## Debt levels increased in the Arab region

**45**% in 2018

**26**% in 2008

## Public debt in the Arab region

2011
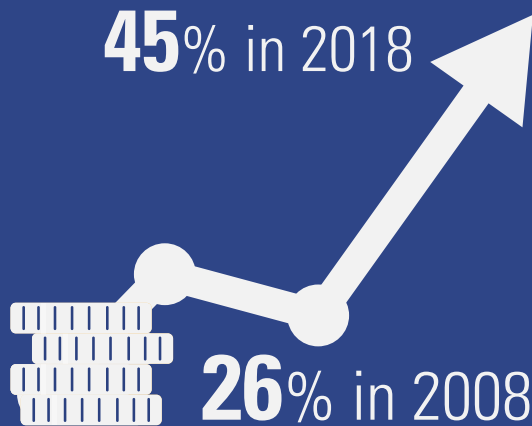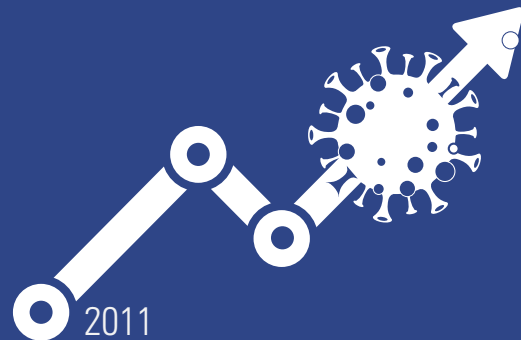
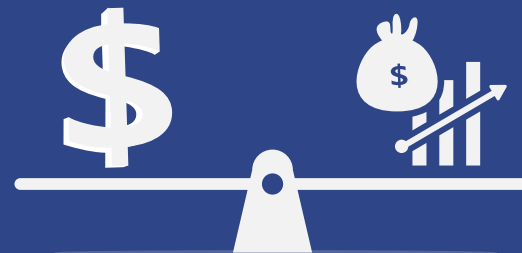grown more rapidly than the economy

## Increase in debt

. Fiscal reaction function
. High interest rate and growth differential
. Low impact of government

## For debt levels to be < 75%

. Reduce interest rate
. Primary balance around zero
. Fiscal policy
. Enhancing the growth impact of expenditure

# 4 Fiscal Policy Response to Public Debt and Debt Sustainability in Arab Countries

## A. Public debt in the Arab region: size, composition and changing patterns

Structure and decomposition of public debt

Changing patterns of external public debt

Burden of debt service and interest payments ————

Since the 2008 global economic downturn, public debt in several major economies globally has increased significantly.[1] Similarly, the Arab region's average debt to GDP stood at 45 per cent in 2018, increasing steadily from 26 per cent in 2008. This trend is particularly notable in Arab LDCs and MICs.[2]

In MICs, the public debt-to-GDP ratio increased to an average of 78 per cent in 2018, from 47 per cent in 2008. Excluding Algeria, the average debt share of GDP in MICs was 92 per cent in 2018. Among these MICs, debt share to GDP was 157 per cent in Lebanon, 93 per cent in Egypt and 94 per cent in Jordan in 2018.[3]

The average debt-to-GDP ratio for Arab LDCs is mainly influenced by a rapid increase in the share of debt to GDP in the Sudan, which climbed from 55 per cent in 2008 to 212 per cent in 2018. LDCs have a greater dependence on external borrowing. In 2018, the share of external debt to GDP was 68 per cent in the Comoros, 146 per cent in Djibouti, and 91 per cent in Mauritania.[4] Debt dynamics in LDCs are different than in MICs, since LDCs are eligible for concessional borrowings and debt relief under

### Key messages

- Debt levels have increased significantly in the Arab region since 2008. Overall, average debt to GDP increased from 26 per cent in 2008 to 45 per cent in 2018.

- Since 2011, public debt in the Arab region has grown more rapidly than the economy. A situation that will be exacerbated by the adverse impact of the COVID-19 pandemic.

- This increase in debt is caused by the following: an inadequate fiscal reaction function, high interest rate and growth differential; and the low impact of government expenditure on productivity and growth.

- To maintain debt levels below 75 per cent, the region should maintain its primary balance at around zero, or reduce its interest rate and growth differential. Arab Governments also need to reform their fiscal policy and enhance the growth impact of their expenditure.

the heavily indebted poor countries (HIPC) initiative, as discussed later in the present chapter.

GCC countries used to have low debt to GDP on average. However, in recent years, these countries have reported a significant jump in debt to GDP, particularly since 2014 owing to a drop in oil revenues. Their average debt-to-GDP ratio was 25 per cent in 2018, compared with 9 per cent in 2014. There are sharp contrasts among GCC countries, as Bahrain and Oman showed an exponential rise in debt compared with other countries. In Bahrain, public debt to GDP reached 94 per cent in 2018, which led to the announcement of the Fiscal Balance Programme in 2018.[5]

The average debt to GDP in conflict-affected countries was 55 per cent in 2018. Lack of adequate data for several such countries, including the State of Palestine, Somalia and the Syrian Arab Republic, potentially underestimate the average.

The speed of debt accumulation is even more alarming than its level. Figure 4.2 shows that in all subregions, the rate of the increase in debt stock exceeds the rate of economic growth in the region. This trend was expected to stop in 2020, but the pandemic and collapsed oil prices mean that it will continue in 2021. The adverse impact of COVID-19 has pushed Arab countries to borrow more. Large fiscal shortfalls are expected to be financed by increased external borrowing. Consequently, the response measures to mitigate the pandemic's impact have increased debt burdens further in 2020 for most Arab countries, especially MICs and LDCs that are already highly indebted (figure 4.3).
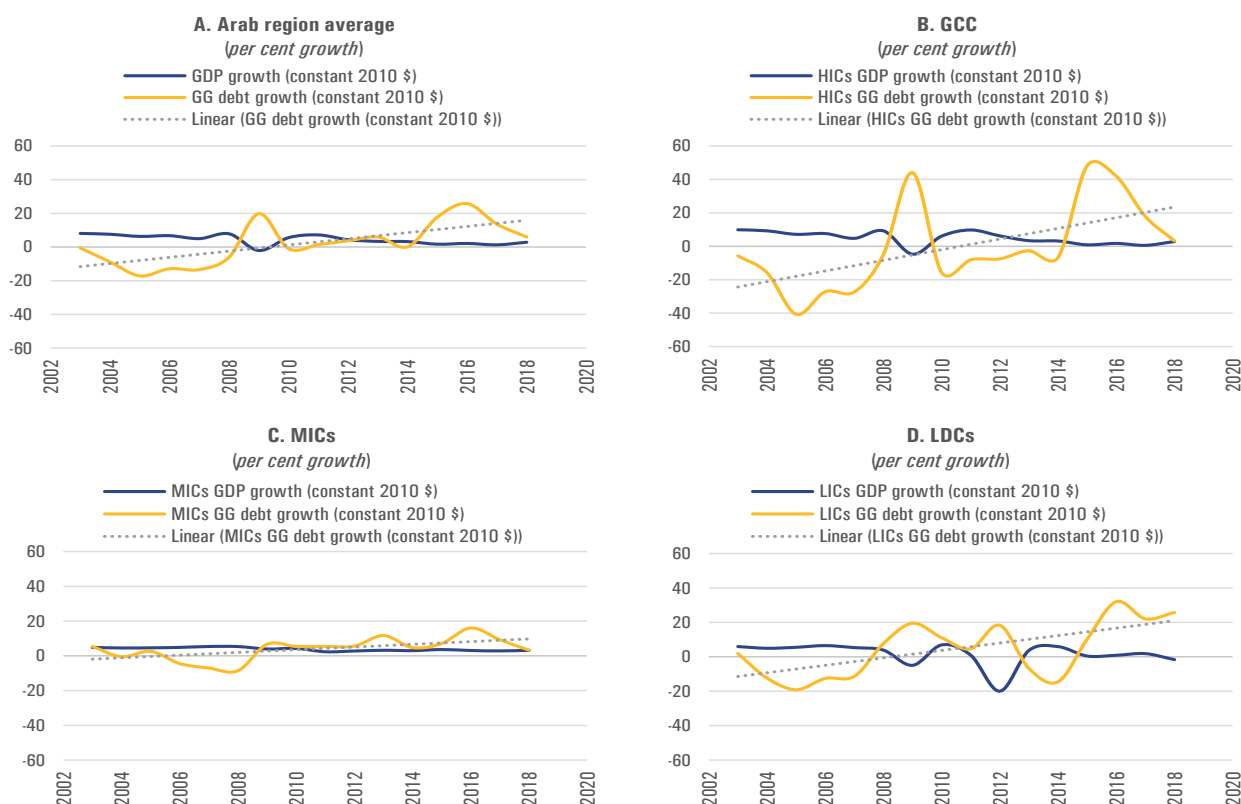
Figure 4.1  **Gross public debt, 2005-2018 (percentage of GDP)**
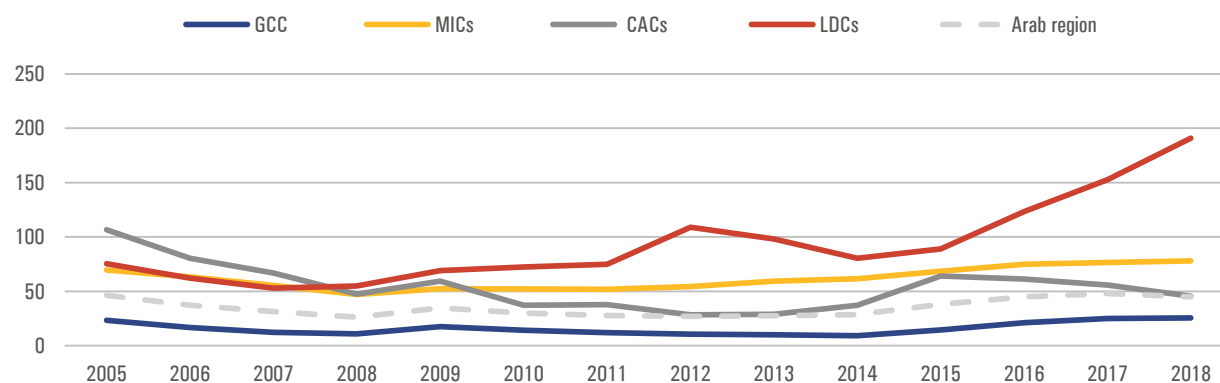


**Source:** Sarangi, 2020a, based on IMF, 2020d.

**Note:** The aggregates for conflict-affected countries exclude the State of Palestine and the Syrian Arab Republic. The aggregates for LDCs exclude Somalia owing to lack of data.

## Figure 4.2  GDP growth and public debt growth, 2003-2018 (constant 2010 $)

### A. Arab region average
(*per cent growth*)

— GDP growth (constant 2010 $)
— GG debt growth (constant 2010 $)
····· Linear (GG debt growth (constant 2010 $))

### B. GCC
(*per cent growth*)

— HICs GDP growth (constant 2010 $)
— HICs GG debt growth (constant 2010 $)
····· Linear (HICs GG debt growth (constant 2010 $))

### C. MICs
(*per cent growth*)

— MICs GDP growth (constant 2010 $)
— MICs GG debt growth (constant 2010 $)
····· Linear (MICs GG debt growth (constant 2010 $))

### D. LDCs
(*per cent growth*)

— LICs GDP growth (constant 2010 $)
— LICs GG debt growth (constant 2010 $)
····· Linear (LICs GG debt growth (constant 2010 $))

**Source:** Sarangi, 2020a, based on IMF, 2020d.

## Figure 4.3  Estimated gross public debt to GDP owing to the impact of COVID-19, 2019-2020 (percentage)

■ 2019  ■ 2020
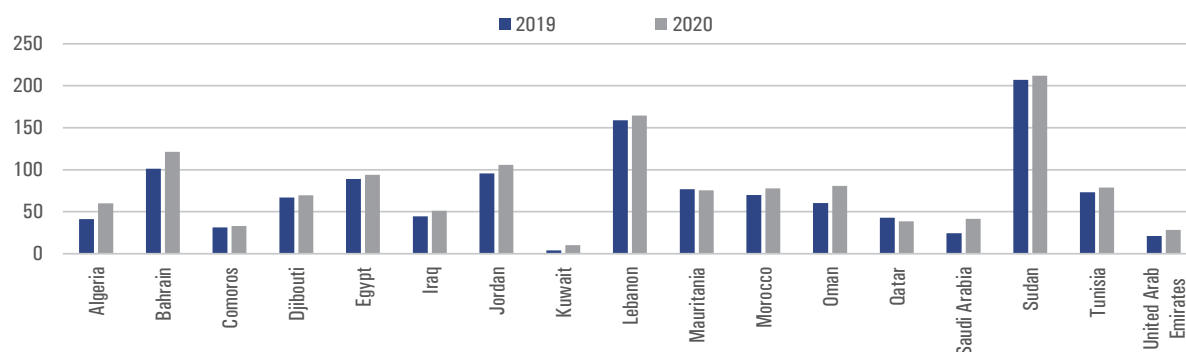
**Source:** Based on World Economic Forecasting Model (ESCWA, 2020e).

## Structure and decomposition of public debt

The aggregate gross public debt of MICs has more than doubled over the period 2008-2018, increasing from $250 billion in 2008 to $531 billion in 2018 (figure 4.4). The majority of public debt, nearly 63 per cent, is financed by domestic borrowing. The share of external public debt, including special drawing rights (SDRs), was 37 per cent of total gross public debt in 2008, which steadily declined to 27 per cent in 2014 but then increased to 37 per cent in 2018. In Egypt, the recent increase in the share of external debt since 2017 (or the reduction in share of domestic debt) is attributed to the impact of exchange rate depreciation since November 2016, which reduced the dollar value of most of its domestic debt.[6]
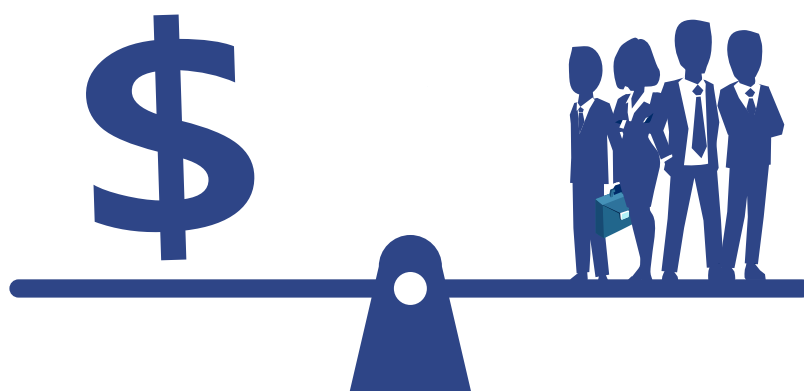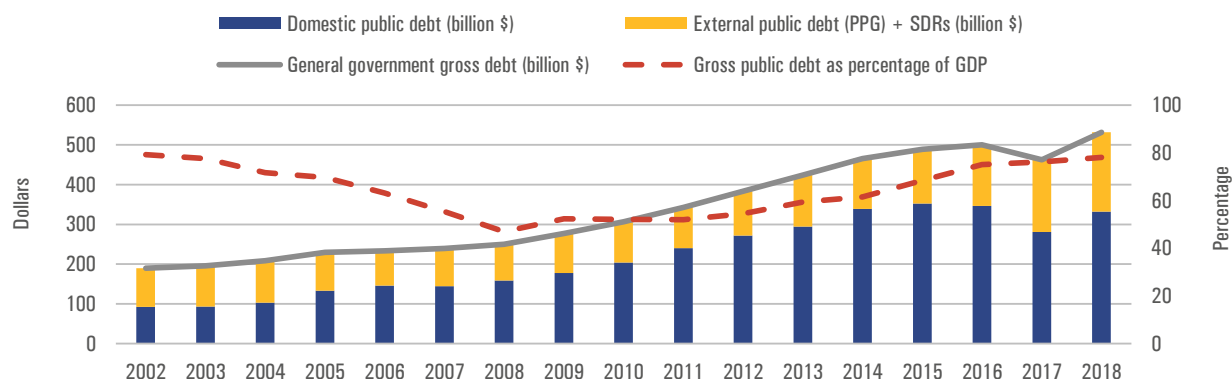
Figure 4.4 **Gross public debt disaggregated by domestic and external debt, MICs, 2002-2018**



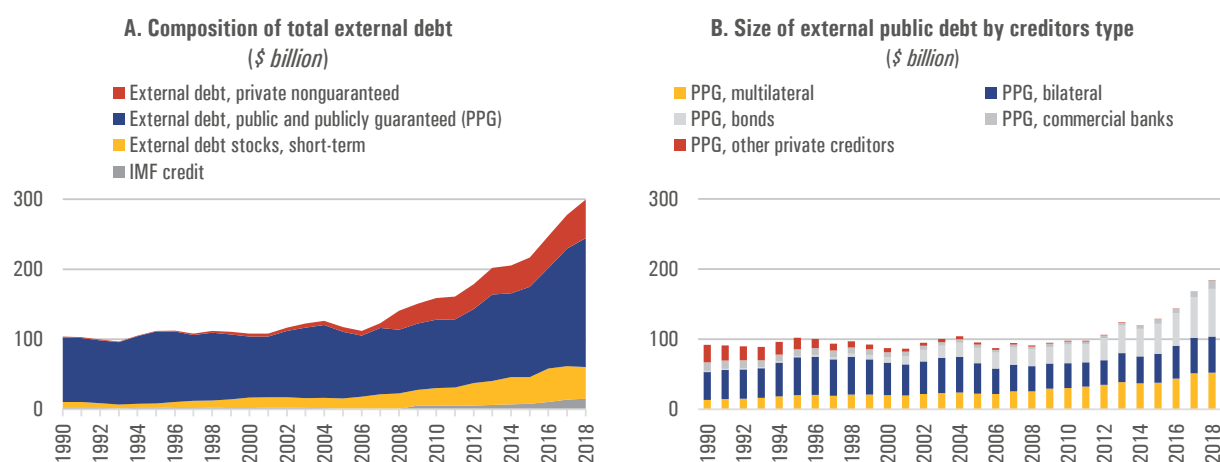**Source:** Sarangi, 2020a, based on data from IMF, 2020d.

# Changing patterns of external public debt

Public debt as a share of total external debt has declined steadily over the past three decades.[7] However, in the past 10 years, the share has declined marginally from 65 per cent in 2008 to 61 per cent in 2018. During the same period, private non-guaranteed debt increased from $27 billion to $55 billion. In addition, short-term external debt increased from $22 billion to $45 billion between 2008 and 2018. This recent pattern suggests higher risks associated with external debt servicing, either owing to exchange rate shocks or any negative shock to the trade balance.

The decomposition of Arab MIC external public debt shows that there is a steady decline in the share of official creditors in total external public debt. In the last decade, the share of official debt in MIC total external public debt has declined from 68 per cent in 2008 to 56 per cent in 2018.[8] Bond issuance and commercial banks have increasingly become the source of external borrowing for MICs. Most notably, the debts raised through bonds increased from about $24 billion in 2008 to $68 billion in 2018 (figure 4.5B).

Figure 4.5 **Size and composition of external public debt in MICs, 1990-2018**
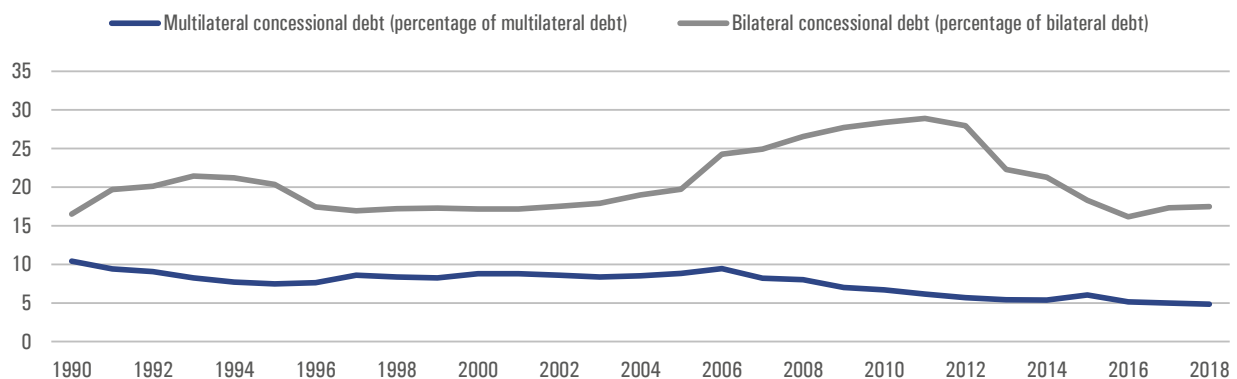


**Source:** Sarangi, 2020a, based on data from World Bank, 2020b.

Furthermore, the share of concessional debt from official creditors has declined substantially,[9] particularly during the past decade. It reached 11 per cent in 2018 compared with its peak of 19 per cent in 2008. Concessional credit as a share of total multilateral credit has been steadily declining from 9.4 per cent in 2006 to 4.8 per cent in 2018. Similarly, concessional credit as a share of total bilateral credit dropped from 29 per cent in 2011 to 17.5 per cent in 2018 (figure 4.6).

Except for Tunisia, MICs who used to rely on official creditors have reported a sharp decline in access to concessional external debts from official creditors. Given that concessional debts are no longer easily available, Governments rely on external debt from private creditors to finance deficits. These changing patterns suggest that external public debt is becoming increasingly costlier to MICs compared with the 1990s, which poses a higher debt servicing burden and risks of solvency in the case of shocks to the exchange rate or trade balances.

While MICs are struggling with high debt and persistent current account deficits since 2008 (figure 4.7), the pandemic's adverse economic consequences have exacerbated higher debt risks, mainly from external sources. To meet emergency needs caused by COVID-19, Egypt, Jordan and Tunisia together have borrowed over $10 billion under the IMF short- and medium-term lending mechanisms (table 4.1).[10] Since these loans are non-concessional, the debt service burden of MICs will grow further in the upcoming period.

Figure 4.6 **Concessional debt share from official creditors to MICs, 1990-2018 (percentage)**



**Source:** Sarangi, 2020a, based on data from World Bank, 2020b.

## Table 4.1  Emergency financing from IMF to Arab MICs during the pandemic

| Country | Type of Emergency Financing | Amount approved (SDR) | Amount approved | Date of approval |
|---|---|---|---|---|
| Egypt | Rapid Financing Instrument | 2 037.1 million | $2 772 million | 11 May 2020 |
| | Stand-by Arrangement | 3 763.64 million | $5 200 million | 26 June 2020 |
| Jordan | Rapid Financing Instrument | 291.55 million | $396 million | 20 May 2020 |
| | Extended Fund Facility | 926.37 million | $1 300 million | 26 March 2020 |
| Tunisia | Rapid Financing Instrument | 545.2 million | $745 million | 10 April 2020 |

**Source:** IMF, COVID-19 Financial Assistance and Debt Service Relief. Available at https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker#ftn (accessed on 15 September 2020).

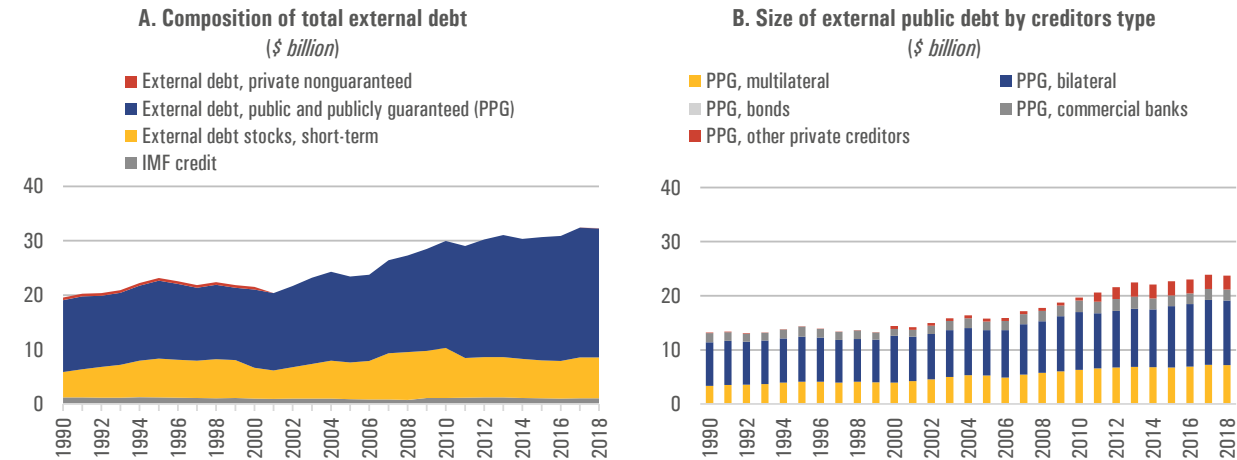### Figure 4.7  Current account balances, 2004-2018 (percentage of GDP)
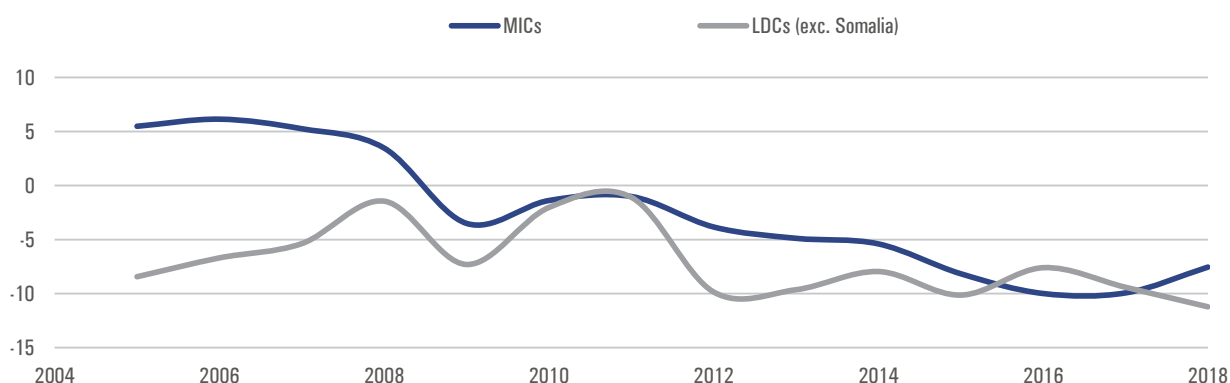


**Source:** Sarangi, 2020a, based on IMF, 2020d.

For Arab LDCs, the aggregate external public debt was $23.7 billion in 2018 of a total external debt of $33 billion (figure 4.8A). Over 70 per cent of the total external debt is public debt, and official creditors accounted for 80 per cent of the external public debt in 2018 compared with 86 per cent in 2008. LDC external public debt reported a steady increase from commercial banks and other private creditors, from 2.5 billion in 2008 to 4.6 billion in 2018 (figure 4.8B).

Another notable trend is that the share of concessional debt of official creditors to LDCs has declined since the mid-2000s. The share of concessional bilateral debt reduced sharply to 48 per cent in 2018 compared with 60 per cent in 2008 (figure 4.9). Over the same period,

the share of concessional multilateral debt showed a relatively slow decline from 14 to 12 per cent of LDC credit. Overall, the share of total concessional debt from official creditors declined from the peak of 38 per cent in mid-2000 to 25 per cent in 2018.

Figure 4.8 **Size and composition of external public debt in LDCs, 1990-2018**

**A. Composition of total external debt**
(*$ billion*)

- External debt, private nonguaranteed
- External debt, public and publicly guaranteed (PPG)
- External debt stocks, short-term
- IMF credit

**B. Size of external public debt by creditors type**
(*$ billion*)

- PPG, multilateral
- PPG, bonds
- PPG, other private creditors
- PPG, bilateral
- PPG, commercial banks

**Source:** Sarangi, 2020a, based on data from World Bank, 2020b.

Figure 4.9 **Concessional debt share from official creditors to LDCs, 1990-2018 (percentage)**

- Multilateral concessional debt (percentage of multilateral debt)
- Bilateral concessional debt (percentage of bilateral debt)
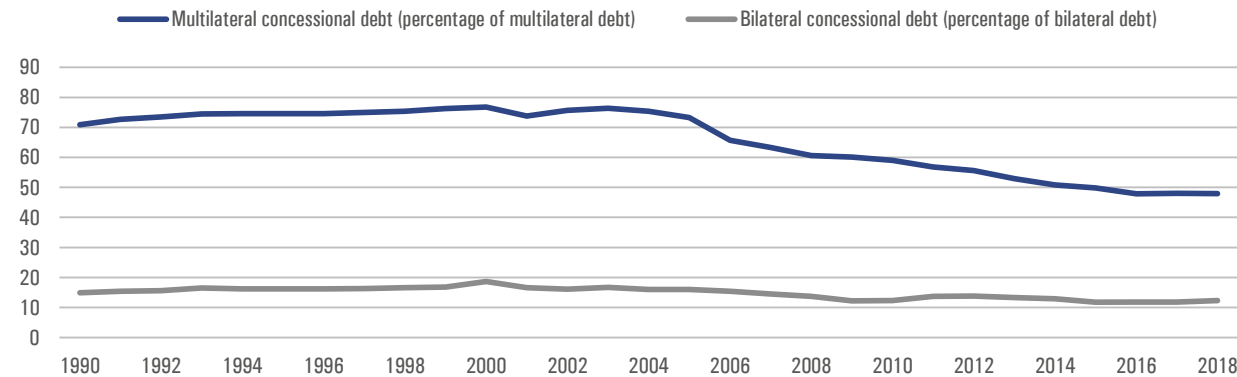
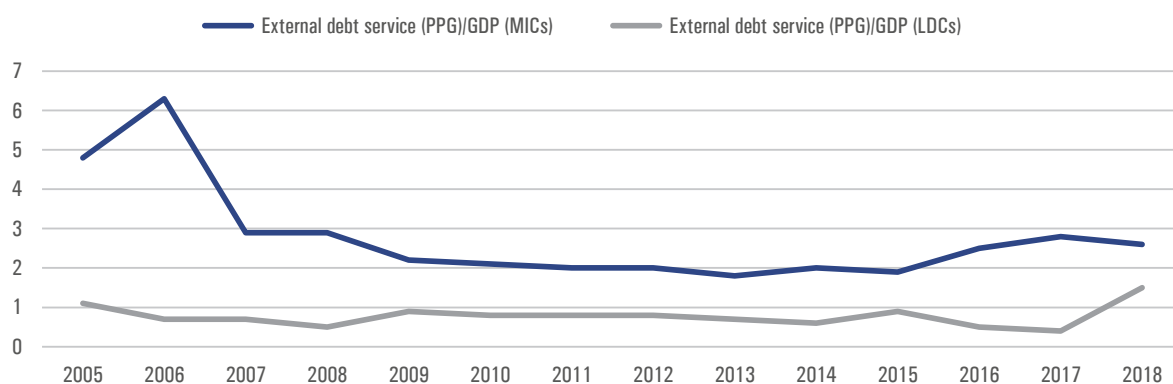**Source:** Sarangi, 2020a, based on data from World Bank, 2020b.

# Burden of debt service and interest payments

The burden of external debt service as a share of GDP of LDCs and MICs has increased since 2015. During the period 2009-2015, the share of external debt service remained stable at around 2 per cent of GDP in MICs, and 0.9 per cent in LDCs. In 2018, the shares increased to 3 per cent of GDP for MICs and 1.5 per cent for LDCs (figure 4.10).

For MICs, the average share of external debt service to exports earnings increased from around 7 per cent in 2015 to 10 per cent in 2018 (figure 4.11). The share of external debt service to revenues shows the same pattern. The increasing share of debt service to exports earnings or revenues is largely due to rising costs of borrowing, especially short-term borrowing from private creditors. The cost of short-term debt, measured by average effective rate of interest, steadily increased from 1.7 per cent in 2015 to 3 per cent in 2018 (figure 4.12). Following the 2008 global recession, the average short-term interest rate was lower than the average long-term interest rate of public debt; however, in 2018, the short-term rate rose to converge with the long-term rate.

Figure 4.10 **External debt service of MICs and LDCs, 2005-2018 (percentage of GDP)**
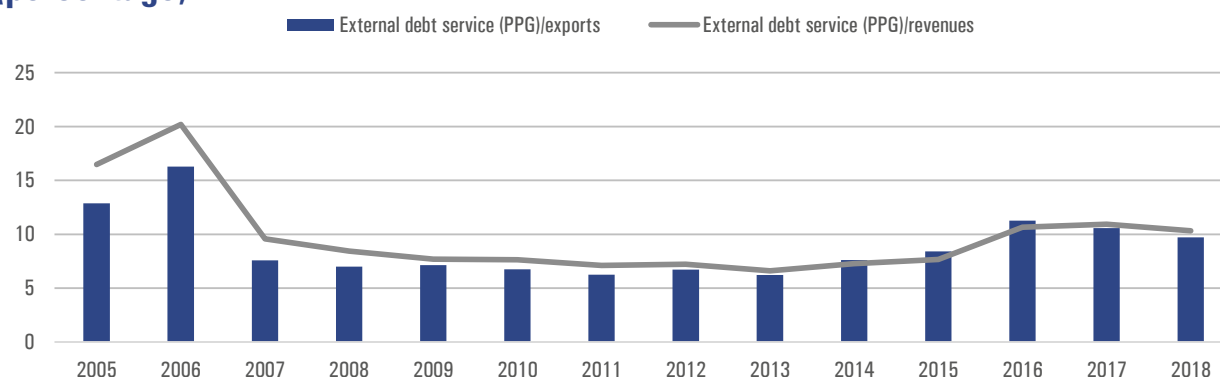


**Source:** Sarangi, 2020a, based on data from IMF, 2020d; and World Bank, 2020b.

For LDCs, average debt service as a share of exports and of revenues rose between 2017 and 2018 (figure 4.13). Over the period 2008-2018, shares were hovering between 4 and 6 per cent. Average debt service as a share of exports and of revenues reached 14 per cent and 15 per cent, respectively, in 2018, compared with 4 per cent and 5 per cent, respectively, in 2017.

The effective rate of interest for external debt service of public debt rose between 2017 and 2018, after being fairly stable at below

Figure 4.11 **Debt service burden in MICs: share of exports and revenues, 2005-2018 (percentage)**



**Source:** Sarangi, 2020a, based on data from IMF, 2020d; and World Bank, 2020b.

Figure 4.12 **Cost of borrowing in MICs: effective rate of interest, 2005-2018 (percentage)**
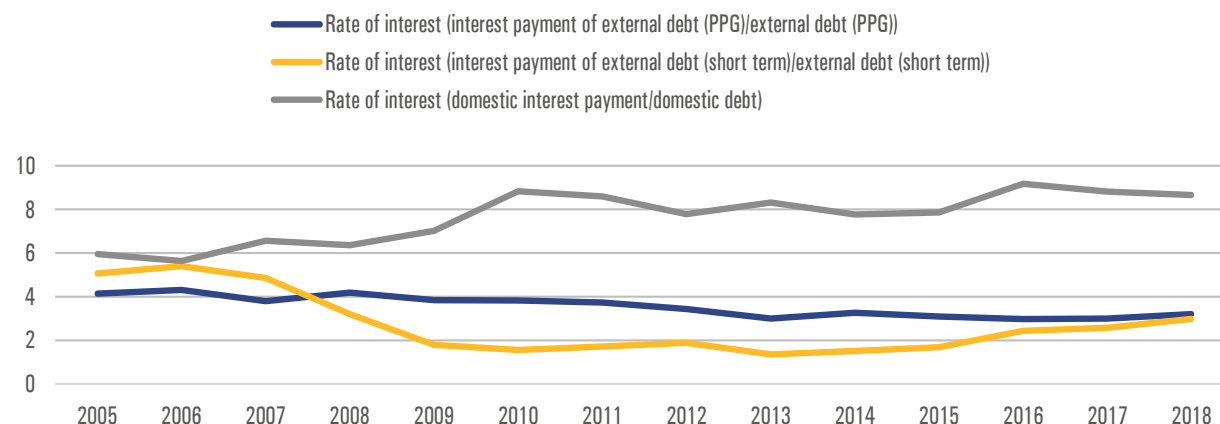


**Source:** Sarangi, 2020a, based on IMF, 2020d; and World Bank 2020b.

1 per cent until 2017. The effective rate of interest of short-term external debt has remained consistently lower than that of public debt over time: it was 0.24 per cent in 2018. The higher share of concessional debt in total external debt, eligibility for HIPC debt relief initiatives, and access to short-term concessional debt from IMF all influence the debt dynamics of LDCs. However, most of them remain at high risk of debt stress (table 4.2).

Figure 4.13  **Debt service burden in LDCs: share of exports and of revenues,  2005-2018 (percentage)**
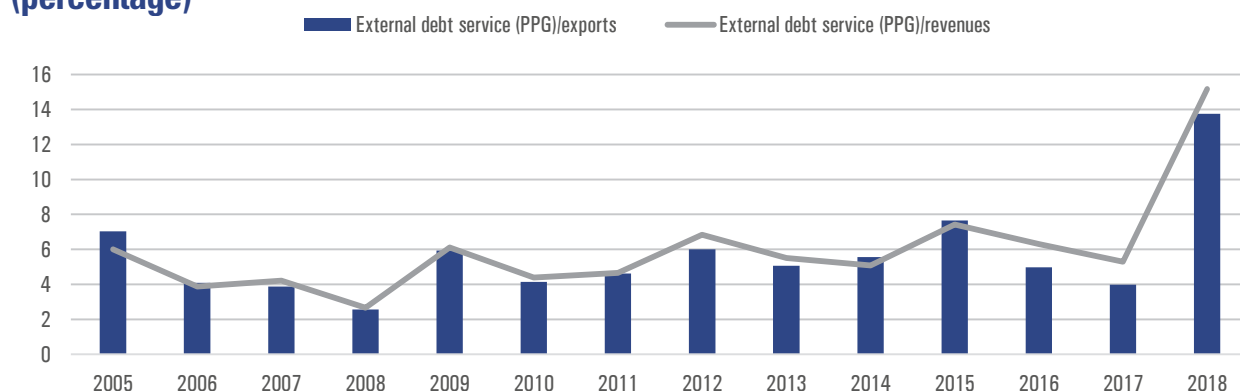


**Source:** Sarangi, 2020a, based on IMF, 2020d; and World Bank 2020b.

Figure 4.14  **Cost of borrowing in LDCs: effective rate of interest, 2005-2018 (percentage)**
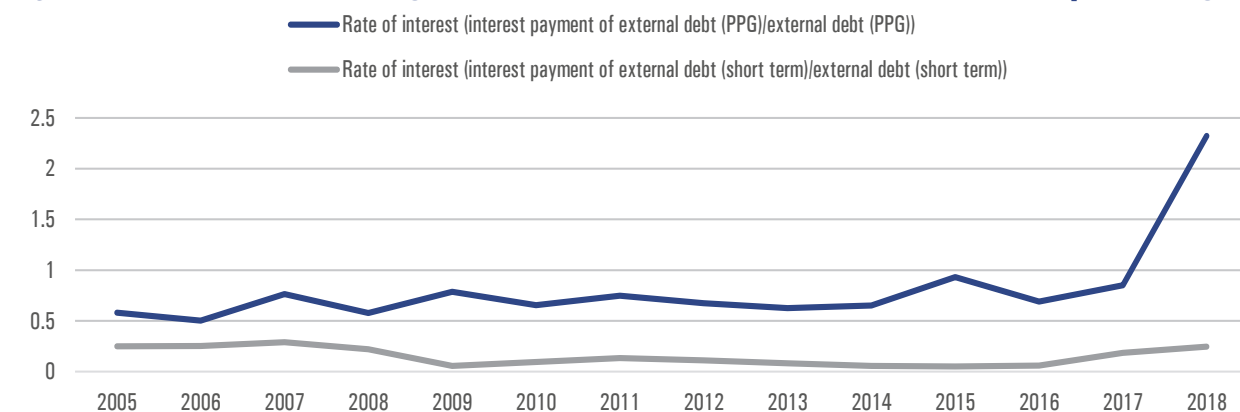


**Source:** Sarangi, 2020a, based on IMF, 2020d; and World Bank, 2020b.

# B. Understanding the key drivers of debt accumulation in the Arab region

High fiscal and primary deficits

Weak fiscal reaction

Influence of interest rate and growth differential on public debt build up

Low impact of government expenditure on productivity and growth

## High fiscal and primary deficits

For GCC countries, fiscal and primary balances converge, on average, because they are primarily net receivers of interest payments, and therefore the difference between fiscal and primary balances is marginal. On average, these countries incurred surpluses in their fiscal, primary and current accounts in most years since 2005, except for years when oil prices dropped significantly. The average fiscal and primary balances (as a percentage of GDP) slipped into deficits for a short period in 2009 owing to a drop in oil prices, but picked up again from 2010 with the rise in oil prices. Following the 2014 plunge in oil prices, fiscal surpluses turned into deficits from 2015 onwards (figures 4.15A and 4.15B). The average fiscal deficit and primary deficit of GCC countries were at -1.8 per cent and -2.8 per cent of GDP, respectively, in 2018. These countries are increasingly considering borrowing by issuing sovereign bonds in international capital markets to meet expenditure needs, in addition to introducing new policy measures such as VAT and subsidy reductions.

In contrast to GCC countries, fiscal balances in MICs and LDCs were mostly in deficit, and their average fiscal and primary balances worsened between 2008 and 2018. MICs in particular have witnessed a continuous decline in fiscal and primary balances (as a percentage of GDP) since 2008, reaching -10 per cent and -6 per cent, respectively, in 2015, and -7 per cent and -2 per cent, respectively, in 2018. Average fiscal and primary balances in LDCs swung up and down over the same period, but remained negative throughout. In 2018, the average fiscal and primary balance of LDCs was about -6.4 per cent and -6.1 per cent, respectively.

Low oil prices after 2014 helped improve the fiscal balances of oil-importing low- and middle-income countries; however, their fiscal accounts remained

negative largely owing to low growth and revenue mobilization. A high current account deficit is a major constraint for most Arab MICs and LDCs, because they are heavily reliant on imports for local consumption while their exports are largely limited to primary products. For instance, between 2010 and 2018, peak imports in Jordan and Lebanon were at 74 per cent and 75 per cent of GDP, respectively, compared with their peak exports to GDP at 48 and 55 per cent of GDP, respectively. Morocco and Tunisia also have huge gaps between imports and exports. The persistence of a current account gap is closely linked to recurrent budget deficits and a debt surge. Neaime (2015) observed that the persistence of a budget deficit exacerbated the trade deficit in Lebanon through upward pressure on domestic interest rates and exchange rate appreciation since the mid-1990s, which resulted in a high debt surge. These twin deficits are related to debt sustainability challenges in most developing countries.[11]

The pandemic has exacerbated deficits and debt in Arab MICs and LDCs, which are highly indebted and are at high risk of debt stress. Projections for 2020 show that the fiscal balance in GCC countries will be -10.4 per cent, compared with -10.2 per cent and -7.7 per cent in MICs and LDCs, respectively.

Figure 4.17 shows that the fiscal balance and primary balance, measured as share of GDP, were positive for several countries over the period 2008-2010, compared with negative balances over the period 2016-2018. The deterioration in fiscal and primary balances is associated with an increasing share of gross debt to GDP.



Figure 4.15 **Fiscal and primary balances, 2005-2018 (percentage of GDP)**
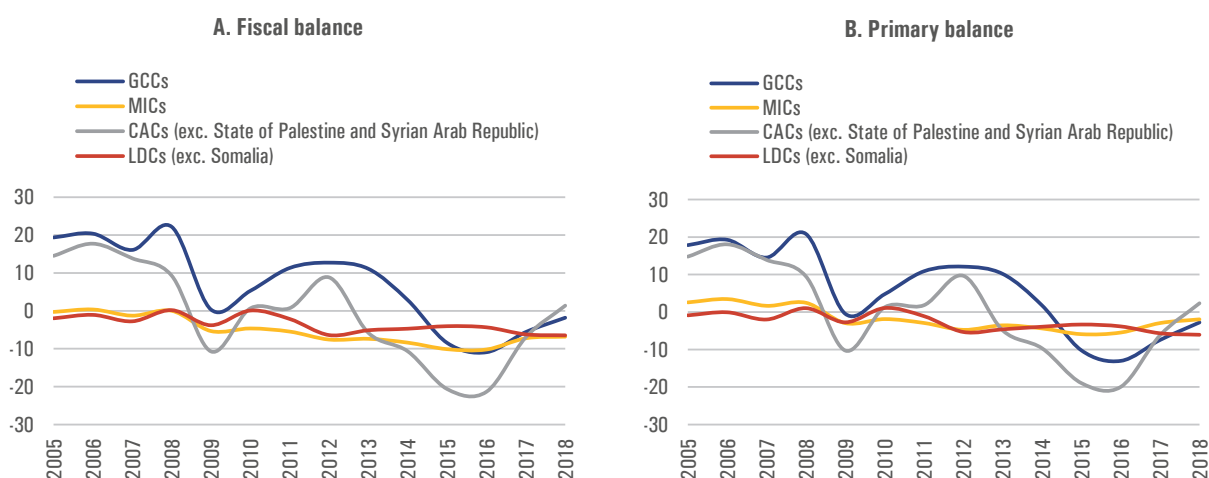
**Source:** Sarangi, 2020a, based on data from IMF, 2020d.

**Figure 4.16  Estimated fiscal deficit to GDP due to adverse impact of COVID-19, 2019-2020 (percentage)**
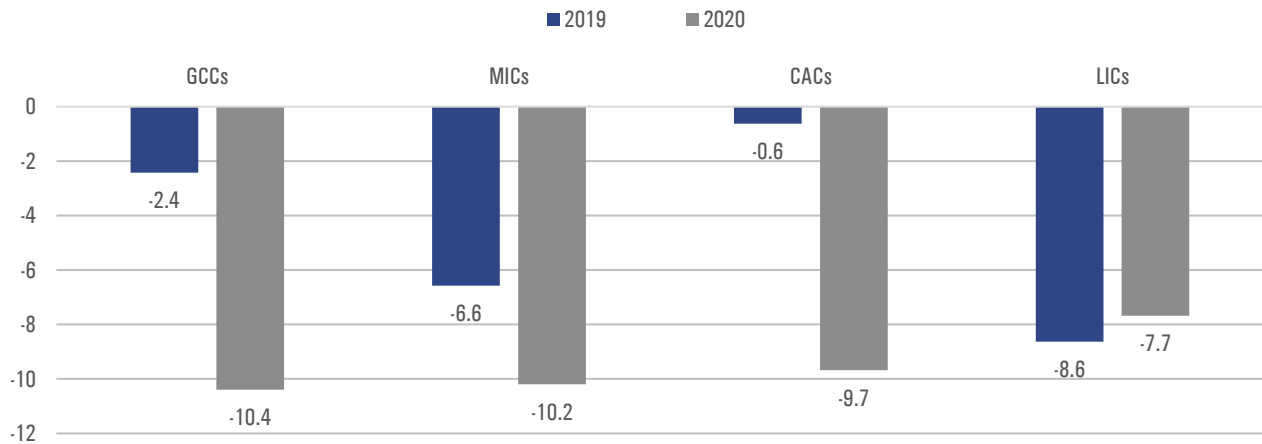


**Figure 4.17  Gross public debt and fiscal balances in Arab countries (percentage of GDP)**



Source: Sarangi, 2020a, based on IMF, 2020d.

Figure 4.18 **Gross public debt and primary balances in Arab countries (percentage of GDP)**



A. Primary balance, 2008-2010 (*average*)

B. Primary balance, 2016-2018 (*average*)

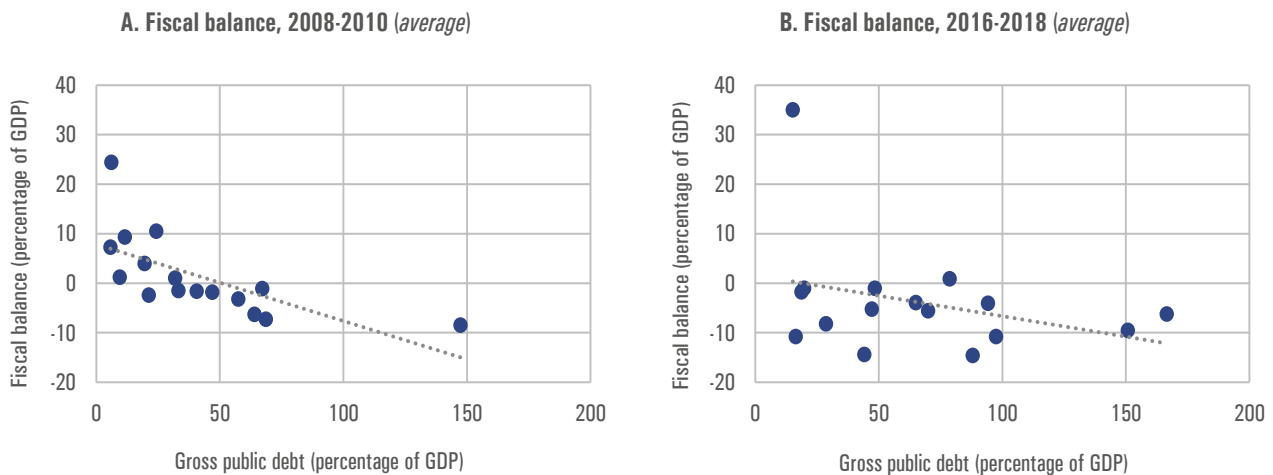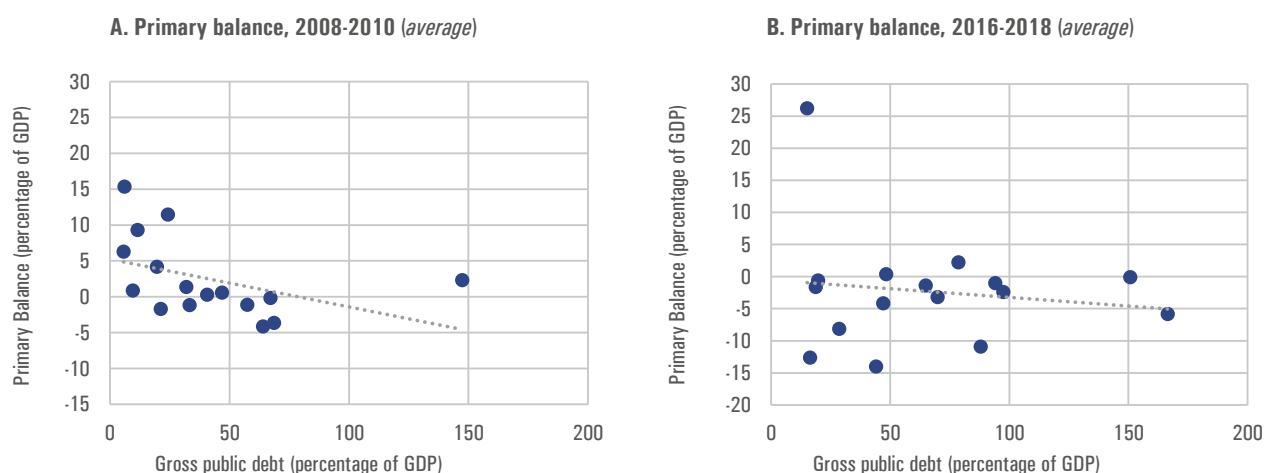**Source:** Sarangi, 2020a, based on IMF, 2020d.

# Weak fiscal reaction

Using the basic framework put forward by Bohn (1998) to assess the fiscal prudence of Arab countries, particularly LDCs and MICs, Sarangi (2020a) conducted an economic assessment of the relationships between debt level and fiscal balance through a fiscal reaction function analysis (table 4.4).

This study shows that in the Arab region, the lagged debt ratio is significantly negatively correlated with the primary balance, meaning that the primary balance ratio deteriorates with an increase in the lagged debt ratio by one period.[12] The fiscal reaction is positive (and significant) by a third period lag only. This behaviour needs to be interpreted carefully, as there may be other factors that influence or force the primary balance to respond positively other than fiscal policy mechanisms.

Temporary increases in government expenditures, captured by the government expenditure gap, have a significant negative effect on the primary balance. This is expected and the results are broadly in line with other studies, where results are associated with quality of economic governance. In Sarangi (2020a), an increase of real expenditure above its trend can lower contemporaneous primary balance by an average factor of -0.13. The strength of budget institutions is a key determinant of fiscal outcomes.[13] An IMF study of 20 countries indicated that those with stronger budget institutions plan and deliver better on fiscal adjustments, including responding to adverse shocks, while countries with weaker institutions did not attempt to counteract adverse shocks through additional fiscal efforts[14]. Furthermore, a positive shock to the cyclical component of output has no significant impact on increasing the primary balance (the coefficient of output gap is insignificant in the sample of MICs). This is the result of low tax to GDP and low tax revenue buoyancy in Lebanon.[15]

The coefficients of lagged debt ratio in the quadratic and cubic functional specifications (positive and negative, respectively) are interesting findings. They indicate that the marginal response of the primary balance to lagged debt increases after a certain threshold (around 90 per cent), but then plateaus and eventually declines (the coefficient turns negative) at a very high level of lagged debt ratio (around 150 per cent) (figure 4.18). The plateau and decline can determine a debt limit, which is referred to as 'fiscal fatigue' by Ghosh and others (2013). The results in Sarangi (2000a) appear to be closer to Ghosh and others (2013) than Adams, Ferrari and Park (2010) or Bohn (1998), which indicates that fiscal adjustment efforts strengthen after a certain critical level of debt ratio (a 'u-shaped' fiscal reaction function).

A careful look at the results also indicates that, except for Lebanon, most countries have a debt ratio below 100 per cent. It is therefore intuitive that 'fatigue' is driven by the higher debt ratio in Lebanon compared with the other countries, as shown in figure 4.19. Furthermore, the coefficient in the cubic function for all countries is not statistically significant. Therefore, Arab LDCs and MICs follow a 'u-shaped' fiscal reaction function, if Lebanon is taken out of the sample. However, unlike the standard 'flattened u-shaped' response of fiscal policy to debt ratio in other studies, these results show a 'steep u-shaped' curve and the primary balance ratio appears perpetually negative. That raises concerns about the existence and effectiveness of fiscal rules in handling debt sustainability in the long run. A decomposition of the change in public debt suggests that persistent primary deficits is the main contributor to increasing debt build-up across Arab MICs, which corroborates well with the panel regression analysis. In addition, exchange rate pressures and high interest rates relative to economic growth also contribute to increasing debt build-up in some years (see annex). The issue of interest rate and growth differential is examined in the next section.

## Table 4.2 Fiscal reaction function: panel regression results

| | Dependent variable: primary balance (percentage of GDP) | | |
|---|---|---|---|
| | **(1)** | **(2)** | **(3)** |
| **Variables** | **MICs, linear fixed effect** | **MICs, FGLS quadratic** | **MICs, FGLS cubic** |
| | **MIC sample** | | |
| Debt/GDP, lag 1 | -0.007 | -0.061 | -0.313* |
| | (0.18) | (1.21) | (2.31) |
| Debt/GDP, lag 2 | 0.007 | -0.021 | -0.024 |
| | (0.13) | (0.59) | (0.64) |
| Debt/GDP, lag 3 | 0.089* | 0.039 | 0.046 |
| | (2.62) | (1.34) | (1.57) |
| Lagged debt square | | 0.0004* | 0.003* |
| | | (2.00) | (2.10) |
| Lagged debt cubic | | | -0.000 |
| | | | (1.78) |
| Expenditure gap | -0.080 | | |
| | (0.92) | | |
| Output gap | 0.028 | 0.113 | 0.061 |
| | (0.36) | (1.41) | (0.77) |
| Expenditure gap | -0.120** | -0.133** | -0.128** |
| | (3.48) | (5.05) | (4.70) |
| Constant | -6.701* | -1.251 | 6.384 |
| | (2.23) | (0.62) | (1.46) |
| Observations | 80 | 80 | 80 |

**Source:** Sarangi, 2020a.

**Notes:** FGLS: Feasible Generalized Least Squares estimation, allowing for country-specific autocorrelation (AR1) and heteroskedasticity. Standard errors in parentheses; ** p<0.01, * p<0.05. Output gap: GDP gap from the trend, percentage; Expenditure gap: Expenditure gap from the trend, percentage.

## Figure 4.19 Fiscal response to gross public debt in MICs
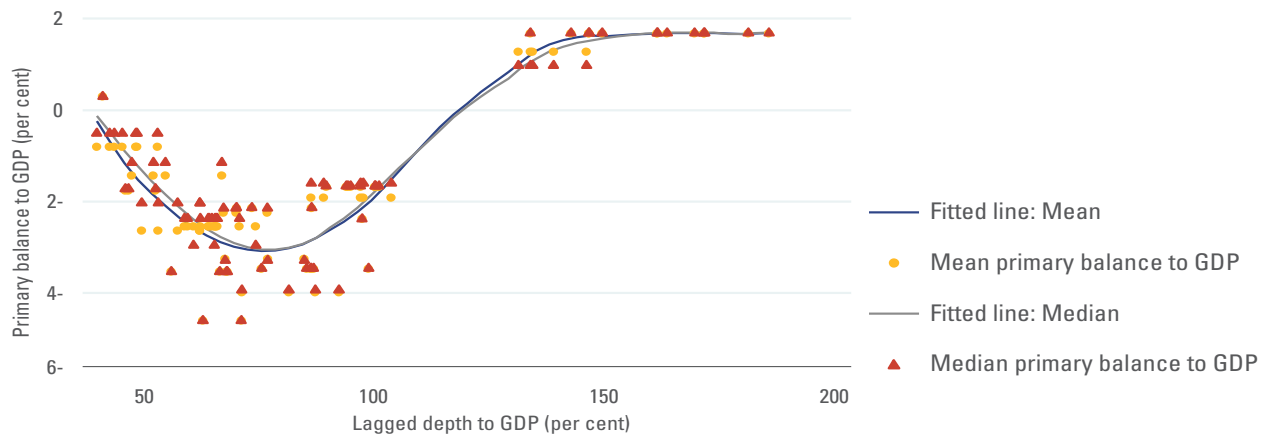


**Source:** Sarangi, 2020a.

**Note:** The fitted line is derived from the cubic function of the MIC sample.
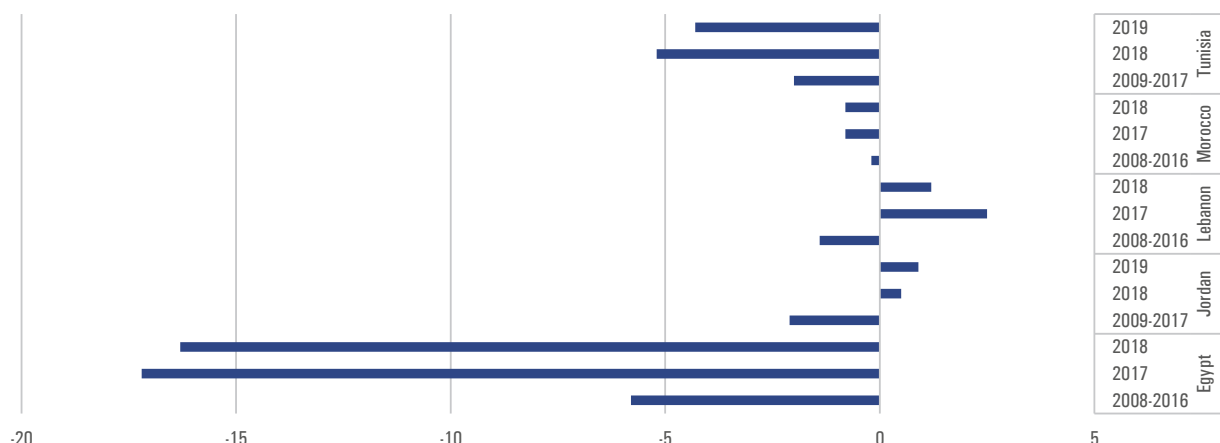
# Influence of interest rate and growth differential on public debt build-up

The interest rate and growth differential (IRGD) plays a key role in examining the debt sustainability gap, by assessing the difference between the actual primary balance and the required debt-stabilizing primary balance. In a situation where the Government is financing deficits by issuing bonds, the interest payment on the last period's bonds minus the Government's current primary surplus must be covered by issuing new bonds. If the primary surplus is zero, then debt will grow by the nominal rate of interest.[16] In terms of the debt-to-GDP ratio, a sustainability condition, or 'no-Ponzi game condition', means that the terminal nominal rate of interest should be no larger than the growth rate of nominal GDP. If the interest paid on this debt is lower than the growth rate of the economy (IRGD < 0) then, all else being equal, the debt will stabilize below the current level. Therefore, a negative IRGD is favourable for countries where economic growth can erode the debt ratio more quickly than it can build it by accumulating interest, all else being equal. The opposite conclusion holds when interest paid on a debt is greater than the growth rate of the economy (IRGD > 0). Using IRGD, the primary balance required for different shares of debt-to-GDP targets over time can be estimated.[17] Therefore, the gap between actual primary balance and required primary balance can also be derived, as discussed in section D below.

Egypt and Tunisia show an improved situation, with widening negative IRGD in recent years compared with their historical average. IRGD for Morocco is near zero. The situation in Jordan and Lebanon deteriorated in 2017 and 2018, with IRGD turning positive compared with their historical average. IRGD in Lebanon is positive from 2013 onwards, which contributes to a significant build-up of debt stock (figure 4.20). In Jordan and Lebanon, higher interest rates relative to economic growth are strong contributing factors to increasing debt build-up in some years, along with other factors such as the exchange rate and primary deficit (see figures in the annex). Interest rates thus have a critical role in improving solvency and correcting debt rollover, all things equal. In most Arab countries, monetary policy is passive, given their pegged exchange rate regimes. The role of interest rates is therefore rather limited in correcting inflation, except for some countries that have recently adopted a more flexible exchange rate regime. High interest rates are mainly set by the oligopolistic banking

Figure 4.20 **Interest rates: growth differential (percentage points, nominal)**

| | | |
|---|---|---|
| 2019 | | Tunisia |
| 2018 | | |
| 2009-2017 | | |
| 2018 | | Morocco |
| 2017 | | |
| 2008-2016 | | |
| 2018 | | Lebanon |
| 2017 | | |
| 2008-2016 | | |
| 2019 | | Jordan |
| 2018 | | |
| 2009-2017 | | |
| 2018 | | Egypt |
| 2017 | | |
| 2008-2016 | | |

**Source:** IMF Article IV for respective countries.

industry, which is the main government creditor, as is the case in Lebanon. In the absence of high growth, high interest rates pose high risks of insolvency and lead to snowballing debt, as witnessed in the past years. While the average IRGD provides interesting insights into stabilizing debt conditions over the medium term, it must not be taken as a sufficient condition. Cost of capital may be low in some emerging markets temporarily or monetary policy may change significantly, which affects interest rates and growth, thereby influencing IRGD.[18]

# Low impact of government expenditure on productivity and growth

The debate on debt sustainability in the Arab region has mainly focused on ways to increase government revenue and/or decrease government expenditure. However, there is a third approach that has been long neglected: the way in which government expenditure affects the rest of the economy. Grier and Tullock (1989) and Barro (1991) have clearly established that government

Figure 4.21  **Evolution of government current spending as a share of GDP versus total factor productivity growth, 2000-2015**
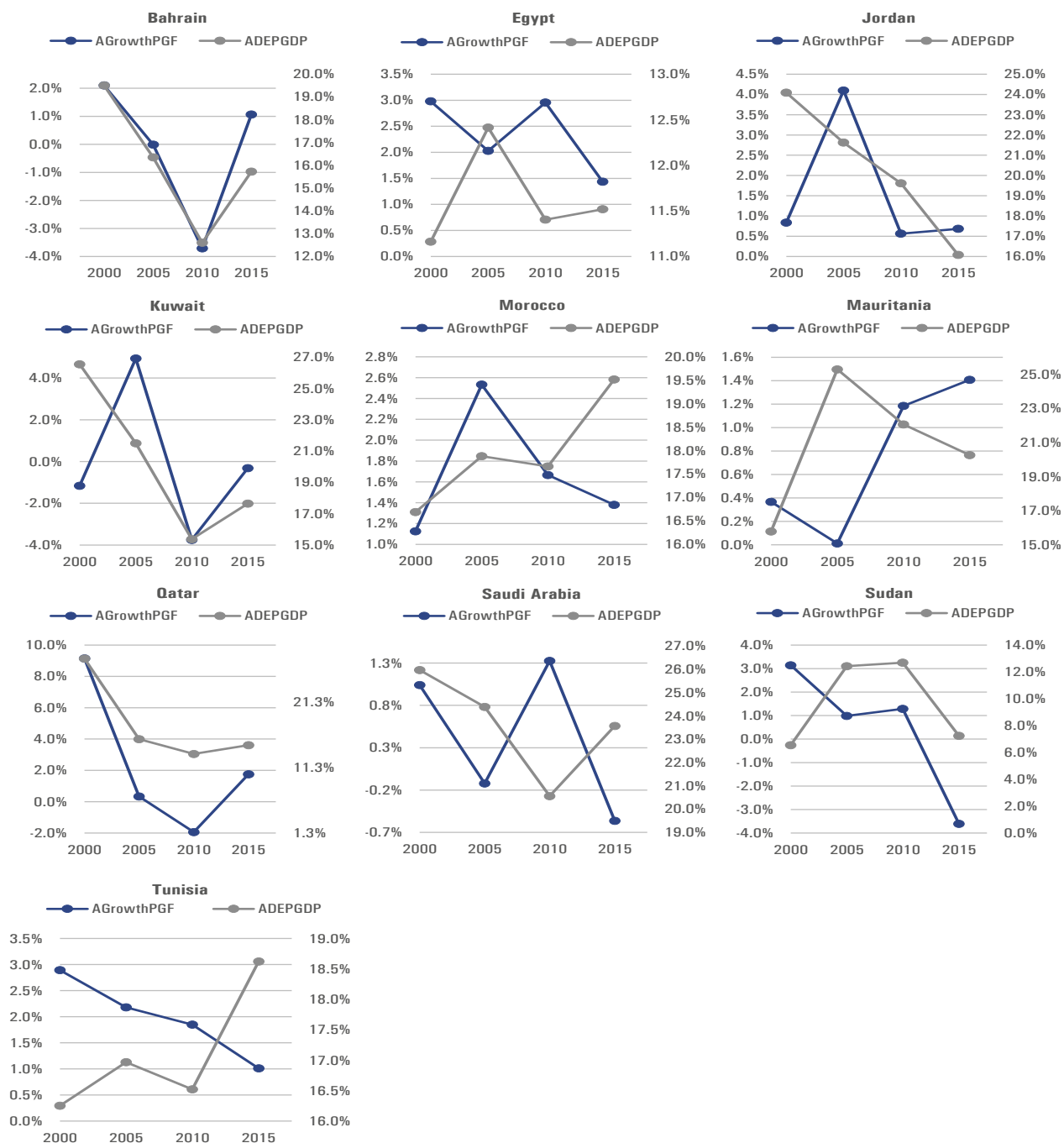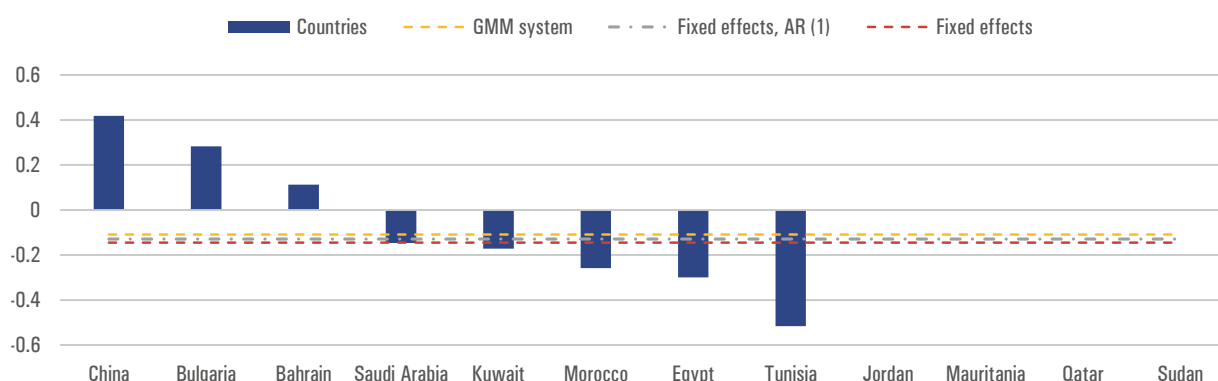
**Source:** Compiled by ESCWA.

spending affects economic growth, and by consequence the denominator of the debt-to-GDP ratio. In other words, rather than reducing the level of public deficit, the Government could focus on how public expenditure has the potential to increase GDP, and by consequence decrease the debt-to-GDP ratio.

In the Arab region, there is some indication that government spending has a negative impact on productivity. This phenomenon has been particularly worrying since 2010. In most countries, the share to GDP allocated to public current spending has increased, while productivity has decreased. This is particularly visible in Tunisia and Egypt, where the average five-year total factor productivity growth rate decreased from 3 per cent in 2000 to around 1 per cent in 2015, while the average five-year share of government current expenditure to GDP increased over the period 2010-2015 from 16.5 per cent to 18.6 per cent in Tunisia, and from 11.4 per cent to 11.5 per cent in Egypt.

To analyse the effects of public expenditure on productivity, Bchir and Ben Abdallah (2020) developed an econometric model with a dynamic panel data procedure.[19] The economic estimations show that at the global level, the effect of public consumption on total factor productivity is negative and statistically significant, while that of public investment is not significant. These results are in line with most empirical studies on the impact of government spending on growth.[20]

For Arab countries, the estimation confirms the stylized facts observed in figure 4.22. The effect of government current expenditure on total factor productivity is significantly negative, while the effects of public investment are insignificant.
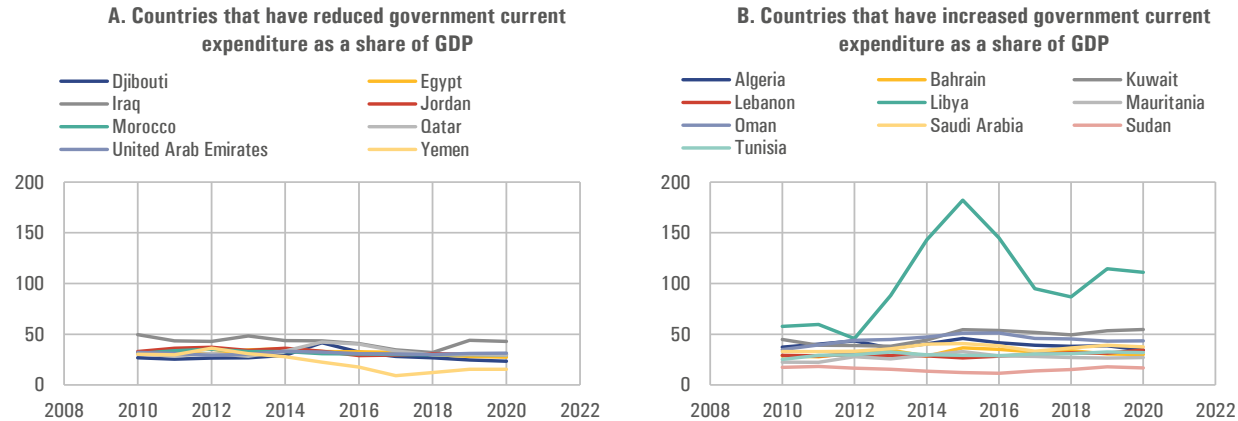
Figure 4.22  **Impact of public consumption on productivity growth in Arab countries, 1995-2017**
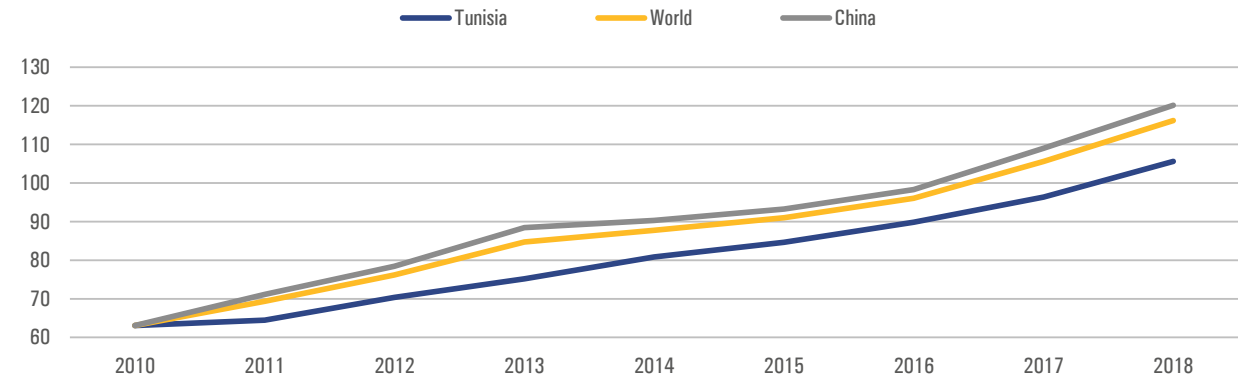


**Source:** Compiled by ESCWA.

However, when comparing Arab countries' performance to the world average, the magnitude of the problem becomes apparent. Except for Bahrain, the effect of public expenditure on total factor productivity is lower than the world average, regardless of the method of calculation (system GMM, fixed effect, fixed effect with first order autoregression). The situation is even more alarming when compared with the performance of Bulgaria or China.

**Figure 4.23  Government current expenditure as a share of GDP, 2008-2022**

**A. Countries that have reduced government current expenditure as a share of GDP**

- Djibouti
- Iraq
- Morocco
- United Arab Emirates
- Egypt
- Jordan
- Qatar
- Yemen

**B. Countries that have increased government current expenditure as a share of GDP**

- Algeria
- Lebanon
- Oman
- Tunisia
- Bahrain
- Libya
- Saudi Arabia
- Kuwait
- Mauritania
- Sudan

**Source:** World Bank, World Development Indicators. Available at https://databank.worldbank.org/source/world-development-indicators (accessed on 20 April 2020).

**Figure 4.24  Evolution and projection of Tunisian nominal GDP with different levels of government efficiency, 2010-2018**

- Tunisia
- World
- China

**Source:**  Compiled by ESCWA.

This result implies that a large part of the debt problem is driven by low efficiency of government expenditure in the Arab region. To tackle this problem, Arab Governments have adopted two types of policies. One group has opted for a drastic reduction in government expenditure as a share of GDP (figure 4.23A). Egypt, for example, reduced the share of public current expenditure to GDP from 11.2 per cent in 2010 to 8.4 per cent in 2018. These countries have internalized the inefficiency of their public interventions, and in return are risking the degradation of their public facilities and social conditions.
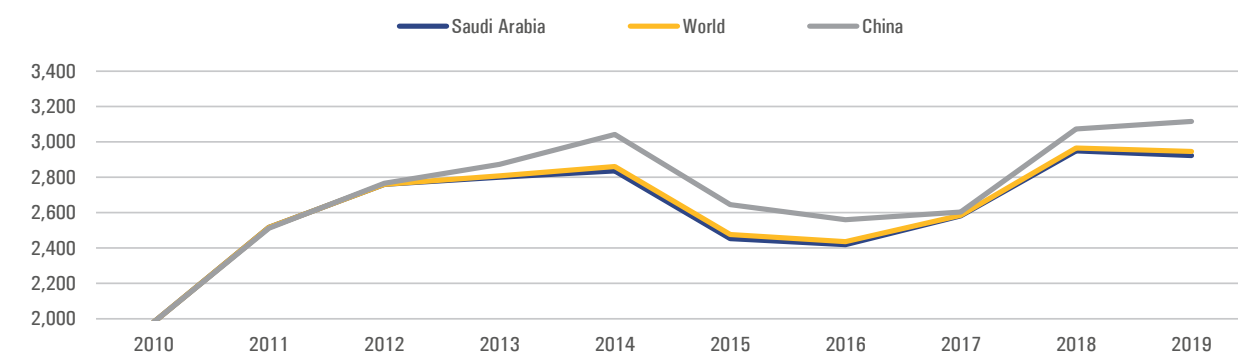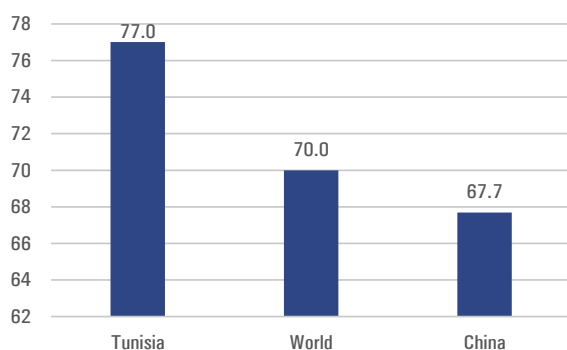
Figure 4.25  **Evolution and projection of Saudi nominal GDP with different levels of government efficiency, 2010-2019**
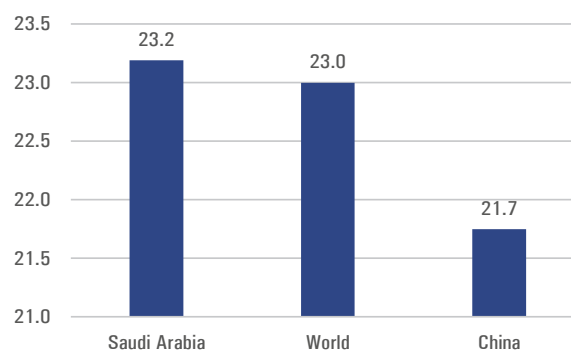


**Source:** Compiled by ESCWA.

Figure 4.26  **Tunisian debt-to-GDP ratio in 2018 under different levels of government efficiency**



**Source:** Compiled by ESCWA.

Figure 4.27  **Saudi debt-to-GDP ratio in 2019 under different levels of government efficiency**



**Source:** Compiled by ESCWA.

The other group opted for an increase in the share of government current expenditure as a share of GDP (figure 4.23B). For this group, the economic cost of public inefficiency is quite high. If the model is rerun using the performance level of public current expenditure in China, the relative cost of public expenditure's relative inefficiency can be estimated. The cumulative cost of Tunisian government inefficiency is estimated at 51.8 billion Tunisian dinars, if the efficiency level of the Tunisian Government was at the world average. When compared with Chinese Government efficiency, the cost is estimated at 71.9 billion Tunisian dinars.

With better efficiency, the level of indebtment would drop with the same level of government expenditure. The debt-to-GDP ratio in Tunisia of 77 per cent in 2018 would be 69.7 per cent if the efficiency the Tunisian Government was the same as the world average, and it would be 67.2 per cent if the Tunisian Government was as efficient as the Chinese Government. Another example is Saudi Arabia, where the cost of inefficiency is estimated at 199.6 billion riyals when compared with the world average, and at 1,608.8 billion riyals when compared with China.

The quality of governance is strongly associated with government efficiency in economic growth and fiscal outcomes. The Arab region has suffered from decades of bad governance (table 4.3), which could explain part of the economic crisis that the region is currently undergoing. The economic literature has proved the positive relationship between governance indicators and growth performance. The econometric estimation conducted by AlAdlani (2019) demonstrates that governance contributes to better economic growth, especially in the long term. Chong and Calderon (2000) found that the effects of institutional reform on economic growth in poorer countries take longer to materialize than the influence of economic growth on institutional quality. A study by Mehanna, Yazbeck and Sarieddine (2010) concluded that voice and accountability, government effectiveness, and control of corruption are among the six governance indicators that influence growth performance in oil-rich MENA countries. Mira and Hammadache (2017) find that political stability is significant for non-oil producing MENA countries. This finding also resonates with studies focused on other developing regions, such as sub-Saharan Africa (Williams, 2017) and cross-sectional studies (Aisen and Veiga, 2013; Han, Khan, and Zhuang, 2014).
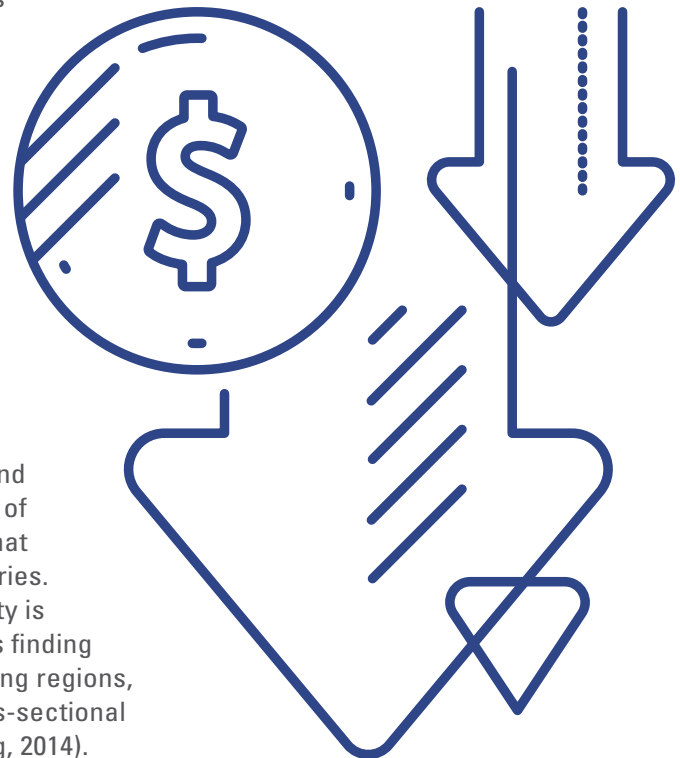
| Table 4.3 **Arab countries' percentile rank among all countries (from 0 (lowest) to 100 (highest) ranking)** | | | | | | |
|---|---|---|---|---|---|---|
| | **Voice and accountability** | **Political stability and absence of violence/terrorism** | **Government effectiveness** | **Regulatory quality** | **Rule of law** | **Control of corruption** |
| Algeria | 20.2 | 13.8 | 33.7 | 7.7 | 20.7 | 29.3 |
| Bahrain | 9.9 | 22.4 | 63.9 | 67.8 | 68.8 | 56.7 |
| Comoros | 28.1 | 41.9 | 3.8 | 10.6 | 12.5 | 15.4 |
| Djibouti | 10.8 | 34.8 | 24.0 | 20.7 | 18.3 | 20.7 |
| Egypt | 8.4 | 12.9 | 36.5 | 18.8 | 38.0 | 27.9 |
| Iraq | 22.7 | 1.9 | 9.6 | 9.6 | 3.8 | 8.7 |
| Jordan | 28.6 | 33.3 | 56.7 | 57.2 | 58.2 | 60.6 |
| Kuwait | 29.1 | 54.3 | 52.9 | 57.7 | 61.1 | 51.0 |
| Lebanon | 32.5 | 7.6 | 17.8 | 36.5 | 19.7 | 12.0 |
| Libya | 7.9 | 1.4 | 1.9 | 1.0 | 1.9 | 2.4 |
| Mauritania | 25.1 | 26.2 | 34.6 | 22.1 | 28.8 | 20.2 |
| Morocco | 29.6 | 32.4 | 47.6 | 46.2 | 48.6 | 45.7 |
| Oman | 17.2 | 67.1 | 62.5 | 64.4 | 70.7 | 67.3 |
| Qatar | 13.8 | 70.0 | 75.0 | 74.0 | 75.5 | 79.3 |
| Saudi Arabia | 5.9 | 29.5 | 64.4 | 51.9 | 58.7 | 63.0 |
| Somalia | 3.0 | 2.9 | 1.0 | 1.9 | 0.0 | 1.0 |
| Sudan | 5.4 | 6.7 | 5.3 | 3.8 | 10.6 | 7.7 |
| Syrian Arab Republic | 1.5 | 0.5 | 3.4 | 3.4 | 1.0 | 1.4 |
| Tunisia | 56.7 | 17.1 | 48.6 | 35.6 | 55.8 | 52.9 |
| United Arab Emirates | 17.7 | 69.5 | 88.9 | 78.4 | 77.9 | 83.7 |
| West Bank and Gaza | 21.2 | 4.8 | 23.1 | 56.7 | 33.7 | 46.6 |
| Yemen | 4.4 | 0.0 | 0.5 | 4.3 | 2.9 | 1.9 |

**Source:** World Bank, Worldwide Governance Indicators (WGI). Available at https://info.worldbank.org/governance/wgi (accessed on 15 April 2020).

# C. Debt sustainability gap and debt stabilization scenarios

Several Arab LDCs remain at risk of debt distress, according to the Joint Bank-Fund Debt Sustainability Framework for Low Income Countries (LIC-DSF). According to the assessment, Somalia and the Sudan are in debt distress, whereas the Comoros, Djibouti and Mauritania are at moderate to high risk of debt distress (table 4.4). These countries are experiencing steep output contractions, while COVID-19 relief and recovery efforts are demanding a massive increase in expenditures. Large external arrears in the Sudan continue to hinder access to external financing.[21] The country has yet to meet all the requirements to qualify for HIPC debt relief. The Sudanese authorities have requested a 12-month staff-monitored programme to support their efforts to restore macroeconomic stability, lay the foundation for strong and inclusive growth, mobilize external financing, make progress toward debt relief under the HIPC initiative, and cope with the impact of COVID-19.[22] Somalia has taken the necessary steps to begin receiving debt relief under the enhanced HIPC initiative, which will reduce its debt from $5.2 billion at end-2018 to $557 million in net present value terms once it reaches the HIPC completion point in about three years.[23]

COVID-19 and its economic fallout are exacerbating already high debt risks. The international community has taken action to provide relief through the G20 debt service suspension initiative (DSSI), and debt relief by the IMF for 25 countries from the Catastrophe Containment and Relief Trust (CCRT). An estimate of potential DSSI savings suggests that participating countries

| Table 4.4 DSSI participants and their potential savings based on amounts owed to creditors | | | | | |
|---|---|---|---|---|---|
| Country | DSSI participation? | Risk of external debt distress | Risk of overall debt distress | Publication date of data sustainability analysis | Potential DSSI savings ($ million) | Potential DSSI savings (percentage of 2019 GDP) |
| Comoros | Yes | Moderate | Moderate | Apr-20 | 2.3 | 0.2 |
| Djibouti | Yes | High | High | May-20 | 59.2 | 1.6 |
| Mauritania | Yes | High | High | Apr-20 | 90.0 | 1.2 |
| Somalia | No | In distress | In distress | Mar-20 | … | |
| Yemen | Yes | … | … | … | 142.7 | 0.5 |

**Source:** World Bank, 2020c.

**Note:** Potential DSSI savings are estimated debt service payments owed, based on monthly projections for May-December 2020, based on end-2018 public and publicly guaranteed debt outstanding and disbursed.

would have a potential saving of $294 million, based on estimated debt service payments owed during the period May-December 2020 (table 4.4). This is not enough, however, since the total public debt service of Arab LDCs is about $1 billion, and interest payment of public external debt is about $550 million. DSSI needs to include multilateral debt; it is currently limited to bilateral debt only. Table 4.5 shows the IMF debt service relief assistance from CCRT to the Comoros, Djibouti and Yemen, amounting to nearly $23.4 million. In parallel, the Comoros, Djibouti, Mauritania and Somalia have borrowed from IMF a total of $423 million under the concessional lending mechanisms: Rapid Credit Facility (RCF) and Extended Credit Facility (ECF). The Comoros has also borrowed $5.93 million for non-concessional loans under the Rapid Financing Instrument (RFI).

IMF also provides concessional financial support (currently at zero interest rates until June 2021) through the Poverty Reduction and Growth Trust (PRGT), which is tailored to the diversity and needs of low-income countries. Standby Credit Facility (SCF), Extended Credit Facility (ECF) and Rapid Credit Facility (RCF) are three main concessional finance tools to assist low-income countries in case of balance of payment problems in the short term, medium term, and for urgent needs, respectively.

**Table 4.5 Emergency financing and debt service relief from IMF to Arab LDCs**

| Country | Type of emergency financing | Amount approved (SDR) | Amount approved ($ million) | Date of approval |
|---|---|---|---|---|
| Comoros | Debt service relief: CCRT | 0.97 million | $1.33 million | 13 April 2020 |
| | Rapid Credit Facility | 2.97 million | $4.05 million | 22 April 2020 |
| | Rapid Financing Instrument | 5.93 million | $8.08 million | 22 April 2020 |
| Djibouti | Rapid Credit Facility | 31.8 million | $43.4 million | 8 May 2020 |
| | Debt service relief: CCRT | 1.69 million | $2.3 million | 8 May 2020 |
| Mauritania | Rapid Credit Facility | 95.68 million | $130 million | 23 April 2020 |
| Somalia | Extended Credit Facility, and the Extended Fund Facility | 292.4 million | $395.5 million | 25 March 2020 |
| Yemen | Debt service relief: CCRT | 14.44 million | $19.76 million | 13 April 2020 |

**Source:** IMF, COVID-19 Financial Assistance and Debt Service Relief. Available at https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker#ftn (accessed on 15 September 2020).

**Note:** According to IMF, the debt service relief from CCRT benefitted countries that have their debt service due between 13 April and 13 October 2020.

Using IRGD, the required primary balance can be worked out through a simulation exercise to arrive at certain debt-to-GDP ratio targets over the medium term. To do so, 10-year average and 5-year average IRGD were used, by taking into consideration weighted real effective interest rate, weighted by share of foreign debt and domestic debt, and the real growth rate. Figure 4.28 presents the simulation exercise for four scenarios, while allowing for variations or shocks to IRGD. The exercise was undertaken for Arab MICs with IRGD less than zero or near zero, as a precondition stated in the methodology. Lebanon is not part of the exercise since IRGD at current and at historical averages turns out strongly positive.

- Scenario 1: Debt target (d*) to be maintained at the 2018 level as a percentage of GDP by 2030;

- Scenario 2: Debt target (d*) to be maintained at 75 per cent of GDP by 2030;

- Scenario 3: Debt target (d*) to be maintained at 70 per cent of GDP by 2030;

- Scenario 4: Debt target (d*) to be maintained at 60 per cent of GDP by 2030.

For all four scenarios, IRGD was applied based on the historical average of the past 10 years (since 2009 through 2018). Furthermore,

Figure 4.28 **Required debt stabilizing primary balance ratios under various debt targets, 2019-2030**
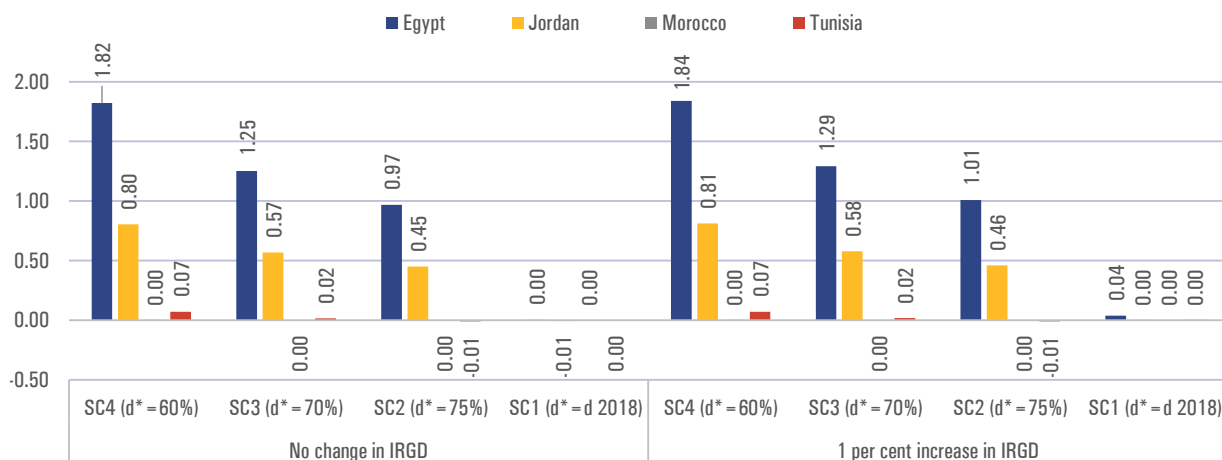


**Source:** Sarangi, 2020a.

a 1 per cent increase in IRGD was used to take into consideration the impact of a possible rise in interest rates or a deterioration in growth. It should be noted that foreign interest rates picked up during 2018 and 2019 (pre-COVID-19). This is not currently a concern owing to low interest rates pursued by most countries to ease liquidity conditions during the pandemic. Interest rates may go up again when economies start recovering, or interest rates may come under pressure to contain inflation in the near future. Therefore, it is useful to see the impact of shocks to IRGD to arrive at debt targets by using such simulations.[24] The required primary balance versus the actual primary balance, as a share of GDP, shows the adjustment in primary balance required to maintain the debt-to-GDP share at the baseline, or to arrive at the share of debt-to-GDP target for certain years.

Figure 4.28 presents the estimated required primary balance, as a share of GDP, to achieve different debt targets, as share of GDP, by 2030. If countries decide to maintain the same debt-to-GDP ratio as in 2018, they need to ensure that primary balance to GDP must be maintained at zero over the years, while assuming no change in IRGD. If the decision is to maintain debt to GDP at 75 per cent by 2030, Egypt would need to maintain a primary balance-to-GDP ratio of 0.97 per cent, Jordan needs to maintain it at 0.45 per cent, Morocco needs to maintain it at 0 per cent, and Tunisia needs to maintain it at -0.01 per cent. A lower target of debt to GDP would necessitate a higher primary surplus as shown by different targets of debt to GDP. The critical assumption is that IRGD remains the same. A favourable change in IRGD, mainly by an improvement in the growth rate, would reduce the required primary balance. In contrast, an increase in IRGD either owing to a contraction in growth or an increase in interest rates, would necessitate a higher required primary balance to stabilize debt at the target level, as shown in the right-side panel of the bar graph (figure 4.28).

**Table 4.6  Required adjustments in the primary balance assuming no change in IRGD and assuming that debt to GDP will stabilize at 75 per cent by 2030**

|  | Actual primary balance 2018 (percentage of GDP) | Required primary balance on average (percentage of GDP) | Adjustment required for 2019 (primary balance as percentage of GDP) | Billion $ |
|---|---|---|---|---|
| Egypt | -0.40 | 0.97 | 1.36 | 3.41 |
| Jordan | -1.45 | 0.45 | 1.90 | 0.80 |
| Morocco | -1.28 | 0.00 | 1.27 | 1.51 |
| Tunisia | -1.91 | -0.01 | 1.90 | 0.76 |

**Source:** Sarangi, 2020a.

Assuming no change in IRGD, Egypt would need to adjust its primary balance to 1.36 per cent of GDP (a primary balance of $3.41 billion in 2019). Jordan would need to maintain a primary balance of $0.80 billion, Morocco $1.51 billion and Tunisia $0.76 billion. The adjustments are reasonable compared with those required for reducing debt stock as per IMF frameworks. During the period 2005-2008, the average primary balance of Arab MICs was 2.5 per cent of their aggregate GDP. Achieving 0 to 1 per cent of the primary balance is therefore a necessity to improve debt sustainability and release relatively more fiscal space for social development expenditure. How to raise the primary balance is a fiscal policy question, which is beyond the scope of the present chapter.[25]

Using IRGD, similar primary balance requirements can be computed for Arab LDCs. The interest rate would be the external rate of interest. A critical issue is that calculating the effective rate of interest will not always present an accurate picture, since many of these countries have access to concessional loans and debt relief. An ideal situation would be to know the rate of interest of borrowing to compute the IRGD, for which adequate data are not available. Furthermore, these countries are in debt distress. Their primary balance, on average, is negative historically. They also face a persistent current account deficit. All these issues create complications in making sense of debt stabilizing primary balance for LDCs, especially because they would need more financing to realize their potential capacities.

# D. Conclusion and policy implications

Since 2008, the Arab region has been experiencing increasing debt as a share of GDP. The share rose from 26 per cent in 2008 to 45 per cent in 2018. There are many reasons for debt accumulation, including the negative impact of the global economic downturn, persistent trade deficits in MICs, conflict in several countries, and commodity price fluctuations that widened fiscal deficits in countries dependent on oil and commodity exports. The adverse impact of COVID-19 has pushed Arab countries to borrow ever more.

The evolution of public debt across Arab LDCs and MICs is rooted in high and persistent primary deficits, often led by discretionary expenditures, and persistent current account deficits owing to greater reliance on imports than exports. The analysis of the fiscal reaction function and the fiscal sustainability gap resulted in the following recommendations:

- Improve the quality of economic governance and strengthen budget institutions to enhance fiscal policy responses to economic crises;

- Adjust the primary balance in line with a debt-to-GDP target;

- Strengthen growth by improving fiscal and monetary coordination.

The following recommendations should also be considered by all Arab Governments:

- Work out debt stabilizing scenarios over the medium to long term, taking into account any need for augmenting existing borrowing or new borrowing to help improve fiscal space to finance the SDGs and boost economic growth;

- Use fiscal policy strategically to enhance fiscal space, and reduce debt by cutting wasteful discretionary expenditures;

- Prioritize growth enhancing fiscal measures; establish monitoring and targeting mechanisms; improve overall public finance management through debt stabilizing fiscal rules, medium-term expenditure frameworks, and medium-term revenues frameworks; improve transparency; and minimize leakages;

- Develop a conducive monetary policy that ensures the necessary conditions to maximize the value of fiscal measures. However, it is not enough to generate fiscal space to the scale that is required to mitigate the adverse impact of COVID-19. To recover better and faster, these countries would require additional fiscal support;

- Diversify the economy to promote exports, jobs and growth;

- Link government spending to development outcomes and enhance its productivity by monitoring and evaluating the outputs and outcomes of each public expenditure item in terms of its contribution to development outcomes, including the SDGs;

- Extend and expand the scope of debt relief to Arab LDCs and MICs so as to generate immediate fiscal space to allocate resources to targeted sectors and people to recover better from the adverse impacts of COVID-19.

With regard to LDCs:

- Extend the period of G20 DSSI until the end of 2021;

- Include multilateral debt in DSSI, which is currently limited to bilateral debt;

- Provide access to debt relief under the HIPC initiative to benefit countries such as the Sudan.

With regard to MICs:

- Broaden the scope of DSSI to include MICs and vulnerable countries;

- Enhance private sector participation in DSSI;

- Improve access to concessional loans for MICs;

- Promote debt restructuring and debt swap as important instruments for debt reduction in the immediate and short term.