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MOROCCO — BEYOND DEBT: SUSTAINABLE PATHWAYS TO HIGHER GROWTH[1]

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Abstract

Like many developing countries, Morocco faced a significant increase in public debt following the COVID-19 pandemic. In 2022, Central government debt reached 69.6% of GDP, up from 60.3% in 2019, highlighting the need for a thorough analysis of debt sustainability. This paper examines the main trends in the Moroccan economy over the past two decades, including growth performance, monetary policy and financial conditions and external balances. It provides an overview of Morocco's economic landscape and highlights the main challenges that have affected the orientation of fiscal policy. It uses a debt sustainability analysis model to assess the trajectory of fiscal policy, examining different scenarios including potential shocks such as inflation, GDP growth, and interest rates. The results of the model show that, under most scenarios, Morocco's public debt should stabilize and consolidate, with an overall sustainable trajectory. However, in a pessimistic scenario characterized by persistent domestic inflation, a permanent decline in economic growth and rising interest rates at both national and international level, public debt increases steadily. The paper concludes with policy recommendations focusing on short-, medium-, and long-term reforms.

Keywords: Public Debt, Debt Sustainability, Fiscal Policy, Morocco

JEL Classification: F3, H6

ملخص

مثل العديد من البلدان النامية، يواجه المغرب زيادة كبيرة في الدين العام في أعقاب جائحة **COVID-19**. في عام 2022، وصلت ديون الحكومة المركزية إلى 69.6٪ من الناتج المحلي الإجمالي، ارتفاعًا من 60.3٪ في عام 2019، مما يسلط الضوء على الحاجة إلى تحليل شامل للقدرة على تحمل الديون. تبحث هذه الورقة الاتجاهات الرئيسية في الاقتصاد المغربي على مدى العقدين الماضيين، بما في ذلك أداء النمو والسياسة النقدية والظروف المالية والأرصدة الخارجية. وتقدم الورقة لمحة عامة عن المشهد الاقتصادي للمغرب وتسلط الضوء على التحديات الرئيسية التي أثرت على توجه السياسة المالية. نستخدم نموذج تحليل القدرة على تحمل الديون لتقييم مسار السياسة المالية، وفحص السيناريوهات المختلفة بما في ذلك الصدمات المحتملة مثل التضخم ونمو الناتج المحلي الإجمالي وأسعار الفائدة. تظهر نتائج النموذج أنه في ظل معظم السيناريوهات، يجب أن يستقر الدين العام للمغرب ويترسخ، مع مسار شامل مستدام. بالرغم من أنه في سيناريو متشائم، يستمر التضخم المحلي، ويوجد انخفاض دائم في النمو الاقتصادي وارتفاع أسعار الفائدة على الصعيدين الوطني والدولي، ويزداد الدين العام باطراد. وتختتم الورقة بتوصيات تتعلق بالسياسات التي تركز على الإصلاحات القصيرة والمتوسطة والطويلة الأجل.

Introduction

The Middle East and North Africa (MENA) region has been grappling with various economic challenges, including high debt levels, slow economic growth, and volatile financial conditions. Morocco is no exception; it has experienced its fair share of economic challenges over the last two decades, with the recent COVID-19 pandemic and ongoing conflict in Ukraine representing a culmination of these challenges.

One of the primary concerns arising in this context is the probability of the Moroccan economy facing difficulties in maintaining the sustainability of its debt. Since its structural adjustment plan, Morocco has always been conducting prudent macroeconomic policy and safeguarding its internal and external equilibria; assessments of the macroeconomic framework have always pointed to the resilience of its economy. However, the compounded crisis environment underscores the need for a comprehensive assessment of the Moroccan economy's fiscal policy to ensure its effectiveness and sustainability.

This issue is even more relevant given the various foreseeable developments in the near future, primarily the implementation of an ambitious program for the generalization of social services in the coming years, along with ongoing uncertainties regarding the duration and the scarring effects of past global shocks. In this context, an in-depth assessment can provide valuable insights to inform the development of effective and sustainable fiscal policy strategies that support long-term economic prosperity and development in Morocco.

The paper is organized as follows. Section I explores the main trends in the Moroccan economy over the last two decades, including growth performance, monetary policy and financial conditions, external balances, and fiscal policy. It provides a comprehensive overview of the economic landscape in Morocco and highlights the key challenges that have impacted the country's economic growth.

Section II provides a detailed description of the debt sustainability analysis (DSA) model used to assess the sustainability of the Moroccan economy's debt and explains the methodology used to develop the model and the assumptions made in the analysis.

Section III examines several scenarios and simulations to study the sensitivity of the Moroccan economy's debt to various stress tests. It also assesses the potential impact of various economic factors on debt sustainability.

The last section summarizes the findings of the analysis and draws conclusions regarding the sustainability of Morocco's debt. It also provides policy recommendations for addressing the country's debt situation and insights into how policymakers can address the challenges facing debt sustainability. The recommendations focus on structural reforms as the most effective strategy to grow out of debt and set the economy on the right path.

I – Main trends in the Moroccan economy over the last 20 years

1. Economic activity in Morocco: Toward lower growth performance

Over the past 20 years, Morocco's growth has been characterized by two distinct phases. The first phase, from 2000 to 2010, saw an approximately five percent increase in growth due to various reforms and policies implemented by the authorities. The second phase was marked by the global financial crisis, which revealed the limitations of the growth model that relied heavily on domestic demand, resulting in a decline in potential growth to around three percent. The COVID-19 pandemic could worsen this trend, although recent estimates suggest that its effects will gradually fade away.

The years of catch-up and economic performance (2000-10)

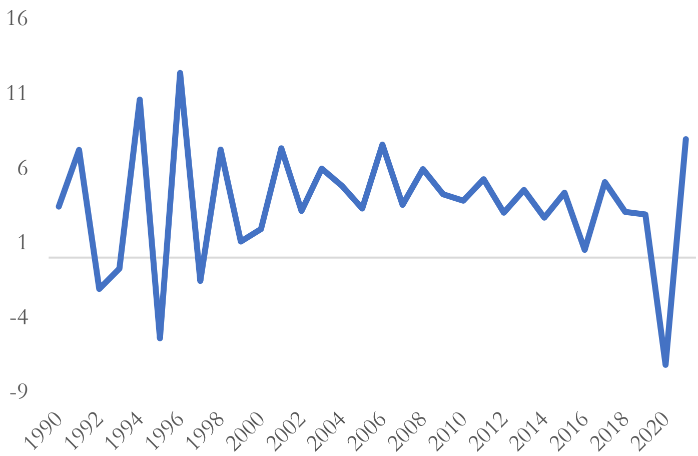
In the 1990s, the Moroccan economy emerged from what can be referred to as the "lost decade." At the beginning of the decade, income per capita was USD 1,290, and it ended with a slightly higher level of USD 1,350, whereas the GDP per capita growth stagnated at around one percent in the local currency, while developing economies recorded a higher growth rate of 3.2 percent per year. The policies implemented during this period failed to put the Moroccan economy on the right track and unleash its economic potential.

However, the first decade of the 21st century brought about a new wave of economic growth. The average economic performance increased to almost five percent, with GDP per capita growth reaching around three percent. Multiple factors have been advanced to explain this economic momentum, including domestic and external factors (Figure 1). At the domestic level, national and international institutions agreed that Morocco had implemented deep and structural reforms. These reforms aimed to open the domestic economy to international trade, establish a vibrant private sector, and invest heavily in infrastructure to catch up and connect the country (El Aynaoui and Agénor, 2015; World Bank, 2010).

On the trade openness dimension, Morocco engaged in lifting the barriers to trade and concluding several preferential trade agreements. Over this period, trade openness – as measured by the ratio of trade to GDP – took an upward trend after a period of stagnation, from around 55 percent since the 1970s to a peak of 86 percent in 2008, stabilizing thereafter between 70 percent and 80 percent. The applied tariffs over manufactured products – weighted mean – were brought down throughout the period from 26.4 percent in 2000 to 2.6 percent in 2012 (Figure 2). The culmination of this trade policy was the agreement between Morocco and the European Union (EU) to establish a free trade agreement that entered into force in 2000 with the aim of fully dismantling tariffs by 2012. The agreement consolidated the weight of the EU as a strategic economic partner of Morocco and brought benefits to Morocco, ranging from increased exports and increased foreign direct investment (FDI) to increased compliance with European standards (Berahab and Dadush, 2020). On the investment side, it seems that the Moroccan economy has seen increasing interest from foreign investors since the 2000s (Figure

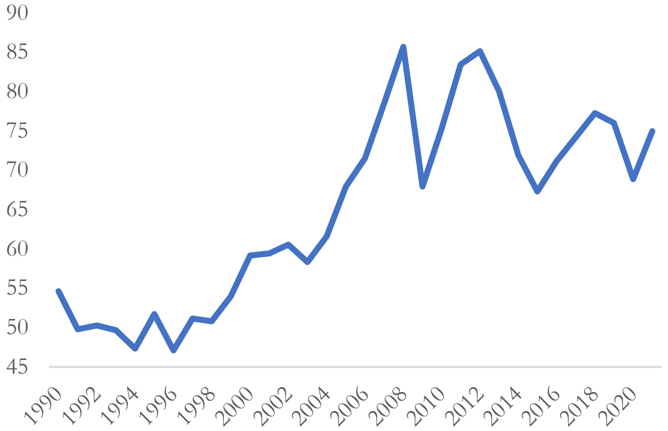
3). It is striking how inward investment has jumped into a higher plateau since 2000, averaging 2.5 percent of GDP instead of one percent before.[5]

Figure 1. Economic growth, 1990-2021, in %



Source: World Bank.

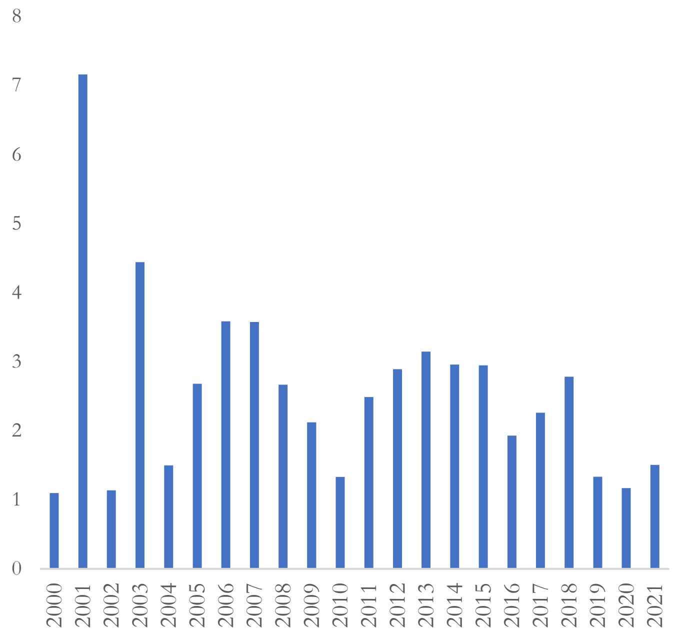
Figure 2. Trade openness in Morocco



Source: World Development Indicators, World Bank.

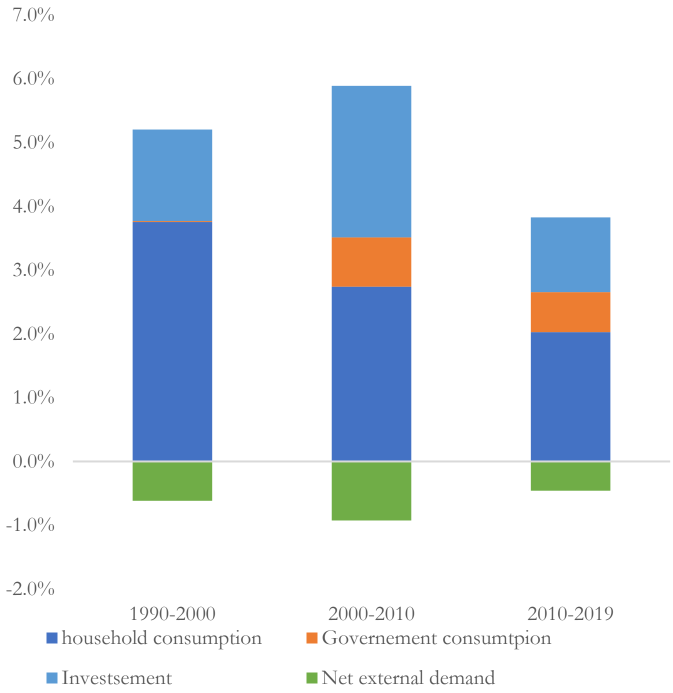
[5] The implications of the EU-Morocco Free Trade Agreement are still controversial, as some have pointed to the negative impact of the agreement on the domestic fabric.

Figure 3. Inward FDIs in % of GDP



Source: World Bank.

Figure 4. Growth decomposition by demand component per period, in percentage points



Source: High Commission for Planning (HCP).

The reforms engaged during this period also concern the business environment in general. Indeed, Morocco made significant progress in improving its business climate, as reflected in the doing business classification. Morocco made it to the 71st position in one decade up from the 118th position, and the progress kept going at a higher pace. According to the latest classification, Morocco ranks at the 53rd position worldwide. Specific areas have witnessed a significant improvement, such as the ease of starting a business (43rd position) or the ease of dealing with construction permits streamlined to cost just 3.3 percent of the warehouse value. In the same vein, the government engaged in a privatization policy in the 1990s and sustained it in the 2000s. This decision had positive effects on the privatized companies and the sectors in which they operate. On the one hand, the collected amounts served to finance the investment projects of the government and eased the pressure on public debt. On the other hand, private partners, both Moroccan and foreign, enabled the privatized companies to upgrade their know-how and anchor their activities, when possible, to the international networks of strategic partners (Directorate of Public Enterprises and Privatization, 2006). This also reinforced their competitive position and, by the same token, concurred to leveling the playing field by enhancing contestability and competition in the market (World Bank, 2019).

Setting the reforms to emancipate the private sector and make it the lever of economic activity went hand-in-hand with increasing efforts to invest in infrastructure. The decade witnessed a soaring in capital accumulation, mainly driven by public investments in infrastructure. The government has undertaken extensive investment projects in infrastructure, such as transportation, utilities, and communication, to lay the groundwork for more social inclusion, enhance the remote population's access to basic needs, and promote private investment. The gross fixed capital formation as a percentage of GDP went from an average of 25 percent in the 1990s to a level slightly below 30 percent in the 2000s, in which public investment weighed over 50 percent of total investment in 2005 instead of one-third in 2000 (World Bank, 2018). The accounting perspective of growth showed the role of investment in sustaining growth. In the 2000s, domestic demand was still the main driver of economic growth, and investment became the catalyst for economic dynamics at the time (Figure 4). Investment contributed an extra percentage point between the 1990-2000 and 2000-10 periods. As explained earlier, the public investment of the central government on state-owned companies (SOEs) accounted for the largest share.

Capital accumulation has contributed to sustaining economic growth during this decade, but efficiency improvement has also proven to be crucial in boosting growth to a new plateau. During this period, potential growth – depicting the growth of production compatible with the full utilization of production factors, thereby ensuring a stable inflation rate – picked up to hover around five percent (IMF, 2022; Chafik, 2018). The decomposition of this increase is attributed in the first stage to gains in efficiency (TFP) and, to a lesser extent, capital accumulation (Chafik, 2018).[6] International institutions have established this link between the implemented reforms of the 2000s (and the 1990s) and this improvement in the TFP and productivity gains in general. The sectoral analysis pointed to large improvements in production processes in the agricultural sector compared to the non-agricultural sector.

[6] Chafik (2017) adopts a combination of statistical and econometric methodologies to examine the contribution of production factor accumulation and TFP to economic growth.

The post-global financial crisis period: Potential growth has receded

The challenge for policymakers was to improve the economic performance of the domestic fabric even further and instill structural reforms to lift the remaining distortions and unleash the economic potential (El Aynaoui and Agénor, 2015; World Bank, 2018). However, the Global Financial Crisis (GFC) came to reshuffle the domestic and global landscapes. In the first year following the GFC, it was thought that the Moroccan economy overcame the external shock without any substantial scarring effects. However, a number of indicators were suggesting that the economy was slowing down. The empirical literature is replete with work assessing the impact of deep crises, such as the 2008 crisis, on the productive capacity of economies and identifying the mechanisms through which crises are transmitted to the supply side (IMF, 2018; OECD, 2014).

The global financial crisis accelerated the adjustment of economic growth toward a sustainable path. The financial crisis triggered a rapid adjustment of the Moroccan economy, leading to lower economic growth aligned with long-term fundamentals. As stated earlier, a significant portion of growth relied on capital accumulation, particularly public investment in infrastructure. However, the mounting pressures on domestic and external economic balances necessitated a "manufactured" moderation of the Moroccan economy, aiming to steer it toward a more sustainable path from a macro perspective. Specifically, this involved addressing current account and fiscal deficits. Within a deactivated exchange rate channel regime, the necessary economic correction had to be achieved through reductions in public spending, particularly in compressible areas like public investment. Otherwise, maintaining the same growth pace would have required sustained investments at increasing levels. Estimates suggest that a 9.4 percent GDP investment would be needed to generate a growth of only one percentage point (Box 1).

As a result, economic growth has slowed down, and assessment pointed to a decline of potential growth to three percent or even lower by 2019, mainly due to lower investment efforts. A simple analysis revealed how the growth average receded to an average of three percent in the decade of 2010-20[7] (Figure 4). Indeed, the growth of domestic demand as a prevailing factor in boosting economic activity has slowed down. In the IMF's last assessment of the macroeconomic situation, the institution stated that potential growth declined to 2.5 percent by 2019, after five percent in the first decade of the century. In our view, the fall is owed mainly to the slowing down of capital accumulation (IMF, 2023), especially public investment. The latter peaked in 2009 and stabilized for four to five years before receding to a lower level thereafter (Figure 6). In 2013, there was a turning point in the macroeconomic context of the country. The year before, the fiscal deficit deteriorated to more than seven percent of GDP and the current account deficit amounted to nine percent of GDP. Debt was on an upward trend and urgent adjustment was required. Besides reforming subsidy policies, the public sector had to reduce its investment effort to 13.3 percent of GDP. Since then, public investment has been evolving on a lower path. This raises a critical aspect of fiscal management, centered around the reallocation of public spending toward sectors that not only

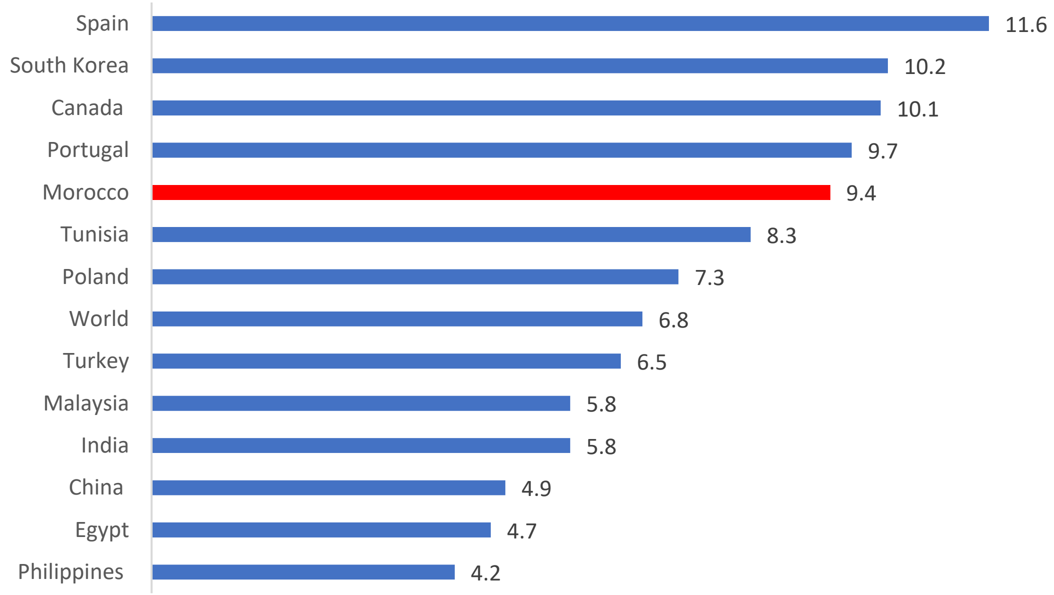
[7] Excluding the impact of COVID-19.

foster economic growth but also stimulate increased involvement from the private sector. Presently, Morocco relies heavily on public sector-driven investments.

Box 1. A high rate of investment, but not very efficient

Despite having one of the highest investment rates in the world, averaging 32.2 percent of GDP between 2000 and 2019, Morocco faces a paradoxical situation where the outcomes in terms of economic growth, job creation, and productivity remain disappointingly low. This poses a significant challenge for the Moroccan economy.

Figure 1. Incremental Capital Output Ratio (ICOR) indicator, average 2000-19



In comparison to other countries, such as Turkey, Morocco's investment levels have not translated into superior growth rates. For instance, Turkey achieved an average growth rate of five percent during the same period, despite having a lower investment-to-GDP ratio of 26.6 percent. Compared to a sample of countries, Morocco stands out as one of the countries displaying a high ICOR ratio.[8] An essential contributing factor to this issue is the structure of fixed capital formation (FBCF) in Morocco. The public sector, primarily investing through SOEs, accounts for a substantial portion of total investments, estimated at 65 percent according to the report by the Special Commission for the Development Model (CSMD, 2021). In contrast, public investment in Turkey represents only 15 percent of the total investment. This imbalance calls for a reassessment of the allocation and effectiveness of public investment in Morocco.

[8] The ICOR ratio is the indicator that measures the efficiency of investment; specifically, it is the ratio of gross capital formation as a percentage of GDP to economic growth. A higher ratio means that an economy needs to invest more for the same economic returns.

Box 1. A high rate of investment, but not very efficient (contd.)

A significant portion of investments in Morocco has been directed toward infrastructure projects, the socioeconomic impacts of which may take longer to fully materialize. Furthermore, the process of selecting projects funded by public funds often does not adequately consider efficiency issues and fails to optimize their impact on productivity and job creation. Therefore, a more appropriate composition of public investment expenditures is needed – between basic infrastructure (such as roads, energy, basic telecommunications systems, water, and sanitation) and advanced infrastructure (advanced information and communication technologies) – as well as a better distribution of public capital among regions of the country. This reallocation of infrastructure investment expenditure is essential to facilitate an adjustment in production structures, that is, a shift from labor-intensive activities that rely on the imitation or limited adaptation of foreign products and imported technologies to skill-intensive activities based on domestic innovation (Agénor and El Aynaoui, 2015).

The recommendations of the report on the new development model aim to increase the efficiency of investments, including reducing the share of the public sector in investments to 35 percent by 2025 (CSMD, 2021). The adoption of the new Investment Charter by the end of 2022 represents a first step in this direction, aiming to limit the involvement of the public sector to strategic projects and encourage greater participation from the private sector. This shift should result in more effective investment decisions, as the private sector is generally guided by profitability and cost-effectiveness.

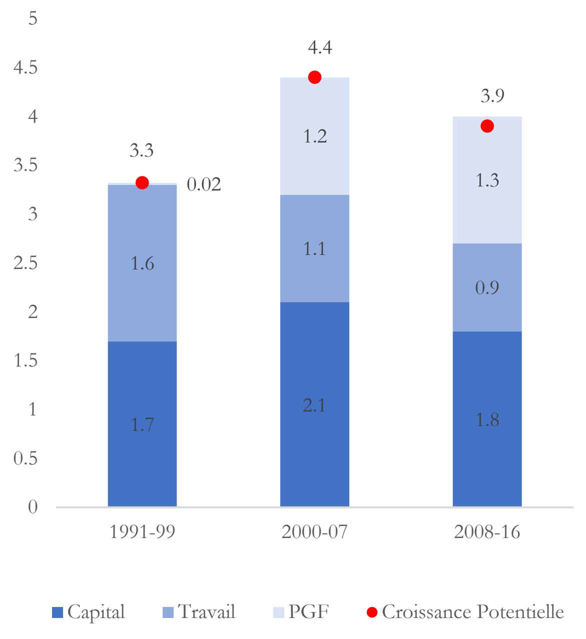
The new Investment Charter seeks to foster private investment in productive sectors such as manufacturing, agriculture, and tourism. This targeted approach aims to diversify the Moroccan economy and transition it toward higher value-added activities. Thus, a more adequate composition of investment expenditure is needed.

The COVID-19 crisis and the uncertainties surrounding the future of growth

The COVID-19 crisis could have lasting effects on the supply capacity and restrain even further potential growth, but first estimates indicate that potential growth will return to its pre-COVID-19 levels. The COVID-19 crisis has brought the Moroccan economy, as well as the global one, to its knees. The unprecedented shock resulted in the deepest recession in the economy's history. Given the historical growth average, total losses amounted to more than 10 percent of GDP, as initial estimates projected a three percent growth and the end result was a recession of 7.2 percent. However, the economic rebound was strong and managed to bring the economy to slightly above the 2019 production level. The rough estimates for 2022 still reveal that economic activity is growing at pre-COVID-19 levels, with non-agricultural GDP growth at 3.4 percent. The IMF estimates that the effects of the pandemic are expected to fade away and growth will recover to pre-COVID-19 levels.

In this context, the outlook is highly uncertain, especially as some indicators are suggesting that the COVID-19 crisis could leave scars. The assessment of the capacity of Morocco to recover to pre-COVID-19 growth might not be that conclusive, and confidence in the Moroccan economy's current path to normality is premature. In 2022, non-agricultural growth was expected to reach 3.5 percent (HCP, 2023), suggesting that economic activity was still growing at pre-COVID-19 levels. This performance could be hiding a base year effect, as the tourism sector was running below the 2019 level; and with the full opening of the economy in 2022, it has recovered well and driven total growth. Three trends could be challenging the view that the Moroccan economy has emerged unscathed. The number of companies going bankrupt seems to have accelerated. For 2020, the number has dropped, as expected, reflecting the generosity of the support granted by public authorities[9] in this period as well as the three-month-long confinement that prevented companies from declaring bankruptcy. The impact of the shock on companies can also be depicted through the upward evolution of non-performing loans, standing now at around 11 percent of total credit to the non-financial private sector. While this evolution could last before receding to pre-COVID-19 levels, it might also indicate the extent of the dire impact of COVID-19 on companies' financial soundness. Unemployment did not recover and still exhibits high persistence despite the strong rebound of economic activity in 2021. It hovers around 12 percent instead of 10 percent pre-COVID-19. These developments could, indeed, inform on the COVID-19 implications for growth and the risks of the supply capacity being hit again and receding to a lower path.

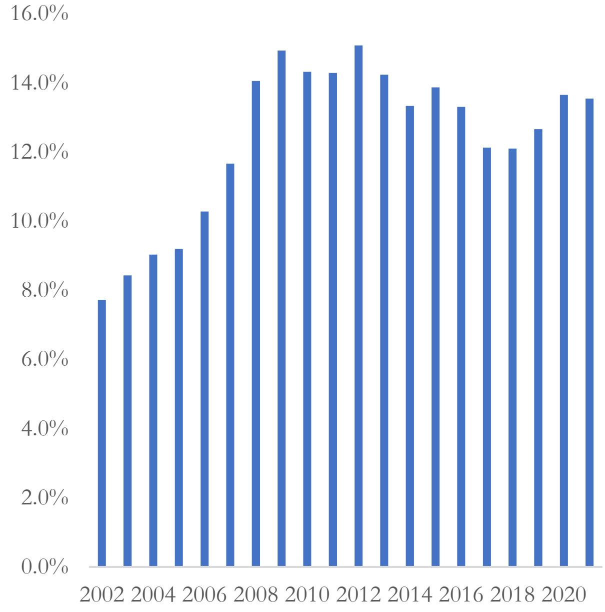
Figure 5. Potential growth decomposition, in percentage points



Source: Chafik (2017).

[9] This trend has been observed elsewhere and captured what is called "zombie companies".

Figure 6. Public investment, 2002-21, in % of GDP



Source: Ministry of Economy and Finance.

2. Domestic monetary policy and financial conditions

In the last two decades, the monetary policy framework has undergone multiple transformations in order to align with the evolving economic and financial landscape. The independence of the Bank Al-Maghrib (BAM), the central bank, has been reinforced and its missions have been expanded to include financial stability and inclusion. The monetary stance was accommodative to support economic activity as inflation was low and controlled. In response to the COVID-19 outbreak, BAM mobilized all its monetary and prudential measures to facilitate access to financing for households and businesses. However, in 2022, the bank reversed its policy stance via policy rate hikes to mitigate the persistent and broad-based inflationary pressures.

The strategic shifts undergone by BAM in the last two decades via the statutory reforms have consolidated its independence and increased its monetary policy transmission. BAM experienced two statutory reforms in the last two decades, specifically in 2006 and 2019, and it has prioritized price stability without an explicit inflation target. To achieve this goal, the bank adopted a forward-looking framework for assessing inflationary pressures based on monetary and real indicators.[10] The main objective of the new statutes is to strengthen the bank's independence and expand its missions to include financial stability and inclusion. In order to uphold its price stability mandate, BAM uses two fundamental instruments: the policy rate and the reserve requirement ratio for the banking sector. Furthermore, the bank has set the interbank weighted average rate as its operational target to ensure the effective transmission of its monetary policy decisions. This rate serves as a reference for other markets and BAM maintains it as closely as possible to the policy rate. The implementation of this reform has led

[10] https://www.bkam.ma/en/Monetary-policy/Analytical-and-forecasting-framework/Analytical-framework

to an improvement in the transmission of BAM's monetary policy to the money market rate, resulting in a reduction in its volatility, and it is now more closely aligned with the policy rate (Figure 7).

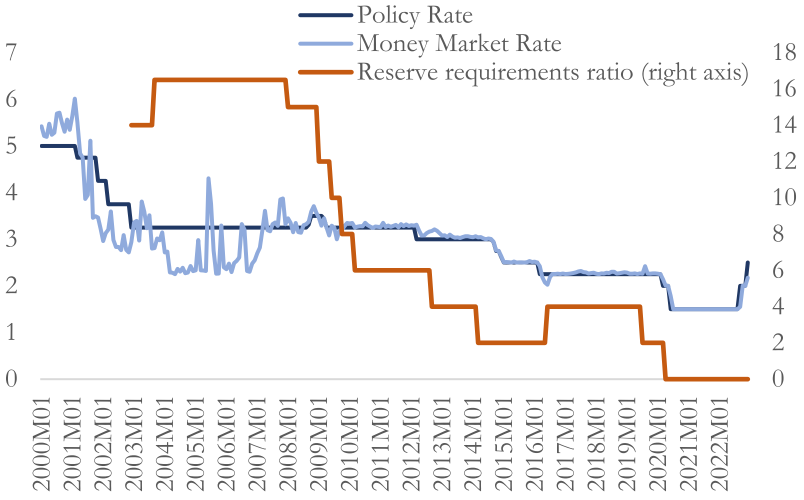
BAM has been accommodating its monetary policy stance over the past two decades. However, the effectiveness of monetary policy transmission remains constrained by certain rigidities. Under a fixed exchange regime and a capital account fully open to non-residents and partially open to residents, BAM manages, to a certain extent, to tailor its policy stance to domestic macroeconomic conditions mainly through interest rate and credit channels (Bennouna et al., 2016). In fact, as inflation was slow and stable under the peg to the currency basket (Figure 8), BAM has maintained an accommodative monetary stance over the past decade to support economic activity, which has grown at a slower pace since the global financial crisis. The bank's monetary policy has relied, to a large extent, on reserve requirements and the policy rate was, instead, relatively stable and decreased by 200 basis points over the period 2009-21 (Figure 7). However, the effectiveness of monetary policy is limited because of the current pegged exchange regime compared to countries with flexible exchange regimes and free capital movements (Figure 9). Queyrenne et al. (2020) find that the interest rate channel has a relatively weak impact on inflation and output stabilization. In addition, the monetary policy transmission in Morocco is restrained by other factors, such as the high concentration of the banking sector, Moroccan borrowers' preference for fixed-rate loans, and the low level of financial depth (Bennouna et al., 2016). In order to expand the scope of monetary policy and provide a buffer for the economy against external shocks, the monetary authorities initiated a gradual transition to a more flexible exchange rate regime and the adoption of inflation targeting in 2018.

BAM slashed its monetary policy rate even further in 2020 to mitigate the economic implications of the COVID-19 crisis through unprecedented monetary easing. The bank has played an important role in supporting households and economic activity by implementing a battery of monetary and prudential measures in response to the COVID-19 outbreak. BAM has eased its monetary policy via historical policy rate cuts of 75 basis points between March and June 2020, a full release of the reserve requirements. Within the banking system, BAM tripled banks' financing capacity by offering them the possibility to use all the refinancing instruments in Moroccan Dirhams (MAD) and foreign currency. The bank also relaxed its macroprudential policy by easing prudential rules, loan provisioning, and capital requirements. The measures included a moratorium on bank loans and facilitating the access to operating loans in addition to investment loans to SMEs. These measures have been transmitted to market rates and resulted in an acceleration of bank loans, especially for private non-financial companies (Figure 10). Furthermore, in order to consolidate Morocco's capacity to absorb the external shock of the pandemic, BAM and the Ministry of Finance decided to widen MAD fluctuation bands from ±2.5 percent to ±5 percent to enable the Moroccan economy to strengthen its capacity to absorb the external shock of COVID-19.

BAM tightened its monetary stance in response to the current inflationary pressures that have started to spread to the prices of non-tradable goods. Morocco ended the year 2022 with a large acceleration of inflation, reaching its highest level since 1992 to more than 8.3 percent (Figure 8). The acceleration of inflation was mainly fueled by external factors, particularly soaring food and energy prices triggered by the combined effect of the economic recovery and geopolitical tensions between Russia and Ukraine. These inflationary pressures have become more broad-based across the CPI basket. In fact, 62 percent of the sections of goods and services, which account for the core basket of the consumer price index, increased by more than two percent in October 2022 compared to 23 percent on average between 2018 and 2019. In response to this inflationary context, the central bank's board decided to tighten monetary policy by raising the key rate by 100 basis points to 2.5 percent in order to prevent inflation expectations de-anchoring and self-sustaining inflationary spiral. This tightening was instantly transmitted to the market rates, indicating that economic agents would eventually experience an increase in the cost of financing their activities.

During its last board meeting of 2022, BAM decided to consider, for the first time since 2006, a structural operation[11] of treasury bill purchases in the secondary market. These open market operations aim to restore demand for treasury bills and alleviate liquidity pressures in this market. Since January 2023, BAM has started to organize weekly tenders for structural operations to purchase treasury bills on the secondary market from banks' counterparty to the monetary policy operations. The total outstanding amount of these structural operations amounts to MAD 16.8 billion.

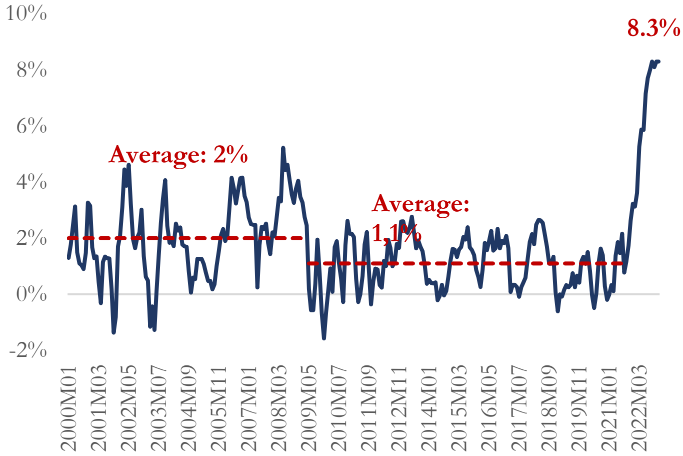
Figure 7. Policy rate and money market rate in Morocco, 2000M1-2022M12, in percentage



Source: BAM, and International Financial Statistics, IMF.

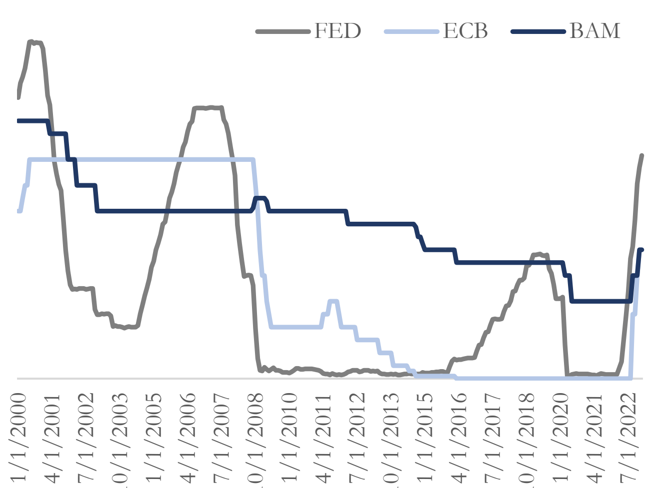
[11] According to BAM, structural operations aim to deal with a persisting situation of liquidity surpluses or shortages. They consist of purchases or sales of securities issued by the Treasury on the secondary market and in BAM's issuing and repurchasing of negotiable debt instruments.

Figure 8. Inflation rate, 2000M1-2022-M12, in percentage



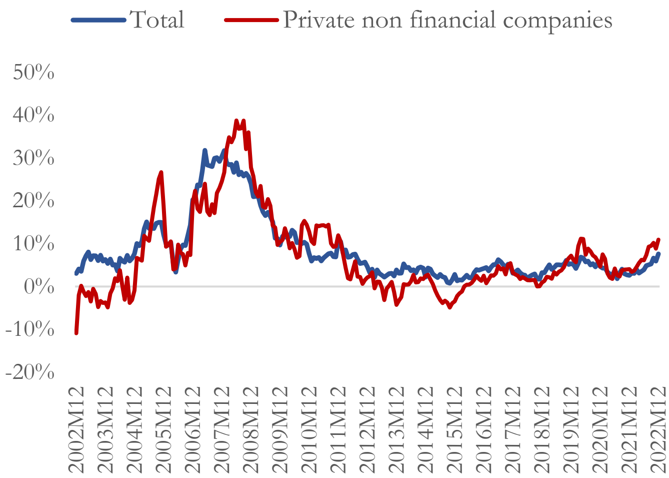
Source: HCP.

Figure 9. Policy rates of BAM, the Federal Reserve, and European Central Bank, 2000M1-2023M1, in percentage



Source: BAM, Federal Reserve Bank of St. Louis, and European Central Bank.

Figure 10. Growth rate of bank loans, 2002M1-2022M12, in percentage



Source: BAM.

3. External balances: Challenges and resilience in the face of global economic crises

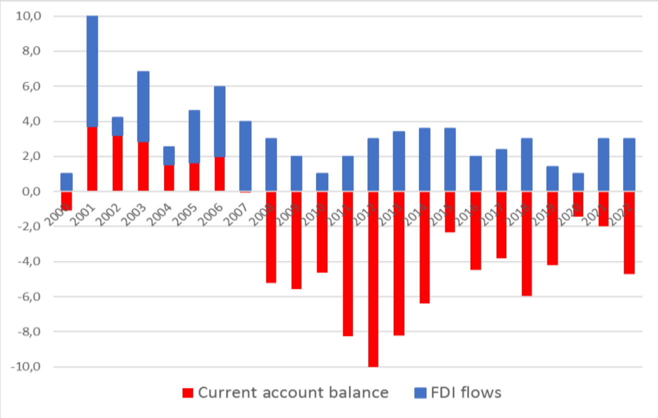
Over the past two decades, Morocco has managed to maintain sustainable external balances despite its dependence on international trade and economic challenges such as the 2008 subprime financial crisis, the COVID-19 pandemic, and the crisis in Ukraine. This resilience is explained by the country's ability to attract FDI, generate tourism revenues, and receive remittances from Moroccans living abroad that have helped cover part of the economy's financing needs and build up foreign exchange reserves, which have largely contributed to maintaining external balances at sustainable levels. Foreign exchange reserve levels have remained at favorable levels in recent years, also reflecting Morocco’s bond issuances on the international finance market. In addition, Morocco has undertaken reforms to its exchange rate regime by widening the fluctuation band to provide its economy with an adjustment mechanism, which has helped ease pressures on external balances.

Morocco has been able to maintain sustainable external balances through its ability to attract FDI and build up a good level of foreign exchange reserves. The Moroccan economy has long faced the challenge of maintaining external balances because of its heavy dependence on international trade, including imports, exports, and tourism revenues. This dependence has made the balance of payments a key factor in the country’s financial stability and economic growth. Since the 2000s, Morocco's current account balance has evolved in two general phases (Figure 12); the first was a surplus phase until the subprime crisis of 2008, followed by a structural deficit phase. During the period 2001-07, the current account balance was in surplus mainly thanks to tourism receipts and transfers from Moroccans living abroad. However, starting in 2008, the current account balance turned into a deficit, reaching -10 percent of GDP in 2012 compared to an average surplus of 2.6 percent of GDP between 2001 and 2007. This deterioration is largely explained by cyclical factors such as weak economic activity in Morocco’s main trading partners, as well as structural factors such as the persistent trade deficit, low diversification of export products, geographic concentration of export markets, and high energy dependence. However, Morocco has been resilient thanks to its ability to attract FDI, remittances from Moroccans living abroad, and tourism revenues. These factors have helped cover part of the economy's financing needs and build up foreign exchange reserves, which have largely contributed to maintaining external balances at sustainable levels. Foreign exchange reserve levels have remained at favorable levels over the past few years, also reflecting Morocco’s bond issuances in the international finance market.

Figure 11. Monthly evolution of the terms of trade index for commodities, 1980-2022 (2012 = base 100)

Source: BAM.

Figure 12. Current account balance and FDI flows, 2000-23 (% of GDP)



Source: Ministry of Economy and Finance, BAM, and authors' calculations.

Morocco has reformed its exchange rate regime to provide its economy with an adjustment mechanism, which has eased tensions on external balances. On 15 January 2018, Morocco initiated a voluntary and gradual transition from a fixed exchange rate regime to a more flexible exchange rate regime, with the launch of the first phase of the exchange rate regime reform, which resulted in a widening of the MAD's fluctuation band from ±0.3 percent to ±2.5 percent relative to a central rate set on the basis of the current reference basket, which is composed of the EUR and the USD to the tune of 60 percent and 40 percent, respectively. Since then, the value of the MAD has fluctuated more significantly against foreign currencies as a result of this new, more flexible exchange rate policy. On 9 March 2020, the monetary authorities decided to continue the process of reforming the exchange rate regime by widening (for the second time) the fluctuation band of the MAD from ±2.5 percent to ±5 percent to cope with external shocks caused by the COVID-19 crisis. The second phase of the reform began after the achievement of all the objectives of the first stage, namely the increase of foreign currency liquidity on the domestic foreign exchange market and the appropriation of the concept of foreign exchange risk by economic operators.

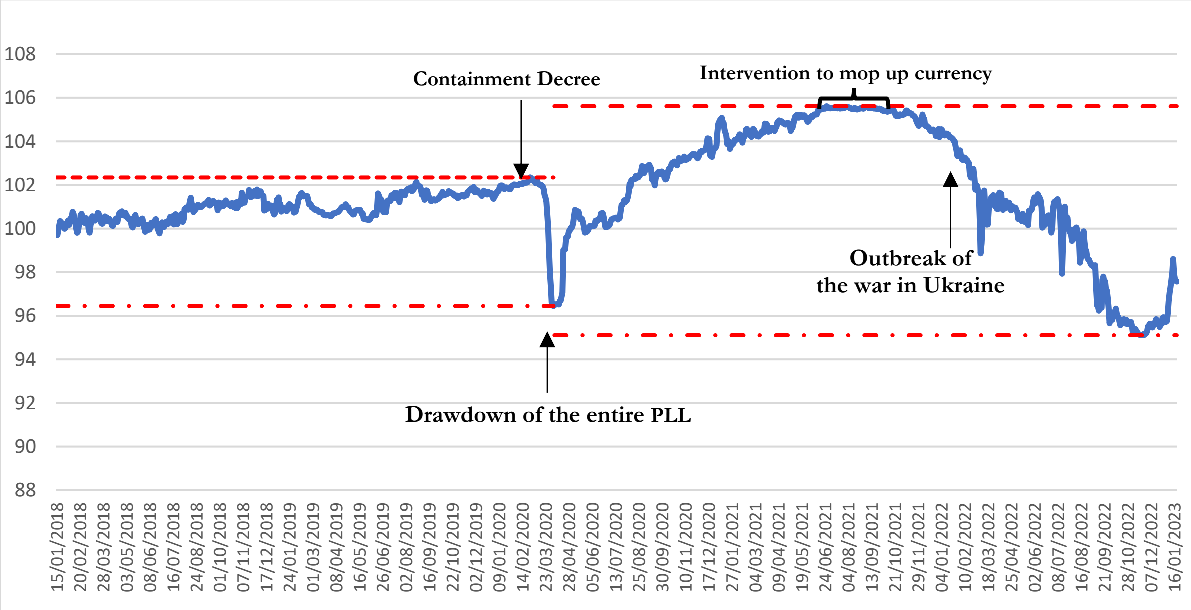
After widening the MAD's fluctuation band twice, the IMF recommended the next step of widening the fluctuation band, explaining that greater flexibility in the exchange rate regime would benefit the Moroccan economy by preserving reserves and competitiveness and enhancing its ability to absorb external shocks. However, BAM is avoiding the next phase of MAD flexibility and prefers to continue to intervene through foreign exchange auctions, given the uncertain domestic and international environment.

Post-COVID-19 period: A new trend of deteriorated terms of trade, but the external balance is less sensitive and overall maintained at sustainable levels. Since 2013, Morocco has seen a reduction in the balance of payments deficit, with sustained growth in exports and FDI in key sectors such as industry, energy, and tourism. However, the pandemic had a significant impact in 2020, resulting in a contraction of foreign trade and tourism. Restrictions put in place to limit the spread of the virus led to a sharp contraction in foreign trade, with a 14 percent drop in imports and a 7.5 percent drop in exports. The tourism sector was also severely affected, with a 78.5 percent drop in tourist arrivals and a 53.7 percent drop in travel receipts. In contrast, remittances from Moroccans living abroad showed notable resilience, increasing by 4.9 percent. Despite these challenges, the trade deficit narrowed considerably, from 17.9 percent to 14.6 percent of GDP, and the current account deficit narrowed to 1.5 percent of GDP.

In 2022, the war in Ukraine had a negative impact on the Moroccan economy, with a deterioration in the external accounts. The current account deficit widened to 4.7 percent of GDP, from 2.3 percent in 2021, due to a sharp acceleration in imports, although revenues from travel and Moroccans living abroad also increased. Foreign trade in goods and services continued its upward trend, mainly due to continued high commodity prices and a recovery in travel receipts. Exports increased by 36.4 percent and imports by 44.2 percent compared to the same period in 2021, resulting in an increase in the trade deficit. Overall, despite the sharp deterioration in the terms of trade (Figure 11), the current account deficit remains at relatively sustainable levels, thanks to the good performance of remittances and the recovery of the tourism sector.

In addition, as part of Morocco's policy response to the COVID-19 crisis, Morocco drew on the Precautionary Liquidity Line (PLL) in April 2020 for an amount equivalent to nearly USD three billion, repayable over a period of five years, with a grace period of three years. According to the IMF, this decision helped ease external financial pressures and maintain official reserves at an adequate level. In June 2022, Morocco began negotiations with the IMF for a new flexible credit line (FCL) to strengthen foreign exchange reserves and protect against external shocks, including imported inflation. Morocco had to meet a series of criteria, with the FCL requiring a stronger macro-financial framework, which was fulfilled in March 2023.

Figure 13. Evolution of the MAD against the anchor basket, January 2018 to January 2023



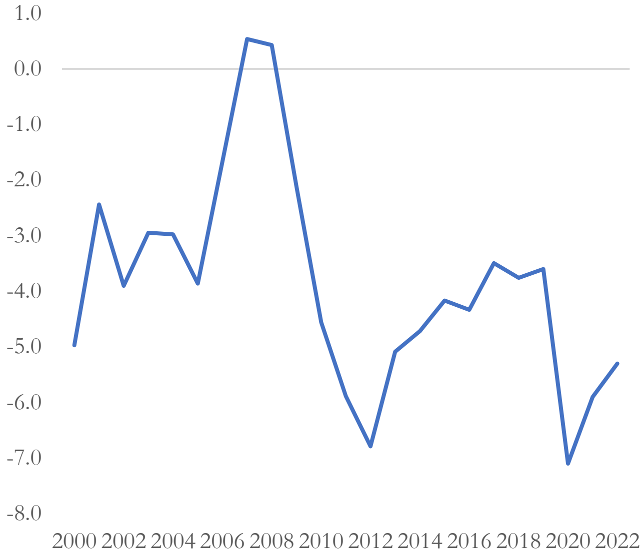
Source: BAM and authors' calculations.

4. Fiscal policy and debt accumulation

The fiscal policy orientation in Morocco during recent years can be characterized by two main features. Firstly, the country has established a strong commitment to fiscal discipline, which has become a fundamental aspect of its macroeconomic management. Secondly, the country has implemented a financing strategy and debt management approach that is increasingly rational, based on explicit variables of trade-offs. These strengths have enabled Morocco to successfully overcome the COVID-19 shock without compromising the sustainability of its public finances.

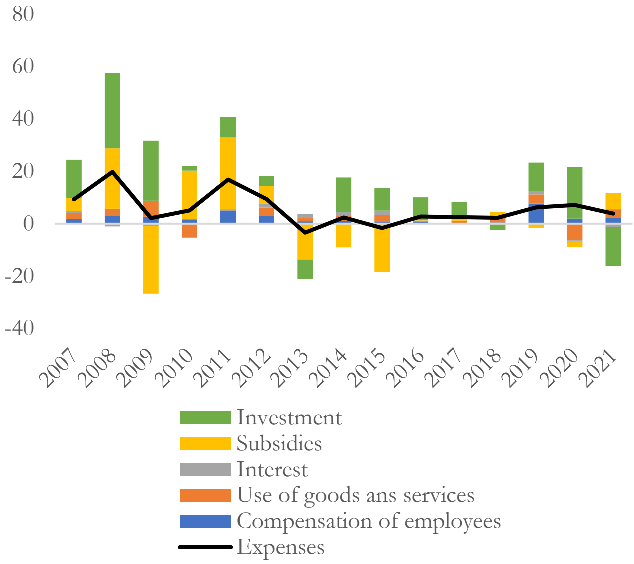
Since the 2000s, Morocco has committed to adopting a fiscal approach focused on fiscal discipline, making it one of its main priorities. This choice stems from the lessons learned from the Structural Adjustment Program of the 1980s, which had difficult economic and social consequences for the country. Thus, Morocco strives to maintain strong fiscal discipline regardless of the economic situation to ensure the country's financial stability in the face of various external shocks. The first half of the 2010s witnessed Morocco's commitment to this rigorous approach to fiscal management. After two decades of fiscal consolidation that reduced the budget deficit to -2.1 percent of GDP in 2009, the fiscal situation deteriorated again, raising concerns about the path taken by public finances. The treasury's financing needs increased significantly, with the government having to mobilize financing equivalent to 5.7 percent of GDP on average, peaking in 2012 when the fiscal deficit reached 7.2 percent (Figure 15). There were two main factors behind this situation. The first was an increase in the food subsidies burden due to the higher energy bill, especially oil, and the second was a salary increase in the public sector to appease the social tensions that erupted in the country during the Arab Spring. In this difficult economic context, the Moroccan government made a bold decision in 2013 to embark on an ambitious reform of the food subsidies system, starting with energy products, particularly oil products between 2013 and 2015. In parallel, the authorities also reviewed their public investment strategy, reducing the effort compared to previous years. These decisions were necessary to restore the country's budget deficit, which gradually decreased over the rest of the decade to reach 3.6 percent of GDP in 2019. They demonstrate the country's commitment to maintaining fiscal indicators at sustainable levels.

Figure 15. Fiscal balance in % of GDP, 2000-22



Source: Ministry of Finance.

Figure 16. Contribution to changes in expenses, in %, 2007-21



Source: Author’s calculations based on Ministry of Finance data.

Morocco shows strong fiscal discipline and aggressive fiscal adjustment compared to other middle-income countries. More specifically, this fiscal discipline can be observed in Table 1, which shows the average duration and degree of budgetary adjustment in Morocco compared to other countries. The main message from this table is that consolidation periods in Morocco last on average 4.2 years, which is not far from the average for middle-income countries. However, it appears that the Moroccan government is more serious and aggressive in its budgetary adjustment. Compared to countries with similar income levels, for the same average budgetary consolidation period of four years, Morocco can reduce its deficit by 4.6 percentage points, compared to an average reduction of 3.1 percentage points among middle-income countries.

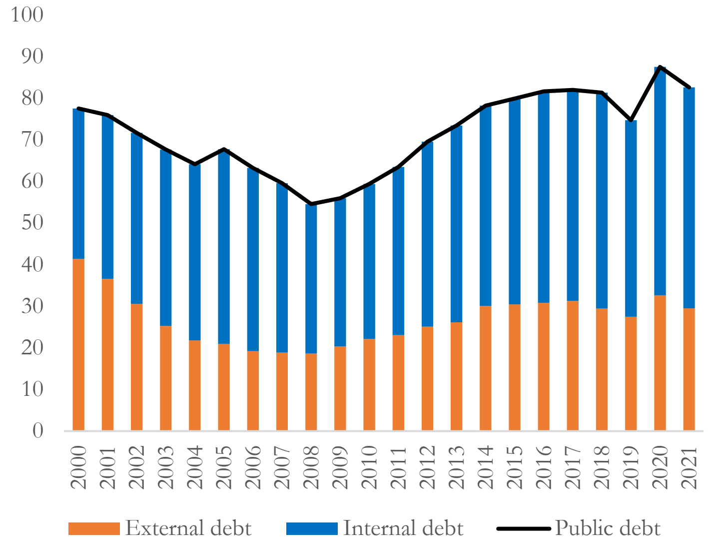
Table 1. Duration and intensity of fiscal consolidation episodes

	Morocco	LIC	MIC	HIC
Duration (in years)	4,2	3,0	4,3	6,0
Intensity (in pp)	4,6	3,5	3,1	4,2

Source: Authors' calculations based on World Economic Outlook data (WEO, 2022).

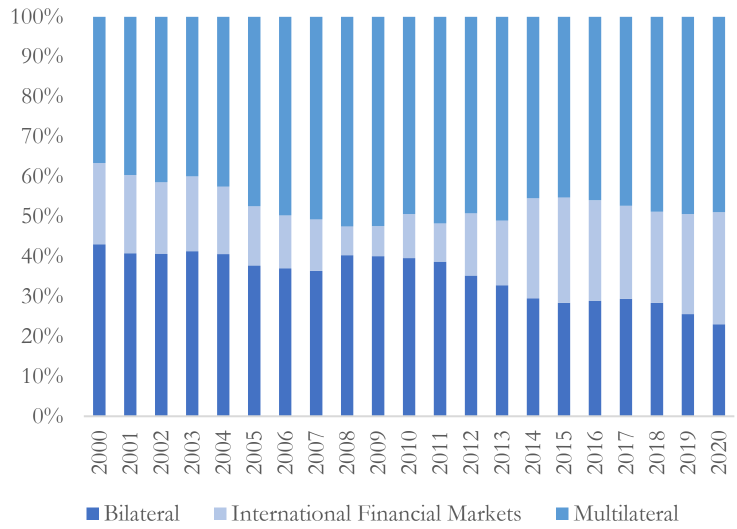
A slight change in the government's financing strategy; the external debt option was reactivated after 2009. The Structural Adjustment Program (SAP) is commemorated as a difficult period that revealed the economic consequences of a strong dependence on foreign borrowing rather than domestic borrowing. After this era, and since the creation of the treasury bond market in 1992, the Moroccan government has preferred to meet its financial needs by issuing sovereign bonds in the local market while gradually reducing the proportion of external debt in the public debt. This strategy continued until 2009, which marked a turning point in the country's choice of financing, with the country resorting, for the third time in its history, to international financial markets, thus announcing an increasing reliance on external financing. The attainment of the "Investment Grade" rating by Fitch in 2007 and Standard and Poor in 2010 gave Morocco the opportunity to access private lenders more easily and borrow at a favorable cost. In 2008, around 60 percent of Morocco's external financing, representing 18.6 percent of GDP, came from bilateral creditors, mainly European, while the rest came from multilateral institutions. Over time, the composition of its loan portfolio has evolved and diversified (Figure 18).

Figure 17. Public debt, 2000-21, in % of GDP



Source: Ministry of Finance.

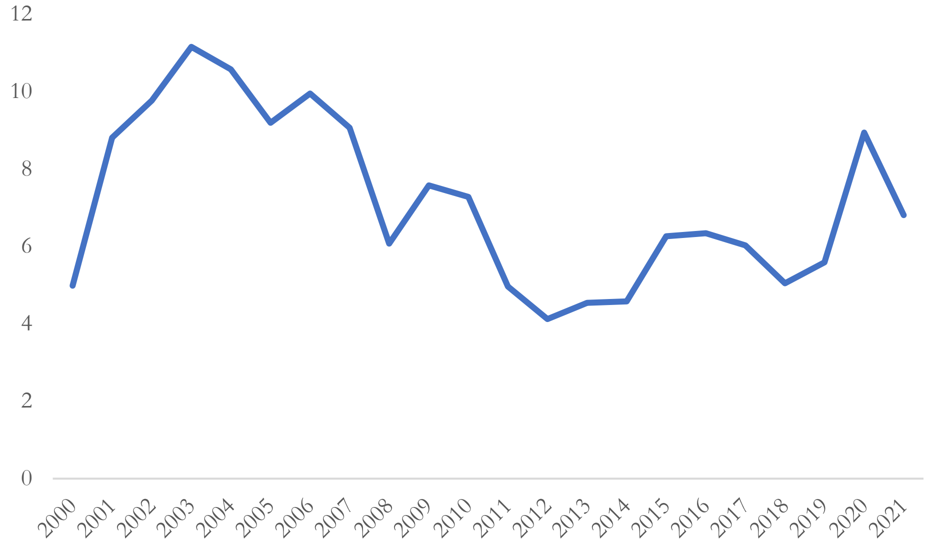
Figure 18. External debt by creditors, 2000-20, in %



Source: Ministry of Finance.

The use of external debt by the Moroccan government is driven by factors such as the level of foreign exchange reserves, interest rate differentials, and the risk of a crowding-out effect resulting from excessive reliance on domestic financing. Firstly, it is related to the level of foreign exchange reserves, which have been heavily impacted by multiple external shocks that have affected the country's current account balance. These shocks include the international financial crisis, which led to a decrease in foreign demand, especially from Europe, as well as the rise in commodity prices, particularly oil. As a result, foreign exchange reserves, which amounted to eight months of imports in 2007, fell to less than four months of imports in 2012. However, the use of foreign currency-denominated debt has helped strengthen the level of these reserves, which reached nine months of imports in 2019 (Figure 19).

Figure 19. Total reserves in months of imports, 2000-21



Source: World Development Indicators, World Bank.

The second factor is related to the interest rate differential between the domestic market and the international financial market. Indeed, the quantitative easing policies implemented by major global central banks during the 2010s led to a drop in interest rates internationally. This situation was favorable to Morocco, which then multiplied its Eurobond issuances. These bonds were sometimes accompanied by more favorable interest rates than those offered on the domestic market. For example, in June 2014, Morocco issued USD 1.37 billion in Eurobonds with a 10-year maturity and an interest rate of 3.5 percent. This rate was 130 basis points lower than treasury bonds traded on the secondary market for the same maturity.

The third factor is related to the risk of the crowding-out effect resulting from the government's excessive reliance on domestic financing. This situation drives up treasury bill rates, which may deter domestic investors from channeling their funds toward the domestic economy. This situation occurred notably in 2013 and to a lesser extent in 2020. In 2013, the net subscription of commercial banks to treasury bills exceeded lending to the real economy, and firms were hesitant to borrow due to high costs. In such situations, the government is more inclined to opt for external financing, which helps alleviate tensions in the treasury bill market and reduce the risk of a persistent crowding-out effect.

These three factors explain the Moroccan government's choice to reactivate the option of external borrowing to finance its budget deficit over the past 15 years. The government has taken advantage of a favorable international macroeconomic environment to accumulate more reserves, ensure the sustainability of the fixed exchange rate regime, and avoid major pressures on domestic financial conditions. Under these conditions, Morocco's public debt increased dramatically to reach 92.4 percent of GDP in 2020 (Figure 17), with the external component representing the largest share of this new accumulation. However, although external debt has become a significant part of public debt, the debt structure remains dominated by domestic debt, which represents 58 percent of GDP in 2020 and has followed the same trend as in the 2000s.

The COVID-19 shock has impacted the budget situation, but without compromising the sustainability of public finances. In response to the economic and social crisis brought about by the COVID-19 pandemic, Morocco implemented a fiscal response comprising a set of measures aimed at supporting affected businesses and households. These measures included tax relief, subsidies, and social assistance, at a cost estimated at seven percent of GDP. However, this fiscal package resulted in an increase in the fiscal deficit from 3.6 percent of GDP in 2019 to 5.9 percent in 2021, leading to an 8.6-point increase in central government debt over two years, reaching 68.9 percent of GDP in 2021.

Despite this deterioration in the public finance situation, Morocco’s public debt remained sustainable. This is attributed to the fiscal consolidation initiated in 2021, which reduced the budget deficit to 5.3 percent and significantly contributed to maintaining fiscal sustainability and preventing any debt explosion. Morocco also benefited from the fiscal space created in the pre-COVID-19 period, which enabled a rapid recovery of the fiscal situation. The IMF confirmed this assessment in the Article IV consultation. It highlighted that Morocco's treasury debt did not pose a serious long-term threat to the government, with moderate to low risks of debt explosion. The outlook is relatively favorable, and the debt should be kept below 70 percent in the medium term (IMF, 2023). The sustainability of Morocco’s public debt is also reinforced by some characteristics of its profile, including its relatively long maturity (approximately six years on a weighted average basis), low proportion denominated in foreign currencies (approximately 25 percent), and investment base primarily composed of local investors, many of whom are long-term investors (IMF, 2023). Thanks to these characteristics, as well as its strong track record and favorable ratings, the Moroccan government has maintained regular access to international capital markets on favorable terms over the past 10 years, and more recently, after the health crisis.

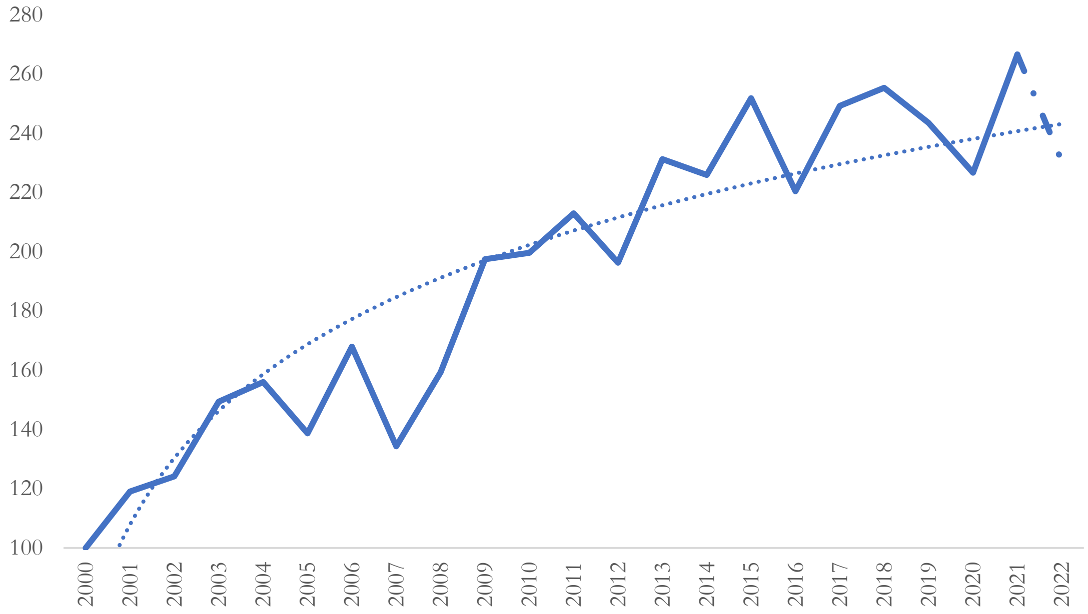
Box 2. The Moroccan economy in 2022

A year of severe drought that impeded the agricultural sector

In 2022, Morocco was subject to one of the worst droughts of the last 30 years, which has significantly impeded agricultural output (Figure 20). The latter has fallen by 15 percent in 2022, according to the most recent estimates. In addition, geopolitical tensions and the surge of inflation globally have tilted the balance of risks to the downside. Consequently, Morocco witnessed a surge in prices fueled initially by imported inflation before spreading to the whole economy, including non-traded goods.

Box 2. The Moroccan economy in 2022 (contd.)

Figure 20. Agricultural value-added, 100=2015

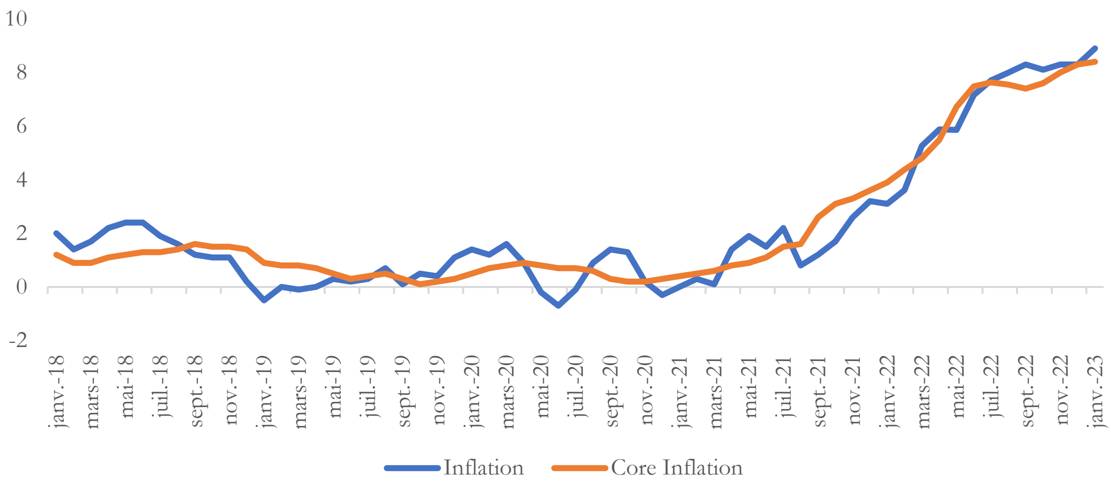


Source: HCP, authors' calculations.

Inflation has made an astonishing comeback

After more than a decade of very low and moderate inflation, the Moroccan economy entered a new regime of quickly increasing prices, fueled by internal and external factors. As an imports-dependent economy, Morocco suffered from the surge in commodity prices and energy products. In 2021, inflation settled at 3.2 percent in Morocco while it reached, on average, six percent within its main partner economies. In 2022, inflation reached, on average, 6.6 percent on an annual basis, with most increases concentrated on transport and food consumption. The latter reached 17.4 percent in early 2023, on an annual basis. The supply-driven price shock eventually spread to core inflation, which has also been steadily increasing, reaching 8.3 percent at the end of 2022, on an annual basis.

Figure 21. Headline inflation and core inflation, 2018-23



Source: BAM.

Box 2. The Moroccan economy in 2022 (contd.)

The price shock was favorable to the public finances

Many levers were activated in an attempt to avoid a sharp fall in purchasing power. In particular, the government injected an additional MAD 16 billion (approximately USD 1.4 billion) to the main subsidy mechanism, which amounted to almost 3.5 percent of GDP. Still, despite the sharp increase in public expenditure, the situation of public finances has improved, thanks to an unexpectedly good performance of fiscal revenues, the value of which has significantly increased, pushed up by the price shock. Consequently, the public deficit improved in 2022, settling at 5.2 percent of GDP far from the 5.9 percent initially expected by the government. Public debt has also stabilized at around 82.5 percent but is expected to increase next year (HCP, 2023).

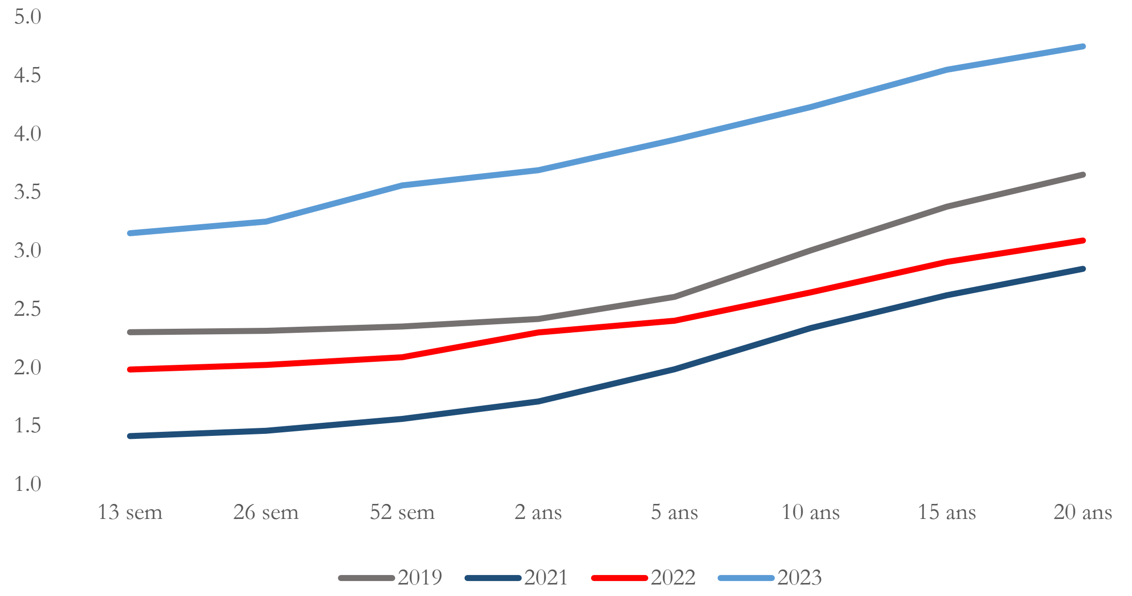
Global and domestic financing conditions have tightened

The financing conditions have considerably tightened under the pressure of the global financial cycle. Monetary policy tightening in the US and the Eurozone has pushed up the rates at which Morocco borrows in the international market. Also, in reaction to the surge in prices, BAM increased its main rate by a total of 100 basis points, which resulted in an upward shift of the yield curve. At the end of 2022, it also signaled its intention to intervene in the secondary market for T-bills to improve the liquidity of the market. Overall, the stance of the monetary policy remains accommodative, as the real interest rate evolves into the negative territory (IMF Article IV, 2022).

The current account has significantly improved, despite the sharp increase in imports

The current account closed on a deficit of two percent of GDP, according to the most recent estimates, despite the increase in the value of imported goods under the pressure of the increase in commodity prices. The latter has been particularly beneficial to phosphate activity, with a sharp increase in its exports. The other components of the current account have witnessed a solid performance. Tourism receipts in particular almost tripled over the course of 2022 compared to 2021, which was a year of strict restrictions on traveling.

Figure 22. Evolution of the yield curve, 2019-23



Source: BAM

Box 2. The Moroccan economy in 2022 (contd.)

With many structural reforms in the pipeline, the government will face serious trade-offs in terms of financing as financial conditions remain tight. At the same time, exogenous shocks, such as the drought and the terms-of-trade shock of 2022, require budgetary levers to smooth the impact on the main macroeconomic aggregate. While debt has stabilized in 2022, official projections do not capitalize on further reductions. As per the three-year budgetary program, public debt is expected to rise in the coming years.

Overall, the new outlook of the Moroccan economy has put the question of debt sustainability at the forefront once again, which becomes even more relevant given the ambitious track record of policy changes that Morocco has initiated.

5. Why does the examination of debt sustainability in Morocco merit consideration?

Over the past decade, the Moroccan economy has maintained an economic equilibrium that allowed for the sustainable and prudent management of public debt, contributing to the strength of the macroeconomic framework. However, in recent years, this stability has been challenged by a series of shocks, including the COVID-19 pandemic and surging inflation, which have compounded the slowdown in economic growth that began in the early 2010s.

The slowdown in economic growth, further exacerbated by the staggered effects of the COVID-19 crisis on economic activity, poses a risk to debt sustainability. Firstly, it constrains the government's capacity to generate fiscal resources due to the reduction in the tax base. Consequently, the government may be compelled to curtail its expenses and limit the implementation of resource-intensive reforms[12] while also resorting to countercyclical measures during times of crisis. Secondly, a lower potential growth rate will have significant implications on the country's structural budget deficit, potentially rendering it persistent and exacerbating the vicious cycle of debt accumulation.

Inflation is another factor weighing on debt sustainability. While inflation is generally perceived as good news for borrowers as it reduces the real value of debt and interest payments, the situation in Morocco is more complex due to the decline in potential growth. This may compromise the usual gains associated with the differential between the growth rate and real interest rate. Additionally, the heightened inflation has triggered the most aggressive monetary policy tightening; putting huge pressure on the affordability of funding leads to increased financing costs, both domestically and internationally, at a time when the need for refinancing persists due to the recent structural reforms undertaken by Morocco. In addition to these challenges, the sustainability of Morocco's debt crucially depends on the need to reduce the trade deficit and diversify the sources of financing. The country is currently facing challenges in its external trade balance, with a persistent deficit and heavy reliance on imports of capital goods and energy products. This situation could have a negative impact on the country's ability to repay its debt in the long term. If these imbalances persist, it could lead to a decrease in

[12] See Box 3.

Morocco's foreign exchange reserves, resulting in a depreciation of the national currency in a context where the country has initiated a gradual flexibility of the MAD, making the repayment of external debt more difficult.

Given these structural and conjunctural challenges confronting the Moroccan economy, along with the global context and uncertain prospects, the issue of debt sustainability naturally emerges as a pressing concern for the country's public finances in the years to come, necessitating a comprehensive assessment.

II – Description of the DSA model for the Moroccan economy

In this section, we will develop the main model that will be used to perform the DSA.

Table 2. The economic model used to analyze the Moroccan case

Equation	Definition	Equation number
$YR_{t+1} = (1 + g_{t+1})YR_t$	The growth process of real GDP.	Equation (1)
$YN_{t+1} = (1 + g_{t+1})(1 + \pi_{t+1})YN_t$	The growth process of nominal GDP.	Equation (2)
$gTCR_{t+1} = \frac{TCR_{t+1}}{TCR_t} - 1$	The evolution of the Real Exchange Rate (RER).	Equation (3)
$TCN_t = TCR_t \cdot \frac{P_t}{P_t^*}$	Definition of the RER.	Equation (4)
$P_{t+1} = P_t(1 + \pi_{t+1})$	Definition of the inflation rate.	Equation (5)
$P_{t+i}^* = P_t^*(1 + \pi_{t+1}^*)$	Definition of the inflation rate abroad (US).	Equation (6)
$DP_t = G_t - T_t$	Primary deficit expressed as the difference between public expenditure (without interest on debt) and fiscal revenues.	Equation (7)
$BG_t = B_t + TCN_t \cdot B_t^*$	Total public debt decomposition.	Equation (8)
$B_t^* = \left(\frac{1-\lambda}{TCN_t}\right).BG_t$	External public debt.	Equation (9)
$B_{t+1} = \lambda.DP_{t+1} + \left[\lambda.(1 + i_{t+1}) + (1-\lambda).(1 + i_{t+1}^*)\frac{TCN_{t+1}}{TCN_t}\right]B_t - \lambda L_{t+1}$	Debt dynamics.	Equation (10)

Based on an accounting framework, we focus on the main aggregate variables that have an impact on the trajectory of debt and its sustainability. While the structure remains ad hoc, we remain open to further endogenizing some variables of the model and adding others to account for underlying mechanisms that do not explicitly appear in this basic version.

We start by specifying the growth process of the real GDP, as shown in Equation (1). Growth is at the very heart of the analysis of public debt sustainability as it is one of the main mechanisms that govern the evolution of the debt-to-GDP ratio (D/YN). In the specific case of Morocco, as mentioned in section I.1., debt adjustment has often relied on growth rather than public finances optimization, in normal times. An exception can be made for the 2010-14 period (described above), when the government had to shrink public expenditure to restore internal equilibrium.

Equation (2) specifies the dynamic equation of the nominal GDP, which simultaneously captures the effect of economic growth and the effect of inflation on the denominator of D/YN. Inflation is also a key variable in reducing the burden of public debt as it inflates the nominal GDP. In our model, the impact of a one-pc increase in growth rate or one-pc increase in inflation rate have same effect on the nominal GDP.

Equations (3) and (4) capture the main link to the external sector, which is key for public debt sustainability.

Equations (5) and (6) are based on the definition of the price index (or the definition of the inflation rate) and describe the evolution of price across time, at home and abroad (US), respectively. Equation (7) is the primary balance that describes the behavior of the government with respect to public finances management, excluding debt service, which has major implications for the evolution of the debt. All else equal, an increase in the primary deficits induces an increase of the debt. Equations (8) and (9) define the stock of the global debt and its allocation between domestically (B) and externally (B*) contracted debt. Lambda is the share of domestic debt (B) in the total public debt (BG).

Finally, Equation (10) is the key equation that defines the debt dynamics in the model. It highlights all the factors that govern the trajectory of the stock of domestic public debt, which are the primary deficit, the initial stock of debt, and the interest payments. It also considers liquidity lines provided by BAM to the Moroccan treasury. The latter has been deployed since January 2023 by the central bank to "inject permanent liquidity" in the market through the acquisition of T-bills in the secondary market. This contributed to softening the pressure on short maturities and thereby enabled the government to fund its needs on more affordable terms.

III- Scenarios and simulations

Using the model to assess debt sustainability in Morocco

1. Description of the scenarios and shocks

The baseline scenario (see the Annex for an extensive description) is subject to some level of uncertainty, as some unexpected events or shocks could potentially have adverse effects on the debt path. The magnitude and duration of the impact may differ depending on the nature of these shocks. Macro-fiscal stress tests of the baseline scenario assumptions can help identify the extent to which debt dynamics are sensitive to the potential realization of macro-fiscal risks. In this regard, we presume that Morocco is likely to encounter a worsening of its macroeconomic context due to a confluence of inflation, real GDP growth, and interest rate shocks. Therefore, we analyze two hypothetical scenarios to evaluate and project the potential effects on debt dynamics:

Table 3. DSA assumptions

	Basic scenario	Less pessimistic scenario	Pessimistic scenario
Real GDP (in %)	Rebound in 2023 and then stabilization at around 3.5 percent.	Deterioration in economic activity to 0.7 percent for two years due to unfavorable weather conditions.	A permanent decline of one percentage point.
Inflation (Morocco)	Fall from around four percent in 2023 to two percent afterward.	Temporary rise by 0.5 percentage points, but back to normal starting from 2024.	Persistently high above three percent.
Interest rates on domestic debt	Gradual increase from 3.7 percent in 2021 to 4.1 percent in 2027.	Increase by 50 basis points in 2023 and 20 basis points on average in the next four years before reverting back to normal.	Rise by an average of 100 basis points over the next two years and stay permanently high.
Interest rates on external debt	Monetary policy tightening will affect partially and progressively the cost of borrowing.	An increase of 75 basis points in 2023, followed by a gradual decrease in 2026.	An increase of 100 basis points is expected over the next two years.
Public expenditure (Interest not included) % GDP[13]	A gradual fall from 29 percent of GDP in 2021 to 27.2 percent in 2027.	—	—
Budget receipts in % GDP	Gradual increase from 25.1 percent in 2021 to 26.5 percent in 2027	—	—
Inflation (USA)	High inflation with a gradual decline to around two percent from 2024.	—	—
Bilateral nominal exchange rate (USA/Morocco)	Depreciation in nominal terms.	—	—

The first scenario is characterized by a **pessimistic outlook** of the input variables. We examine the debt dynamic under a permanent decline in economic growth, persistent domestic inflation, and high interest rates.

- **Domestic inflation shock:** This scenario is based on BAM forecasts. The acceleration of the rise in food, fuel, and lubricant prices will be the main reason for this increase in inflation. Therefore, it will rise to 3.9 percent in 2023 before rebounding to 4.2 percent in 2024, in line with the expected decompensation of the prices of subsidized products, as the government intends to cancel the compensation fund in 2024 to lighten the budget. The return to two percent inflation, the historical inflation recorded in the last two decades, would be difficult in the years to come, as inflationary expectations would be increasingly de-anchored.

- **Real GDP growth shock:** The following scenario presents a pessimistic outlook, whereby a permanent decline in economic growth toward a lower plateau is envisaged. The assessment considers the implications of a hypothetical one percentage point shrinkage in

[13] Optimistic forecasts by the IMF and other international institutions support Morocco's MEF baseline scenario for public expenditure and budget receipt. The IMF forecasts a reduction in the budget deficit from 7.1 percent of GDP in 2020 to 4.9 percent of GDP in 2023 and 4.4 percent in 2024. Other international institutions are also positive about the Moroccan economy. Fitch, for example, forecasts that the budget deficit will fall from 5.1 percent of GDP in 2022 to 4.9 percent of GDP in 2023 and 4.4 percent in 2024.

growth along the period. Such an outcome may occur should the COVID-19 crisis have long-lasting effects on the economy's supply capacity. Historical precedent exists for this situation, as the Moroccan economy experienced a comparable decline in potential growth following the global financial crisis. Specifically, growth fell from 4.4 percent on average to around 3.2 percent, as previously noted.

- **Interest rate on domestic debt shock:** Over the last two decades, domestic interest rates on debt have followed a downward trajectory, declining from approximately eight percent in 2000 to around four percent in 2020. However, the current economic context suggests that a reversal of this trend is not impossible. High rates of inflation in the country have pushed real interest rates into negative territory, causing domestic investors to demand higher yields to compensate for the elevated inflation and weakening their appetite for treasury bills. Therefore, it is reasonable to expect that in a persistently inflationary context, real interest rates on domestic debt would tend to return to positive territory. BAM raised its monetary policy rate by over 100 basis points to tackle the inflation and these decisions have passed on swiftly to T-bills markets. As a result, the nominal interest rate would likely increase by an average of 100 basis points over the next two years.

- **Interest rate on external debt shock:** This scenario assumes that the international inflation rate will remain high in the upcoming two years, especially in the US and EU. In this regard, we suppose that the FED and the ECB will keep their hawkish monetary policies in order to stamp out inflation by continuing to raise their policy rate. For instance, in December 2022, the FOMC revised the projections of the inflation rate upward and, thus, those of the federal fund's rate. Although the pace of the interest rate hikes decreased at the December and January meetings, the Fed signaled its intention to pursue ongoing increases in the target range, with the objective of establishing a monetary policy stance that is sufficiently restrictive to achieve two percent inflation in the future. These dynamics will have spillovers on the international financial market with a persistent tightening of financing conditions that could increase the cost of Morocco's foreign debt and eventually weigh on its fiscal sustainability. This situation supposes that Morocco will issue bonds at the international level in order to, for example, support the recovery process and meet the ambitions of setting a comprehensive social protection[14] system without incurring the risk of crowding out the private sector. Or, it may rollover the Eurobonds that will mature over the next three years amounting to USD 4.1 billion, and repay USD two billion precautionary line of liquidity drawn in 2020. The assessment of this scenario considers that this hypothesis will be translated with a 100-basis-point increase in the international interest rate in the next two years and that their adjustment will take a relatively long time before converging to the baseline.

The second scenario is assumed to be less pessimistic than the first, as it considers a less severe deterioration of the macroeconomic context.

[14] For more information on the social protection reform in Morocco, see Box 3.

- **Domestic inflation shock:** The convergence of strong demand and limited supply has led to sharp increases in prices across numerous industries, including energy. Additionally, agricultural output has declined by 14 percent due to drought conditions. However, as international markets have witnessed a decrease in prices and with ample rainfall this year, the constraints on supply are expected to ease, resulting in a deflationary trend that should reverse the price surges. It is anticipated that things will return to their normal state by 2024.

- **Real GDP growth shock:** Our analysis examines how the agricultural sector would be affected by climate change shock and thereby its implications for economic growth. We consider the impact of two years of total growth at 0.7 percent, as was the case in 2022 when extreme weather conditions led to a 15 percent decline in agricultural output. Such severe climate events may become more frequent in the region, given that the country is at risk of entering a situation of extreme water stress by 2050 (World Bank, 2017).

- **Interest rate on domestic debt shock**: We believe that a greater reliance on external financing, along with the return of inflation to lower levels, should alleviate tensions in the local debt market. The pressure on domestic savings would be lessened, which would relatively ease rates in the medium term. In this scenario, we anticipate that the interest rate on domestic debt would increase by only 50 basis points in 2023 before returning to 2022 levels and remaining at the same level as in 2022.

- **Interest rate on external debt shock:** This scenario assumes that the initial aggressive monetary policies of the FED and ECB have tamped inflation faster than expected and will largely reduce the pace of their policy rate hikes. In December 2022, the FOMC reduced the pace of its policy rate increase from 70 to 50 basis points. Thus, we suppose that this stance will continue in 2023. In the context of the international financial market, interest rates would eventually adjust to these changes, and if Morocco issued bonds in 2023, the interest rate on its foreign debt is assumed to increase by 75 basis points before gradually decreasing in 2026.

Box 3. The progress of social protection reforms in Morocco

Morocco stands out in the region with its comprehensive social protection system, aiming to create an inclusive economic and social environment that promotes social mobility and equal opportunities regardless of background. The catalyst for this reform was the COVID-19 shock, which underscored the importance of establishing such a scheme to provide adequate economic and social buffers for vulnerable populations. The current crisis affecting both the global and Moroccan economy has further emphasized the urgency of advancing these reforms, placing them at the forefront of the political agenda. The reform encompasses four dimensions:

- The extension of mandatory health insurance coverage to include new beneficiaries, including self-employed workers and their dependents as well as former beneficiaries of the Régime de l'Assistance Médicale program (RAMED) and their dependents. This extension is planned to cover an extra 60 percent of the total population.

- The expansion of family allowances to benefit 19 percent of the population equivalent to seven million school-age children, with implementation scheduled for the year 2023.
- The universalization of unemployment benefits for all workers with regular employment, planned for the year 2024.
- The expansion of the number of beneficiaries of retirement pensions by an additional 13 percent of the population among the active population who currently do not have access to a pension, planned for the year 2025.

Regarding the progress of the reform, the first pillar, which aims to achieve the universalization of mandatory health insurance, is already underway. By December 2022, approximately 11 million Moroccans gained access to the private healthcare sector and have the same benefits as formal workers contributing to the system. The transition from the RAMED program to mandatory health insurance (AMO) offers numerous advantages, including access to public healthcare services, the reimbursement of medication and diagnostic expenses, as well as the reimbursement of consultations and medical services in the private sector. The government assumes the responsibility of covering the contributions for poor and vulnerable people. It is important to note that under the previous system, namely RAMED, this population had access only to the public healthcare system.

As for the second dimension, which focuses on expanding family allowances, dedicated funding has been allocated to support this program, awaiting a final move for implementation.

The main challenge lies in the financial architecture of this program. It has been estimated that the program will require the yearly mobilization of four percent of GDP, 31 percent of which will be borne by the public sector. The reform was planned to go hand-in-hand with the phasing out of the subsidies system to basic products that account for three percent of GDP in 2022. The minister has clearly stated that this reform has been postponed, in this inflationary context, rather than canceled.

2. Discussion of the main results and robustness checks

Considering the previously described scenarios, we can analyze the results from the model. A first general comment is that whether the economy evolves according to the ongoing trends – taking into account the reforms that are close to realization or likely to see the day in the next years (baseline) – or whether the economy slightly misses the post under the influence of the volatility of the agricultural sector for the most part (less pessimistic), the model delivers projections that exhibit a stabilization and consolidation of debt over the chosen time horizon. Only the last scenario – which is considered very pessimistic, with a persistence of inflation, further tightening of the financial conditions, and lower than expected growth rate – exhibits a steady increase of the public debt-to-GDP ratio.

Figure 23 below gives the path of the public debt-to-GDP ratio under different circumstances. In the baseline scenario, considering that growth goes back to its trend, that inflation persists momentarily but goes back around its target in 2024, and that the government manages to safeguard macroeconomic stability while consolidating its expenditure (excluding interest payments), then the public debt-to-GDP ratio should engage in a stabilization phase starting in 2024 and engage in a declining phase from 2027 onward.

Departing from the baseline, the less pessimistic projection exhibits a pattern that is mostly consistent with the evolution of the Moroccan economy under this scenario. In 2023, we project the ratio to decrease, an evolution that would be driven, for the most part, by the persistence of inflation, which is not compensated by the projected discretionary increase in public expenditure. As inflation resumes to its target in 2024 and the economy decelerates, under the impact of a bad agricultural yield, we expect debt to pick up again. The subsequent return to business-as-usual in inflation leads to an increase in the public debt-to-GDP ratio of around 76 percent until 2027. As the level of debt stabilizes and inflation remains around the two percent level, the evolution of the ratio mainly reflects the growth and fluctuations in interest payments.

In the pessimistic scenario, the ratio first falls, again reflecting the persistence of inflation. Yet, even if the inflationary pressures do not resolve by the end of the window of projection, debt picks up again, mostly reflecting the surge in interest payments (Figure 24). The volatility of growth, which is conditioned by the volatility of the agricultural value-added, also plays its part in accelerating the increase of the debt-to-GDP ratio. Under this scenario, the economy moves to a very low growth regime. In the end, despite inflation being a factor of impact on the denominator, it does not cancel the negative impact of growth deceleration and the increase in interest payments, despite the efforts to consolidate the primary deficit.

Based on these scenarios, if the public-debt-to-GDP ratio is high, by Moroccan standards (the 78 percent ratio prior to the Structural Adjustment Plan) and by what is observed in the emerging markets (70 percent based on the IMF), its trajectory remains sustainable, conditional on the absence of sharp deterioration of the economic conditions.

Finally, we compare the results of our model with the latest projection of the IMF, part of the Article IV Annual Consultation. We do not find substantial differences between our figures and theirs.

Figure 23. Total debt-to-GDP ratio, in three scenarios

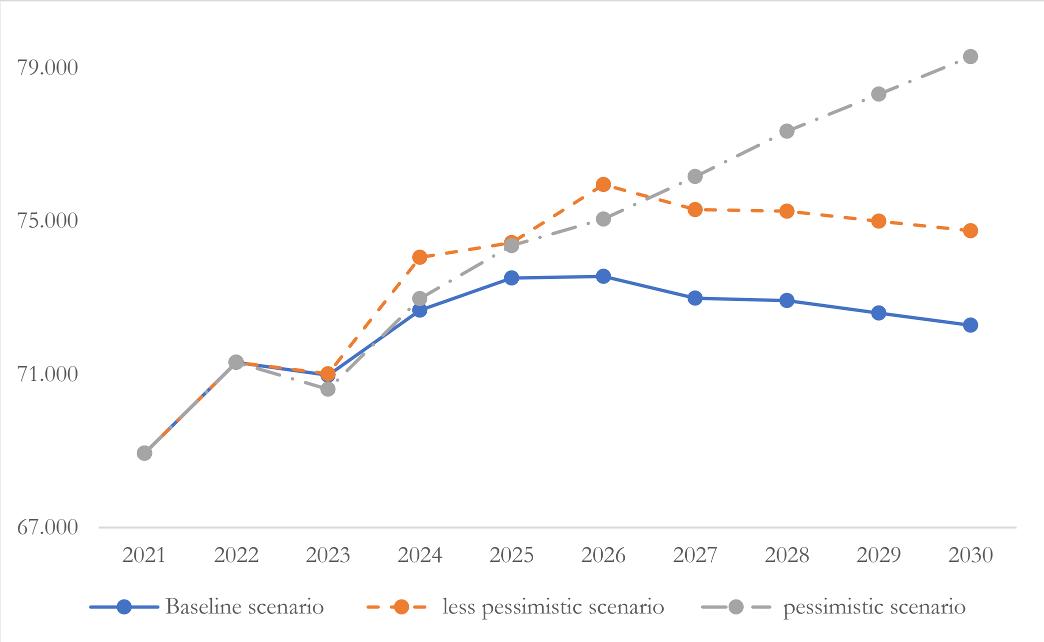
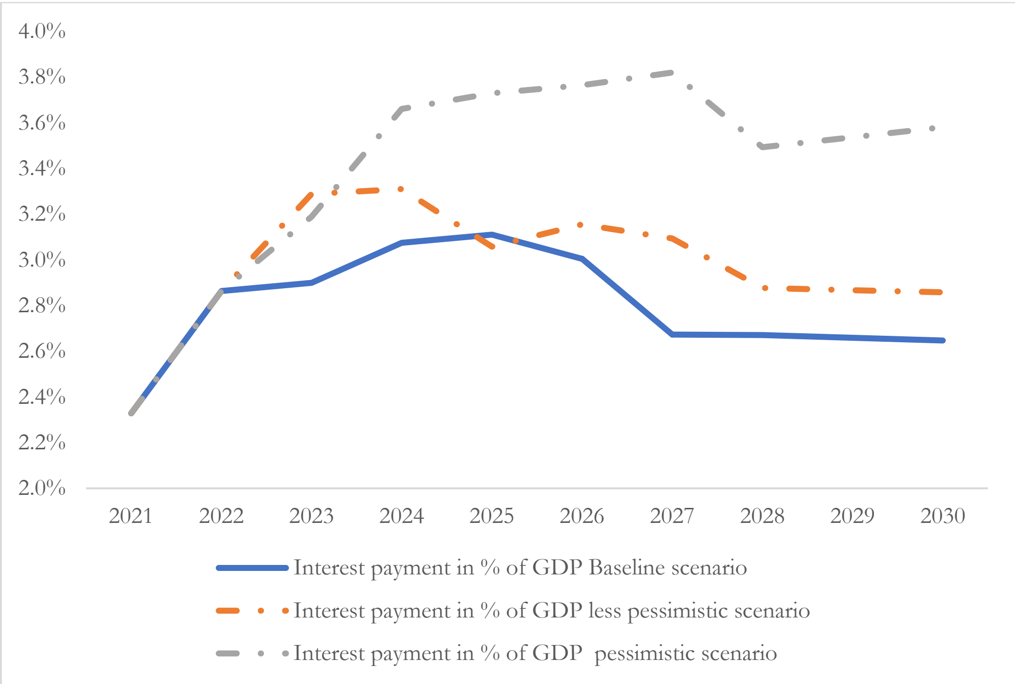


Figure 24. Interest payment, in % of GDP in three scenarios



Source: Authors' calculations based on the DSA.

IV- Analysis of the market sentiment: Complementary approach to debt sustainability approach

Assessing the sustainability of debt is a complex task that goes beyond the use of mere mathematical models and quantitative indicators. Despite its objectivity, this analysis cannot provide a comprehensive assessment and may sometimes fail to anticipate payment defaults. The Greek debt crisis serves as an example where, initially, the debt was deemed sustainable based on the analysis. Later on, however, the government encountered challenges in repaying the debt due to underlying structural issues (IMF, 2009). This highlights the importance of considering broader factors than traditional indicators in assessing debt sustainability, including the perception of investors and lenders regarding the country's solvency and financial viability. Overall, combining a pragmatic approach to debt with an analysis of investors' perception and the confidence of the market can offer an insightful and complementary view of the debt sustainability issue.

In this regard, Morocco has consistently enjoyed a positive perception from financial actors. Several recent developments testify to this favorable opinion. It began with the Investment Grade rating that Morocco successfully obtained in 2007 and maintained for nearly 14 years until the COVID-19 pandemic disrupted the macroeconomic equilibrium. Although the shock was unprecedented and the implications were severe, Morocco managed to tap into the international financial market and secure financing of EUR one billion in September 2020 and MAD three billion in December 2020, at rates ranging from 1.37 percent to four percent for the longest maturity. Overall, Morocco has always maintained access to international capital markets on favorable terms.

The latest bond issuance took place in March 2023, amidst a tightening of the cost of debt and marking the first issuance since Morocco lost its Investment Grade status. It involved the issuance of two dollar-denominated bonds, each worth USD 1.25 billion, with maturities of five and 10 years, carrying respective rates of 6.5 percent and 6.9 percent and spreads of 235 basis points and 300 basis points below the J.P. Morgan EMBI Global Spread indicator by around 100 basis points. The bond was oversubscribed almost four times, with a favorable spread of 235 basis points and 300 basis points (IMF, 2023),[15] demonstrating the strong appetite of international investors for Moroccan debt.

Furthermore, Morocco has recently entered a two-year agreement with the IMF under the Flexible Credit Line (FCL) program, which provides support of approximately USD five billion (IMF, 2023). This approval places Morocco in a select group of countries that have demonstrated sound economic policies and a track record in crisis prevention and resolution. To date, only Poland, Peru, Chile, Mexico, and Colombia have achieved this status. Access to this insurance mechanism follows previous access to a less flexible version called the Precautionary and Liquidity Line (PLL) in 2012, which was subsequently renewed three times.

By securing the FCL, Morocco strengthens its position in managing economic challenges and maintains access to critical funding sources. This arrangement not only serves as a testament

[15] International Monetary Fund. (2023). Morocco: Request for an Arrangement Under the Flexible Credit Line—Press Release; Staff Report; and Statement by the Executive Director for Morocco. Retrieved from https://www.imf.org/en/Publications/CR/Issues/2023/04/24/Morocco-Request-for-an-Arrangement-Under-the-Flexible-Credit-Line-Press-Release-Staff-532683

to the country's prudent economic policies but also instills confidence in international investors, contributing to favorable conditions in both domestic and international financial markets.

Morocco's attractiveness to foreign investors reflects the positive perception of its macroeconomic framework. FDI accounts for approximately 2.3 percent of the country's GDP, which is in line with the average of countries in the upper bracket of middle-income economies. This attractiveness has remained resilient despite the challenging period of the COVID-19 pandemic. According to the United Nations Conference on Trade and Development (UNCTAD), FDI flows to Morocco only declined by one percent in 2020, compared to a 30 percent decline in the rest of Africa (UNCTAD, 2021).[16]

Collectively, these various factors validate the high level of confidence that financial actors place in Morocco and reinforce the positive perception of its economic and financial standing.

V- Policy recommendations

The model used in the DSA provides policy-relevant indications on the projections of the central government debt in the next decade. It simulates the risk associated with a deteriorated global and domestic environment. However, at this stage, it does not incorporate all the dimensions required to draw policy recommendations for sound public finances management,[17] a prerequisite for maintaining a sound macroeconomic equilibrium.

Therefore, it is important to draw on the extensive literature addressing the reforms of the public finances in Morocco. The implications of such reforms go beyond the scope of public finance management and fall within the growth-enhancing policies to improve the overall performance of the Moroccan economy. These reforms can tackle, on the one hand, both the expenditure side through more targeted and efficient spending and resource mobilization enhancement, and, on the other hand, structural reforms to unlock the country's growth potential in light of the New Development Model roadmap, so the economy can cope with relatively high levels of debt and grow out of it. Chronologically, the identified reforms can be divided into three categories: short-term, medium-term, and long-term policy actions.

Short-term: Smart fiscal reforms for a prompt fiscal consolidation.

In the short term, there is a pressing need to reform the tax system in order to enhance efficiency and achieve equity. Concretely, Morocco needs to accelerate the implementation of a new fiscal framework that will allow for more efficient tax collection to meet the objectives of the generalized social protection reform, which is expected to mobilize an annual budget of around USD 5.5 billion. In fact, fiscal revenue mobilization in Morocco remains far from its potential despite relatively high tax pressure due to a narrow fiscal base (Agénor and El Aynaoui, 2015).

[16] UNCTAD (2021) and World Investment Report 2021: Investing in a resilient recovery. Retrieved from https://unctad.org/system/files/official-document/wir2021_en.pdf
[17] In Annex 2, we present the current model extensions that can offer model-based suggestions on how to bolster debt sustainability.

Revenue mobilization stood at 21.6 percent of GDP according to the IMF, while the tax gap is around 10 percent of GDP. Still, the fiscal framework in Morocco performs better than the average of middle-income countries, where tax revenues as a percentage of GDP do not exceed 11 percent (IMF, 2017; World Development Indicators, 2023). In its diagnostic, the Commission on the New Development Model (CSMD, 2021) notes the dysfunctions of the Moroccan fiscal system, notably the concentration of the fiscal base, the absence of imposition of several revenue sources, and the prevalence of economically inefficient fiscal expenditure. In this regard, the recent reform of corporate taxation is a first step, but the way forward will require further efforts to simplify the VAT regime and reduce regional and national disparities. According to a study by the IMF (2017), a comprehensive tax reform that cuts in fiscal exemptions, aligns VAT rates, lowers corporate taxation, and raises property taxation could boost long-term growth by one percentage point and government revenues by 1.8 percentage points. Furthermore, beyond its importance for revenue generation to achieve fiscal consolidation, this reform is also important to achieve fiscal equity.

On the spending side, a reorganization of tax expenditures is also of utmost importance for fiscal consolidation. According to the Ministry of Finance, tax breaks represent around 2.8 percent of GDP. While useful under certain circumstances, particularly in solving the problem of access to decent housing, they have not been subject to rigorous evaluation. Hence, their impact remains largely uncertain. According to the IMF, they also introduce distortions that prevent the proper functioning of markets and reduce the contestability of certain markets.

In addition, achieving an optimal fiscal consolidation will depend on reallocating public expenditure more efficiently. In an attempt to do so, Morocco partially overhauled the energy subsidies system in 2014 and then proceeded to liberalize the fuel market in 2015. Absent of targeting, a subsidy system offers much more benefit to the upper deciles of the households, with a high burden on public finances. To strengthen the functioning of its fiscal framework, the Moroccan government is planning on totally removing energy subsidies by 2025, replacing this system with targeted transfers to the lower deciles of the population (World Bank, 2019). It amounted to 5.1 percent of GDP in 2022, absorbing the increase in prices. Yet, improving efficiency will require much more effort in balancing how public funds are used and how efficiently they are allocated. This includes reshaping the portfolio of public enterprises to increase the royalties accrued to the Moroccan Treasury. Finally, a reform of the public sector's human resources strategy could improve the quality and efficiency of the services offered to the citizens and rationalize the public wage bill.

<u>Medium-term:</u> A more credible fiscal framework and an optimized public sector portfolio for better budgetary management.

Improving the overall credibility of the fiscal framework should be among the priority reforms in the medium term. In fact, a credible fiscal framework would allow for the better anchoring of the economic agents' anticipations regarding the evolution of the fiscal and tax policies, since a well-informed economic agent is more likely to make appropriate investments/savings decisions. This is, in fact, complementary to Morocco's efforts in increasing the share of the private investment in the total investment. Prior to the 2023 Finance Act, Morocco adopted a three-year plan for the evolution of the fiscal policy, including a three-year path for public debt. A complementary and necessary step is the adoption of a numeric objective in the form of fiscal rule (Agénor, 2015). Under such rule, the government commits to a path for the evolution of its budget, which limits the margins to deviate away from the sustainable path of public debt. In a more recent assessment, the results have shown how beneficial the introduction of the fiscal rule for the fiscal policy is in Morocco (IMF, 2023). This debt-anchor fiscal rule is expected to reassure market stakeholders of the government's firm commitment to restore equilibrium in response to shocks, yielding to the reduction of sovereign spreads and leading to a lower (optimal) debt in the steady state (IMF, 2022).

The medium-term policy actions should also aim to deal with some latent liabilities, in the form of a suboptimal public sector portfolio management that materializes in the prominence of SOEs and government-guaranteed SOE debt (12.4 percent of GDP), as well as the risk carried through the contingent liabilities resulting from the lack of funding of public pension funds. On this last point, Morocco completed the first step in parametrically correcting its pension system in 2016 and there are plans to further reform this system over the next years. Regarding SOEs, a public audit (2016) highlights a series of structural dysfunctions that characterize the overall portfolio of public enterprises, leading to the accumulation of debt. This point is also raised by the CSMD report (2021). Ultimately, it revolves around the need to review the role of the state as a shareholder within SOEs. A first step was conducted through a new government agency to manage the portfolio of SOEs. However, this reform can only be successful in full complementarity with a reorganization of the debt-addicted SOEs and the exploration of possible privatization in certain sectors.

Long-term: Growing out of debt reforms.

To help the Moroccan economy grow out of debt, the focus should primarily be on implementing a comprehensive national program with long-term strategies to foster economic development. Over a three-year period starting from 2019, Morocco underwent a thorough examination, leading to the creation of a holistic approach to tackle the issues of a stagnant economy and an outdated economic model. This approach, known as the New Development Model, was designed by a commission of unbiased experts from various fields. Their mission was to provide a comprehensive roadmap for the country's development across all sectors, ensuring objective and non-political bias.

Moreover, the various recommendations outlined in the New Development Model align effectively with the goal of reducing public debt. These measures are centered around accelerating economic growth to surpass an annual rate of six percent, enhancing the skillset of the workforce, promoting the inclusion and active participation of women in the labor market, and fostering environmental sustainability. These ambitious objectives necessitate a prudent reallocation of public expenditure, achieved by transitioning from a subsidy system to a targeted transfer system aimed at assisting the lower segments of the population (World Bank, 2019). Additionally, a comprehensive reform of social protection is proposed to elevate the quality of human capital in Morocco, ultimately leading to significant long-term economic growth. While there might be a slight negative impact on budget balances due to absorbing existing social programs with suboptimal performance, the implementation of a socially cohesive contributory system will play a pivotal role in this reform's success.

Finally, it is worth mentioning that all the aforementioned reforms can be significantly accelerated through a sound upgrading of the public accounting system to better reflect the public finances situation. In this regard, the reform of the public accounting system in Morocco, initiated with the adoption of the new Organic Law of Finance in 2016, introduced a governance model for public finances focused on transparency, reliability, and medium-term planning. This legislation brought significant advancements, notably with the implementation of a three-year programming framework, enabling better financial resource planning. However, to fully achieve the set objectives, it is necessary to delve deeper into certain aspects, particularly the consolidation of public sector accounts, which is crucial for ensuring a comprehensive and coherent view of public finances.

Currently, the Moroccan public accounting system is fragmented, with different public entities (ministries, agencies, institutions, and public enterprises) utilizing disparate accounting systems. This fragmentation hinders the consolidation of financial information and limits decision-makers’ ability to accurately assess the financial situation of the entire public sector. To address this situation, it is essential to establish effective mechanisms for consolidating public sector accounts. This entails harmonizing the accounting standards used by different public entities, establishing clear procedures for data collection and consolidation, and strengthening the expertise of public accounting professionals in this specific domain. (Benabdelhadi and El Mouissia, 2020).

References

Agénor, P. R., and El Aynaoui, K. (2015). Morocco: Growth Strategy for 2025 in an Evolving International Environment. Policy Center for the New South, Books and Reports, No. 2, January.

Ait Ali, A., Arbouch, M., Araujo, I. F., El Aynaoui, K., Haddad, E. A. (2020). The Impact of COVID-19 in Morocco: Macroeconomic, Sectoral and Regional Effects. Policy Center for the New South, Research papers.

Berahab, R., and Dadush, U. (2020). Has Morocco Benefited from the Free Trade Agreement with the European Union? Policy Center for the New South.

Bennouna, H., Lahlou, K., and Mossadak, A. (2016). Analyse des Canaux de Transmission de la Politique Monétaire au Maroc. Bank Al-Maghrib.

Chauffour, J.-P. (2018). Morocco 2040 Emerging by Investing in Intangible Capital. The World Bank.

Chafik, O. (2017). Estimation de la Croissance Potentielle de l'Économie Marocaine. Bank Al-Maghrib.

International Monetary Fund World Economic Outlook (2018). Chapter 2: The Global Recovery 10 Years after the 2008 Financial Meltdown.

International Monetary Fund (2023). Morocco: 2022 Article IV Consultation - Press Release; Staff Report; and Statement by the Executive Director for Morocco. IMF Country Report No. 22/116.

International Monetary Fund (2022). Morocco: 2021 Article IV Consultation - Press Release; Staff Report; and Statement by the Executive Director for Morocco. IMF Country Report No. 22/116.

International Monetary Fund (2023). Morocco: Request for an Arrangement Under the Flexible Credit Line

Ollivaud, P., and Turner, D. (2015). The Effect of the Global Financial Crisis on OECD Potential Output. OECD Journal: Economic Studies, 2014(1), 41-67.

Queyranne, M., Baksa, D., Bazinas, V., and Abdulkarim, A. (2021). Morocco's Monetary Policy Transmission in the Wake of the COVID-19 Pandemic. International Monetary Fund, Working Paper No. WP/21/249.

United Nations Conference on Trade and Development (2019). Trade and Development Report 2019: Financing a Global Green New Deal. United Nations.

United Nations Conference on Trade and Development (2021). Economic Development in Africa: Morocco. United Nations.

United Nations Conference on Trade and Development (2021). World Investment Report 2021: Investing in a Resilient Recovery.

Annex 1

	2021	2022	2023	2024	2025	2026	2027	Description of the trajectory
Real GDP	7.93	0.77	3.12	2.96	3.03	3.24	3.36	Assuming a return to normal agricultural seasons, the stabilization of external economic conditions, and continued progress in the authorities' rich structural reform program, economic activity is expected to rebound in 2023 and stabilize at around 3.5 percent over the medium term.
Inflation Morocco	3.24	6.21	4.10	2.2	2	2	2	Inflation is expected to decline in the absence of new external shocks. Average headline inflation is expected to peak at 6.5 percent in 2022 and gradually decline to around four percent in 2023 and 2.1 percent in 2024 as the commodity price shock dissipates and the monetary stance becomes less accommodative, and despite the estimated inflationary impact of the removal of remaining subsidies.
Inflation US	4.69	8.05	3.51	2.23	2.04	2.01	2.04	According to the IMF, decisively bringing inflation back to the Federal Reserve's two percent goal by late 2023/early 2024 will require both raising the policy rate above neutral, in ex ante real terms, and keeping it there for some time. The FOMC's decision at its June meeting – to raise rates by 75 basis points and provide forward guidance around a path for the federal funds rate that peaks at close to four percent – strikes the right balance. This policy path should serve to create the upfront tightening of financial conditions that will be necessary to quickly bring inflation back to target.
Public Expenditure (Interest not included) %PIB	29	30.10	29.50	28.9	28	27.50	27.2	During 2023 and the following years, the government will continue its policy of preserving macroeconomic balances, particularly by reducing the budget deficit and the debt ratio. The determination of the 2023 budget balance will take into account the major issues related to the management of public finances and advocates a controlled and rational management of public expenditure. On the expenditure side, the program for the period 2023-25 assumes that expenditure will be kept under control, with an average annual growth rate of almost three percent. This control of public expenditure is based on a deceleration in the weight of personnel costs, which should fall from 10.8 percent of GDP in 2023 to 10.4 percent of GDP in 2025, as well as on optimized management of investment expenditure, which should be kept under control at around 5.7 percent of GDP by 2025. This control of public expenditure is also supported by a structural effort in operating expenditure other than wages, which should

								be maintained at 7.3 percent of GDP over the period 2023-25.
Budget receipt (% GDP)	25.1	26.9	26.8	26.5	26.5	26.6	26.5	Ministry of Economy and Finance (MEF): The evolution of ordinary revenue for the period 2023-25 reflects an improvement in both domestic tax and customs revenue and in non-tax revenue, with an annual increase of 5.8 percent in 2023 compared with the updated forecast for 2022, five percent in 2024, and 4.4 percent in 2025. For the period 2023-25, the government forecasts an average annual increase in domestic tax revenue of 4.7 percent, with a rate of 3.9 percent in 2023 compared with the updated forecast for 2022, five percent in 2024, and 5.2 percent in 2025.
Bilateral nominal exchange rate (US/Morocco)	8.98	9.61	9.79	9.78	9.74	9.74	9.74	The depreciation of the MAD against the USD can be explained by uncertainties about the economic environment and central bank decisions that fuel the volatility of the EUR/USD.
Interest rate on domestic debt	3.7	4.5	4.5	4.6	4.6	4.5	4.1	The tightening of financial conditions will lead to a rising cost of borrowing in the domestic market. The rise should be gradual and peak in 2025. Then, the adjustment process will be triggered.
Interest rate on external debt	2.3	2.4	2.7	3	3	2.7	2.2	Foreign interest rates are already on an upward trend, which will reflect on the cost of borrowing. As central banks are expected to start the normalization in the medium term, we also expect that the cost will decline by 2026.

Annex 2: Extensions

Economic growth

In a subsequent extension, we endogenize the growth process by adopting a growth model that broadly reflects the stylized facts of the Moroccan economy. We focus on the process of capital accumulation, keeping in mind the importance the labor market dynamics for the overall growth of the economy. Over the last two decades, Morocco has resorted to a development strategy that focuses on increasing the capital stock, which is strongly visible in many of the sectoral choices that have been made, be it in the primary sector (Plan Maroc Vert) or the other sectors (high-end ports, modern railways…etc.). This strategy has also relied on heavy investments that have been, for the most part, carried by the public sector, which is responsible for two-thirds of the investment in Morocco, and stood at around more than 30 percent of GDP over the past decade. In parallel, there have been strong incentives to increase the saving capacity of the Moroccan economy, whether toward the household or at the government level through a conservative fiscal approach. However, in recent years, the effectiveness of this strategy has receded. The marginal efficiency of capital decreased, as exemplified by the increase in the ICOR figures (see HCP, 2014).[18] Thus, growth dynamics will reflect investment efficiency dynamics.

Endogenization of the lambda parameter

One of the possible extensions is the endogenization of the lambda parameter, which defines the ratio of external debt to total public debt. This parameter could be explained by three main variables. Firstly, the level of official reserve assets plays a significant role. In a fixed exchange rate regime anchored to foreign exchange reserves, the need for foreign currency may force the government to borrow from external sources to restore the current account deficit and strengthen the foreign exchange cushion Secondly, the interest rate differential between the domestic and international financial markets is another key variable. This differential would, in turn, depend on international financing conditions but also on international investors' perception of the quality of the sovereign's signature; in other words, the country's risk premium. Finally, the risk of crowding-out private investment is a third variable that could explain the ratio. The government may decide to borrow from external sources to alleviate the pressure on domestic private savings and free up resources for private investment.

Budget receipts

In our model, we consider that public expenditures and revenues are exogenous. We can, therefore, extend this model by endogenizing these public variables by introducing their income elasticities. The main emphasis will be placed on the revenue aspect, as the expenditures are contingent upon the inclinations of the political authorities comprising the governing body.

[18] https://www.hcp.ma/attachment/2235607/