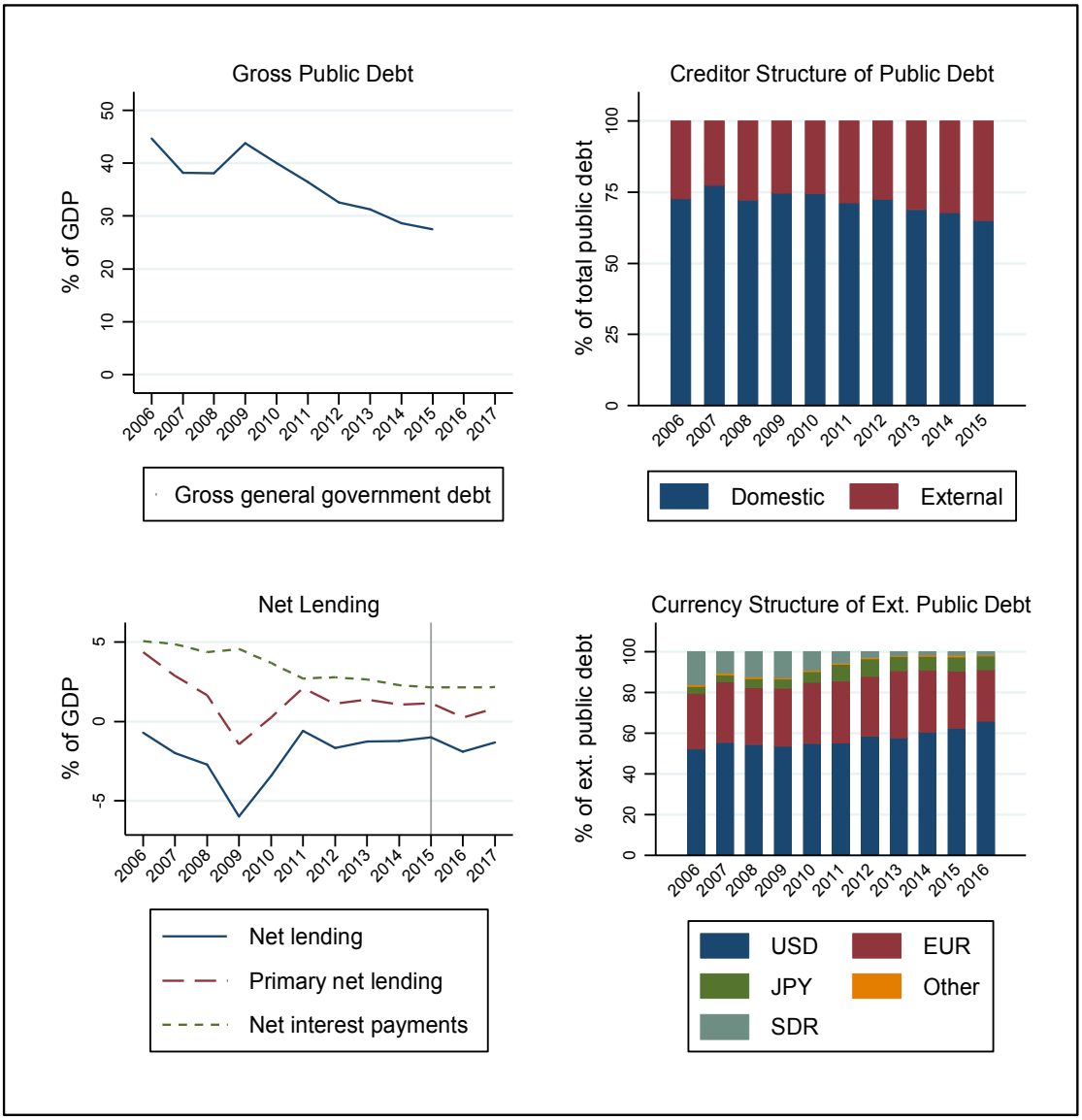
In 2015, the Republic of Turkey's gross general government debt-to-GDP ratio was 27.5%. Since 2006 Turkey has managed to reduce its gross general government debt relative to GDP by around 16 percentage points and it is projected to fall further in the coming years (see *Figure 4-35*).

Since 2006, Turkey's primary budget balance of general government has been in deficit only once, namely in 2009. Interest payments on outstanding debt have largely offset the surplus of the primary budget balance and the overall budget balance has been negative during the period of consideration since 2006. Since 2011 the shortfall in the budget balance has been relatively stable at around 1.3% of GDP on average. Interest payments are decreasing continuously and haven fallen from around 6.1% of GDP in 2006 to about 2.7% in 2015 and are expected to remain stable (see *Figure 4-35*). Turkey has received favorable assessments of its public debt dynamics by international organizations. For example, the Debt Sustainability Analysis (DSA) of the IMF (2016) concludes that Turkey's public debt is sustainable even under different shock scenarios. It is, however, sensitive to declines in the GDP growth rate. Despite this potential threat, the general government debt to GDP ratio is expected to decline further. Further, the IMF highlights the significant decrease in gross public financing needs to 5.1% of GDP, while the average between 2005 and 2013 used to be around 15% (IMF 2016)[31].

Main explicit contingent liabilities of the Turkish government are Treasury repayment guarantees, debt assumption commitments, Treasury investment guarantees, demand guarantees provided to Public Private Partnerships (PPPs) and depository insurance scheme. Of these explicit contingent liabilities, the beneficiaries of Treasury repayment guarantees are SOEs, state and development banks, municipalities and municipal administrations. These repayment guarantees are provided to credits given by international financial institutions for project finance credits dedicated to specific sectors such as renewable energy, infrastructure and SMEs. The amount of such Treasury repayment guarantees are around $12.5 billion as of September 30, 2016. A second kind of explicit Treasury guarantee, the debt assumption commitments are provided to the creditors of PPPs as a credit enhancement tool triggered in the case of an early termination of the PPP contract between the public contracting authority and the company carrying out the project. It results in the acquisition of the assets of the project by public as well as the liabilities (senior debt) outstanding as of the date of termination of the PPP contract. The total amount of debt assumption commitments provided by Treasury as of November 30, 2016 is around $8.7 billion.

[31] The GDP series for Turkey has been revised after the referred IMF (2016) report was published. Therefore, the budget figures in this paragraph reflect the shares as a percent of the previous GDP series before revision.

Figure 4-35: Turkey – General Government Debt Dynamics



Sources: Turkish Treasury (2017), WEO (2016), IMF (2016), calculations by the Ifo Institute.

B) Public Debt Management

Governance and Strategy Development

Legal framework

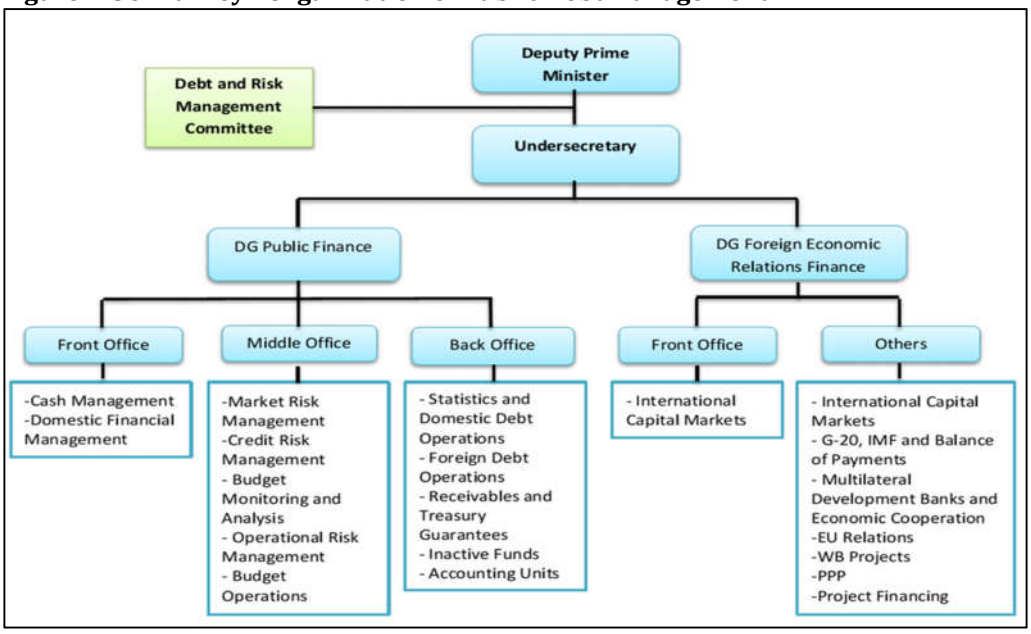
In Turkey "effective debt management has an important role for the continuity of economic stability" (Undersecretariat of Treasury 2015, p.7). Article 12 of the Law No. 4749 on regulating public finance and debt management defines the Debt and Risk Management Committee as the institution in charge of public debt management, which takes all strategic decision.

Managerial structure (including coordination with other policies)

Whereas the Debt and Risk Management Committee (DRMC) provides the general strategic benchmarks and implementation framework, the operationalization of these benchmarks is carried out by the General Directorate of Public Finance and the General Directorate of Foreign Economic Relations, which are both part of the Undersecretary of Treasury (see Figure 4-36). The Undersecretariat of Treasury operates in close coordination and communication with the Central Bank of Turkey and the MoF.

The General Directorate of Public Finance (DGPF) is responsible for domestic borrowing, cash management, management of Treasury receivables, risk management, accounting and statistics operations as well as activities regarding the compulsory savings account. Middle office, back office and front office for domestic borrowing are under DGPF. The General Directorate of Foreign Economic Relations is responsible for bond issuances in international capital markets, project financing via external loans and budget financing with program loans from international institutions. All strategic decisions on debt management are taken by the DRMC, which is chaired by the Undersecretary (except for certain cases when the minister chairs the committee). DRMC consists of deputies of Undersecretary and three Directors General.

Figure 4-36: Turkey - Organization of Public Debt Management



Source: Undersecretariat of Treasury (2015, 2016a).

Debt reporting

The Undersecretariat of Treasury also publishes public debt statistics for Turkey. It provides detailed and up-to date statistics on central government debt. In particular, the stocks of domestic and external debt are provided on a monthly basis as well as their structure with respect to maturity, currency denomination and interest type. There is a special series applying the principles of the EU for its Excessive Debt Procedure for debt accounting. This data is made available online. Moreover, the Undersecretariat of Treasury publishes a monthly and annual public debt management report, which visualizes debt developments in a large number of appropriate graphs.

Debt management strategy (incl. risk management)

The fundamental objectives of Turkey's debt management are defined in the constituted Regulation on the Principles and Procedures for Coordination and Implementation of Debt and Risk Management. According to this regulation, Turkey's public debt risk management is based on "a sustainable, transparent and accountable loan policy that conforms to monetary and fiscal policies in respect to macroeconomic equilibriums." Further, "to address finance requirements in limits of risk level which is determined by taking domestic and international market conditions and cost factors into consideration with minimum cost as much as possible in medium and long terms".

The Turkish government pursues a debt management approach, which deviates in some aspects from the traditional view of debt management. Traditionally, governments aim at borrowing at the lowest cost and with a reasonable risk level while strengthening the structure of the debt stock against external shocks. According to the Undersecretariat of Treasury (2015), Turkey pursues a holistic approach within the broader framework of financial Asset-Liability Management (ALM), which takes a broader view in analyzing not only liabilities, but liabilities and assets together determine the desirable structure of both.

The Undersecretariat of Treasury monitors macroeconomic risks related to budget and financial developments and reports to the DRMC. In this process, all relevant public authorities are included when necessary and financing programs are updated in correspondence (Undersecretariat of Tresaury 2015).

Article 4 of the "Regulation on the Principles and Procedures of Coordination and Execution of Debt and Risk Management" defines the following principles for public debt management:

a) Follow a sustainable, transparent and accountable borrowing policy, which is in line with monetary and fiscal policies and takes the macroeconomic balances into account;

b) Fulfill the financing requirements at the lowest possible cost in the medium and long term in accordance with the levels of risk determined considering the domestic and external market conditions and costs.

The Undersecretariat of Treasury formulates strategic benchmarks. Benchmarks are set every year for the following three years and front offices conduct debt management activities in line with those benchmarks. Debt management aims at increasing the average maturity of domestic public debt while reducing domestic debt maturing within one year. Liquidity risk should also be minimized by holding sufficient cash reserves. Exposure to interest rate fluctuations is intended to be limited by the use of fixed rate instruments as the main source of domestic currency borrowing; as such the share of the domestic currency debt stock with an interest rate re-fixing period of less than one year is intended to be reduced. To limit detrimental

effects associated with exchange rate fluctuations, Turkey has been borrowing solely in domestic currency in domestic market since 2010. (Undersecretariat of Treasury 2016a).

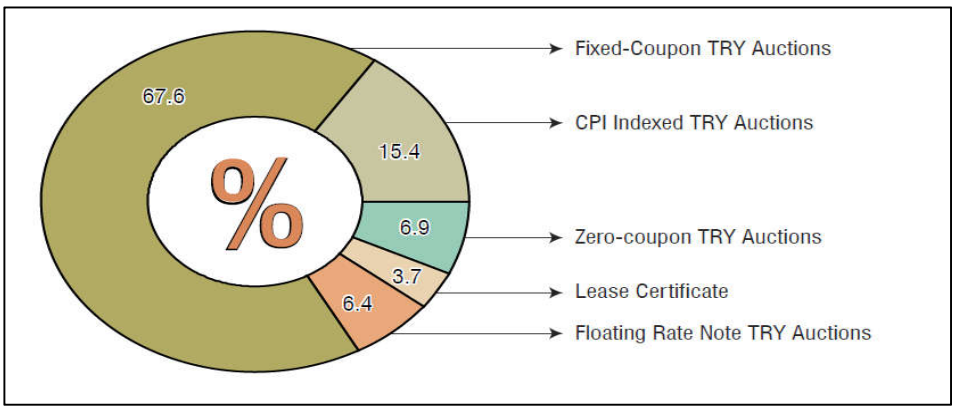
From a budgetary and cash management point of view, it is necessary to monitor, limit and mitigate the risks associated with contingent liabilities. In this context, the Turkish Treasury analyzes the impact of the Treasury debt assumption commitments, Treasury investment guarantees and Treasury repayment guarantees on the outstanding debt stock, the fiscal discipline and the debt sustainability under different scenarios. To limit the risks associated with these contingent liabilities, two separate ceilings are introduced in the annual central government budget law with regard to the Treasury repayment guarantees and Treasury debt assumption commitments. For 2017, both ceilings equal to $4 billion. Mitigation schemes include the Risk account (an escrow account to pay for the undertaken amounts from Treasury repayment guarantees), Savings Deposit Insurance Fund and Natural Disaster Catastrophe Insurance Pool.

Borrowing and Related Financial Activities

Operations (incl. Islamic finance)

In terms of domestic borrowing, Turkey issues two, five and ten year fixed rate benchmark bonds on a regular basis. Eurobonds are issued with maturities of eight, ten, eleven, twelve and 30 years. In addition, lease certificates, which were issued in 2012 for the first time, have turned into a regularly used financing instrument. This type of Islamic finance instrument made up to 3.7% of total borrowing in 2015 (see Figure 4-37). Depending on the redemption profile and market conditions, Turkish Treasury is also issuing TL denominated zero coupon Treasury Bills, zero coupon Government Bonds and 7 year floating rate notes. There are also bonds indexed to CPI.

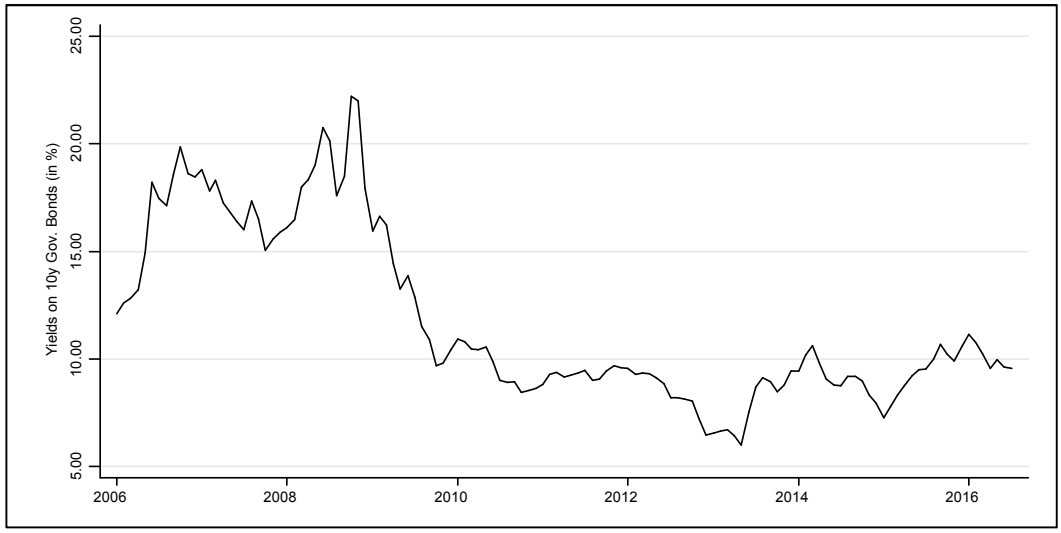
Figure 4-37: Turkey - Domestic Borrowing by Instruments (2015)



Source: Undersecretariat of Treasury (2016b, p. 26).

10-year bond yields are quite volatile ranging between 6% and 11% during the last five years, yet they have not reached post-Lehman heights (see Figure 4-38).

Figure 4-38: Turkey - 10-year Bonds Yields



Source: Eurostat (2017).

Changes in regulations dating back to 1983 allow the establishment of Islamic banks in Turkey (Erol et al. 2014). Currently there are four Islamic banks operating in the Turkish banking sector. Two Islamic banks, Albaraka Turk Participation Bank and Kuveyt Turk Participation Bank are foreign owned. Bank Asya and Turkey Finance Participation Bank are privately owned. In contrast to other OIC member states the regulation of the banking sector in Turkey is based on Western type traditional banking systems as opposed to a regulatory framework that is based on compliance with *shariah*. Since 1999, participation banks in Turkey are subject to the same regulative rules as common commercial banks are. Regulations, such as a required minimum stake in short-term financial assets, which aim at sufficient liquidity provision, present difficulties for Islamic banks (Erol et al. 2014). The confidence in Islamic banks in Turkey was strengthened by the fact that none of them failed in the 2001 crisis, as opposed to 18 other banks. Typical characteristics of Islamic banks, namely that they are not (or only to a certain extent) exposed to interest rate risks and exchange rate fluctuations, turned out to be an advantage of Islamic banks over commercial banks (Erol et al., 2014). However, in comparison to other OIC member countries the share of Sharia-compliant deposits in total commercial bank deposits is relatively small, accounting for only 6.6% in 2013 (Henry, 2016).

Concerning public bonds, the Public Finance and Debt Management Law (No. 4749; article 7/A) was amended in June 2012 allowing Turkey to issue *sukuk*, i.e. to issue government bonds in line with Islamic law. Specifically, the law amendment allows the establishment of public special purpose vehicles (SPVs), also called Asset Leasing Companies, which are fully owned by the Undersecretariat of Treasury. Those Asset Leasing Companies are allowed to issue lease certificates on domestic and international capital markets. According to Undersecretariat of Treasury, starting with the first issuance in September 2012 *sukuks* amounting to more than TRY 20 billion were sold. The majority was denoted in domestic currency, a smaller part in U.S. Dollar.

Domestic debt market

There is a functioning domestic market for public debt. The share of domestic in total central government debt has decreased slightly in the last three years and amounted to 65% in 2015. The absolute majority of Turkey's domestic debt is held by residents, but their share of around

81% of total domestic debt has fallen about 9 percentage points since 2009. While the share of domestic banks has been decreasing since 2009, the weight of corporate investors in the domestic debt market has increased since then (Undersecretariat of Treasury, 2016). In 2015, 68% of total domestic borrowing was raised in fixed interest instruments. 96,3% of total borrowing was raised in 48 auctions and the remaining 3.7% through direct sales. The average time to maturity of domestic debt was 4.6 years in 2015 which is more than twice as long as in 2009 (Undersecretariat of Treasury 2016a).

Foreign borrowing

Since 2008 the share of external central government debt has increased from 28% to 35% of total central government debt in 2015, which is still relatively low in comparison to other OIC member countries (see Figure 4-35). Around two-thirds of Turkey's external debt is held in U.S. Dollars. This share has increased by ten percentage points since 2006, while the share of external debt held in Euros has slightly decreased and amounted to 26% in mid-2016. The average maturity of new external debt commitments was 13.5 years in 2015, which is about the same level as in 2006, while there have been peaks between 2008 and 2012 when the average maturity on new external debt commitments exceeded 17 years. Given Turkey's current debt structure, the direct interest and exchange rate pass-through are relatively small (IMF 2016).

As of December 2016, over 73% of Turkey's stock of external debt consisted of bonds. Only 27% were loans. The majority of creditors are multilateral agencies (18% of the central government's total external debt stock) and bilateral lenders (5%). Loans provided by the IMF have been repaid until 2013 (Undersecretariat of Treasury 2016b).

C) Policy Recommendations

The institutional framework of public debt management in Turkey generally follows guidelines proposed by the World Bank and the IMF. There is an independent debt management agency responsible for debt management located at the Undersecretariat of Treasury, which is the sole authority responsible for debt management. Debt level, structure and current borrowing are transparent because the relevant information is made available online on a monthly basis. There is a medium-term debt management strategy, which defines targets. Moreover, thanks to the implementation of the Financial Asset-Liability framework, Turkey minimizes the risk of illiquidity. Thanks to the predominant reliance on debt denominated in Turkish Lira, exchange rate risk is limited. Interest rate risk is also under control due to the preferred use of fixed interest instruments.

Turkey is well advised to continue its process of fiscal consolidation and to further reduce its level of external debt. Given its large and persistent current account deficit, it is even more important to keep public debt at sustainable levels. To further refine its public debt management, Turkey might consider publishing numerical targets in addition to just providing the direction, in which the structure of public debt is intended to move. Finally, it should be considered to further reduce the reliance on domestic banks. In order to make the economy more crisis-resilient, it is important not to overstress the link between the banking system and sovereign borrowing because banking crises might turn into sovereign debt crises and vice versa.

Turkey shares its experience and knowledge in public debt management with partner countries via its Experience Sharing Program. Information, training and technical assistance on debt, cash and risk management has been provided to a large number of countries. This cooperation and assistance might also be intensified within the group of COMCEC countries.

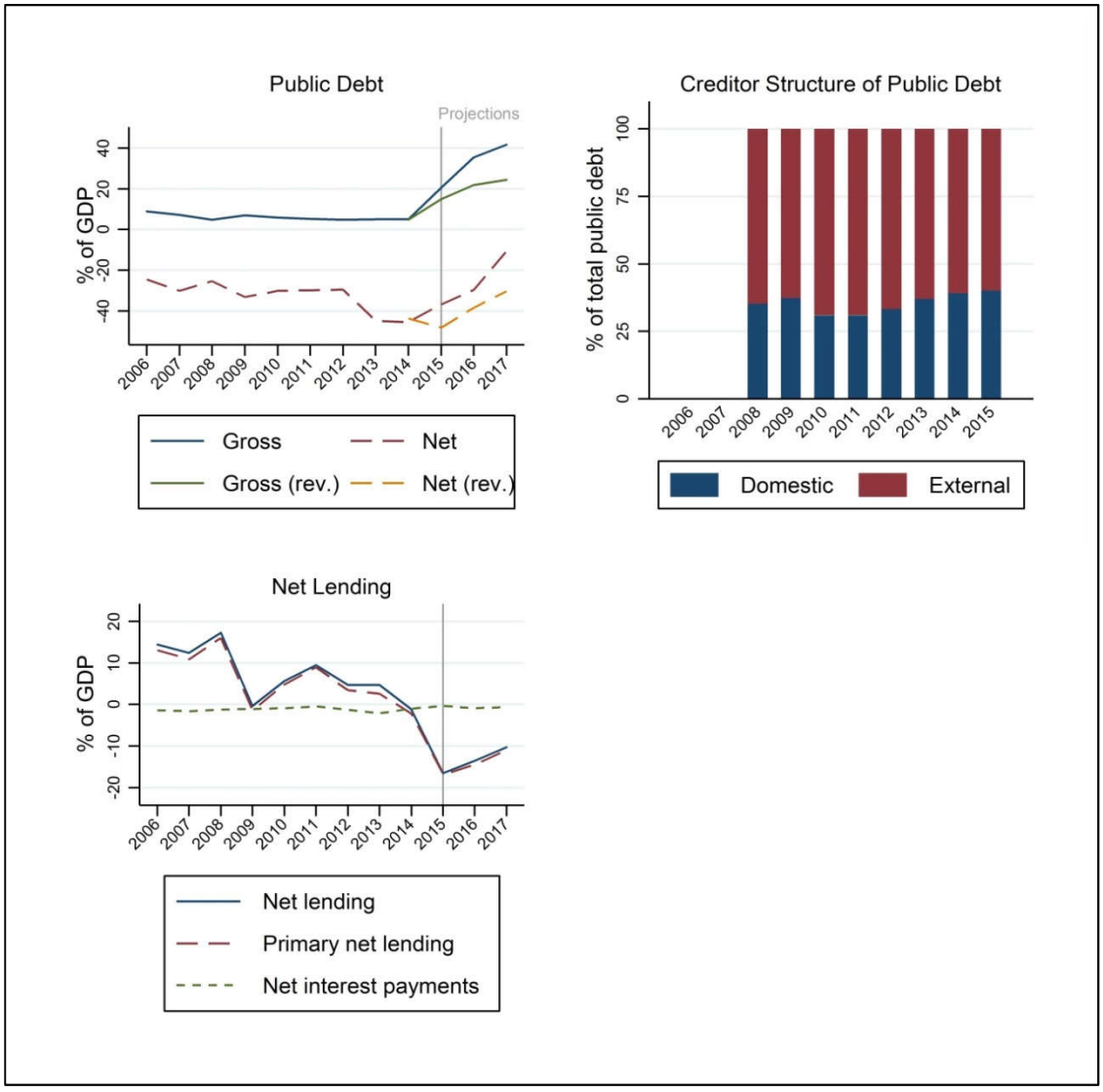
4.1.14 Sultanate of Oman

A) Public Debt Dynamics

Until 2014 debt levels have been very low in the Sultanate of Oman. But following the decline in oil prices, debt increased from 5.1% to 9.2% of GDP in 2015, according to estimates by the central bank of Oman. The IMF projects a debt ratio of about 14% of GDP in 2015 in the World Economic Outlook from October 2016 (WEO 2016). However, the debt ratio in Oman is still relatively low compared to many GCC countries, allowing for some maneuverability in sustaining the public debt levels given the implementation of fiscal adjustments. But, as per IMF estimates, the debt-to-GDP ratio is likely to increase further to 24.5% in 2017. To cover the lower oil revenues, the government sold government assets, raised loans from domestic debt markets and accessed international debt markets. Selling government assets gives rise to an increase in the net debt-to-GDP ratio (see Figure 4-39). The National Bank of Oman reports contingent liabilities of $1.75 billion for 2016 (Oman Arab Bank 2016).

The decline in oil prices during the second half of 2014 gave rise to a strongly increasing budget deficit in Oman. In 2015 the budget deficit has been estimated by the IMF to be about 16.5% of GDP. The government has implemented fiscal adjustment measures to mitigate the impact of falling oil prices on the budget. In 2016, expenditures on categories such as wages and benefits, subsidies, defense and capital investment by civil ministries were reduced by about $4.5 billion or 8% of GDP. However, the decline in oil and gas revenues may largely offset these savings. Fiscal adjustments, combined with the planned corporate income tax reform in 2017 and the introduction of VAT in 2018, are expected to reduce the deficit in the medium term (IMF 2016). For 2016 and 2017 deficits of about 13.5% and 10.3% of GDP are projected. Plans to keep infrastructure investments high and pressure to increase social expenditures, especially to combat the rather high unemployment rate, put the budget under additional pressure (Economist 2015). Expenditures for the pension system are another burden for the budget. Although it is planned to merge the existing seven different pension funds into one fund, the need for further reforms and adjustments might arise in the not-too-distant future. Overall, the government's investment priorities are currently concentrated on five areas: tourism, fishery, mining, manufacturing and transportation. In the medium term, the government is planning to increase revenues from tourism, to strengthen the manufacturing base for the oil and non-oil sector, and to pass a new investment law to attract foreign direct investment (Central Bank 2016). Privatization of state-owned entities and an increase in public-private-partnerships are planned measures to relieve the state budget in the future.

Figure 4-39: Oman - Public Debt Dynamics



Sources: WEO (2016), IMF (2011, 2013, 2016), calculations by the Ifo Institute.
Note: Due to missing data the bars for 2006 and 2007 concerning the creditor structure of public debt (top-right panel) are missing.

B) Public Debt Management

Governance and Strategy Development

Legal framework

According to the Royal Decree 39/96 the Ministry of Finance (MoF) of Oman has the "authority to borrow on behalf of the Government and keeps records of the government's financial transactions" (Central Bank 2011, p. 6). However, there are no legal rules which "specify the purpose of borrowing, limits of borrowing and objectives of debt management strategy" (Central Bank 2011, p.6). Organizationally, the Supreme Council of Planning collects information on the financing needs of the ministries. The Financial Affairs and Energy Council, composed of ministers from different concerned authorities, then decides on the allocation of funds and sets the guidelines for the debt management strategy. The MoF has the authority to borrow according to these guidelines.

According to the Banking Law 2000, the Central Bank of Oman (CBO) can take loans that are guaranteed by the government. The CBO can also issue its own securities for monetary policy operations (Art. 26 of the Banking Law 2000).

Managerial structure (incl. coordination with other policies)

While borrowing decisions are made by the cabinet and managed by the Central Bank of Oman, the management of the resulting debt falls within the scope of the MoF. There are two separate units in the MoF for debt issuances: the Treasury Department is responsible for domestic debt issuances and mainly carries out back office functions (i.e. short-term borrowing, cash management). The Loan Department is responsible for external debt issuances and carries out front and back office functions (i.e. negotiation of commercial and development loans).

The Central Bank of Oman performs front office functions for domestic debt as an agency of the government. The CBO "can borrow funds on behalf of the Sultanate provided the loans are guaranteed by the Government" (Central Bank 2011, p. 6) and provides a short-term overdraft facility to the government up to a certain limit. A committee consisting of MoF and CBO officials is supposed to meet regularly for the issuance of Treasury Bills and Development Bonds (DBs).

Under the current structure different departments are responsible for public debt management. The government plans to found a Debt Management Office (DMO) in order to have a single authority to be responsible for debt management operations.

Debt reporting

Reporting of public debt management activities is not mandated as there is no Public Debt Act in Oman. The annual public state budget is published in the official gazette and on the MoF website. The CBO also publishes monthly and annual reports on public debt data.

The Sultanate of Oman implemented International Accounting Standards for companies including the section IAS 37 approaching "Provisions, Contingent Liabilities and Contingent Assets". The Sultanate does not publish further information or data concerning state-based contingent liabilities.

Debt management strategy (incl. risk management)

There is no publicly available information about Oman's public debt management objectives and risk management. For strictly internal use documents on objectives, strategies and risk management exist.

Borrowing and related financial activities

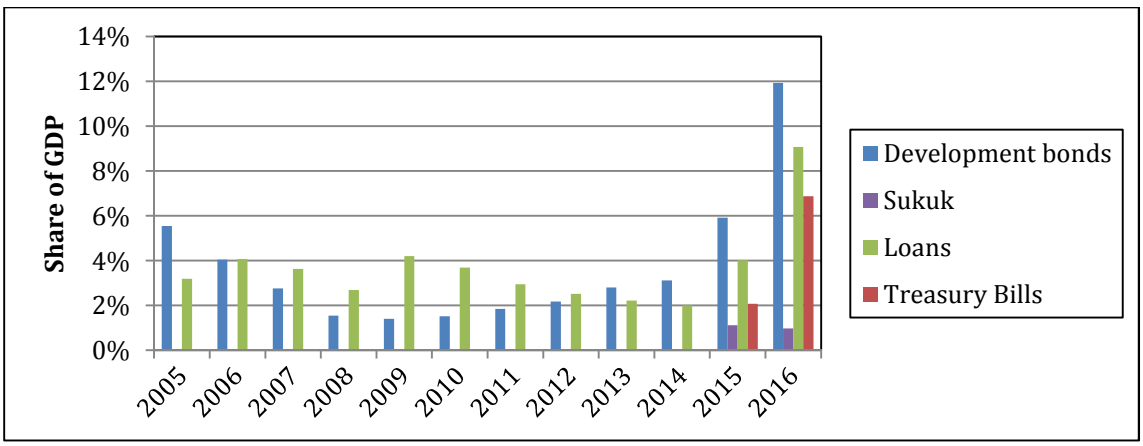
Operations (incl. Islamic finance)

Oman uses Government Development bonds (GDB), *sukuk*, loans and T-Bills in public debt management. The amount of outstanding GDBs steadily declined until 2011, but has increased again significantly in the last years (see Figure 4-40).

In October 2015, Oman issued sovereign *sukuk* for the first time, totaling $649.3 million and having a maturity of five years (Economist 2015). The strong investors' demand for Oman's *sukuk* encouraged the government to return to the debt market in the coming periods. In June 2016, Oman issued *sukuk* again, totaling $500 million with a profit rate of 3.5% per annum. The *sukuk* are based on an al-Ijara structure and have a maturity of six years (Moody's 2016). Issuing *sukuk* supports developing Oman's Islamic finance market and opens a new channel to raise money for the government. Plans to issue *sukuk* denominated in U.S. dollar again in the near future exist.

In March 2015 the CBO issued T-Bills i.e. short-term highly secured financial instruments, with maturities of 91 days and - less frequently - 364 days to domestic banks for the first time after several years of non-issuing T-Bills. The outstanding amount of T-Bills was RO 64.2 million ($166.7 million) at the end of 2015. In June 2016, domestic banks invested RO 420.5 million ($1092.6 million) in T-Bills (Central Bank 2016).

Figure 4-40: Oman - Outstanding Public Debt by Instruments



Source: Central Bank of Oman (2011, 2016), Economist Intelligence Unit (2015), Moody's (2016), Wall Street Journal (2016), calculations by the Ifo Institute.

Domestic debt market

The share of domestic debt in total debt was about 40% over the period 2005-2016. Banks hold the largest share of GDBs (55.1%), followed by pension funds (36%) other financial institutions (8.5%). Individuals only hold about 0.2% of GDBs. In order to augment liquidity in the banking sector and encourage investments, Oman decided in April 2016 to permit banks' investments in T-Bills, GDBs and Oman sovereign *sukuk* to be part of eligible reserves up to a maximum of two percent of deposits (Central Bank 2016). The scope for further domestic borrowing is limited, because the liquidity of the local market is relatively shallow.

Foreign borrowing

In June 2016, the government accessed international debt markets for the first time since 1997 and issued bonds in the amount of $2.5 billion denominated in U.S. dollar with five and ten year maturities. Yields of these bonds were about 4.72% (Wall Street Journal 2016). The government plans to borrow a further $10 billion in the next four years to plug its budget balance deficit.

C) Policy Recommendations

After decades of very low debt levels, Oman has been experiencing increasing debt levels since 2014 because of the decline in oil prices. To maintain fiscal sustainability and support the US dollar exchange rate peg over the medium- to long-term, fiscal adjustment measures are important. Fiscal reforms are also likely to reduce borrowing costs and support economic growth. Furthermore, the exchange rate peg may lead to over-evaluation of the Rial. Therefore the possibility of adjusting the exchange rate might be considered. The saving measures already initiated are a step in the right direction. It is recommended to anchor fiscal adjustments by a medium-term fiscal framework and include phasing out remaining subsidies, further contain recurrent government expenditures, and introduce excise duties on specific goods (IMF 2016). Furthermore, a reform of the pension system may be initiated in the near future before the fiscal burden on the budget increases even further.

Oman is selling government financial assets to compensate the revenue shortfalls in the short-run. However the country has limited fiscal buffers and financing the budget deficit may require additional borrowing, both domestically and externally. Oman has historically benefited from low debt levels that have kept borrowing costs down. Thus, issuing debt on international debt markets does not necessarily pose a significant risk at the moment. But as public debt is rising, this situation may change in the medium- to long-run. Hence, the pace and efficiency of fiscal reforms may help to pursue sustainable fiscal policies, not only on reducing the budget deficit, but also on attracting investors.

Developing a further deepened and liquid domestic debt market requires proactive efforts from the government, central bank and market participants. Regular issuance of government debt with different maturities would support the establishment of a yield curve and help foster the development of the domestic debt market. The government may resort to T-Bills for financing recurrent expenditures. T-Bills help the licensed commercial banks to invest their surplus funds and increase their diversification options for liquidity management. T-Bills also promote the local money market by creating a benchmark yield curve for short-term interest rates (IMF 2011). Additionally, issuing *sukuk* might support the development of Oman's Islamic finance market and can give the government a new channel to raise money from specialized investors, e.g. state funds.

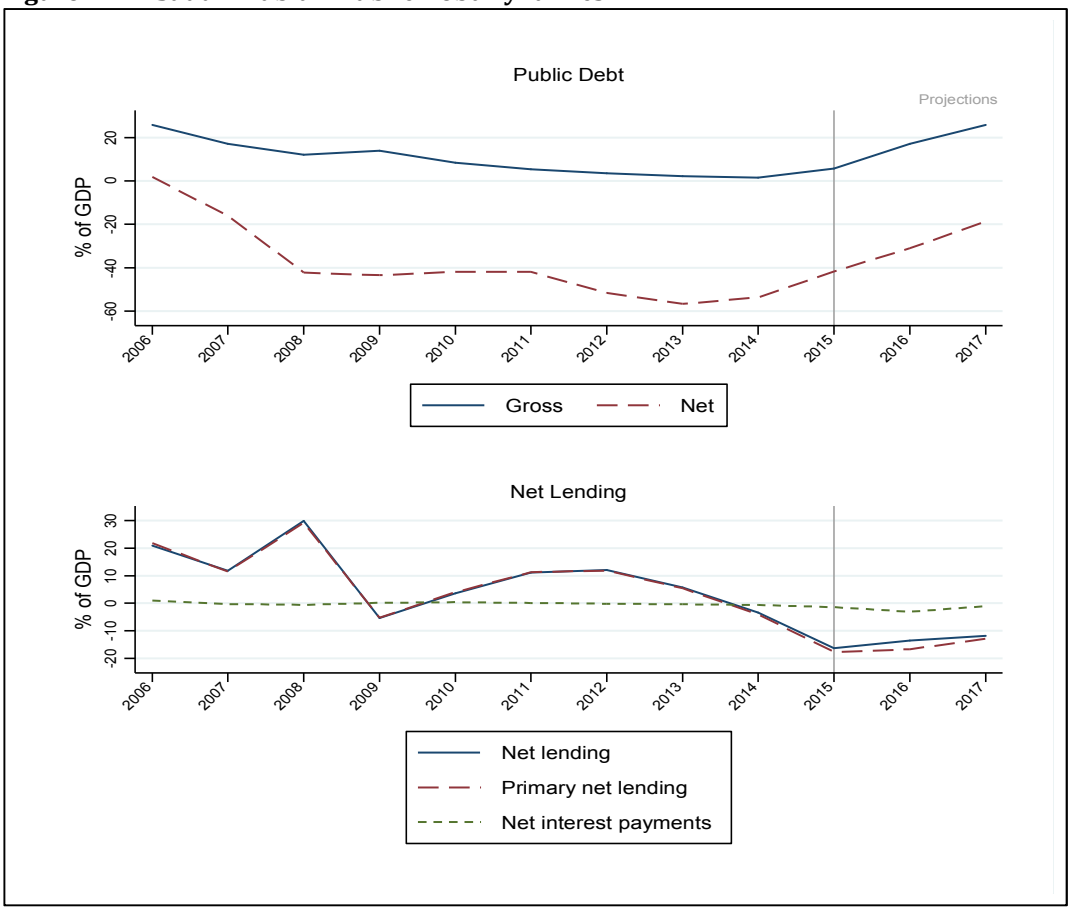
The authorities in Oman are encouraged to continue strengthening the institutional framework for public debt management to ensure that financing needs are effectively managed. Oman may develop a time bound road map for an efficient market for government securities, which may start with an enactment of a “Public Debt Act for Oman” (IMF 2008, p. 17). The set-up of a centralized, independent Debt Management Office inside the MoF is welcomed. A medium- to long-term debt management strategy could be developed. A focused issuance program of government securities is essential to establish benchmark securities, further improve the CBO’s monetary policy operations and spur market development (IMF 2013).

4.1.15 Kingdom of Saudi Arabia

A) Public Debt Dynamics

The Kingdom of Saudi Arabia's general government debt levels have been low until 2014 because of high oil revenues (see Figure 4-41).[32] Since 2007, when the debt-to-GDP ratio was about 17.1% of GDP, Saudi Arabia has even managed to reduce the ratio to 1.6% in 2014 and the country had deposits in the banking system in the amount of 56% of GDP at end-2014 (IMF 2015b). Until 2015, the government of Saudi Arabia mainly used its financial reserves to cover budget deficits (Torchia 2015). Net lending was always positive between 2006 and 2014 with the exception being 2009, when the global financial crisis hit the oil-production based economy.

Figure 4-41: Saudi Arabia – Public Debt Dynamics



Sources: WEO (2016), IMF (2015a, 2016b), calculations by the Ifo Institute.

The decline in oil prices starting in 2014, however, gave rise to a decline in oil revenues. Since then, the government has been in a net borrowing position, which reached its maximum at 16.3% of GDP in 2015. Saudi Arabia used deposits in the central bank to finance the deficit, but

[32] Oil revenues accounted for about 90% of central government fiscal revenues before 2015. The share of oil revenues is expected to decrease to around 80% for the years 2015 and 2016 because of the decline in oil prices (IMF 2015a, 2015b).

also started to issue government securities. The deficit in 2016, which is estimated at 13.6% of GDP following the sustained decline of oil prices, will be financed by a deposit drawdown of $100 billion and domestic and international borrowing (IMF 2016a, Kerr 2016). Until 2016, Saudi Arabia's public debt has consisted completely of domestic debt. In 2016, the debt level is estimated at 17.2% of GDP. Public debt is projected to increase to 25.8% of GDP in 2017, and Saudi Arabia might has to seek new ways for funding of government expenditures in times of sustained low oil prices (Kerr 2016, Kerr and Moore 2016).

B) Public Debt Management

Governance and Strategy Development

Legal framework

Saudi Arabia has not yet introduced a comprehensive law or specific regulation on public debt management. The Ministry of Finance (MoF) is rather authorized to issue debt on an annual basis by the Council of Ministers (IMF 2016b). The legal framework and accountability structures of debt management are still being in the process of development.

Managerial structure (incl. coordination with other policies)

In the past, the Saudi Arabian Monetary Authority (SAMA) was responsible for executing public debt management functions as an agent for the government. The SAMA also acts as banker to government and is responsible for the supervision of commercial banks. Moreover, it assumes all responsibilities of a central bank (COMCEC 2016a). The Capital Market Authority (CMA) regulates and oversees all activities related to the Saudi Arabian Capital Markets, which also include bond markets (CMA 2016).

Saudi Arabia has established a Debt Management Office (DMO) for preparing and executing the kingdom's first international bond sale (IMF 2016b, Martin and Bianchi 2016). Debt management functions are planned to be consolidated in one agency with operational authority (IMF 2016b). The government is aware that prudent public debt management is now important for securing the stability of the financial system (SAMA 2016a).

Debt reporting

The SAMA publishes data on public debt in the annual Financial Stability Reports. Data on contingent liabilities is not published.

Debt management strategy (incl. risk management)

One of the most important objectives of SAMA is the application of market-oriented practices in domestic debt markets, which play an important role for cost-effectiveness and diversification in debt management (Al-Sayari 2003). The MoF is currently defining the debt management policy. Until now, there is no publicly available comprehensive debt management strategy, which outlines the specific objectives and indicators for public debt and risk management.

The CMA supports enhancing the stability of the capital market, developing debt (including *sukuk*) and derivative markets, improving internal efficiency and effectiveness and reforming external risk management in accordance with the Strategic Plan 2015-2019 (SAMA 2016a, CMA 2016).

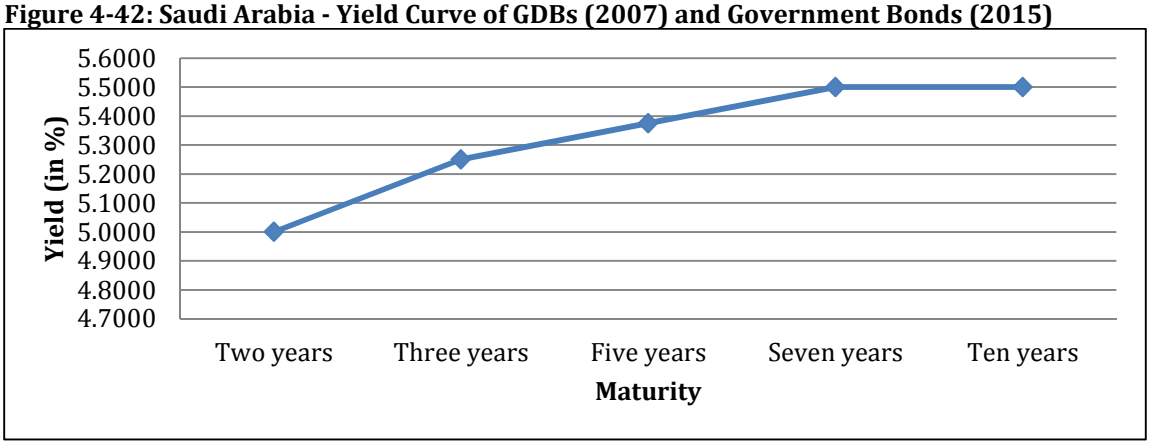
Borrowing and related financial activities

Operations (incl. Islamic finance)

Bond markets in Saudi Arabia have undergone a rapid evolution since 1988, when the first sovereign bonds were issued. Issuance procedures, pricing mechanisms, maturity selection and the utilization of Repos are fields that have experienced major changes in the last 15 years (Al-Sayari 2003). While the government has mainly used its deposits at the central bank to cover the deficit in the past, the bond market in Saudi Arabia is on the rise.

Government Development Bonds (GDBs) were lastly issued in 2007. Maturities of GDBs ranged from two to ten years (Al-Darwish et al. 2014). The investors in GDBs included domestic financial institutions, banks and foreign investors (Al-Sayari 2003). The first sovereign bond issuance since 2007 took place in mid-2015 as financing needs increased following the declining oil prices. The issuance in the amount of $4 billion was sold to domestic quasi-sovereign financial institutions (Reuters 2015). These conventional bonds, which were issued with maturities of seven and ten years, had an initial yield of 2.57% and 2.88% (Reuters 2015). The yield curve of government bonds shows a normal positive slope (see Figure 4-42).

Figure 4-42: Saudi Arabia - Yield Curve of GDBs (2007) and Government Bonds (2015)



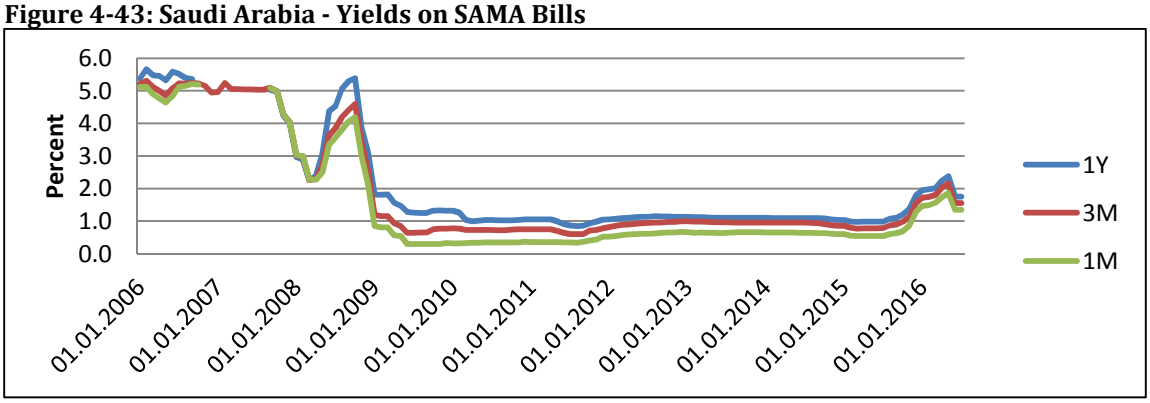
Note: The yield curve for the GDBs is based on data from 2007, when they were lastly issued.
Source: SAMA (2016b), Reuters (2015).

To support the development of the domestic debt market and to conduct monetary policy, the SAMA uses its own instruments: Repo and reverse Repo overnight operations, and SAMA Bills and SAMA *Murabaha* with maturities ranging from one week to one year (Al-Darwish et al. 2014). The return of SAMA Bills equals 80% of the Saudi Interbank Bid Rate. This rate is the key interbank rate in Saudi Arabia, and serves as a benchmark for commercial and consumer lending rates. SIBOR is influenced by the policy of SAMA, which sets the reverse Repo rate. The reverse Repo rate is the key policy rate and marks the rate that commercial banks in Saudi Arabia get on their deposits with SAMA. Changes in the reverse Repo rate can therefore add or reduce liquidity in the markets. As the SAMA uses an exchange rate anchor in its monetary policy framework the reverse Repo rate is set with reference to the target rate of the U.S. Federal Reserve (Algahtani 2015).

Figure 4-43 shows yields on SAMA Bills with three different maturities over time. Yields drastically declined in 2008/2009, which is a result of the reduction of interest rates (Repo and reverse Repo rate) by the SAMA following the financial crisis and the subsequent reduction of the target rate of the U.S. Federal Reserve. Between 2010 and the middle of 2015,

yields on SAMA Bills were stable but in the second half of 2015, yields began to increase. Currently, yields on SAMA Bills with one year maturity note at 1.755%. Interest rates on government bonds are likely to increase further, because rating agencies have downgraded the creditworthiness of Saudi Arabia as a response to the drawback of deposits, which were used to cover the decline in oil revenues (Financial Times 2016). However, the SAMA (2016a) expects that overall investor confidence in Saudi Arabia will not diminish further as the speculative behaviour in the foreign exchange market was quickly self-corrected because of the SAMA's strong commitment to its fixed exchange rate policy.

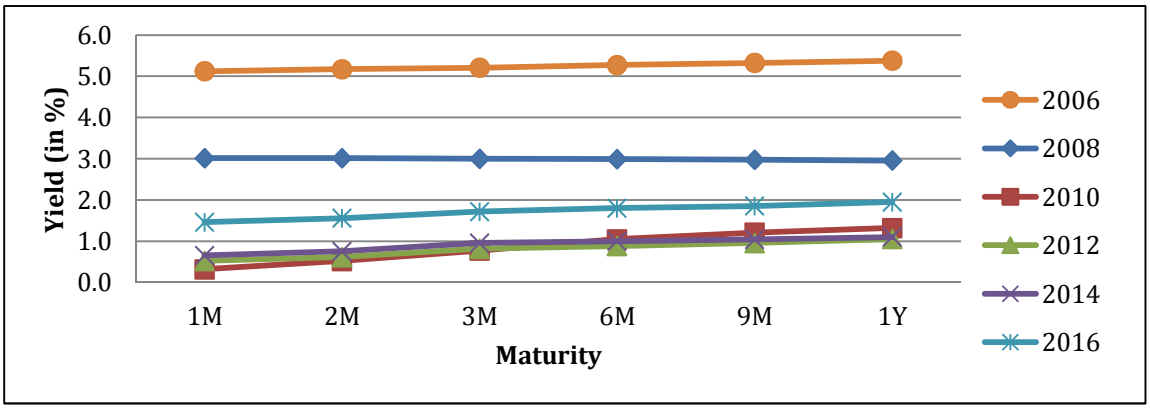
Figure 4-43: Saudi Arabia - Yields on SAMA Bills



Source: Investing (2016).

Figure 4-44 shows that the yield curves of SAMA Bills had a positive slope in all years except for 2008. The flat yield curve in 2008 can be seen as an indicator for the anticipation of slower economic growth during the global financial crisis.

Figure 4-44: Saud Arabia - Yield Curves of SAMA Bills



Source: Investing (2016).

Saudi Arabia is one of the leading countries in Islamic finance (COMCEC 2014). Saudi Arabia does, however, not officially recognize the concept of Islamic banking. Instead it is argued that "all banks operating in Saudi Arabia are by definition Islamic" (Warde 2000, p. 208).[33] Although some commercial banks have an internal *sharia*-board, there is no such board on the

[33] Critics argue that banks in Saudi Arabia can circumvent Islamic banking practices, for instance by declaring interest income as "special commission income", "service charges" or as "book-keeping fees" (Warde 2000, p. 208).

national level, which approves new financial instruments and proves *sharia* compliance (COMCEC 2016a). Islamic finance instruments represent a growing sector in the Saudi Arabian banking industry. Considering the global Islamic finance market, Saudi Arabia's share of global Islamic banking assets represents 19%. If one considers the domicile of assets, Saudi Arabia even represents 40% of Islamic fund assets in the world. Within its own jurisdiction, the share for Islamic banking in its total domestic banking sector equals 49% (IFSB 2016).

In 2015, domestic *sukuk* bonds in the amount of $4.5 billion were issued, consisting of corporate[34] and quasi-sovereign bonds (IIFM 2016). Quasi-sovereign *sukuk* in Saudi Arabia refer to government-backed Islamic bonds or bonds issued by state-owned companies. Among the first issuers of quasi-sovereign *sukuk* were the Saudi General Authority for Civil Aviation ($4 billion in 2012) and the Saudi Electricity Company ($1.75 billion in 2012), which serve as a benchmark for sovereign-guaranteed *sukuk* issuances since then (IIFM 2016, Hamdan 2012). In 2015, international issues of quasi-sovereign *sukuk* were carried out by the Arab Petroleum Investments Corporation in the amount of $500 million and the Islamic Development Bank in the amount of $1 billion (IIFM 2016).[35]

The MoF used *sharia* compliant products for the first time with the issuance of Floating Rate Notes (FRNs) in 1997 and later with the issuance of short-term *murabaha* in 2002.[36] In January 2016, the government started to issue also long-term *murabaha* (IMF 2016b). The general rise in popularity of corporate and quasi-sovereign *sukuk* and other Islamic finance instruments in Saudi Arabia are an indicator that Islamic bonds will play also a bigger role in public debt management in the future.

Domestic debt market

Until 2016, public debt in Saudi Arabia was completely domestic. The main holders of government debt are banks and pension funds, holding over 90% of government debt. In 2016, Saudi Arabia began to issue international bonds to finance budget deficits. Diversifying the economy and raising non-oil revenue is a priority since low oil prices have hit the economy (Kerr and Moore 2016) and international investors' demand for government bonds, especially from Asian investors, appears to be very high (Martin 2016). The low public debt level opens opportunities to issue both domestic and international bonds to help finance the anticipated budget deficits (SAMA 2016a).

Foreign borrowing

While Saudi Arabia already took an international loan in the amount of $10 billion from a consortium of commercial banks in April 2016 (EIU 2016), the first international bond sale of Saudi Arabia took place in later-2016 (to the amount of $17.5 billion). The bonds had maturities of 5 to 30 years and yields between 2.4% and 4.5%. This international bond sale was the biggest international debt issuance by an emerging country so far.

[34] Corporate issuers in 2015 were Arab National Bank ($533 million), Almarai Company ($427 million), National Commercial Bank ($1,007 million), Riyad Bank ($1,070 million) and Saudi British Bank ($411 million) (IIFM 2016).

[35] In addition, the Islamic Development Bank also issued a domestic *sukuk* in 2015 equal to $514 million (IIFM 2016).

[36] Although GDBs are not defined as Islamic Bonds, they have the feature that they are "*zakah* (compulsory alms) deductible" for domestic investors (Al-Sayari 2003).

C) Policy Recommendations

Saudi Arabia is preparing its economy for continued low oil-prices. The government has just recently established a DMO and the legal framework and strategies for public debt management are in the process of development. It is recommended that the legal framework will clearly define the authority for borrowing, undertaking debt related transactions and issuing loan guarantees (see also IMF 2016b). A transparent medium-term debt management strategy following the guidelines set by the IMF and the World Bank would strengthen the confidence of investors.

It is recommended to further develop market based financing in order to prevent a decline of government deposits in the banking system (IMF 2015a). The establishment of the new DMO can be accompanied by the establishment of an efficient and market-based approach for debt issuance. Moreover, the development of a medium-term fiscal framework and an integrated asset-liability management approach is important (IMF 2016c). Additionally, it is recommended to improve data collection and transparency of financial data (IMF 2015b). Public disclosure may include, for example, technical information about the issuance of bonds.

Because of the comparably low debt level and large deposits of the government, Saudi Arabia is in a comfortable situation regarding public debt management. The country has a potentially large domestic investor base, which includes, besides the banking system, the Autonomous Government Institutions (AGIs) and wealthy individuals (IMF 2016b). So far, however, government debt is mainly held by banks and pension funds. The issuance of government debt helps to establish a benchmark yield curve and supports the development of the domestic debt market (IMF 2016c). Reforms to encourage the development of the *sukuk* market may help to diversify the investor base as there is a strong demand for *sharia*-compliant finance products.

Although the reliance on the domestic debt market may promote financial stability, it is recommended to achieve a balance between domestic and international borrowing, as an over-reliance on domestic borrowing by the public sector may lead to crowding-out of private sector credit. Exchange rate risk is low in Saudi Arabia because the country has a well-established exchange rate peg and a large portion of government revenue is denominated in foreign currencies (see also IMF 2016b).

4.2 Comparison of Public Debt Management Practices

While all case study countries have established legal and organizational debt management frameworks, actual debt management practices differ among the countries. All case study countries have created debt management units, in most cases located at the Ministry of Finance, or are in the process of doing so. The central bank often acts as a financial advisor to the government. In some countries, however, the breakdown of competencies still remains vague. In these countries, responsibilities are not clearly distributed, as additional institutions, such as the central bank, departments in other ministries and committees, pursue debt management functions besides the debt management unit. Several institutions involved in public debt management make it difficult to evaluate the degree of accountability of the individual institutions. As long as all debt management responsibilities are not centralized at a debt management unit, adequate and systematic communication between the various embedded institutions is very important.

The World Bank has conducted Debt Management Performance Assessments in the African countries Gambia, Mozambique, Togo, Uganda, Nigeria and Sudan,[37] and also in Albania and Kazakhstan. Several of these countries subsequently have established centralized Debt Management Offices (DMOs) and developed debt management strategies. In oil-producing countries, such as Saudi Arabia, Iran and Oman, public debt management has been of lower importance in the past, because public debt levels have historically been relatively low. Following the decline in oil revenues since 2014 and the consequent financing pressure on public revenues, governments in these countries, however, have begun to create centralized debt management units.

In almost all case study countries public disclosure of legal and organizational structures of public debt management, operations and strategies might be improved. For example, contingent liabilities such as debts of state owned enterprises (SOEs), government loan guarantees, and arrears might be included in debt reports. In some reports, data is not up-to-date. Improving public debt disclosure requires setting up comprehensive debt databases. In some case study countries, debt management responsibilities and operations lack transparency. Case study countries that have not yet published their debt management strategies in English are encouraged to do so to establish or facilitate communication with international investors.

Table 4-12 shows the differences in debt levels and structures among the case study countries. While the upper-middle and high income countries have shares of external debt in total debt below 50%, the African low and lower-middle income countries Gambia, Mozambique, Togo, Uganda and Sudan have shares of external debt of about 50% or even higher. High shares of external debt indicate an underdeveloped domestic debt market. The high share of debt denominated in foreign currencies exposes these countries to exchange rate risk. Nigeria is an exception among the African countries with external public debt amounting to only 18% of total public debt.

External public debt of the low and lower-middle income countries with high shares of external public debt is largely held by official creditors such as international organizations[38]

[37] In the OIC classification Sudan belongs to the Arab region.

[38] E.g. the Islamic Development Bank, the International Development Association (IDA), the Arab Bank for Economic Development in Africa (BADEA),, the European Investment Bank (EIB), the International Fund for Agricultural Development (IFAD), the African Development Fund (ADF) and the OPEC Fund for International Development (OFID).

and governments. Regarding private credit, these countries have difficulties to finance themselves on international capital markets. Official creditors lend at preferential interest rates and at longer maturities than private creditors. Consequently, the case study countries with a high share of external public debt have lower interest rates and longer average maturities in their government debt portfolio.

Other case study countries such as Egypt and Lebanon strongly rely on the domestic debt market. High interest rates on government debt and preferences for safe lending reduce the incentives of banks to provide credit to the private sector in these countries, giving rise to a crowding-out of bank loans to the private sector. Banks tend to invest in short-term instruments to avoid asset and liability mismatches with short-term bank deposits.

Table 4-12: Comparison of Debt Levels and Structures in Case Study Countries (2015)

Country	Income group	Debt (% of GDP)	Share of ext. debt (% of total)	Avg. interest rate (%)	ATM (years)	Debt maturing in 1 year (% of total)	ATR (years)	Fixed rate debt (% of total)
Gambia	Low	91.6	54.8	6.0	7.5		7.3	97.1
Mozambique	Low	74.8	83.2	2.9	13.5	2.7	12.6	
Togo	Low	61.9	46.9	3.3	5.7	18.9	5.7	88.8
Uganda	Low	35.4	62.9	4.0	11.9	14.1	11.6	
Egypt	Lower-middle	87.7	8.7	11.3	2.2	55.1	2.2	100.0
Indonesia	Lower-middle	27.3	58.7		9.4	8.8		86.3
Nigeria	Lower-middle	11.5	18.1	10.8	7.2	36.1	7	99.0
Sudan	Lower-middle	68.9	88.8					
Albania	Upper-middle	71.9	46.9		4.9	55.9	3.2	
Iran	Upper-middle	17.1	13.6*					
Kazakhstan	Upper-middle	23.3	26.0					100.0
Lebanon	Upper-middle	139.1	13.8	6.4	4.3	20.4	4.3	100.0
Turkey	Upper-middle	32.6	35.1		6.4			67.6
Oman	High	20.6	59.8					100.0
Saudi Arabia	High	5.8	0.0					

*Note: ATM = Average Time to Maturity; ATR = Average Time to Refixing, * = value for 2013.*
Sources: WEO (2016), World Bank, public debt management strategies, calculations by the Ifo Institute.

Given the different debt levels and structures, debt management strategies vary among the case study countries. Out of the 15 case study countries, eleven countries have developed formal debt management strategies (see Table 4-13). Uganda, Egypt, Indonesia, Nigeria, Albania and Lebanon have published numerical targets for risks in the public debt portfolio. Turkey has set numerical targets but does not disclose these numbers. Gambia, Mozambique and Togo have set general objectives but do not formulate specific targets. Saudi Arabia, Sudan, Kazakhstan, and Oman have not or do not disclose targets.

Table 4-13: Comparison of Debt Management Objectives in Case Study Countries

Country	Formal DeM strategy	Targets	Currency risk	Interest rate risk	Refinancing risk
Gambia	yes	no	- Increase ext. borrowing (concessional)		
Mozambique	yes	no			
Togo	yes	no			- Extend concessional and semi-concessional ext. borrowing which generally has higher maturities; - Target maturities of 3-10 years for dom. borrow.
Uganda	yes	yes	- Dom. to ext. debt: 40:60; - FX share: Max. 80%	- ATR: Min. 10 years	- ATM: Min. 3 years; Debt maturing in 1 year: 15%
Egypt	yes	yes	- Dom. to ext. debt: 85:15	- Share of fixed rate debt: 100%	- ATM: 2.5 years - Debt maturing in 1 year: Max. 50%
Indonesia	yes	yes	- FX share: 39%	- Share of fixed rate debt: 89%	- ATM: 9 years; - Debt maturing in 3 years: 22%
Nigeria	yes	yes	- Dom. to ext. debt: 60:40; - Dom. debt mix of 75:25 for long and short-term debts. - Increase ext. borrowing (concessional)	- ATR: Min. 10 years	- ATM: Min. 10 years; - Debt maturing in 1 year: Max. 20%
Sudan	no	no			
Albania	yes		- FX proportion: 50-55%	- ATR: Min. 3 years	- ATM: Min. 4.7 years; - Debt maturing in 1 year: Max. 26%
Iran	no	no			
Kazakhstan	yes	no			
Lebanon	yes	yes	- Increased ext. borrowing	- ATR: Min. 4.3 years	- ATM: Min. 4.3 years
Turkey	yes	yes*	- Make borrowing mainly in TL	- Fixed rate TL instruments as major source of dom. cash borrowing; - Decrease share of debt with interest rate refixing < 1 year	- Increase average maturity of dom. cash borrowing; - Decrease share of debt maturing within 12 months.
Oman	no	no			
Saudi Arabia	no	no			

*Note: * not published; ATM = Average Time to Maturity; ATR = Average Time to Refixing.*
Sources: Public debt management strategies, ifo Debt Management Survey (2016).

4.3 Comparison of Islamic and Conventional Finance Practices

In Iran and Sudan the whole financial system relies on Islamic principles. Iran has the largest share of worldwide Islamic banking assets (about 37%). Saudi Arabia is also one of the leading countries in Islamic finance, holding the second largest share of worldwide Islamic banking assets (about 19%). Consequently, these countries also use Islamic finance instruments for public debt management. However, debt-to-GDP ratios in Iran and Saudi Arabia are very low, amounting to 17.1% and 5.8% in 2015. Public debt in Saudi Arabia is completely domestic, while the share of domestic public debt in Iran accounts for more than 90%. But the declining oil revenues give rise to additional borrowing needs and Iran and Saudi Arabia plan to tap international debt markets. To prepare international bond issuances, legal and organizational structures for debt management are being established at the moment. In contrast, Sudan has a relatively high debt ratio (68.9%) and about 90% of public debt is external.

The central bank of Saudi Arabia issues SAMA Bills whose returns depend on the Saudi Interbank Bid Rate and SMAM Murabaha. The government has issued Government Development Bonds (GDBs). Although GDBs are not defined as Islamic bonds, they have the feature that they are "*zakah* (compulsory alms) deductible" for domestic investors. The government has also issued sharia compliant Floating Rate Notes (FRNs) and *murabaha*. The general rise in popularity of corporate and quasi-sovereign *sukuk* and other Islamic finance instruments in Saudi Arabia indicates that Islamic bonds will play also a bigger role in the future of the country's public debt management.

The government of Iran has mainly borrowed from domestic Islamic banks by taking out loans with fixed rates of return in the past. In 2015, Iran has started to expand its Islamic bond market. There are various types of instruments such as *murabaha*, *musharakah*, *ijarah*, and different types of *sukuk* with various maturities. Sovereign *sukuk*, *ijarah*, and Sovereign Settlement Bills were issued for the first time with the beginning of the Iranian fiscal year in March 2016. Islamic Treasury Bills (ITBs) were introduced, too, describing zero coupon bonds sold at a discount to their face values. The acquired profit is non-taxable and they are non-transferable. ITBs have a one year maturity and are traded predominantly at the Iran Fara Bourse.

The government and the Central Bank of Sudan (CBoS) use various short- and long-term Islamic finance instruments for debt and liquidity management. The central bank uses Central Bank *ijarah* Certificates (*shihab*) for open market operations whose returns are fixed and distributed monthly. Furthermore, the CBoS uses *sukuk* bonds for the management of liquidity. The government uses two types of *sukuk*: Short-term Government *Musharaka* Certificates (GMCs), also called *shahama*, which are issued by the MoF and National Economy and mainly used for liquidity and cash management, and long-term Government Investment Certificates (GIC), also called *beshra*. The nominal value of the instrument is distributed in profits quarterly or bi-annually. The market for GICs has been stagnating since its introduction in 2003, especially compared to the market for GMCs, which has been growing steadily since 1999 because of the specific characteristics of these instruments such as high profitability, low risk, short-term maturity and high liquidity.

The remaining case study countries mainly use conventional finance instruments for public debt management such as short-term T-Bills and long-term T-Bonds. But also other OIC countries with conventional finance systems have introduced Islamic finance instruments. Countries such as Gambia, Togo and Oman have already issued *sukuk*. Other countries such as Egypt, Kazakhstan, Mozambique, Nigeria and Uganda have created legal prerequisites to use Islamic finance instruments and/or are planning to issue *sukuk* in the next years.

5 Policy Recommendations

5.1 Measures to Improve Public Debt Management

General Recommendations

Most OIC member countries have established legal and organizational debt management frameworks and created Debt Management Offices (DMOs) or are in the process of doing so. While these are important measures for successful public debt management, some areas of improvement concerning public debt management in OIC member countries still remain and will be indicated below. The policy recommendations given are based on global best practices and descriptive analyses of public debt management practices in OIC member countries.

In some OIC member countries the delineation of authorities for public debt management is not clear-cut. Public debt management functions are often not fully centralized at the DMO, with ministerial departments, the central bank and committees pursuing debt management functions in addition. However, a large number of institutions involved in public debt management hampers coordination and makes it difficult to evaluate the degree of accountability of the respective institutions. As long as all relevant debt management responsibilities are not centralized at a debt management unit, adequate and systematic communication between the various embedded institutions is recommendable. In general, all OIC member countries are advised to set up DMOs, if they have not done so already, and to give them clearly defined, comprehensive operational responsibilities.

All OIC member countries are encouraged to create Medium-Term Debt Management Strategies (MTDSs) following guidelines from the World Bank and the IMF. A clear commitment to the public debt management strategy might be helpful in attracting foreign investors and improving the functioning of domestic debt markets. Countries that have not yet published their debt management strategies are advised to do so for a facilitated communication with international investors. Public disclosure of legal and organizational structures of public debt management, operations as well as general strategies might be strengthened in OIC member countries. For example, debts of state-owned enterprises (SOEs), government loans or investment guarantees, and arrears should be included in debt management reports. Improving public debt disclosure can be supported by setting up comprehensive debt databases. In some OIC member countries the general level of transparency on debt management responsibilities and operations could be enhanced. Delegating public debt management to a clearly specified organizational unit, e.g. the DMO, creates transparent responsibilities and is conducive to foster accountability in public debt management.

Central bank independence could be strengthened in some OIC member countries. Whenever the central bank purchases substantial amounts of sovereign bonds, it potentially poses the risk that monetary and financial policies are not clearly separated. As a result, the central bank might not be able to implement an independent monetary policy, as recommended by current scientific literature (e.g. Crowe and Meade 2008).

Public debt management is recommended to further diversify the investor base, if possible. It is further advisable to clearly determine and implement a specific country's optimal balance between debt denominated in domestic currency and foreign currencies. Foreign currency denominated debt may be subject to exchange rate risks, but typically comes at lower (real) interest rates. This balance depends inter alia on the development of the domestic capital

market, and the relative costs of borrowing at home and abroad. Likewise, a longer maturity structure reduces the refinancing risk, but entails higher costs on average.

Islamic sovereign bonds (*sukuk*) are likely to gain greater popularity in OIC as well as non-OIC countries. An important factor is the growing preference for *sharia* compliant finance products by important international investors such as state funds. Moreover, the issuance of *sukuk* bonds can serve market development purposes by diversifying domestic capital markets and attracting new (international) investors that wants to invest in sharia compliant financial instruments from all over the world. Investors can also benefit from new sovereign *sukuk* issuances due to additional opportunities to diversify their portfolios. Hence, several OIC member countries are planning to issue new sovereign *sukuk* or expand their already existing portfolio. Infrastructure projects are especially suitable as underlying structures for sovereign *sukuk* given the asset-backed design of these bonds. In several Islamic markets, funding gaps for infrastructure projects exist. Pairing the expected rise in infrastructure investments in developing and emerging countries with the important role Islamic banking is playing in many of these markets, *sukuk* issuances related to infrastructure are expected to further increase. However, it should be noted that Islamic finance instruments do not necessarily minimize financing costs as they often involve additional administrative expenses and greater legal and accounting challenges. The limited tradability, the comparatively high issuance costs and the rather small volume of existing *sukuk* may constrain market liquidity and hence a government's flexibility in conducting and financing fiscal policy measures. Hence, the issuance of such bonds comes with both, risks and benefits. Overall, OIC member countries are encouraged to assess their country's potential for issuing such bonds and (further) integrate Islamic finance instruments into their public debt management practices, if possible.

Table 5-1 summarizes the main challenges and obstacles of public debt management in OIC member countries.

Table 5-1: Challenges and Obstacles to Public Debt Management

Area vulnerable to obstacles	Challenges	Examples of countries facing risks
(1) Outside incidents	Macroeconomic shocks might affect the structure of public debt. Risks: • Exchange rate risk due to debt denoted in foreign currency with rising interest rate • Higher refinancing risk for countries with short maturity of debt and high annual debt roll-over rate • Interest rate risk increases for debt held by the private sector if adverse economic shocks occur • Risk enhanced by strong economic dependency on exogenous variables, e.g. prices for natural resources	Gambia, Mozambique, Togo, Uganda, Sudan, Saudi Arabia, Nigeria
(2) Institutional framework	Coordination and responsibility issues concerning public debt management Risks: • Unclear institutional responsibilities for public debt management - Information flow between the institutions may not be ideal	Azerbaijan, Bahrain, Chad, Kazakhstan, Malaysia, Oman, Saudi Arabia, Sudan, United Arab Emirates

Area vulnerable to obstacles	Challenges	Examples of countries facing risks
	- Accountability may be ambiguous • DMOs may be dependent on political constraints Lacking formal debt management strategy: MTDS and numerical strategic targets are not yet implemented. Risks: Difficulties in attracting foreign investors	
(3) Domestic public debt markets	Dependency on external borrowing caused by underdeveloped domestic public debt market Problems: • Insufficient market infrastructure, e.g. lack of informational transparency • Immature secondary markets • Limited market size • Small investor base Risks: • Limited diversification of investor base which increases idiosyncratic risks • Increased dependency on global market conditions affected by macroeconomic trends which are less related to current country-specific conditions	Afghanistan, Algeria, Azerbaijan, Burkina Faso, Comoros, Djibouti, Gabon, Guyana, Kyrgyz Republic, Mali, Mauretania, Mozambique, Niger, Senegal, Sierra Leone, Sudan, Tajikistan, Uzbekistan
(4) Debt structure	Short average maturity of public debt, especially concerning debt held by the private sector Risks: • Refinancing risk • Potentially harms further development of the domestic debt market Domestic banking sector holds great share of total public debt Risks: • Crowding-out of bank loans to the private sector	Albania, Bahrain, Egypt, Gambia, Iran, Lebanon, Kazakhstan, Nigeria, Qatar, Saudi Arabia, Syria, Togo, Yemen

Specific Recommendations

The following main areas of improvement of public debt management in the OIC member countries can be identified.

(1) Institutional framework of public debt management

In several OIC member countries the delineation of competences between different institutions involved in public debt management remains vague. Especially the partial lack of competence centralization at a DMO might prove to be challenging for further improving public debt management functions. Moreover, 38% of OIC member countries have not yet developed a specified MTDS according to international standards. Among the OIC member

countries with such formal public debt management strategies, about a third has not yet set numerical strategic targets.

In several countries endowed with natural oil resources, public debt management has not been a particularly high priority in the past given their comparatively low public debt ratios. However, the need to establish new sources for financing budget deficits in times of declining oil revenues since 2014 has encouraged some of the national administrations to create centralized debt management units and tap international debt markets. As these nations have predominantly relied on domestic financing in the past, the establishment of a DMO may support the preparation and execution of international bond sales.

Weak public debt management capacities may decrease the government's borrowing credibility, thereby resulting in high risk premia especially with regards to long-term funding. Disseminating information on debt operations, adopting transparency in primary auctions and developing secondary markets may improve the access to debt markets. Unifying treasury or central bank securities to boost secondary market trading prospects and strengthening monetary policy may improve funding possibilities, too.

All OIC member countries are encouraged to set up new or institutionally strengthen existing public DMOs, and to develop formal debt management strategies following international standards, including quantitative strategic targets. To support this transition process, OIC member countries that have already professionalized public debt management practices can advise other countries in establishing institutional frameworks for public debt management. Existing institutional settings and public debt management documents might be considered as examples by countries that are in the process of further implementing formal public debt management. Often, countries have gained valuable experiences regarding public debt management in the past, such as long-term strategy development, risk management, monitoring or institutional coordination. Thus, these countries may be able to offer advice with regards to a certain area of debt management, or present cases of challenging experiences from which lessons can be learned.

The process of training specialized staff, developing administration capacities of the middle office or the creation of risk quantification models could be accompanied by the advice of a centralized institution. Given their commonalities, this especially opens the room for cooperation among the OIC member countries. Therefore, it might be useful to bring OIC member countries together for developing solutions for public debt management challenges. Cooperation could be coordinated by COMCEC, for example by setting up workshops or online training courses on public debt management. These activities could be conducted in cooperation with the World Bank, the IMF and other international institutions.

(2) External borrowing

Several low- and lower-middle income OIC member countries at least partially depend on external borrowing. The high share of external debt is often a result of underdeveloped domestic debt markets. In addition, these countries may have difficulties in accessing international capital markets. As a consequence, external public debt is often held by multilateral or public creditors such as international organizations and governments. These countries may benefit from concessional lending, targeted development aid programs or preferential support for access to the international financial markets. However, the high share of debt denominated in foreign currencies exposes these countries to significant exchange rate risk.

Furthermore, development and economic aid grants may be subject to constraints regarding pre-specified investment projects, thereby limiting the government's policy space (see Panizza 2010). Therefore, in order to increase spending flexibility, it might be beneficial to increase the share of debt held domestically. However, domestic debt tends to be more expensive than external debt in developing countries. Insufficient transparency or a challenging political environment increases the interest rates when governments turn from external (concessional) financing to domestic debt financing.

Some countries may consider converting or rolling over Eurobonds into long-term domestic currency liabilities, preferably in close cooperation and communication with their international partners. Such a change-of-strategy could help in establishing much-needed domestic accountability channels to replace the weaker external accountability channels resulting from a streamlining of conditionality of international financial institutions. The key challenge here is resolving the time inconsistency problem associated with nominal debt contracts. However, this may be innovatively resolved by allocating a share of the bonds for civil servants as part of a civil service pay increase.

(3) Domestic borrowing

Domestic debt markets are an important source of financial funding for governments. A well-functioning domestic market for public debt helps to reduce the risks linked to public debt, because it provides additional diversification opportunities. For domestic creditors it is easier and less expensive to buy sovereign bonds if they are traded on the domestic market. Domestic creditors, in turn, are a source of funding that reacts less to global market conditions and may be less volatile than external sources. The domestic debt market might be strengthened by e.g. improving legal and regulatory frameworks, promoting market infrastructure, maintaining political stability and developing a predictable public debt management. Low and stable inflation rates as well as an independent central bank may help to keep savings in the domestic financial market. A high share of securities in the total domestic debt sector and a high share of fixed vs. floating bonds usually describe a good quality of the domestic bond market (see also Abbas und Christensen 2010).

Some OIC member countries are heavily indebted in the domestic banking sector. High interest rates on government debt and preferences for safe lending reduce the incentives of banks to provide credit to the private sector in these countries, leading to a crowding-out of bank loans to the private sector. Since banks manage only a limited amount of savings, buying government debt decreases their liquidity which otherwise could have been used to finance domestic investment via credits to local firms or consumers. Banks tend to invest in short-term instruments to avoid asset and liability mismatches with short-term bank deposits. This increases interest rate risks and refinancing risks of the government's debt portfolio.

When a substantial part of public debt is held by domestic banks, a vicious link between public finances and the banking sector exists: public default would damage the banking sector and difficulties in the banking sector endanger government's success in placing its bonds on the domestic market. Given that the domestic investor base is often limited, access to foreign investors helps to break the vicious link between domestic commercial banks and the public sector.

A domestic creditor composition with a large share of non-banking investors is favorable (Christensen 2005, Abbas and Christensen 2010). The investors' base can be broadened by reforming the legal framework to grant pension funds, insurance companies and foreign investors access to the domestic debt market (Christensen 2005, Maana et al. 2008, Panizza

2010). Pension funds with maturity matching needs (given long-term domestic currency liabilities) and foreign investors seeking higher returns are likely to demand for long-term local currency bonds therefore lengthening the maturity structure of public debt and reducing the refinancing risk. Foreign investors are also expected to foster an improvement and innovation in financial technology via spill-over effects as well as to promote competition and thus increase efficiency in the market (Christensen 2005, Maana et al. 2008).

OIC member countries are advised to achieve a balance between domestic and foreign borrowing, where the specific optimal share depends on the exposure of a country to global markets and macroeconomic conditions. To mitigate risks, it is generally recommended that countries do not depend fully or to a large extent on either borrowing strategy. Some OIC member countries have already successfully issued Eurobonds and public debt management may try to turn this instrument of financing into a standard procedure. Countries with a high share of domestic debt may potentially use swaps of domestic currency debt to foreign currency debt, which generally has lower yields and higher maturities.

OIC member countries can use *sukuk* in addition to conventional bonds to diversify the government's debt portfolio and attract new investors, domestically and from other (Islamic) countries. In particular, countries that rely to a great extent on the domestic banking sector can benefit from these instruments. Countries that mainly rely on concessional lending may also use Islamic finance products to attract private investors.

(4) Maturity structure

The average maturity for private credit in OIC member countries is shorter than the worldwide average. Furthermore, many OIC member countries benefit from concessional lending with favorable borrowing conditions such as long maturities. When these countries increase their share of private lending, they might face refinancing problems.

Governments often issue short-term bonds rather than long-term bonds. Interest rates of short-term bonds are usually lower than long-term ones when the markets have concerns about political and macroeconomic risks, but are subject to a greater refinancing risk. Moreover, it may prevent the establishment and development of a domestic debt market which is supposed to satisfy the investors' and government's financing needs in the long-run (Christensen 2005, Maana et al. 2008, Panizza 2010). Hence, governments are encouraged to expand the maturity mix of their public debt portfolio and consider issuing bonds with greater time horizons.

Countries with high refinancing risk may lengthen maturities of public debt by preferring longer-term T-Bonds over short-term T-Bills. In countries with low shares of foreign currency debt, this objective could be achieved, for example, through swaps of domestic currency debt to foreign currency debt with generally longer maturity. Public budget management might also benefit from the current low interest rate environment to lengthen the average maturity of debt to reduce refinancing risk and reduce the number of bonds issued annually. An important indicator for the quality of the domestic debt market is how much the bond maturity structure mirrors the government expenditure structure (Abbas and Christensen 2007). This asks for institutionalized information flow between the DMO and those offices responsible for government expenditures, while respecting the organizational independence of public debt management actors, especially for the DMO.

5.2 Macroeconomic Risk Management

Macroeconomic risks resulting, for instance, from the real business cycle, exchange rate changes and other developments in the financial sector and shocks caused by natural disasters, changes in commodity prices and increased protectionism are likely to influence public debt developments to a large extent. For example, the global financial crisis starting in 2007 in the United States gave rise to debt crises in many countries all over the world. Thus, macroeconomic risk management is an important complement to public debt management. In general, the same institutions responsible for public debt management are also the main authorities for macroeconomic risk management, i.e. mainly the Ministries of Finance, Ministries of the Economy, central banks and coordination bodies on high government level.

The main tools in macroeconomic risk management are information and analytical systems based on adequate frequency data (quarterly or monthly) providing early warning indicators. These indicators enable policy makers to react to crises with adequate control measures. Several best practices are used internationally and OIC member countries are recommended to consider the following practices:

- The OECD developed a system of indicators providing early signals for changes in the real economy (business cycle). Data is generated by simple "Business Tendency Surveys" monthly or quarterly conducted among a representative sample of enterprises. The surveys are carried out in the individual countries by a partly standardized questionnaire taking care of individual country characteristics.
- A well-known methodological framework for currency risk analysis is the so-called "Signal-Approach" (Kaminsky et al. 1998). This method is based on statistical analyses of a country's historical experiences with currency crises identifying typical risk factors.
- For more general financial risks, the IMF (2015) developed the "Financial Soundness Indicators" based on regular data supplies. These indicators are usually produced and analyzed by central banks. Guidelines on how to prepare these indicators are available from the IMF.
- More recently, the EU developed a methodology to detect macroeconomic risks at an early stage by a "Scoreboard Approach". This alert system uses a scoreboard of indicators (as well as detailed country studies to consider specific country conditions). Each indicator incorporates a threshold value and a major deviation from this threshold is seen as a warning signal. The indicators are distinguished between internal and external factors. Hence, including external risk factors systematically into the analysis is possible.

Macroeconomic crisis risk analysis methods are being continuously improved. Such methods are considered important for crisis management and applied by most OECD member countries as well as a number of emerging economies. It is recommended to apply some of these methods in OIC member countries as well. COMCEC may potentially provide liaison for trainings to enable the implementation of these methods.

Table 5-2 summarizes the policy recommendations.

Table 5-2: Summary of Policy Recommendations

Area of improvement of public debt management	Policy recommendation	Examples of countries concerned
(1) Institutional framework Indicators: • No centralized debt management unit • No formal debt management strategy • Low transparency	Strengthen the institutional framework of public debt management. Measures: • Creating centralized DMOs • Central bank independency • Developing MTDSs including (numerical) strategic targets • Improving public disclosure on - Debt data and debt reports - Information on issuance procedures - Debt management strategy → Workshops within COMCEC might be useful to bring OIC member countries together for developing solutions of public debt management problems according to their diverse experiences.	Azerbaijan, Bahrain, Chad, Kazakhstan, Malaysia, Oman, Qatar, Saudi Arabia, United Arab Emirates
(2) Strong reliance on external borrowing/ underdeveloped domestic debt markets Indicator: • High share of external debt in total debt	Develop the domestic debt market. Measures: • Improving legal and regulatory frameworks • Establishing a reliable public debt management strategy • Improving the dissemination of information on debt operations • Adopting transparency in primary auctions and developing secondary markets • Converting foreign grants into long-term domestic currency bonds → Information exchange within COMCEC on problems in the domestic debt market.	Afghanistan, Algeria, Azerbaijan, Burkina Faso, Comoros, Djibouti, Gabon, Guyana, Kyrgyz Republic, Mali, Mauretania, Mozambique, Niger, Senegal, Sierra Leone, Sudan, Tajikistan, Uzbekistan,
(3) Strong reliance on the domestic banking sector/ risk of crowding-out of private credit Indicator: • High share of domestic debt in total debt	Broaden and diversify the creditor base. Measures: • Granting pension funds, insurance companies, retail investors and foreign investors access to the domestic debt market • Attracting foreign investors by issuing e.g. Eurobonds and *sukuk* • Balance between domestic and foreign borrowing • *Fruther development of the sukuk bond market as well as additional consideration of the financial debt structure* → Information exchange within COMCEC on the issuance of different types of bonds such as Eurobonds and *sukuk*	Bahrain, Egypt, Gambia, Iran, Kazakhstan, Lebanon, Nigeria, Qatar, Saudi Arabia, Syria, Yemen

Area of improvement of public debt management	Policy recommendation	Examples of countries concerned
(4) Refinancing risk Indicator: • Short average time to maturity	Lengthen the average maturity of public debt. Measures: • Preferring the issuance of long-term bonds over short-term bills (benefitting from the current low interest rate environment) • Swaps of domestic currency debt to foreign currency debt with generally longer maturity (in countries with low shares of foreign currency debt)	Albania, Egypt, Gambia, Lebanon, Togo
(5) Macroeconomic risk management	Apply macroeconomic risk management methods. Measures: • Business tendency surveys • Signal approach • Financial soundness indicators • Scoreboard approach	Algeria, Bangladesh, Jordan, Malaysia, Nigeria, Tunisia

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5. Policy Recommendations

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Glossary

Table G-0-1: General Public Debt Terms

Term	Meaning
Arrears	The part of a debt that is both unpaid and past the due date for payment.
Average interest rate	The weighted average level of interest rates on the outstanding gross public sector debt or any specific debt instrument, at nominal and market value, as at the reference date.
Average time to maturity	The weighted average time to maturity of all the principal payments in the debt portfolio.
Average time to refixing	The weighted average time until all the principal payments in the debt portfolio become subject to a new interest rate.
Coupon	The yield paid by a fixed-income security on its issue date (relative to the bond's face or par value). This yield changes as the value of the bond changes.
Domestic public debt	All debt liabilities of a national (federal) government that are issued under - and subject to - national jurisdiction, regardless of the nationality of the creditor or the currency denomination of the debt. Terms of the debt contracts can be market-determined or set unilaterally by the government.
Eurobond	A bond denominated in a currency other than the home currency of the country or market in which it is issued. These bonds are frequently grouped together by the currency in which they are denominated, such as eurodollar or euroyen bonds. Issuance is usually handled by an international syndicate of financial institutions on behalf of the borrower. The term Eurobond refers only to the fact the bond is issued outside of the borders of the currency's home country; it does not mean the bond was issued in Europe or denominated in Euro.
External public debt	All debt liabilities of a national (federal) government with foreign creditors, both official (public) and private. Creditors often determine all the terms of the debt contracts, which are normally subject to the jurisdiction of the foreign creditors or to international law (for multilateral credits).
Foreign currency public debt	All debt liabilities of a national (federal) government that are expressed in (or linked to) a currency different from the national currency of the country.
Government Bond	A debt security issued by a national (federal) government to support government spending.
Government Development Bond (GDB)	A bond issued by a national (federal) government to raise financing for funding one or more specific projects or development work in geographic area.
Maturity	The time until the debt is extinguished according to the contract between the debtor and the creditor. In the statistical guidelines this time period is either from the date of incurrence or reference (original/remaining maturity, respectively) of the debt liability to the date at which the liability will be extinguished.
Publicly guaranteed debt	Debt liabilities of public and private sector units, the servicing of which is contractually guaranteed by public sector units. These guarantees consist of loan and other payment guarantees, which are a specific type of one-off guarantees.
Special Drawing Rights (SDR)	International reserve assets created by the International Monetary Fund (IMF) and allocated to its members to supplement reserve assets.
Total public debt	Total debt liabilities of a government with both domestic and foreign creditors.
Traded/tradable debt	Debt securities traded (or tradable) in organized and other financial markets such as bills, bonds, negotiable certificates of deposits, asset-backed securities, etc.
Treasury Bill (T-Bill)	A (usually) short-term (less than one year) marketable fixed interest rate debt security issued by a national (federal) government. Bills give holders the unconditional rights to receive stated fixed sums on a specified date.
Treasury Bond (T-Bond)	A long-term marketable fixed interest rate debt security issued by a national (federal) government. Bonds give the holders the unconditional right to fixed payments or contractually determined variable payments on a specified date or dates.
Zero-coupon bond	A long-term security that does not involve periodic payments during the life of the bond. A single payment, that includes accrued interest, is made at maturity.

Sources: Reinhard, C., and Rogoff, R. (2011). From Financial Crash to Debt Crisis, American Economic Review 101, p. 1702; Investopedia; Task Force on Finance Statistics (TFFS).

Table G-0-2: General Islamic Finance Terms

Term	Meaning
Commodity murābaḥah	A murabaḥah transaction based on the purchase of a commodity from a seller or a broker and its resale to the customer on the basis of deferred murabaḥah, followed by the sale of the commodity by the customer for a spot price to a third party for the purpose of obtaining liquidity, provided that there are no links between the two contracts.
Diminishing musharakah	A form of partnership in which one of the partners promises to buy the equity share of the other partner over a period of time until the title to the equity is completely transferred to the buying partner. The transaction starts with the formation of a partnership, after which buying and selling of the other partner's equity takes place at market value or at the price agreed upon at the time of entering into the contract. The "buying and selling" is independent of the partnership contract and should not be stipulated in the partnership contract, since the buying partner is only allowed to promise to buy. It is also not permitted that one contract be entered into as a condition for concluding the other.
Islamic window	The part of a conventional financial institution (which may be a branch or a dedicated unit of that institution) that provides both fund management (investment accounts) and financing and investment that are shariah-compliant, with separate funds. It could also provide takaful or retakaful services.
Ijarah	A contract made to lease the usufruct of a specified asset for an agreed period against a specified rental. It could be preceded by a unilateral binding promise from one of the contracting parties. As for the ijarah contract, it is binding on both contracting parties.
Istisnaa	The sale of a specified asset, with an obligation on the part of the seller to manufacture/construct it using his own materials and to deliver it on a specific date in return for a specific price to be paid in one lump sum or instalments.
Murabahah	A sale contract whereby the institution offering Islamic financial services sells to a customer a specified kind of asset that is already in its possession, whereby the selling price is the sum of the original price and an agreed profit margin. The murabaḥah contract can be preceded by a promise to purchase from the customer.
Mudarabah	A partnership contract (profit sharing contract) between the capital provider (rabb al-mal) and an entrepreneur (muḍarib) whereby the capital provider would contribute capital to an enterprise or activity that is to be managed by the entrepreneur. Profits generated by that enterprise or activity are shared in accordance with the percentage specified in the contract, while losses are to be borne solely by the capital provider unless the losses are due to misconduct, negligence or breach of contracted terms.
Musharakah (sharikat al-aqd)	A partnership contract (profit and loss sharing contract) in which the partners agree to contribute capital to an enterprise, whether existing or new. Profits generated by that enterprise are shared in accordance with the percentage specified in the musharakah contract, while losses are shared in proportion to each partner's share of capital.
Shariah	Often referred to as Islamic law, deduced from its legitimate sources: the quran, sunnah, consensus (ijma), analogy (qiyas) and other approved sources of the shariah.
Shariah compliant product	The term used in Islamic finance to indicate that a financial product or activity that complies with the requirements of the shariah.
Shariah board	A committee of well-versed Islamic scholars available to an Islamic financial institution for guidance and supervision in the development of shariah compliant products.
Salam	The sale of a specified commodity that is of a known type, quantity and attributes for a known price paid at the time of signing the contract for its delivery in the future in one or several batches.
Sukuk	An Arabic term for financial certificate. It is defined as "Certificates of equal value representing undivided shares in ownership of tangible assets, usufructs and services or (in the ownership of) the assets of particular projects or special investment activity".
Takāful	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.
Zakah	An obligatory contribution or tax which is prescribed by Islam on all Muslims having wealth above an exemption limit at a rate fixed by the shariah. The objective is to make available to the state a proportion of the wealth of the well-to-do for distribution to the poor and needy.

Sources: Islamic Financial Services Board, Islamic Financial Services Industry Stability Report 2016, p. x; International Islamic Financial Market, Sukuk Report 2016, pp. 158-160.

Table G-0-3: Types of Sukuk

Term	Meaning
Al-Ijarah Sukuk	An Islamic certificate for the buying and leasing of assets by the investors to the issuer and such Sukuk shall represent the undivided beneficial rights/ownership/interest in the asset held by the trustee on behalf of the investors.
Convertible or exchangeable Sukuk	Convertible or exchangeable Sukuk certificates are convertible into the issuer's shares or exchangeable into a third party's shares at an exchange ratio, which is determinable at the time of exercise with respect to the going market price and a pre-specified formula.
Corporate Sukuk	Is a Sukuk issued by a corporation as opposed to those issued by the government. It is a major way for companies to raise funds in order to expand its business or for a specific project.
Domestic Sukuk	A Sukuk issued in local currency.
Global Sukuk	Both international and domestic Sukuk
Hybrid Sukuk	Hybrid sukuk combine two or more forms of Islamic financing in their structure such as istisnaa and ijarah, murabahah and ijarah etc.
International Sukuk	A sukuk issued in hard currency such as USD.
Istisnaa Sukuk	Are certificates of equal value issued with the aim of mobilizing funds to be employed for the production of goods so that the goods produced come to be owned by the certificate holders. (This type of sukuk has been used for the advance funding of real estate development, major industrial projects or large items of equipment such as: turbines, power plants, ships or aircraft (construction/manufacturing financing).
Mudarabah Sukuk	Are certificates that represent project or activities managed on the basis of Mudarabah by appointing one of the partners or another person as the Mudarib for the management of the operation. (It is an investment partnership between two entities whereby one entity is mainly a provider of capital and the other is mainly the manager)
Murabahah Sukuk	Are certificates of equal value issued for the purpose of financing the purchase of goods through Murabahah so that the certificate holders become the owners of the Murabahah commodity. (This is a pure sale contract based Sukuk, which based on the cost plus profit mechanism).
Musharakah Sukuk	Are certificates of equal value issued with the aim of using the mobilized funds for establishing a new project, financing a business activity etc., on the basis of any of partnership contract so that the certificate holders become the owners of the project. (Musharakah Sukuk is an investment partnership between two or more entities which together provide the capital of the Musharakah and share in its profits and losses in pre-agreed ratios)
Quasi-sovereign Sukuk	Are sukuk issued by a public sector entity that is like sovereign sukuk. It may carry explicit or implicit government guarantee.
Salam Sukuk	Are certificates of equal value issued with the aim of mobilizing Salam capital/mobilizing funds so that the goods to be delivered on the basis of Salam come to be owned by the certificate holders.
Sovereign Sukuk	Are sukuk issued by a national government. The term usually refers to sukuk issued in foreign currencies, while sukuk issued by national governments in the country's own currency are referred to as government sukuk.

Source: International Islamic Financial Market, Sukuk Report 2016, p. 160.

Appendix A: Surveys

Figure A-0-1: CESifo World Economic Survey October 2016

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World Economic Survey WES

The individual survey results will be treated as absolutely confidential.
Privacy Policy and Data Protection: http://www.cesifo-group.de/datenschutz
Please mark the appropriate boxes. No mark means: "Not applicable" or "no judgement".
The answer "no change" implies no remarkable change.

Data requested for **Code No.**

1. This country's **general situation** regarding	present judgement: Good	satis-factory	bad	compared to the same time last year: better	about the same	worse	from now on: expected situation by the end of the next 6 months: better	about the same	worse
- overall economy	☐	☐	☐	☐	☐	☐	☐	☐	☐
- capital expenditures	☐	☐	☐	☐	☐	☐	☐	☐	☐
- private consumption	☐	☐	☐	☐	☐	☐	☐	☐	☐

2. Expected **foreign trade volume** by the end of the next 6 months (in convertible currency)	higher	about the same	lower
exports	☐	☐	☐
imports	☐	☐	☐

3. Expected **trade balance** within the next 6 months (in convertible currency)	improve-ment (a)	no change	deterio-ration (b)
	☐	☐	☐

(a) increasing surplus or decreasing deficit
(b) decreasing surplus or increasing deficit

4. Expected **inflation rate** (year-on-year change in the Consumer Price Index, CPI) by the end of the next 6 months	higher	about the same	lower
	☐	☐	☐

The **rate of inflation** on average in 2016 will be _____ % (p.a.)

The **expected rate of inflation** in **5 years (2021)** will be _____ %

5. Expected **interest rates** by the end of the next 6 months	higher	about the same	lower
- short-term rates (3-month money market rates)	☐	☐	☐
- long-term rates (government bonds with 10 and more years of maturity)	☐	☐	☐

6. At present, **in relation to this country's currency** the following currencies (US $; Euro; UK £; Yen) are...	US $	Euro	UK £	Yen
overvalued	☐	☐	☐	☐
about at proper value	☐	☐	☐	☐
undervalued	☐	☐	☐	☐

7. The **value of the US $** in relation to this country's currency by the end of the next 6 months will be	higher	about the same	lower
	☐	☐	☐

8. The level of **domestic share prices** (in domestic currency) by the end of the next 6 months will be	higher	about the same	lower
	☐	☐	☐

9. Please try to assess the **importance** of the following **problems** the economy of your country is facing **at present:**	most important	important	not so important
- Lack of confidence in the government's economic policy	☐	☐	☐
- Insufficient demand	☐	☐	☐
- Unemployment	☐	☐	☐
- Inflation	☐	☐	☐
- Lack of international competitiveness	☐	☐	☐
- Trade barriers to exports	☐	☐	☐
- Lack of skilled labour	☐	☐	☐
- Public deficits	☐	☐	☐
- Foreign debts	☐	☐	☐
- Capital shortage	☐	☐	☐
- Corruption	☐	☐	☐

10. Expected average annual growth rate (year-on-year change) of real **Gross Domestic Product (GDP)** over the **next 3 to 5 years** (own estimate)

will be _____ % (p.a.)

11. WES Special Question on Public Debt Management

1. How do you assess the public debt management of your country?	efficient	satisfactory	not efficient
	☐	☐	☐

2. Please try to assess the **importance** of the following **risks** facing the public debt management of your country:	most important	important	not so important
a. Foreign currency risk	☐	☐	☐
b. Interest rate risk	☐	☐	☐
c. Refinancing risk	☐	☐	☐

3. How do you assess the functioning of the domestic public debt market?	good	satisfactory	bad
	☐	☐	☐

4. How important are the following problems in the domestic public debt market?	most important	important	not so important
a. Small economy, missing investor base	☐	☐	☐
b. Poor legal and regulatory framework	☐	☐	☐
c. Poor market infrastructure	☐	☐	☐
d. Macroeconomic risks	☐	☐	☐
e. Unreliable public debt management strategy	☐	☐	☐

Please return the questionnaire by October 11, 2016

Figure A-0-2: Ifo Public Debt Management Survey 2016

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Public Debt Management Survey

Please mark the appropriate boxes. No mark means: "Not applicable" or "no judgement".

	yes	no
1. Country:		
2. Which authorities are responsible for public debt management in your country?		
a. Central Bank	☐	
b. Ministry of Finance	☐	
c. Independent Public Debt Management Agency	☐	
d. Other (please specify):	☐	
3. Has your government established a formal debt management strategy for the government's debt portfolio? "Formal debt management strategy" refers to a document that defines target values for the development of the structure of public debt (e.g., currency, maturity, interest rates).	☐	☐
If yes: Is the debt management strategy document published?	☐	☐
4. Does your country have the ability to issue sovereign bonds on the domestic debt market?	☐	☐
5. Does your country have the ability to issue sovereign bonds on international debt markets?	☐	☐
6. Does your country use Islamic finance instruments in public debt management?	☐	☐
7. Does your country plan to increase the share of Islamic finance instruments in the public debt portfolio in the next 3 to 5 years?	☐	☐
8. Has your country established strategic targets/benchmarks for the total debt portfolio?	☐	☐
If yes:		
8a. Has your country established a strategic target/benchmark for currency risk? % domestic vs. % foreign; Other (please specify):	☐	☐
8b. Has your country established a strategic target/benchmark for interest rate risk? % fixed vs. % floating; Average time to refixing (months): Other (please specify):	☐	☐
8c. Has your country established a strategic target/benchmark for refinancing risk? Ceiling on debt maturing within one year (% of total outstanding): Average time to maturity (years): Other (please specify):	☐	☐
8d. Has your country established a strategic target/benchmark for Islamic bonds? % Islamic bonds vs. % conventional bonds; Other (please specify):	☐	☐
9. Could you please attach your latest debt management strategy document or provide the URL to the document?		

Appendix B: Country Samples

Country classification is based on the World Bank method that divides countries into low-income, lower middle income, upper middle-income and high-income countries based on their Gross National Income (GNI) per capita, using the World Bank Atlas method. Income thresholds change over time. To reduce the number of groups lower middle-income and upper middle-income countries are merged into one group labeled middle-income countries. Data start in 1987. For years prior to 1987 it is assumed that countries belong to the same income group as in 1987. Countries may move to another category over time. This list provides the country classification as of 2015. The OIC member countries are written in bold.

High income:

Australia, Austria, **Bahrain**, Barbados, Belgium, **Brunei Darussalam**, Canada, Croatia, Cyprus, Czech Republic, Denmark, Equatorial Guinea, Estonia, Finland, France, Germany, Greece, Hong Kong SAR, Hungary, Iceland, Ireland, Israel, Italy, Korea, **Kuwait**, Luxembourg, Macao SAR, Malta, Netherlands, New Zealand, Norway, **Oman**, Poland, Portugal, Puerto Rico, **Qatar**, San Marino, **Saudi Arabia**, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, The Bahamas, Trinidad and Tobago, **United Arab Emirates**, United Kingdom, United States.

Middle income:

Albania, **Algeria**, Angola, Antigua and Barbuda, Argentina, Armenia, **Azerbaijan**, **Bangladesh**, Belarus, Belize, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Cabo Verde, **Cameroon**, Chile, China, Colombia, Congo, Rep., Costa Rica, **Côte d'Ivoire**, **Djibouti**, Dominica, Dominican Republic, Ecuador, **Egypt**, El Salvador, Fiji, **Gabon**, Georgia, Ghana, Grenada, Guatemala, **Guyana**, Honduras, India, **Indonesia**, **Iran**, **Iraq**, Jamaica, **Jordan**, **Kazakhstan**, Kiribati, Kosovo, Lao, PDR, Latvia, **Lebanon**, Lesotho, **Libya**, Lithuania, Macedonia, FYR, **Malaysia**, **Maldives**, Marshall Islands, **Mauritania**, Mauritius, Mexico, Micronesia, Moldova, Montenegro, **Morocco**, Namibia, Nicaragua, **Nigeria**, **Pakistan**, **Palestine**, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Romania, Russia, Samoa, Sao Tome and Principe, **Senegal**, Serbia, Seychelles, Solomon Islands, South Africa, Sri Lanka, St. Lucia, St. Vincent and the Grenadines, **Sudan**, **Suriname**, Swaziland, **Syria**, Thailand, **Tunisia**, **Turkey**, **Turkmenistan**, Tuvalu, Ukraine, Uruguay, **Uzbekistan**, Vanuatu, Venezuela, Vietnam, **Yemen**, Zambia.

Low income:

Afghanistan, **Benin**, **Burkina Faso**, Burundi, Cambodia, Central African Republic, **Chad**, **Comoros**, Congo, Dem. Rep., Eritrea, Ethiopia, **Gambia**, **Guinea**, **Guinea-Bissau**, Haiti, Kenya, **Kyrgyz Republic**, Liberia, Madagascar, Malawi, **Mali**, **Mozambique**, Myanmar, Nepal, **Niger**, Rwanda, **Sierra Leone**, **Tajikistan**, Tanzania, **Togo**, **Uganda**, Zimbabwe.