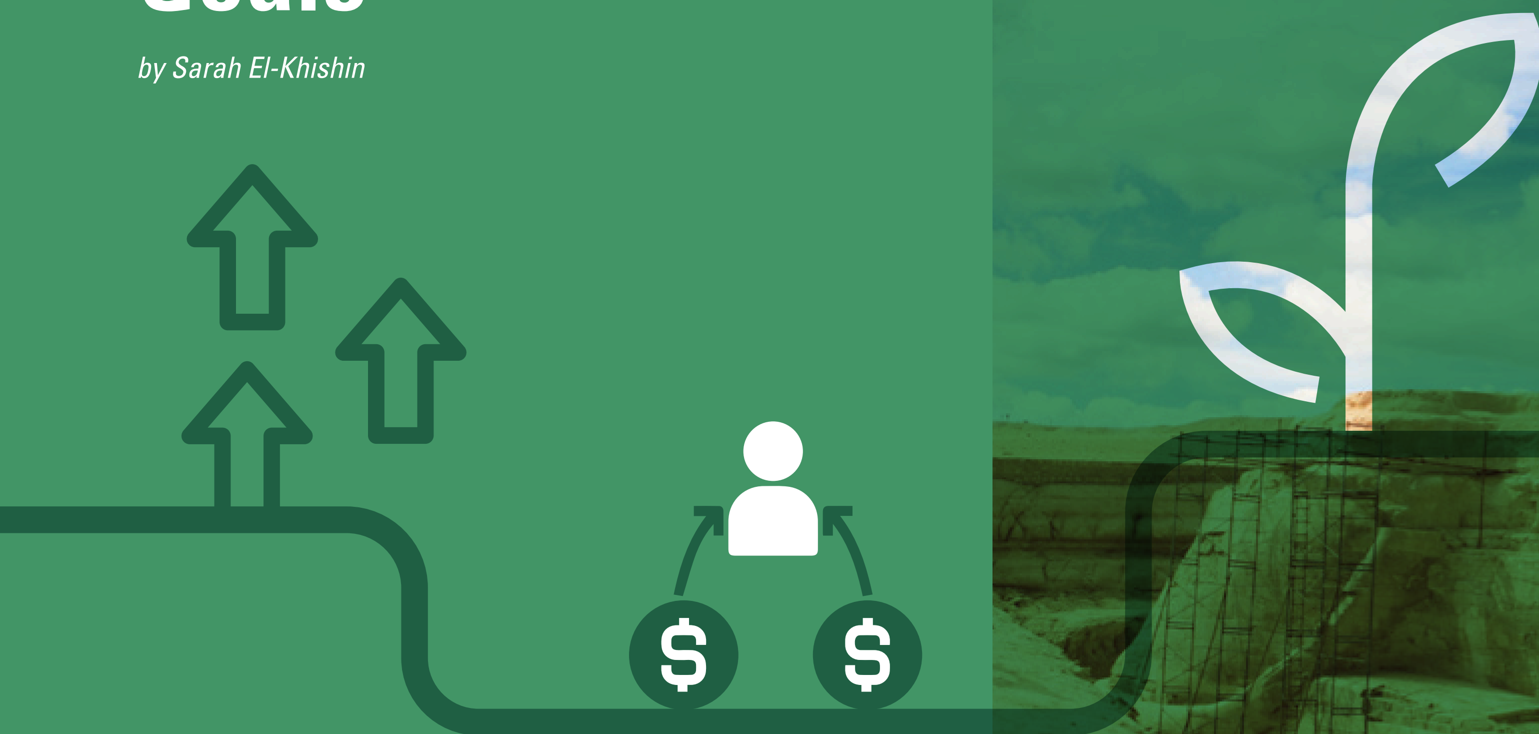
Debt management in Egypt and financing the Sustainable Development Goals

by Sarah El-Khishin



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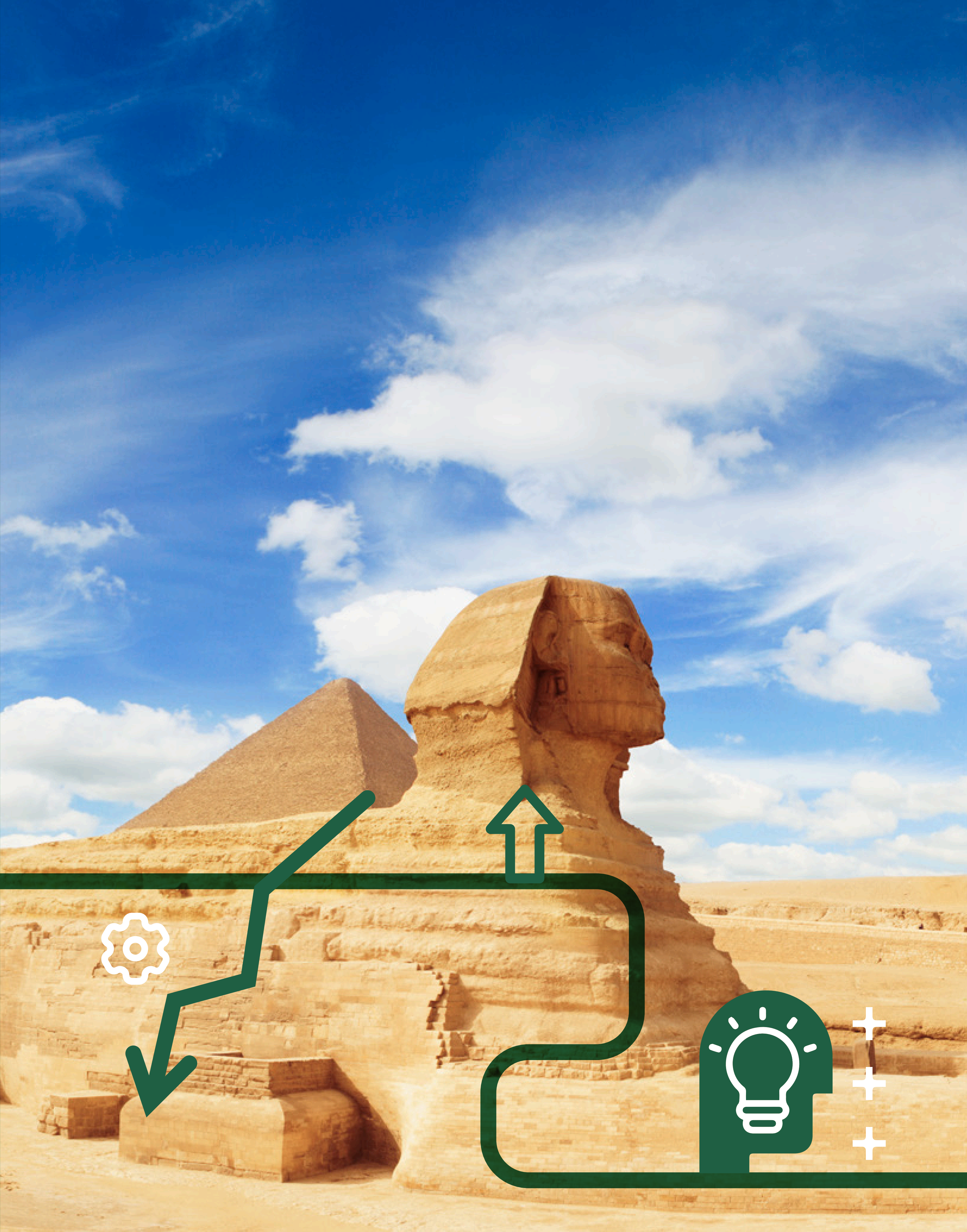
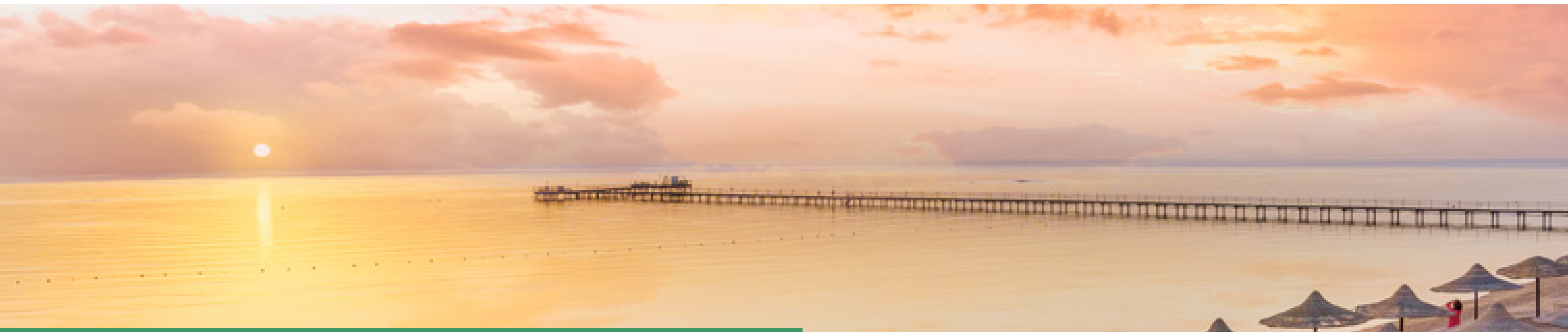




> Egyptian involvement in commercial financing, increased access to international financial markets and debt market development are essential to supporting the financing of SDG spending needs.

Background

There are general drivers of debt that are common to all emerging markets and developing economies. Egypt has its own debt issues that require debt sustainability to be defined in a way that suits the Egyptian context and accounts for the country's specific economic and political dynamics. While debt vulnerabilities in many emerging markets and developing economies are generally driven by surging private debt and non-financial borrowing owing to a low-interest environment, debt vulnerabilities in Egypt mainly arise from fiscally driven public debt owing to longstanding structural imbalances and poor institutional performance. Since the 1990s, Egypt has been engaged in successive attempts at structural reform to address its macrofiscal imbalances and debt problems. However, several factors impeded the sustainability of the outcomes from these reforms.

In 2015, Egypt launched its national Sustainable Development Strategy: Egypt Vision 2030, which has been continuously revised to comprise the pillars of the 2030

Agenda and the SDGs as well as recent domestic and global dynamics. In 2016, the country implemented a domestic economic reform programme under an IMF Extended Fund Facility that involved fundamental monetary and fiscal reforms and serious austerity measures, resulting in sound macroeconomic outcomes and a clear impact on the country's debt profile. As part of the global economy, Egypt had to reverse its austerity measures during the COVID-19 pandemic, which has already caused changes to growth and macroeconomic trends in many countries. Despite this impact, Egypt has shown good resilience to the effects of the pandemic, as evidenced by the relevant data and outlook projections.

Addressing debt management and sustainability is an essential part of the country's new strategic direction and development priorities. In this context, this chapter addresses debt in Egypt through three interconnected pillars: debt drivers; debt dynamics following recent structural reforms and the COVID-19 pandemic; and, most importantly, Egypt's ability to finance the SDGs without worsening its debt profile. Section A contains an overview of debt in Egypt, its recent trends and projections. Section B presents a debt sustainability analysis for Egypt in light of two scenarios: a baseline scenario and a proposed SDG scenario. The latter calibrates the baseline scenario with projections based on the country's commitment to financing the SDGs. In section C, features a proposal of a SDG-related debt management framework for Egypt, with discussions of relevant opportunities, financing options, needed reforms and potential risks.

A. Egyptian debt: an overview

Debt vulnerabilities in emerging markets and developing economies are generally driven by surging private debt, especially non-financial borrowing. Such forms of debt increase external vulnerability to shocks and sudden reversals of capital flows. Increased commercial borrowing and more sovereign borrowing from commercial creditors to finance ambitious growth trajectories also constitute a source of increasing debt vulnerabilities in emerging markets and developing economies. In a global environment characterized by low interest rates, increased liquidity and quantitative easing, along with a decline in global growth patterns, more emerging markets and developing economies appear to be in a state of debt distress. The COVID-19 pandemic merely accelerated a debt crisis already predicted in many such markets and economies. As an emerging economy, Egypt is still exposed to many of the above vulnerabilities. Debit issues in Egypt, however, are mainly driven by public debt and structural fiscal problems, as well as institutional drivers (figure 97).

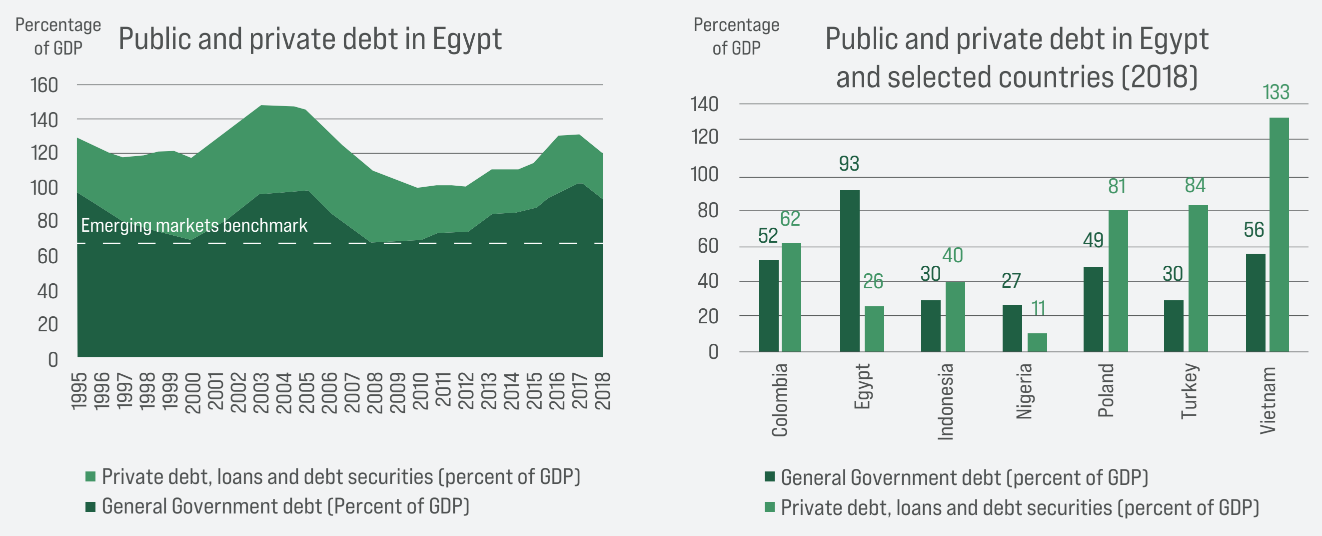
Debt in Egypt is primarily fiscally driven. Approximately 72 per cent of total debt is public debt (figure 98).[1] Public debt currently stands at around 85 per cent of GDP, exceeding the 70 per cent benchmark for emerging markets.[2] It previously approached 100 per cent of GDP in the 1990s and early 2000s, and exceeded 100 per cent of GDP in 2017 prior to the implementation of recent reforms. In 2018, public debt still constituted around 93 per cent of GDP in 2018, the highest share of public debt as a proportion of GDP among the countries selected for comparison (figure 98). Domestic public debt is considered the main driver of debt vulnerabilities in Egypt (figure 99). As for external debt, although it accounts for a smaller share, it is on the rise and might also pose future risks to the sustainability of the country's debt profile, as will be shown later in this chapter.

Figure 97. Common debt drivers in emerging markets and developing economies – How does Egypt compare?

Low global interest rates, increased liquidity and quantitative easing, all driving further debt distress.	High interest rates in Egypt and a relatively prudent monetary policy, especially following the 2016 national reforms. Little easing after the COVID-19 pamdemic, but still within a relatively prudent framework. High interest rate on domestic debt is nevertheless a driver for debt vulnerability in Egypt.
High growth trajectories financed by debt following the global financial crisis. Recent global slowdown in growth rates.	Low growth rates in Egypt. Debt-related demand is mainly to service old debt and gross financing needs.
Surging private debt, especially non-financial debt of corporations. Commercial debt: even sovereign debt is financed by commercial creditors.	The share of household and non-financial debt is small in the case of Egypt. Financial markets are still relatively immature.
Limited fiscal space and poor coutercyclical policies.	The main cause of debt distress in Egypt. High public debt to finance an inflated budget and limited fiscal space.
Global, regional and country-level shocks and uncertainities.	In addition to the global COVID-19 pandemic and the rising geopolitical tensions in the region, Egypt has been witnessing cosequent domestic shocks and uncertainties that began with the 2011 revolution and consecutive political cycles and economic disruptions.

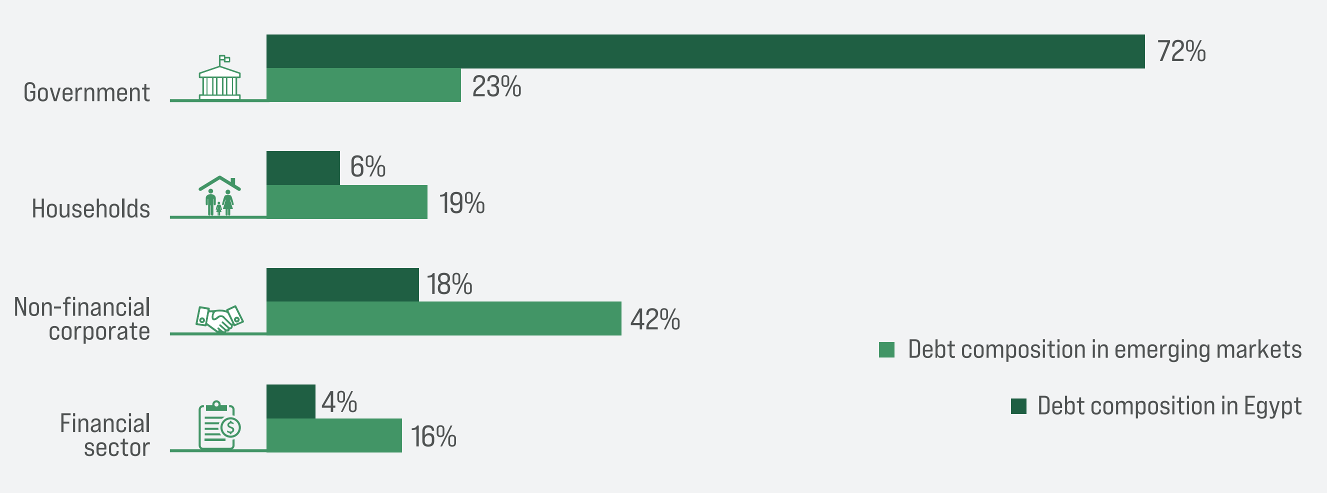
Source: Author.

Figure 98. Debt trends in Egypt and selected emerging markets (2005–2018)



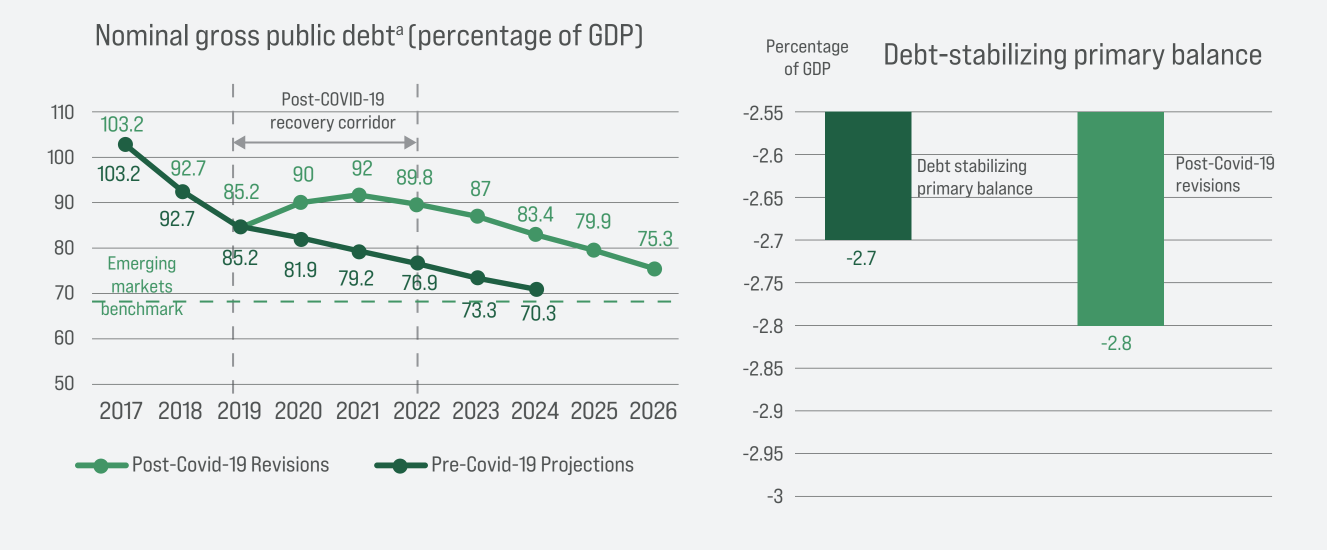
Source: Author, based on data from the International Monetary Fund Global Debt Database.

Figure 99. Debt composition in Egypt and emerging markets (first quarter of 2020)



Source: Tiftik, E. and K. Mahmood (2020). Global Debt Monitor: Sharp Spike in Debt Ratios. Washington, D.C.: Institute of International Finance.

Figure 100. Revised projections of public debt following the COVID-19 pandemic



Source: International Monetary Fund (2020). Arab Republic of Egypt: request for a 12-month stand-by arrangement – press release; staff report; and statement by the Executive Director for the Arab Republic of Egypt. IMF Country Report, No. 20/266. Washington, D.C.; International Monetary Fund (2021). Arab Republic of Egypt: 2021 Article IV Consultation, second review under the stand-by arrangement – press release; staff report; and statement by the Executive Director for the Arab Republic of Egypt. Country Report, No. 2021/163. Washington, D.C.

a General government debt. Real data are used up to 2020.

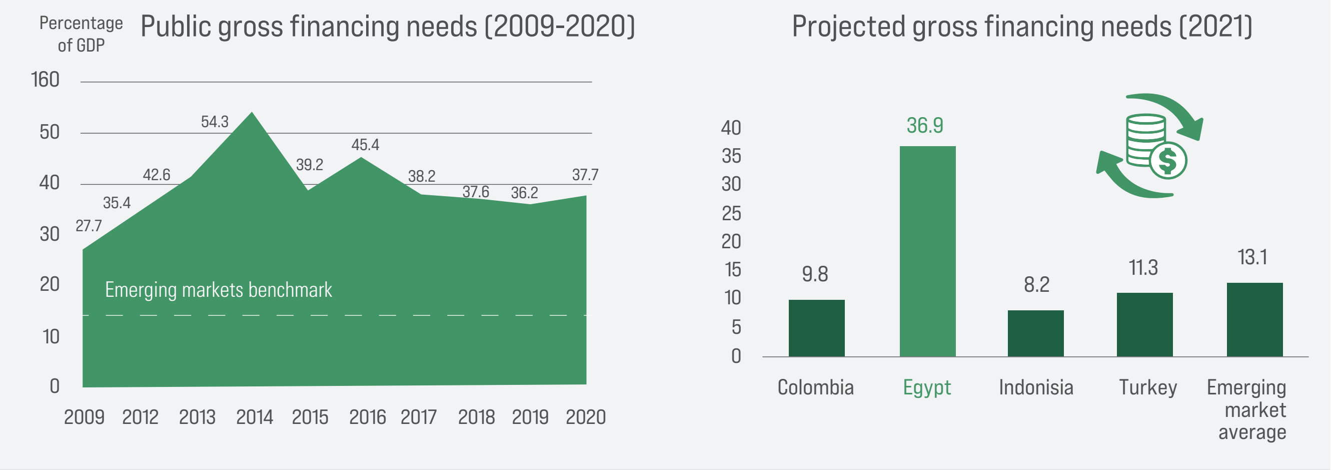
Public debt had increased over the period from 2008 until the implementation of the national reform programme in 2016 under the IMF Extended Fund Facility. The reform resulted in many improvements in fiscal, monetary and macroeconomic indicators, and debt took a downward trend for the first time since 2008. As is the case with most countries, the COVID-19 pandemic has clearly affected the Egyptian economy. While it is showing relatively resilient performance compared to many emerging markets and developing economies, the shock has already resulted in a reversal of the short-lived declining trends in debt levels, owing to the global slowdown and the accommodations adopted by the Egyptian Government at the onset of the pandemic.

Revised post-COVID-19 projections show a recovery corridor that is expected to last for at least two years. Debt trends are expected to resume their downward trajectory in 2022, conditional on resuming austerity measures and the fiscal consolidation plan (figure 100). Revised projections of the IMF debt sustainability analysis show a declining trend at levels higher than pre-COVID-19. Debt-stabilizing primary balance is projected at -2.8 per cent of GDP in 2026.[3] Despite these developments, country's debt profile still suffers from many risk factors, which are magnified by the recent COVID-19 shock. The main identified factors contributing to the rising debt burden in Egypt are the primary balance, as well as exchange rate misalignments (especially during periods of exchange rate instability), interest-growth differentials and institutional factors.

Gross financing needs are consequently high, far exceeding the benchmark of 15 per cent for emerging markets.[4] As a percentage of GDP, gross financing needs in Egypt have been at approximately 37 per cent in recent years. Compared with other emerging markets in 2020, Egypt's gross financing needs constitute a significantly higher percentage of GDP, (figure 101). In order to limit debt sustainability risks, the Government realizes it must reduce its gross financing needs. Its ongoing efforts in that regard include extending the maturities of government securities, which will reduce the rollover risk and in return improve the debt path. The Government has also established a quantitative ceiling on the share of net new short-term domestic issuance to total domestic treasury issuance. These efforts have already begun to take effect, as there has been a decline in short-term public debt.

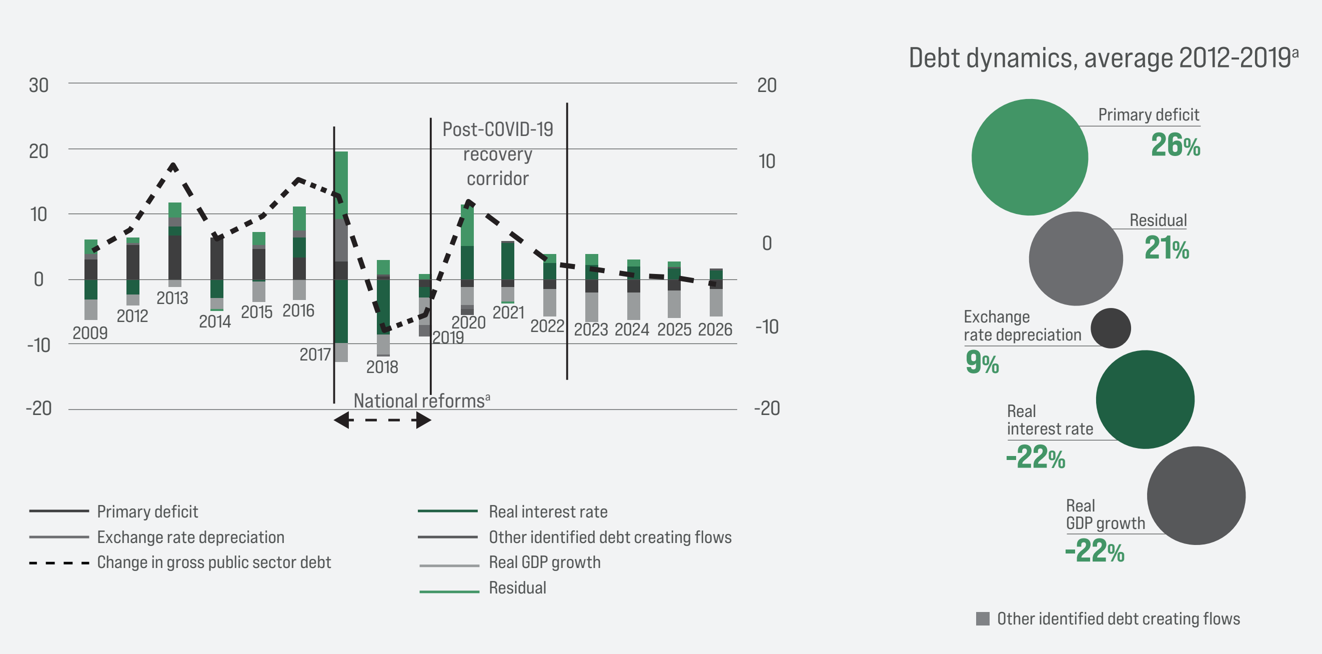
There have been notable improvements in the country's primary balance in recent years. The primary balance component contributed, on average, approximately 26 per cent of the gross public domestic debt accumulation during the period 2012–2019, as shown in figure 102. It was not until fiscal year 2018/19 that the primary balance began to show a negative contribution to debt accumulation. Following the recent fiscal reforms, Egypt achieved a primary surplus beginning in 2017/18 (figure 103) contributing significantly to reversing the trend in public debt.[5] The COVID-19 pandemic resulted in an interruption to the austerity track that had a pre-COVID-19 aim of maintaining a primary surplus of 2 per cent, thereby creating a downward trajectory in public debt.

Figure 101. Gross financing needs in Egypt (2009–2021)



Source: International Monetary Fund (n.d.). Arab Republic of Egypt, Article IV Staff Reports. Available from www.imf.org/en/countries/egy?selectedfilters=Article%20IV%20Staff%20Reports. Accessed December 2021; International Monetary Fund (2020). Fiscal Monitor: Policies for the Recovery. October. Washington, D.C.; International Monetary Fund (2021). Fiscal Monitor: A Fair Shot. April. Washington, D.C.

Figure 102. Public debt dynamics in Egypt (2009–2026)



Source: Data from the Ministry of Finance, Egypt; International Monetary Fund (n.d.). Arab Republic of Egypt, Article IV Staff Reports. Available from www.imf.org/en/countries/egy?selectedfilters=Article%20IV%20Staff%20Reports. Accessed December 2021; International Monetary Fund (2020). Fiscal Monitor: Policies for the Recovery. October. Washington, D.C.

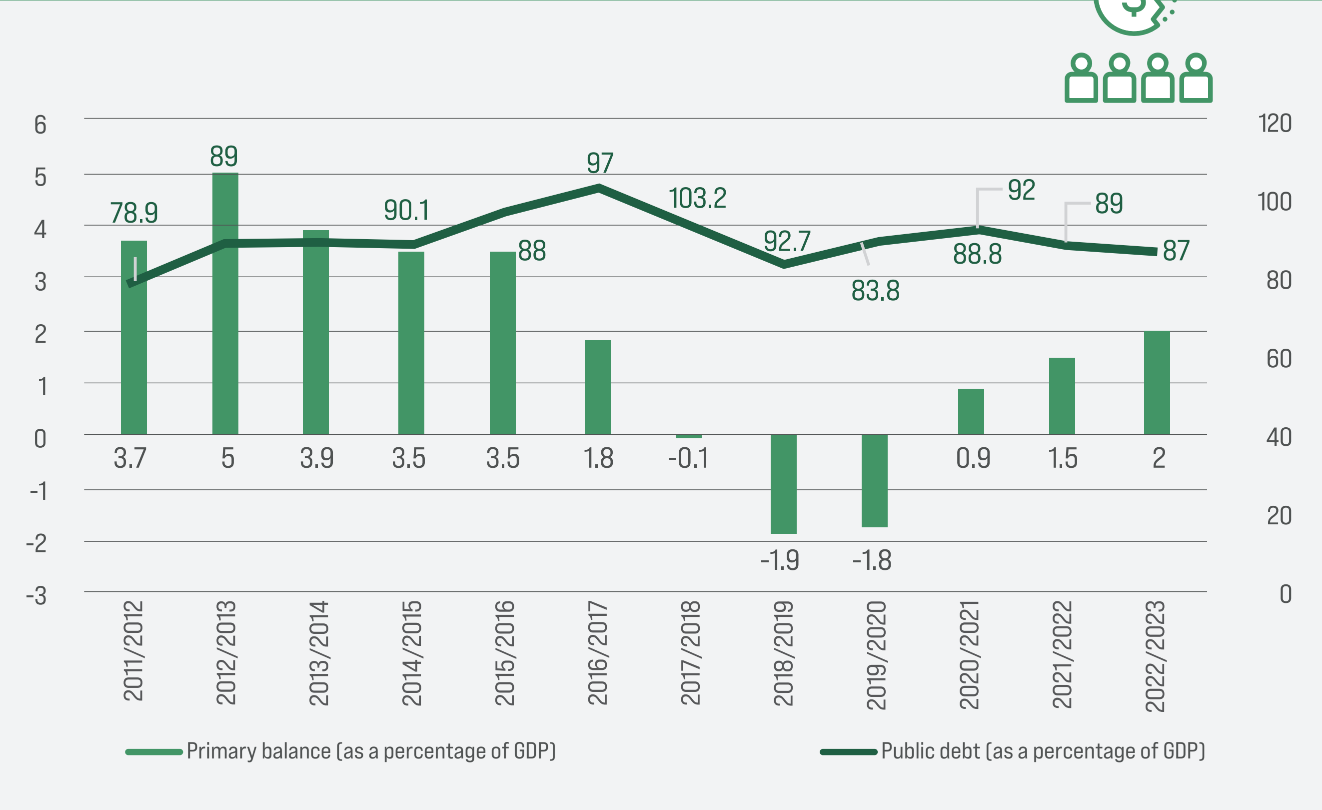
Note: Figures concern general government debt. Actual figures are from the period to 2020. National reforms were implemented in 2016 under the IMF Extended Fund Facility. “Residual” includes asset changes and interest revenues, if any. It also includes exchange rate variations in the projection period.

a A negative sign indicates a negative contribution to public debt and vice versa.

Extra budgetary activities and institutional fiscal problems reflect on public debt in the residual component of debt dynamics. Fiscal factors also contribute significantly to driving debt indirectly through the residual component, the second main contributor to accumulated public debt. Residual debt accounts for over 20 per cent of debt dynamics during the period 2012–2019. Residual includes extrabudgetary borrowing or on-lending by the Government, as well as contingent liabilities. Contingent liabilities constitute a fundamental fiscal risk to the country’s debt dynamics, especially post-COVID-19, and might result in perceived higher debt accumulation over the medium term.[6] Loan guarantees constitute the largest explicit contingent liabilities in Egypt and pose a real threat to the debt trajectory (figure 103). According to the Ministry of Finance, Egypt secured loans that averaged around 20.5 per cent of GDP in 2020/21, of which 8.5 per cent are domestic loan guarantees and 12 per cent are external loan guarantees.

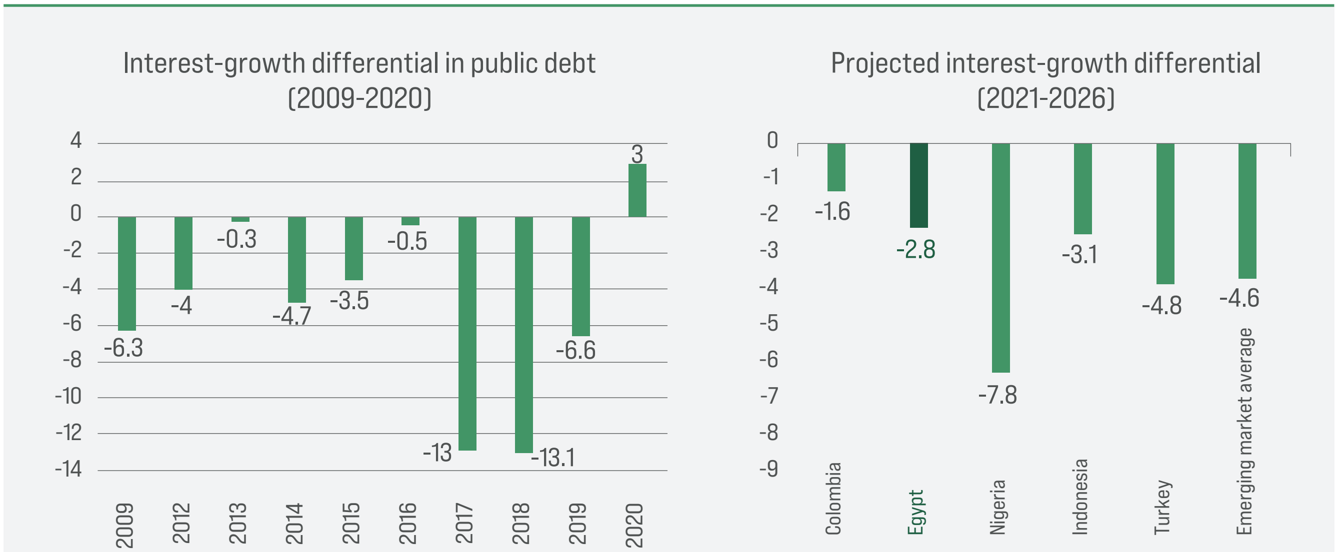
The negative interest-growth differential reflects efforts to reduce debt ratios, even given the growing fiscal deficit. The real interest-growth differential aggregately contributed to improving the debt position during the mentioned period. Several factors play a role in this, most prominently declining global interest rates in recent years. Projections indicate that Egypt will sustain a negative interest-growth differential over the medium term, which appears to be a good position compared to its comparator countries (figure 104). Nevertheless, risks from anticipated global monetary tightening following COVID-19, along with slowing growth, might impact the country’s debt position if interest rates began to increase.

Figure 103. Primary balance and public debt trends in Egypt (2011/12–2019/20)



Source: Data from the Ministry of Finance, Egypt; International Monetary Fund (n.d.). Arab Republic of Egypt, Article IV Staff Reports. Available from www.imf.org/en/countries/egy?selectedfilters=Article%20IV%20Staff%20Reports. Accessed December 2021; International Monetary Fund (2020). Fiscal Monitor: Policies for the Recovery. October. Washington, D.C.

Figure 104. Interest-growth differential in public debt, as a percentage



Source: International Monetary Fund (n.d.). Arab Republic of Egypt, Article IV Staff Reports. Available from www.imf.org/en/countries/egy?selectedfilters=Article%20IV%20Staff%20Reports. Accessed December 2021; International Monetary Fund (2020). Fiscal Monitor: Policies for the Recovery. October. Washington, D.C.; International Monetary Fund (2021). Fiscal Monitor: A Fair Shot. April. Washington, D.C.

Tradable debt constitutes around two thirds of total domestic debt and approximately 53 per cent of GDP. Tradable debt in Egypt is mostly domestic debt denominated in local currency. Domestic tradable debt constitutes around 75.6 per cent of the total tradable debt, while the remaining 34.8 per cent are denominated in foreign currency, mainly in the form of United States dollar Treasury bonds and euro Treasury bills issued in the domestic market (table 23).[7] Approximately 81 per cent of Treasury securities are held by Egyptian commercial banks, while the non-banking sector holds the rest (figure 106).[8] The Government aims to increase its tradable debt to reach 80 per cent of total debt by 2023/24.[9]

Table 23. External debt in Egypt, residency versus currency criteria (2020)

	Debt denominated in foreign currency (percentage of GDP)	Debt denominated in foreign currency (percentage of total debt)
External debt by currency	26.1	24
External debt by residency	34.1	22

Source: International Monetary Fund (2020). Arab Republic of Egypt: request for a 12-month stand-by arrangement – press release; staff report; and statement by the Executive Director for the Arab Republic of Egypt. Country Report, No. 2020/266. Washington, D.C.; Ministry of Finance, Egypt (2020). Egypt's Medium-term Strategy (2021–2024). Cairo.

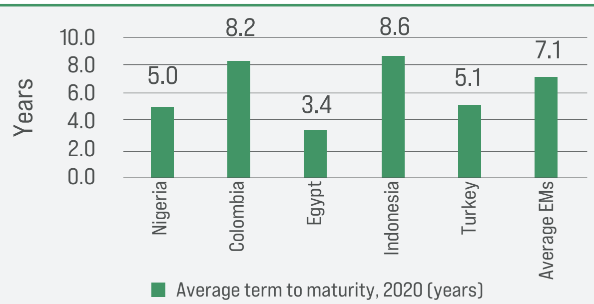
Note: The medium-term debt strategy employs the currency criteria for measuring external debt rather than residency criteria to account for exchange rate-related factors while addressing external debt position. It covers Treasury bills and bonds issued in the domestic market and denominated in dollars and euros and bilateral and multilateral loans, as well as the international issuances of Eurobonds. Domestic debt includes all securities issued in Egyptian pounds; IMF generally uses the residency criteria, and external debt covers multilateral and bilateral public sector borrowing, private borrowing and prospective financing.

Table 24. Total tradable and non-tradable debt (as of June 2020)

	Domestic debt	External debt	Total debt	Projected debt in 2023/24
Tradable debt (Percentage of total)	75.6	34.8	68	80
Non-tradable debt (Percentage of total)	24.4	65.2	32	20

Source: Ministry of Finance, Egypt, 2020b

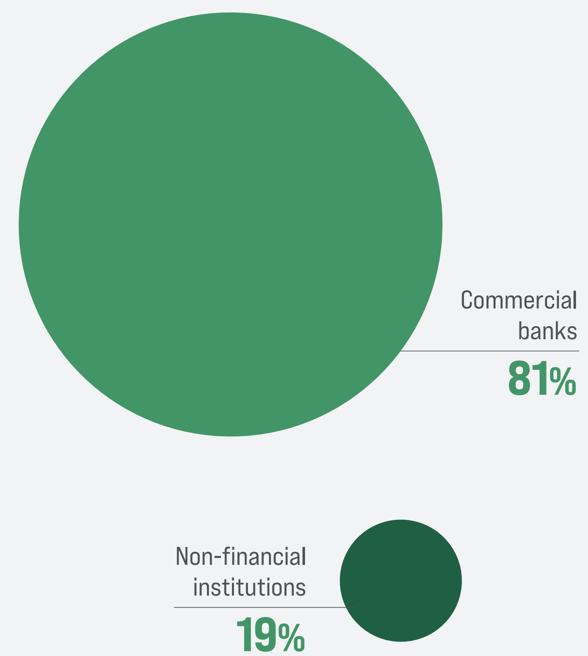
Figure 105. Debt maturity in Egypt and selected comparators (2020)



Source: International Monetary Fund (2020). Fiscal Monitor: Policies for the Recovery. October. Washington, D.C.

Note: Data on average term to maturity refer to government securities.

Figure 106. Holders of average treasury securities (2018)

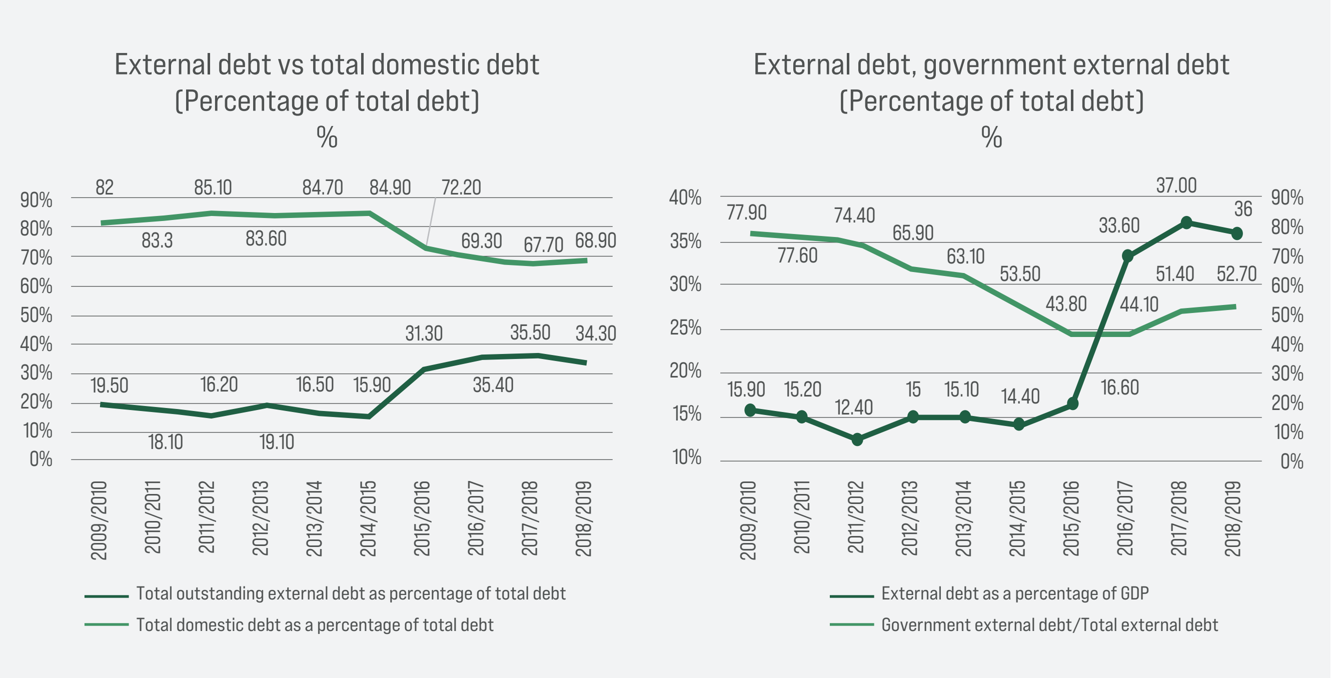


Source: Ministry of Finance, Egypt (2020). Egypt's Medium-term Strategy (2021–2024). Cairo.

Domestic debt in Egypt is short-term in nature, which is central to refinancing risk. Figure 105 shows average debt maturity compared to a set of comparators, according to the IMF 2020 Fiscal Monitor. The average term to maturity on total government securities for Egypt is 3.4 years, significantly shorter than the selected comparators. According to the country's medium-term debt strategy, the average time to maturity for total tradable domestic and external central government debt was 3.11 years in 2019.[10] Major maturity problems avail in domestic debt (Treasury bills and bonds in Egyptian pounds), which was estimated to be 1.9 years in 2020, according to data published by the Ministry of Finance in the Medium-term Debt Strategy (2021-2024). The average term to maturity of external tradable debt, meanwhile, was 8.3 years in June 2020.

The country's external debt position has been on the rise since 2014; it is sustainable but subject to future risks. Debt denominated in foreign currency constitutes 25.9 per cent of the total central government debt, compared to 74.1 per cent denominated in the local currency.[11] To be precise, external debt held by non-residents constitutes around one third of the country's total debt. Nevertheless, as shown in figure 107, external debt has been on a steep upward trend since 2014. Table 24 shows that debt held by non-residents and debt denominated in foreign currency (22 per cent and 24 per cent, respectively) are well below the high-risk benchmarks for emerging economies (45 per cent and 60 per cent, respectively).[12] Recent efforts by the Government to lengthen maturity risks in Treasury issuance, in addition to the high share of local currency debt by domestic financial institutions are recognized as factors in minimizing external debt vulnerabilities. While exchange rate imbalances might, at first glance, appear to play a relatively minor role in driving public debt vulnerabilities in Egypt (with the exception of years during which there was official devaluation), implicit implications of exchange rate imbalances and currency mismatches still have an impact on the residual component of debt dynamics, as the residual takes into account valuation effects not included in the single bilateral exchange rate.[13]

Figure 107. External debt position of Egypt (2009/10–2018/19)

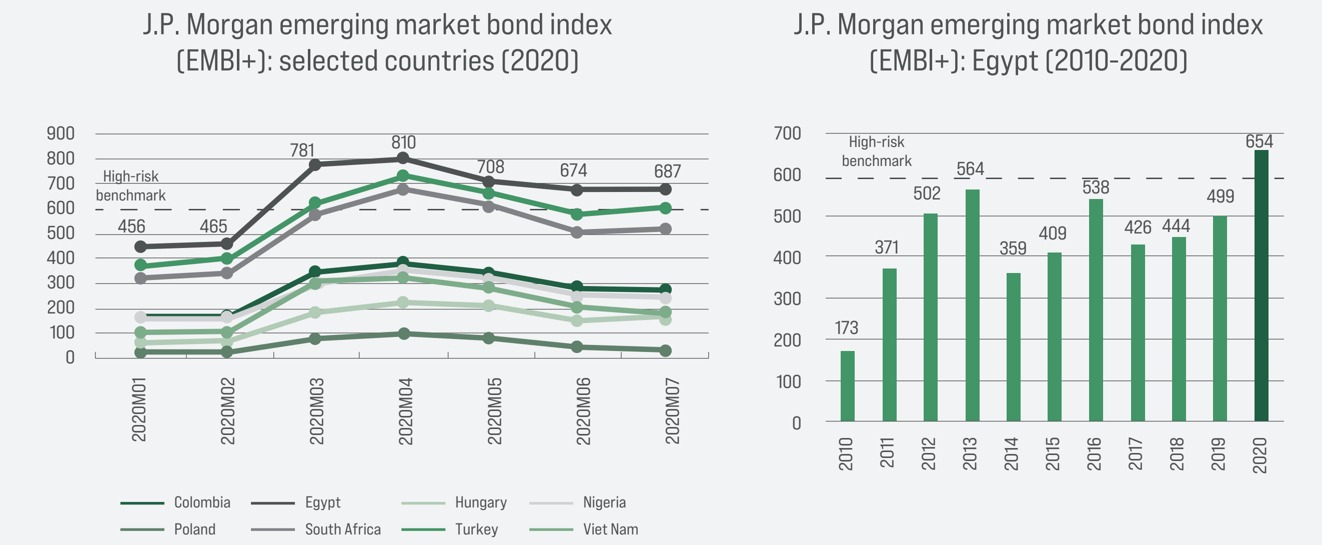


Source: Author, based on data from the Ministry of Finance, Egypt.

Spread on sovereign bonds of Egypt have continuously shown a rising trend, significantly surpassing the high-risk benchmark of 600 basis points, since the onset of the COVID-19 pandemic and the consequent risk-off sentiment. Despite recent improvements, the Emerging Market Bond Index Global (EMBIG) is still exceeding the high-risk benchmark and continues to be high compared to selected emerging markets, as shown in figure 108. Again, the high proportion of domestic shares in the Egyptian Treasury market is considered one of the risk-mitigating factors. The large shares of local currency and local security bills and bonds from domestic financial institutions minimize the country's vulnerabilities to external debt shock (figure 109).

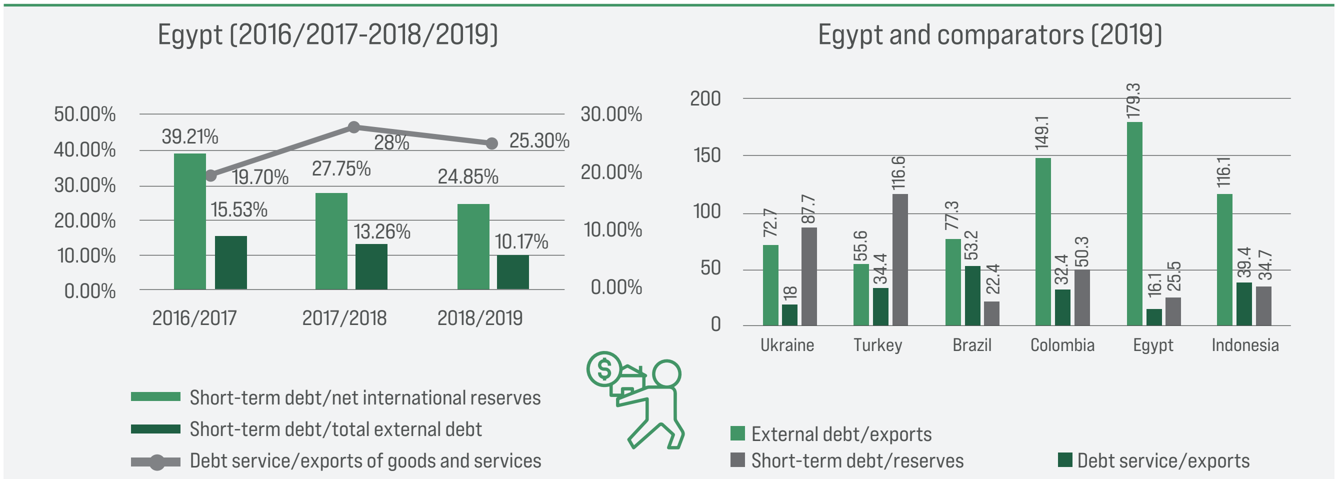
In Egypt, the proportions of short-term external debt to reserves and to external debt have declined slightly in recent years; however, the country still needs to improve its external debt vulnerability position by decreasing the share of short-term debt and improving its balance of payments.

Figure 108. Sovereign spread (emerging market bond index+) – Egypt and selected countries



Source: World Bank (2020). Global Economic Monitor. Available from https://datacatalog.worldbank.org/dataset/global-economic-monitor. Accessed December 2021.

Figure 109. External debt vulnerability indicators

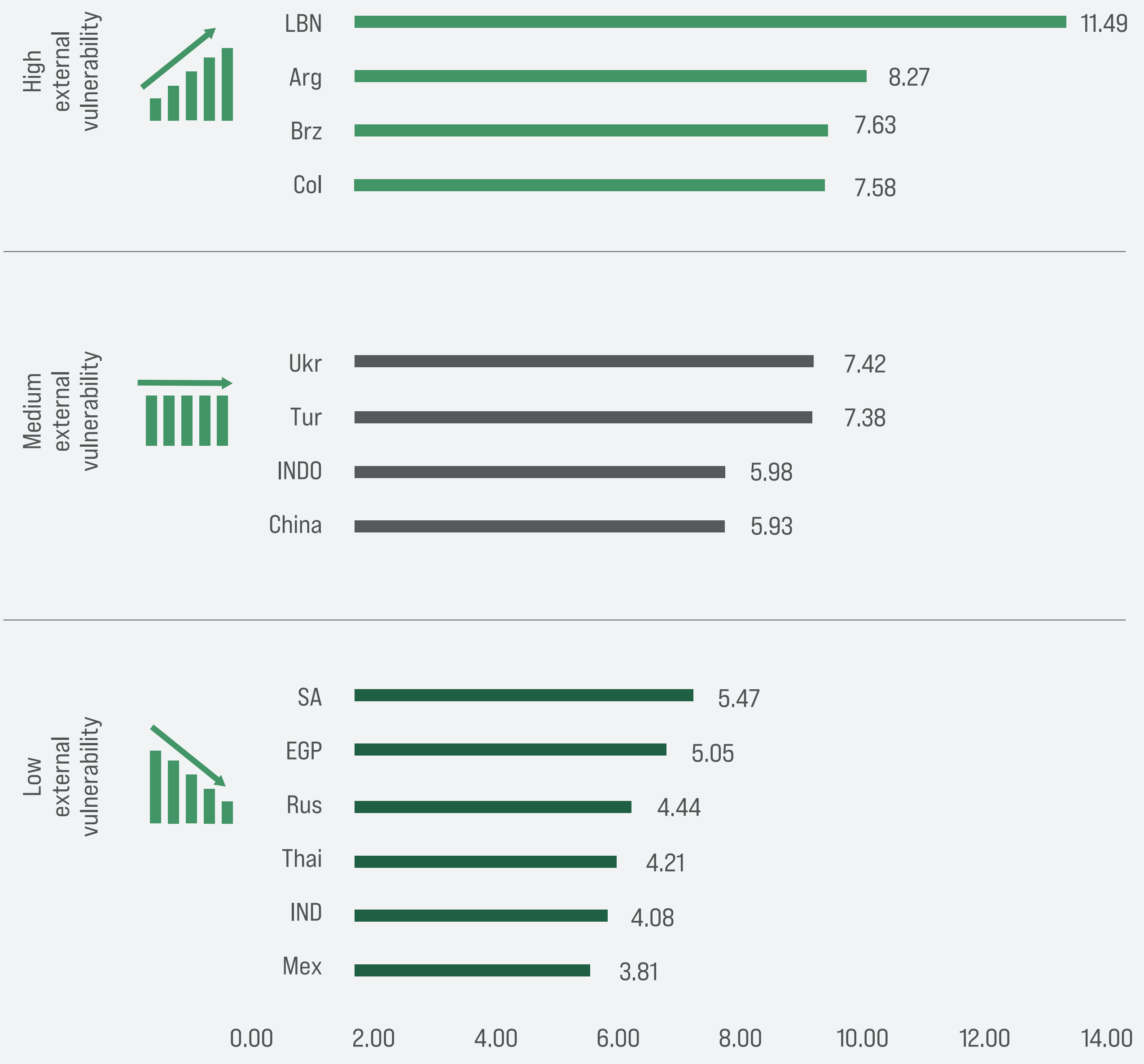


Source: Central Bank of Egypt (2019). External position of the Egyptian economy: July/September 2018/19. vol. 66. Cairo; World Bank (2020). International Debt Statistics. Available from https://data.worldbank.org/products/ids. Accessed December 2021.

Box 2. External debt vulnerability during the COVID-19 pandemic – Egypt among emerging markets and developing economies

The external vulnerability index is used to measure the external vulnerability arising from overindebtedness and financial fragility in emerging markets and developing economies. Overindebtedness is assessed on the basis of the liquidity and solvency of the external balance sheets of emerging markets and developing economies, while financial fragility is assessed using debt architecture in terms of maturity, reserve adequacy and the contribution of private debt to overall debt. A number of emerging markets and developing economies were found to be more vulnerable to the impacts of the COVID-19 pandemic, compared to the effects of the global financial crisis. Vulnerabilities are mainly driven by pre-existing conditions such as poor debt architecture, exchange rate imbalances and fiscal distress.

External vulnerability in Egypt and a number of emerging markets and developing economies



Source: El-Khishin, S. and M. Mohieldin (2020). External debt vulnerability in emerging markets and developing economies during the COVID-19 shock. Review of Economics and Political Science, vol. 6, No. 1, pp. 24–47.

B. Debt sustainability, the Sustainable Development Goals and Egypt Vision 2030

Debt is essential to achieving public investment goals relating to the SDGs. Debt sustainability involves the ability to achieve such goals without increasing debt ratios or the effective use of borrowed resources. Egypt is committed to achieving the SDGs and its national development agenda, which has been designed and revised to be consistent with SDG commitments. While achieving the SDGs would create opportunities for debt repayment, the country's ability to balance financing the SDGs with the need to maintain debt sustainability is essential. This is particularly if the aforementioned challenges and risks continue. This section discusses debt management and sustainability in light of the country's commitment to achieving the SDGs.

The SDG debt sustainability gap is defined by the United Nations as "the difference between the primary fiscal balance consistent with achieving SDGs 1–4 by 2030 and the balance required to maintain stable public debt ratios".[14] In other words, it is the amount of debt, as a percentage of GDP, that will be required to finance the SDG targets.[15] First, a baseline scenario/business-as-usual scenario, which assumes the continuation of current trends and projections, is designed. This is followed by designing an SDG public debt scenario, which calibrates baseline assumptions considering alternative primary balance projections under the SDG scenario assumptions. The SDG-consistent primary balance is a projected indicator that assumes base levels of government expenditure and adds the expenditure required to achieve the SDGs. Assumptions of the medium-term fiscal impact in the form of domestic resource mobilization, the structure of public spending and the available financing options are designed under both scenarios (technical notes and details on methodology are presented in annexes 5–7). The SDG debt sustainability gap is the difference between the two scenarios. After calculating the SDG debt sustainability gap, alternative options to move to the second scenario without causing a debt crisis are navigated, that is, the financing options that could help the Egyptian economy to achieve the SDGs without causing a deterioration in the debt profile. In this regard, two key issues must be identified: first, the sectors to be included as SDG-related spending sectors and second, the means of quantifying the spending needed in these sectors to achieve the SDGs by 2030.

Box 3. Debt sustainability analysis – the IMF definition of debt sustainability versus the United Nations definition

The debt sustainability analysis (DSA) has been initiated by the IMF. The IMF-DSA is part of Article IV consultations and can readily be applied to many countries. It involves constructing a five-year baseline forecast, estimating debt dynamics and running several stress tests, analysing the sustainability of debt levels under the constructed stress tests and shock scenarios. On the other hand, the United Nations-DSA, in the context of the SDGs and financing for development, is perceived differently. While there is a common base with the IMF-DSA, the United Nations-DSA provides a framework that focuses on building scenarios of debt under the assumption of financing the SDGs using alternative sources of finance. Under the United Nations-DSA, baseline macroeconomic scenarios are first estimated, then the total expenditure and investment needs associated with the SDGs are calculated. This is followed by estimating the medium-term fiscal impact with assumptions on domestic resource mobilization, the composition of public expenditure, available financing options and support from the international community. Debt sustainability is then analyzed under these assumptions.

Source: Author.

The SDG debt-stabilizing/sustainability gap is defined as the debt-stabilizing primary surplus minus the SDG-consistent primary surplus.

1. Defining public spending sectors and spending benchmarks related to the Sustainable Development Goals

Financing the SDGs is a joint process involving both the public and private sectors. There are some specific sectors in which SDG spending is a primary obligation by the Government, meaning public spending is the primary source of funding. Recent studies identified specific sectors in which public spending is required to achieve the relevant SDGs. Table 25 summarizes sectors with SDG-related public spending in reviewed studies. This includes increasing spending in areas relevant to achieving the targets of Goals 1–4.

In the 2018 and 2021 VNRs of Egypt issued by the Ministry of Planning and Economic Development, in coordination with the United Nations and UNDP, areas were identified for measuring the progress made in the aforementioned goals and their relevant targets. Examples of the progress reported are summarized in table 26.

Table 25. Sectors identified for public spending related to the Sustainable Development Goals in a number of reviewed studies

Study	Sectors with SDG-related public spending
United Nations (2020)	1. Education 2. Health 3. Infrastructure: roads, electricity, water and sanitation
Kharas and McArthur (2019)	1. Social spending (public social protection expenditure, excluding health) 2. Agriculture and rural development 3. Health 4. Education 5. Water and sanitation 6. Energy 7. Transport 8. Flood protection 9. Biodiversity conservation spending 10. Justice spending on public order and safety by the general government
Munevar (2018)	1. Social protection and poverty 2. Food security and agriculture 3. Health 4. Education
Vorisek and Yu (2020)	1. Hunger, food security, nutrition and sustainable agriculture (Goal 2) 2. Water and sanitation (Goal 6) 3. Energy (Goal 7) 4. Climate action (Goal 13)
Gaspar and others (2019)	1. Education 2. Health 3. Infrastructure: roads, electricity, water and sanitation

Source: United Nations, Inter-agency Task Force on Financing for Development (2020). Financing for Sustainable Development Report 2020. New York: United Nations; Kharas, H. and J. McArthur (2019). Building the SDG economy: needs, spending, and financing for universal achievement of the Sustainable Development Goals. Global Economy and Development Working Paper, No. 131. Brookings Institute; Munevar, D. (2018). Debt sustainability and the Sustainable Development Goals. Presentation at the Summer School 2018 of the United Nations Conference on Trade and Development. Geneva, 3–7 September; Vorisek, Dana Lauren and Yu, Shu, Understanding the Cost of Achieving the Sustainable Development Goals (February 27, 2020). World Bank Policy Research Working Paper No. 9164, Available at SSRN: https://ssrn.com/abstract=3545657; Gaspar, V. and others (2019). Fiscal policy and development: Human, social, and physical investment for the SDGs. IMF Staff Discussion Note, No. SDN/19/03 (January). Washington, D.C.: International Monetary Fund.

A number of studies estimated the spending needed and the financing gaps to be addressed in order to achieve the SDGs by 2030. Gaspar and others provide an estimate of the additional total spending required to achieve the SDGs in five identified sectors (education, health, roads, electricity and water and sanitation) relative to current baseline scenarios (from 2018) in a sample of low-income developing countries and emerging markets.[16] Average additional spending to achieve the SDGs in those sectors is estimated to be 4 per cent of GDP for emerging markets and 15 per cent for low-income developing countries. Kharas and McArthur identified 10 sectors for SDG-related public spending (table 27) and provided an estimate of the minimum public spending needs for the SDGs in 134 low- and middle-income countries. Minimum spending for the SDGs annually is estimated to be $350 per capita for low-income countries, $583 per capita for lower-middle-income countries and $2,559 per capita for upper-middle-income countries. UNDP proposed five scenarios to explore the impact of different policy mixes on achieving the SDGs in Egypt by 2030. One scenario assumes spending increases on the SDGs in sectors 1–4, with increases in public spending on health and education to 5 per cent and 2.8 per cent of GDP, respectively (compared to the 2015 levels of 3.7 per cent and 2.1 per cent of GDP, respectively) and the stabilization of spending on infrastructure at the 2015 level of 3.04 per cent of GDP.

Table 26. Reported progress on public spending in Egypt towards achieving the Sustainable Development Goals

	Main reported progress in public spending
Goal 1	Public investment in social housing projects
Goal 2	Commodity subsidies Egyptian Food Bank School food programme
Goal 3	Public investment in health
Goal 4	Public investment in education

Source: Ministry of Planning and Economic Development, Egypt (2018). Egypt's Voluntary National Review 2018. Cairo; Ministry of Planning and Economic Development, Egypt (2021). Egypt's 2021 Voluntary National Review. Cairo.

Table 27. Benchmarks for additional public spending in sectors related to the Sustainable Development Goals

Gaspar and others, 2019	Identified SDG sectors 1. Education 2. Health 3. Infrastructure: roads, electricity, water and sanitation	Average additional spending in the five sectors is a median of 4 per cent of GDP for emerging markets and 15 per cent for low-income developing countries; however, countries vary in their spending needs based on many factors.
Kharas and McArthur 2019	SDG-related public spending sectors 1. Social spending (public social protection expenditure, excluding health) 2. Agriculture and rural development 3. Health 4. Education 5. Water and sanitation 6. Energy 7. Transport 8. Flood protection 9. Biodiversity conservation spending 10. Justice spending on public order and safety by the general government	Minimum spending for SDGs annually is estimated to be: • $350 per capita for low-income countries • $583 per capita for lower-middle-income countries • $2,559 per capita for upper-middle-income countries
United Nations Development Programme, 2019	Public spending on SDG sectors 1–4 in Egypt.	• Increasing public spending on health and education to 5 per cent and 2.8 per cent of GDP, respectively (compared to the 2015 levels of 3.7 per cent and 2.1 per cent of GDP, respectively). • Stabilizing spending on infrastructure at the 2015 level of 3.04 per cent of GDP.

Source: Gaspar, V. and others (2019). Fiscal policy and development: human, social, and physical investment for the SDGs. IMF Staff Discussion Note, No. SDN/19/03 (January). Washington, D.C.: International Monetary Fund; Kharas, H. and J. McArthur (2019). Building the SDG economy: needs, spending, and financing for universal achievement of the Sustainable Development Goals. Global Economy and Development Working Paper, No. 131. Brookings Institute; United Nations Development Programme (2019). Sustainable Development Goals: MAPS engagement for Egypt 2018–2019 – Mainstreaming Acceleration and Policy Support (MAPS) for SDGs. Policy Paper. New York.

Note: As explained in Gaspar and others (2019), the variations between the estimates in different studies can be attributed to a number of methodological issues.

2. Baseline and Sustainable Development Goal scenarios: narrative and assumptions

Under the baseline scenario, the Egyptian economy is assumed to continue with its current macrofiscal trends, maintaining the COVID-19 recovery package then resuming its fiscal austerity measures to begin a downward trajectory in public debt in 2022. Since the beginning of the COVID-19 pandemic, research has relied on data and reports from the Ministry of Finance and an IMF-revised debt sustainability analysis. The latter assumes a temporary growth shock to the pre-COVID-19 baseline scenario that should stabilize over the medium term, as well as a decline in effective interest rates on general government debt consistent with the decline in inflation rates.[17] The revised baseline scenario also assumes a corridor recovery period from the shock that leads to an increase in general government debt, from 84 per cent in 2018/19 to 93 per cent in 2020/21. A return to a debt-to-GDP ratio of 77 per cent is expected in 2024/25, conditional on restoring growth and primary surplus to pre-COVID-19 projections.

On the other hand, the SDG public debt scenario is estimated by calibrating baseline trends with an SDG-adjusted primary balance according to predetermined assumptions of public expenditures and benchmarks extracted from the studies reviewed. The main assumptions are drawn up on the basis of reviewing relevant studies on the public capital spending required to finance the SDGs. More assumptions are added to account for the country's specific characteristics and macrofiscal performance, within the context of its commitment to the SDGs and the Egypt Vision 2030. The main assumptions for the scenario and narrative can be summarized as follows:

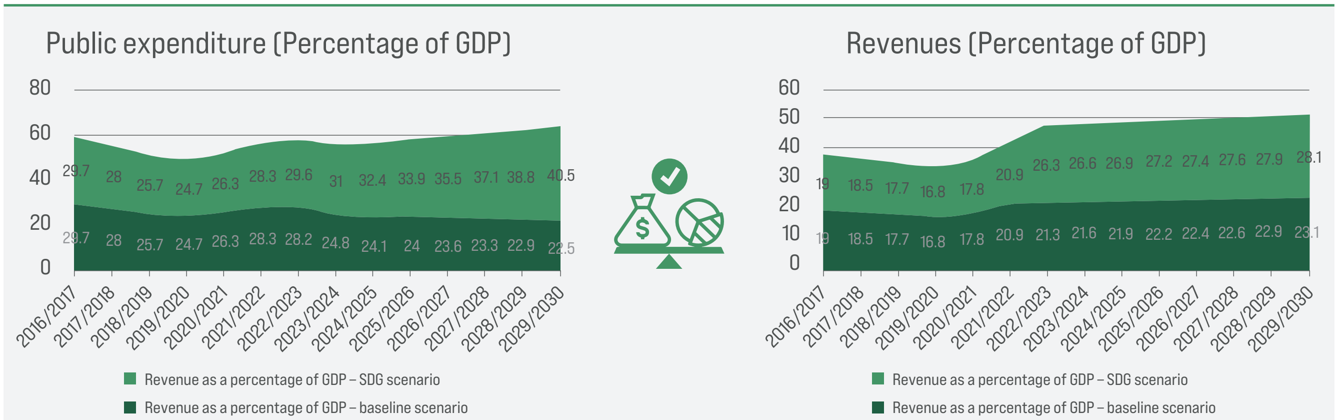
- Increased efficiency in public spending. Egypt will maintain policies to increase the efficiency of public spending, otherwise spending gaps to finance the SDGs will inflate.
- Stable demographic process. Current population growth trends will stabilize. A deterioration in demographic performance, reflected in higher population growth rates, will certainly mean a larger spending gap. Alternatively, if Egypt is to pursue policies intended to decrease population growth rates, this will have a positive impact on SDG spending gaps through the operation of the demographic dividend mechanism.[18]
- A steady growth in SDG spending. SDG-related public spending on health and education will increase steadily until 2030; public investment in infrastructure would also increase, but at a decreasing rate.
- Benchmarks for public spending on SDGs. The benchmarks for additional public spending would constitute only the lower end of the additional public spending needed. More spending pressures may occur as a result of increased assumptions.
- Revenues will increase by 5 per cent of GDP above the baseline every year. It is assumed that a 5 per cent increase in tax revenue would be sufficient to finance additional SDG-related spending and close the financing gap for most emerging markets.[19]

The baseline and SDG assumptions are quantified and presented in annex 6.

3. Debt sustainability gap for the Sustainable Development Goals in Egypt

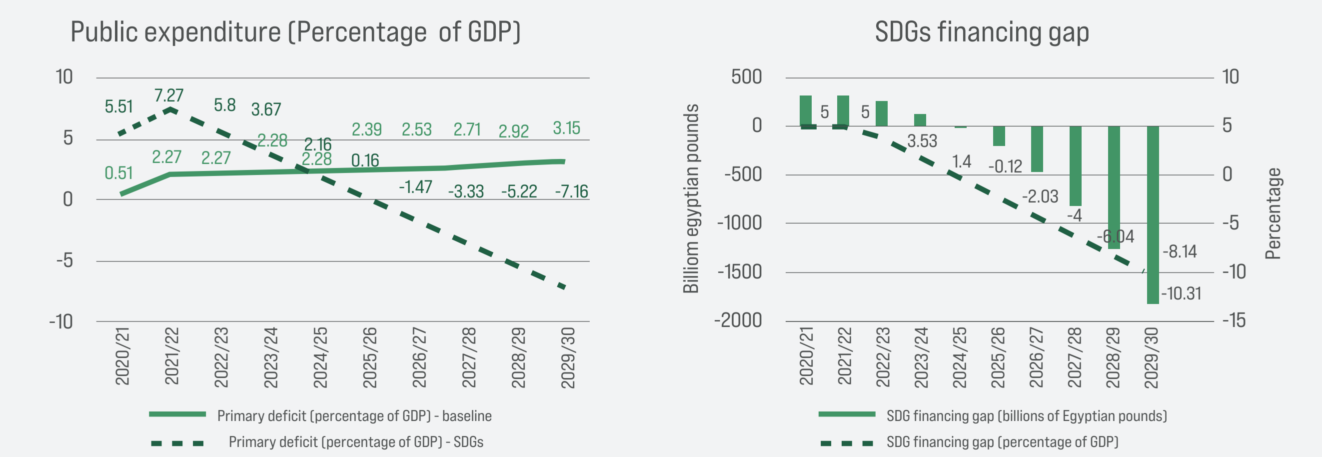
Based on these assumptions and the quantitative assumptions in annex 5, the results of both scenarios are depicted in the figures below. Figure 110 shows that primary expenditures under the SDG scenarios significantly exceed the baseline scenario and that the gap widens over time. In 2030, primary expenditures under the SDG scenario are estimated to be 28.5 per cent of GDP, compared to a baseline projection of approximately 9 per cent of GDP.[20] Assuming an increase in revenue of around 5 per cent annually, revenues are expected to increase to approximately 17 per cent of GDP in 2030, compared to a baseline projection of 12.6 per cent.

Figure 110. Primary expenditure and revenue projections (baseline and Sustainable Development Goal scenarios)



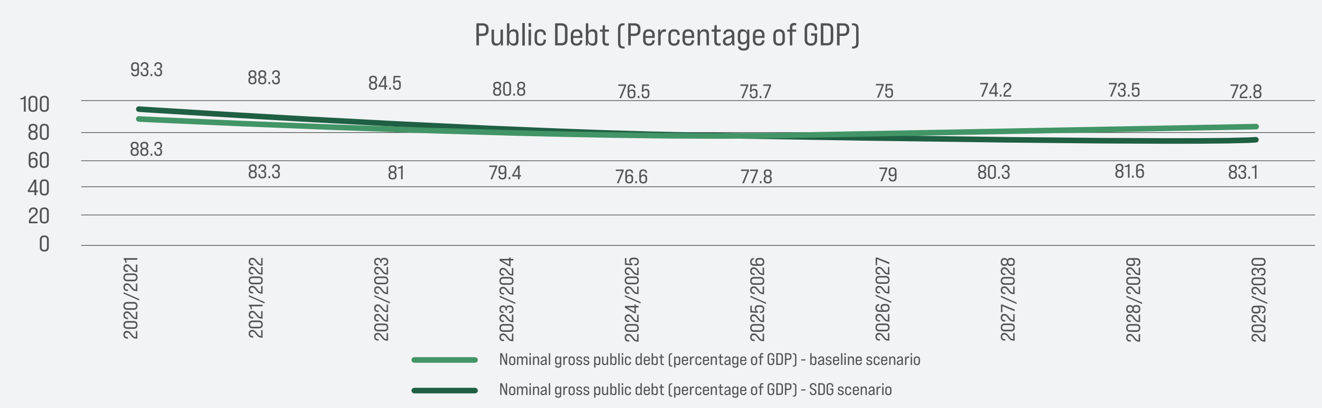
Source: Author's calculations. See annex 6 for assumptions and technical notes.

Figure 111. Primary deficit projections (baseline and Sustainable Development Goal scenarios) and the Sustainable Development Goal financing gap



Source: Author's calculations. For assumptions and technical notes, see annex 6.

Figure 112. Nominal gross public debt (baseline and Sustainable Development Goal scenarios)



Source: Author's calculations.

Note: Nominal gross public debt for the SDGs is calculated by adding the SDG financing gap to the baseline projections for public debt.

The SDG financing gap is estimated to be approximately 10.31 per cent of GDP by 2030, whereas the primary balance is projected to reverse again to a negative trajectory, reaching around -7.16 per cent by 2030 (figure 111). This is logical given the increased SDG financing gap. Assuming a dependence on debt to achieve these needs and requirements, the nominal gross public debt trajectory has a higher path compared to the baseline trajectory, which assumes that Egypt will continue on a path of fiscal consolidation. It is estimated that public debt in Egypt will be around 83.1 per cent of GDP by 2030, compared to a baseline projection of 73 per cent, assuming that the country finances additional public spending on the SDGs by issuing more debt and all other factors remain the same. Gaspar and others highlight that, while spending in 2030 is the focus of the analysis, there must be a gradual rise in spending before 2030; cumulative spending would therefore grow significantly until 2030.[21] A more detailed analysis, one that is beyond the scope of this chapter, would involve a deconstruction of sectoral spending. In such an analysis, it is expected that spending in some SDG-related sectors, such as education and health, would increase exponentially, while other sectors, such as infrastructure, would witness a declining rate of growth or a decline in public spending allocations as countries near the achievement of the SDGs.

In conclusion, to achieve the SDGs at sustainable debt levels, Egypt must mobilize other financing options to cover the SDG financing gap, estimated to be approximately 10.31 per cent of GDP by 2030. This gap is calculated on the assumption that other factors (other than the scenario assumptions) remain the same. Funding this gap while maintaining debt sustainability requires securing different sources of finance, as well as improving the efficiency of public spending, as mentioned earlier. Several proposals are explored in the next section.

C. Egyptian debt management framework for the Sustainable Development Goals: opportunities, financing options, necessary reforms and potential risks

In recent years, Egypt has already initiated many radical shifts in its strategic directions and has begun to reformulate its vision for development. In addition to constitutional requirements, these new directions are evident in recent strategic frameworks, recognized international efforts and economic diplomacy, laws drafted and institutional and implemented actions. Moreover, Egypt has announced its interest in the FFD agenda and is working towards producing an integrated national financing framework with the United Nations and a fund for SDG support. Within this context, the Government implemented a paradigm shift towards widening and diversifying its financing sources for development plans and public projects. A number of measures were implemented to that end, and many more are planned. The main aims in this regard are to improve and reform conventional finance tools, introduce and diversify alternative sources of development finance, introduce Islamic and Sharia-compliant principles into finance tools and go green in development activities and in finance tools.

The Government's efforts to improve debt management and sustainability within the Egyptian medium-term debt strategy continue. The strategy is aimed at improving the requirements and payment obligations of Treasury funds, minimizing repayments costs, developing domestic financial markets and new debt tools, and decreasing refinancing risks. The medium-term debt strategy is also aimed at moving towards longer yield curves and extending maturities, as well as enhancing the liquidity of Egyptian primary and secondary debt

Box 4: Egyptian medium-term debt strategy (2021–2024)

The medium-term debt strategy, revised in 2020, proposed four key targets:

1. Continue the downward trend of budget sector debt (central government debt) as a percentage of GDP over the medium term to reach approximately 80 per cent of GDP by June 2024.
2. Reduce the share of the budget sector or central government domestic debt maturing within one year and the share subject to interest rate refixing. The aim is to reduce gross financing needs (covering all outstanding debt) to below 30 per cent of GDP by June 2024, down from above 40 per cent recently.
3. Increase the share of tradable debt to 75–80 per cent by June 2024, up from around 68 per cent in June 2020.
4. Extend and increase the average time to maturity of domestic and foreign central government debt to reach 4.5–5 years by June 2024.

Source: Ministry of Finance, Egypt (2020). Egypt's Medium-term Strategy (2021–2024). Cairo.

markets and widening financing options to include innovative alternative options.

The announced targets and objectives are essential yet challenging. In this regard, the Government must still adopt a number of policy measures to establish the concept of responsible borrowing, achieve the debt targets and objectives it announced and ensure the sustainability of its debt path, along with achieving the SDGs and the Egypt Vision 2030 objectives. There are three main conclusions obtained from the analysis presented in this chapter that are crucial to the design of future debt strategies and policies.

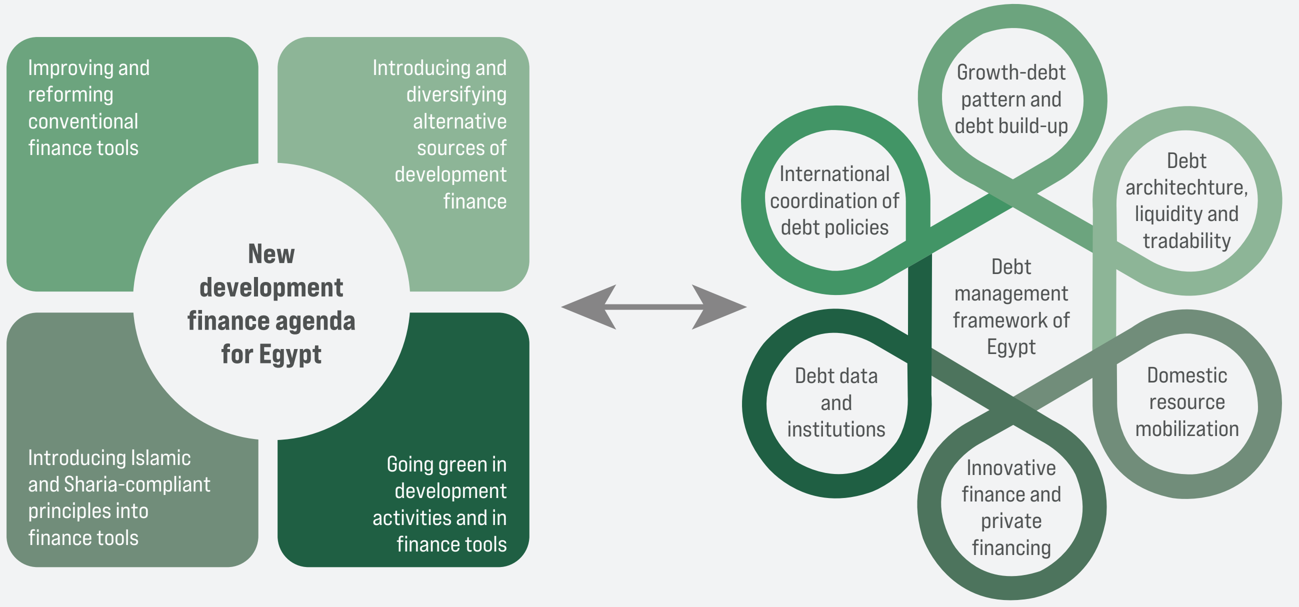
First, Egyptian debt is mainly fiscally driven. Fiscal pressures will persist with increased commitments to achieve the national development agenda and public spending targets identified for the SDGs. Securing a debt-sustainable path to achieve the SDGs must also consider the fiscal problems and public financial management issues highlighted in this chapter, as well as in other chapters of this report.

Second, Egyptian debt is characterized by low liquidity and tradability, both domestically and internationally. Moreover, domestic debt maturity is very short, which presents clear refinancing risks. This requires addressing the interactions between the debt market, debt instruments and the financial market in Egypt.

Third, private financing and alternative financing are essential to bridging SDG financing gaps and thus securing a debt-sustainable path, while fulfilling SDG-related spending needs.

The SDG debt management framework proposed in this chapter suggests some policy measures believed to be necessary to achieve the country's goals and finance public spending for the SDGs without harming debt trajectories. The framework incorporates a number of interconnected polices related to the growth-debt pattern, debt build-up and architecture, alternative sources of finance and domestic resource mobilization, and debt management and institutional measures (figure 113).

Figure 113. Egyptian debt management framework for the Sustainable Development Goals



Source: Author.

Mainly, growth patterns in Egypt must be more inclusive. Inclusive growth contributes to lowering spending pressures and would help to decrease the primary spending gap for the SDGs. A larger and more inclusive GDP intuitively implies a larger tax base, more mobilized domestic resources and a longer-term sustainable source of financing the SDGs. The role of the private sector in financing development and bridging spending gaps has been discussed and highlighted in different parts of this report.

Egypt is making progress in implementing a medium-term budgetary framework that involves a medium-term expenditure and revenue framework as well as a medium-term debt strategy. The incorporation of SDG-related public spending and revenue objectives, projections and targets within these frameworks is essential. SDG-related public spending requirements must be integrated within the current introduction of the country's medium-term strategic frameworks. The implications of these spending requirements should also be reflected in revisions of the country's medium-term debt strategy, which should incorporate assumptions and projections relating to the SDG primary financing gap and the estimated revenues needed to achieve the SDGs by 2030. The Government has recently adopted radical measures to enhance domestic resource mobilization. This includes, for example, the introduction of VAT and restructuring real estate tax administration, among other measures that aim to increase tax and non-tax revenues. The newly proposed medium-term revenue strategy addresses many measures to reform tax administration and enhance the tax base, as highlighted in chapter 4 of this report. The strategy is being revised to incorporate the recovery from the COVID-19 pandemic. In particular, it is recommended that revision of the strategy should also incorporate the country's commitment to the SDGs and the estimated revenues needed to fund the SDG primary financing gap identified in this chapter. Also, the expected increase in revenues resulting from investment in the SDGs should be considered in the medium-term revenue strategy.

The medium-term debt strategy is intended to increase the liquidity and tradability of debt instruments, increasing the share of tradable debt and strengthening secondary market transactions. Strengthening the country's non-banking financial market is necessary to fund the SDG spending gaps. The analysis of the financial sector in Egypt, presented in chapter 7 of this report, shows the continued dominance of the banking sector and the relatively underdeveloped status of non-banking financial markets. Developing the non-banking financial sector, which is necessary for economic growth in general, also has significant implications as a secondary market for debt and for the liquidity of debt instruments. Likewise, there are important measures to improve the efficiency of debt secondary market (as mentioned in the medium-term debt strategy), such as efforts towards clearing the country's debt instruments against the euro, rejoining the J.P. Morgan Bond Index, reducing financing costs in the secondary market, introducing electronic trading platforms and introducing new clearing systems and settlement.[22]

The Government is advancing towards the introduction of public-private partnership investment schemes within the public investment structure to support necessary financing. The Egyptian Parliament recently gave provisional approval to new amendments to Law No. 67/2010 on the participation of the private sector in infrastructure, service and public utility projects. This is a step towards increased institutionalization and facilitation of public-private partnership projects and the participation of the private sector in financing development within the SDG framework. The new measures will improve the involvement of the private sector in financing development projects, particularly with the expected enactment of the Law on unified public finance, which also addresses the transformation to programme-based budgeting and further implementation of the medium-term budget framework. Such institutional measures should be utilized to involve the private sector in filling the estimated SDG financing gap.

Egypt has recently been pursuing innovative finance mechanisms, such as sovereign green bonds, Islamic sukuk and climate/SDG debt swaps. Green bonds can also offer an alternative solution to financing public-private partnership projects. The Sovereign Green Financing Framework, announced in September 2020, highlights the country's commitment to issuing green bonds as part of its strategic vision to achieve the SDGs and the Egypt Vision 2030. The Financial Regulatory Authority approved the legal framework for issuing green bonds in July 2018. Green bonds are intended to provide new financial tools to fund eco-friendly projects in specific fields. The guidelines were developed with the support of the International Finance Corporation and are based on the Green Bond Principles of the International Capital Market Association.

Egypt was the first country in the MENA Region to issue green bonds. In 2020, $750 million worth of bonds were issued as the first climate-friendly securities. This resulted in an increase in green investments, estimated to be around 14 per cent of public investments in Egypt. Another $1.9 billion worth of green bonds are planned to be issued by the private sector. As one of the alternative financing solutions for achieving the SDGs, green bonds not only offer an alternative source of financing public investments but also contribute to increasing the share of tradable debt of the total Egyptian debt profile, which can consequently help to decrease debt risks compared to other non-tradable debt options. Law No. 138 on 2021 sovereign bonds (sukuk) was ratified in July 2021, and the Government is now preparing to issue Sharia-compliant sovereign bonds (sukuk) in the first half of 2022.

Debt-for-climate swaps are also among the measures considered to close SDG financing gaps and overcome fiscal distress resulting from the COVID-19 pandemic. The Government participated in the launch of the ESCWA climate/SDG debt swap initiative, which aimed to support debt relief efforts and improve climate finance in middle-income countries in the Arab region that are facing increasing debt burdens, growing SDG-related needs and heightened risks in the wake of COVID-19 and its impact on debt trajectories. Efforts in this regard are still progressing and must be intensified to close SDG financing gaps.

Increasing commercial financing, access to international financial markets and debt market development are essential to supporting the financing of SDG spending needs in Egypt. With the development of new debt instruments, Egypt will be more exposed to global financial markets and floating debt risks, which would pose further economic risks. This must be addressed with caution, prudent measures and a strong institutional framework governing new debt instruments.

Debt management, data and institutions

For Egypt to maintain a debt-sustainable path, several structural and institutional problems still need to be solved. The country must work more on managing fiscal risks that directly impact its debt profile.

Contingent liabilities constitute one of the core fiscal problems that hurt the Egyptian debt trajectory. Despite continuing efforts, loan guarantees top the list of the country's main contingent liabilities. Being issued on an ad hoc basis and having increased, they constitute a clear threat to the debt sustainability path. New institutional arrangements must be introduced to contain the problem of loan guarantees. Other contingent liabilities, such as pension obligations, challenges related to State-owned enterprises (SOEs) and the continued adoption of a cash basis instead of accrual basis in national accounting will continue to result in hidden deficits and pose fiscal risks that have an impact on the residual component of debt dynamics.

The Government of Egypt has recently taken steps to improve the performance of SOEs, and its medium-term debt strategy already defines several measures to enhance the quality of related data. Measures include actions both to improve the performance and efficiency of the public business sector and to improve their institutional structure and interactions with public finances. SOEs play a significant role in driving fiscal risks and threatening the country's debt profile. Among the strong recommendations in this regard is the disclosure of data on SOEs and the consideration of their debt in official debt components to increase transparency and minimize hidden fiscal risks that further threaten the debt profile.

To minimize similar fiscal risks and the residual component in debt dynamics, it would also be helpful to improve public financial management and debt transparency, accountability and reporting on the obligations and commitments of the Egyptian public sector; minimize asymmetries in information; and ensure that borrowed resources are reported and included in the calculation of debt dynamics.

Fiscal policy in Egypt is characterized by a dependence on discretionary measures and the limited power of fiscal rules over the budget. This can be argued to be a core contributor to the unsustainability of some structural adjustment programmes. The 2016 national reforms established a fiscal consolidation path that was implemented successfully until it was interrupted by the COVID-19 pandemic, when the Government had to adopt a set of expansionary fiscal policies in line with global practices and advice. Efforts to resume the austerity path and sustain the positive outcomes of downward debt trajectory may be threatened if Egypt does not secure its fiscal and debt policies with proper rules and institutions that limit future discretionary interventions.

In sum, a comprehensive SDG debt management framework is expected to support the sustainability of the country's debt path during its journey to implement the 2030 Agenda and the Egypt Vision 2030. It should address the country's structural, fiscally driven debt problems; incorporate new and innovative SDG financing tools to fund the estimated SDG spending gaps; and acknowledge the role of private financing and international cooperation in debt management.

D. Conclusion and policy recommendations

1 Egypt has debt problems arising from its status as an emerging country, with growing needs and financing gaps coupled with its longstanding macrofiscal-financial imbalances. While debt vulnerability in emerging markets and developing economies is generally driven by private external debt, debt in Egypt is mainly caused by spending.

2 Key risks to the sustainability of the Egyptian debt profile arise from limited fiscal space, short-term maturity and low tradability of domestic debt. This is in addition to extrabudgetary activities and contingent liabilities arising from institutional weaknesses.

3 The Government recently took radical steps to reform its macrofiscal performance. In addition to structural and institutional reforms, it is introducing new financial tools to support its development finance agenda, engage the private sector and lessen fiscal burdens. Such measures will certainly have an impact on the sustainability of the country’s debt path.

4 Debt is essential to achieving public investment goals relating to the SDGs. Financing the SDGs and development entails increased pressure on spending requirements and, consequently, leads to further threats to debt management and sustainability. Debt sustainability in this context implies the ability to achieve SDG-related public investment goals without increasing debt ratios and to make effective use of borrowed resources.

5 The Egypt Vision 2030 is a commitment to achieving global SDGs, in addition to the nationally defined development agenda. To finance the SDGs and achieve this vision, it is necessary to secure financial requirements to ensure the sustainability of the debt path, which is one of the SDG targets and a core concern for the Egyptian economy.

6 The shock of the COVID-19 pandemic reversed an austerity path that began in 2016 and caused an increase in debt levels, which are expected to continue rising before resuming a downward trend towards the desired 70 per cent debt-to-GDP benchmark for emerging markets.

7 The SDG financing gap in Egypt is estimated to reach approximately 10.31 per cent of GDP in 2030. Funding this gap while maintaining debt sustainability requires securing different sources of finance, as well as improving the efficiency of public spending.

8 In view of recent reforms and strategic directions, the SDG debt management framework proposed in this report affirms the need to continue to address the country’s fundamental debt problems, incorporate new innovative SDG financing tools to finance estimated SDG spending gaps, and recognize the role of private financing and international cooperation in achieving the SDGs and national investment needs.

9 The main policy measures discussed in the proposed framework involve:
(1) improving the liquidity and tradability of the country’s debt instruments and strengthening non-banking financial markets and access to international markets to fund SDG spending gaps;
(2) intensifying private sector involvement in development finance and developing public-private partnership projects;
(3) making progress in the production of innovative sources of financing, such as sovereign green bonds, Islamic sukuk and climate/SDG debt swaps; and
(4) managing fiscal risks and improving public financial management and fiscal and debt regulations.

Endnotes

1. For the purpose of the analysis, this chapter adopts the definition of "government debt" used by IMF for debt sustainability analysis: total government debt (nominal gross public debt) comprises domestic debt held by residents in both local and foreign currency and external debt held by non-residents and denominated in foreign currency. "The general government comprises the budget sector, the Social Insurance Funds and the National Investment Bank (NIB). The budget sector comprises the central government (administration), the governorates (local administration) and public service authorities, including the General Authority for Government Services, a number of regulatory authorities, funds, universities and hospitals" (IMF, 2020b).
2. IMF establishes a benchmark for public debt risk levels for advanced economies, as well as emerging markets, called "market-access countries". The benchmark is 50 per cent of GDP for advanced economies, while it used to be 60 per cent for emerging markets, before being recently revised to 70 per cent (IMF, 2013a).
3. IMF, 2021b.
4. Gross financing needs are defined as "[t]he financial needs required to roll over maturing debt; defined as the fiscal deficit, plus any other transactions that require financing, plus amortization" (IMF, n.d.).
5. Ministry of Finance, Egypt, and UNICEF, 2020.
6. IMF, 2021a.
7. The medium-term debt strategy classifies debt using the currency based on the currency-denomination base in order to account for exchange rate risks and to estimate the amount of public debt that is vulnerable to exchange rate fluctuations. According to this strategy, external debt incorporates Treasury bills and Treasury bonds issued in the domestic market and denominated in dollars and euros. It also covers international issuances of Eurobonds and bilateral and multilateral external debt loans.
8. The non-banking sector includes insurance companies and funds, the National Postal Authority, holding/investment companies and individuals (households).
9. The medium-term debt strategy covers only central government debt, while this chapter focuses on general government debt. (Ministry of Finance, Egypt, 2020b).
10. The debt in the medium-term debt strategy focuses on central government debt, while IMF debt covers general government debt, as highlighted earlier in this chapter.
11. This covers United States Treasury bills, United States Treasury bonds and euro Treasury bills issued in the Egyptian domestic debt market at an exchange rate of $1 = LE 16.205 (Ministry of Finance, Egypt 2020b).
12. IMF, 2021a.
13. Al-Nashar, 2019.
14. United Nations, Inter-agency Task Force on Financing for Development, 2020.
15. The methodology of Munevar (2018) is used to calculate the SDG sustainability gap.
16. Gaspar and others, 2019.
17. IMF, 2020b.
18. For more on demographic dividends in Egypt, please see Nassar and others (2017).
19. Gaspar and others, 2019; IMF, 2013b.
20. Calculated as a percentage of nominal GDP.
21. Gaspar and others, 2019.
22. More on the reform programme of the Egyptian capital market and the implications for debt can be found in the Egyptian medium-term debt strategy (Ministry of Finance, Egypt, 2020c).

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