The IMF’s debt sustainability analyses and realistic economic forecasts are central to identifying and overcoming debt crises and whether or not developing economies are facing a lost decade of development.

Looking at a decade of forecasting practice in the MENA countries Jordan, Tunisia and Morocco, it can be found that over-optimistic baseline scenarios were a regular and intrinsic part of programs and analyses.

Reasons range from underestimating the complexity and duration of political transition to the preference to avoid as much as possible necessary debt restructuring in high debt cases.
ECONOMY AND FINANCE

A DECADE OF ROSY FORECASTS

How the IMF Underestimated Debt Risks in the MENA Region
INTRODUCTION

RISING GLOBAL DEBT AND THE THREAT OF A GLOBAL DIVIDE

The economic and fiscal impact of the COVID-19 pandemic led to a drastic deterioration of the debt situation in developing countries: The Global Sovereign Debt Monitor shows that, in the Global South, 135 out of 148 countries are in a critical debt situation. Moreover, 39 have particularly high debt indicators or are already over-indebted, three times as many as before the pandemic began in 2020. This group of countries also includes Tunisia and Jordan. As early as October 2020, IMF economists and the IMF Managing Director warned of the imminent danger of a lost decade of development in poor countries, triggered by the worsening debt situation and resulting sovereign defaults. Now, in the third year of the pandemic, the world faces the danger of an ever-growing gap between countries with higher and lower income caused by the uneven economic recovery from the coronavirus pandemic. In addition, the economic repercussions of the Russian invasion of Ukraine, such as rising food and fuel prices as well as the rise in global interest rates to curb inflation in addition to high debt, are fodder for a “perfect storm”.

Prior to the war in Ukraine, it was expected that economic output in 2023 would be about 5 per cent smaller than expected before the pandemic in the Middle East and North Africa (MENA), with risks to this outlook tilted to the downside. For Morocco, Jordan, and Tunisia – all three of which are partner countries of the Friedrich-Ebert Foundation in the MENA region – high debt is explicitly mentioned as a risk for reversing the slowdown in economic recovery. This is because unsustainable debt can undermine the governments’ ability to invest in the recovery and deploy counter-cyclical measures as needed. The way the debt situation is treated is therefore of utmost importance for the recovery of these countries.

THE CENTRAL ROLE OF IMF PROJECTIONS IN DETECTING AND RESOLVING DEBT CRISIS

The debt sustainability analyses conducted by the International Monetary Fund (IMF) are central to the early detection and resolution of debt crises and thus to the question of whether a country has a prospect of economic recovery without debt relief. The IMF produces these analyses regularly, either as part of routine monitoring of its member countries through Article IV consultations or as part of its surveillance of financing programs. In the case of Article IV consultations, the analyses are intended to contribute to the early detection of crises so that appropriate measures can be initiated promptly.

In the case of financing programs between the IMF and member countries, the debt sustainability analyses serve primarily to assess risks to the IMF program. If a country applies for IMF assistance, the IMF first analyses the financing needs of the specific country and whether these can be met without debt relief. According to its statutes, the IMF must not lend to countries whose debt sustainability is at risk and must tie its disbursements to debt operations if repayment is otherwise difficult for the borrowing country. In debt restructuring cases under an IMF arrangement, the debt sustainability analysis also identifies the amount of debt relief needed.

Short and medium-term forecasts are central to any debt sustainability analysis of how the situation develops in rela-
tion to the debtor’s ability to generate revenue. This is represented by indicators such as the debt-to-GDP ratio. Incorrect or overly optimistic forecasts, especially those of the denominator (i.e., economic growth shown in GDP), can lead to wrong assumptions about the debt risk in the future. Importantly, this can contribute to misguided political decisions in the here and now. Research shows that deviations between predicted and real growth of as little as one per cent can make the difference between a sustainable debt ratio and one that grows exponentially. Thus, the IMF’s assumptions and analyses, unlike those of other actors, are central to identifying and overcoming debt crises and, therefore, to the question of whether or not developing economies are facing a lost decade of development. Debt sustainability analyses from the beginning of the pandemic in 2020 may have underestimated the corona-driven recession; a review of these analyses shows that over-optimism about the economic recovery was already an intrinsic part of IMF analyses during this time.

In the following sections, the forecasting practices of the IMF and impacts over the past 10 years in three MENA countries – Jordan, Morocco and Tunisia – are assessed in detail:

- Is there a tendency toward over-optimistic forecasts for debt and economic development? If so, what are the potential reasons for this practice?
- In what ways is the IMF adapting its practice?
- What are the implications for a sustainable recovery from the pandemic?

The main indicators addressed in the following analysis are public debt-to-GDP and GDP growth. The findings of this research are of utmost relevance for countries that may be entering a new IMF program in the near future, such as Tunisia, where talks about an IMF reform package are already underway.

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7 The following illustrates the concept of a changing the denominator. Consider a fictitious country with a debt of 100 bn dollars. One way to determine if this debt is problematic is to look at it as a percentage of the GDP. If the GDP is equal 100 bn US dollars (USD), then the debt to GDP is 100 per cent. If the GDP is equal 200 bn USD, then the same amount of debt will look smaller: Debt/GDP = 50 per cent.


In 2012, Jordan requested IMF assistance for the first time since 2004. Between 2004 and 2011, the Fund assessed the economic situation of the country through routine consultations. High dependence on expensive petrol imports, the impact of regional tensions on energy supply, tourism and direct investment, rising debt, and high poverty and youth unemployment rates led the Jordanian authorities to request assistance in 2012 to stabilise the economic and social situation. Since then, the country has been in an IMF program almost continuously. In 2011, shortly before entering its first IMF program, the public debt-to-GDP ratio was already above 70 per cent. All IMF programs envisaged a reduction in the public debt ratio as well as the stimulation of the economy. However, none of the programs achieved the expected results, neither in terms of the debt ratio nor economic recovery.

COMPARING ASSUMPTIONS AND OUTCOMES

Economic growth
Figure 1 shows the expected medium-term developments of economic growth to the actual development in comparison. It can be seen that year after year, in Jordan, up to and including 2018, the growth development projected by the IMF did not materialise in the short or medium term. Nevertheless, year after year, the assumption of a rapid and thus short-term economic recovery was perpetuated in the IMF documents pertaining to Jordan. Until 2015 and thus the end of the first IMF program, the IMF assumed growth of at least 4 to 4.5 per cent per year in the medium-term, i.e., mostly from the third year of the assumed development, even though the previous economic development did not support this conclusion. These assumptions of high medium-term economic growth build on the understandable but nonetheless problematic logic that the IMF must assume meticulous implementation of its economic policy prescriptions (which the country must implement in exchange for IMF financial resources). Most importantly, to justify its conditionalities, the IMF must inevitably attribute a growth-promoting effect to them. However, this alone does not explain the optimism in the forecasts. A similar approach could be observed in the routine monitoring between 2009 and 2011. In theory, routine monitoring through Article IV consultations identifies the likelihood of problems and helps the country to steer away from them. However, the IMF’s analyses before program entry in 2012 were unable to detect potential stress early enough.

Public debt development
The public debt ratio was expected to be reduced to sustainable levels with the support of the reforms agreed upon as part of the IMF programs. By 2017, however, the public debt ratio had risen to 95 per cent, 25 percentage points higher than in 2011, just before the first IMF program was launched (see Figure 2). The curve slumped heavily in 2018. This is not attributable to a debt reduction but to a change in public debt reporting due to a consolidation of the public debt concept in Jordan. If the debt level would have been carried forward according to the prior public debt concept (the “unconsolidated” debt level), the debt level would have been the debt level would have peaked at 100 per cent in 2019. Looking at the assumed development of the debt ratio in the program period between 2012 and 2020, in none of the assumed baseline scenarios is the expectation that the debt ratio would fall to or below 70 per cent, the high-risk benchmark of the IMF debt sustainability framework that
Figure 1
Actual economic growth compared to short and medium-term projections by the IMF in country reports between 2009–2020 (Jordan) in %

Note: The forecasts in the figure (dotted lines) show the assumed baseline scenarios in each of the mentioned country reports (see the list of country reports in Annex 1). The baseline scenario describes the development the IMF sees as most realistic. Actual data, such as realised GDP growth (the solid black line) is usually t+2 (e.g., 2012 data taken from a 2014 report).
Figure 2
Actual data and forecasts, public debt-to-GDP, 2009–2020 (Jordan) in %

Actual data
2010 – Art. IV
2012 – Art. IV
2012 – Request SBA
2013 – First Review SBA
2013 – Second Review SBA
2014 – Third and Fourth Review
2014 – Fifth Review SBA
2015 – Sixth Review SBA
2015 – Seventh Review SBA
2016 – Request EFF
2017 – Art. IV
2018 – Request EFF
2020 – Request RFI (pre-Covid)
2020 – Art. IV and Request EFF2 (pre-Covid)
2019 – Second Review EFF
2018 – Request RFI (post-Covid)
2020 – Art. IV and Request EFF2 (pre-Covid)

Note: The forecasts in the figure (dotted lines) show the assumed baseline scenarios in each of the mentioned country reports (see the list of country reports in Annex 1). The baseline scenario describes the development the IMF sees as most realistic. Actual data, such as realised GDP growth (the solid black line) is usually t+2 (e.g., 2012 data taken from a 2014 report).
was used back then for countries like Jordan. Instead, despite the alleged positive impacts of fiscal consolidation and structural reforms, the baseline scenario regularly pointed to a further increase in the short-term debt ratio and a decline in the medium-term debt ratio, albeit remaining on a high level.

Nevertheless, none of the IMF programs considered debt relief an additional option to reduce the debt burden. None of the IMF programs were, as it would have been consistent with the assumptions of a rising debt ratio, tied to debt relief. Instead, only fiscal adjustment measures were included in the program as a possibility for reducing the debt burden. This, however, was put to an unrealistic maximum: The realism assessment of the assumed fiscal consolidation to be achieved by Jordan in the program is extraordinarily high by historical standards. For example, in IMF program documents from 2014 and 2015, it is indicated that Jordan’s projected fiscal adjustment falls into the historical top quartile of the most ambitious fiscal adjustments. Accordingly, in the third and fourth review of the first program in June 2014, the IMF admitted that “past projections of the primary balance tended to be optimistic”. Still, expectations remained comparably high.

As early as 2012, at the beginning of the first program, the Jordan authorities expressed their key concerns about balancing the required fiscal consolidation with the risks of recession and potentially resulting social unrest. However, the program documents do not explicitly discuss the effect of fiscal tightening on economic output. In general, program documents do not provide much analysis of the potential short-term trade-offs between adjustment and growth or how stabilising the debt ratio could be affected by different combinations of policy, including debt operations.

Assessing debt sustainability

Even though the public debt-to-GDP ratio rose steadily from 2012 onward, regardless of program-related measures to the contrary, year after year, each debt sustainability analysis testified to a sustainable debt level. Official IMF analyses usually came with the remark that it remains sustainable only under the provision that the authorities deliver on fiscal adjustment. At no point did the IMF testify to an unsustainable debt level, which would have meant that current or planned policies and adjustments were not functioning or would not function to reduce the debt level.

In Jordan, the expected adjustments were blatantly unrealistic and insufficient at stabilising the debt-to-GDP ratio. Moreover, as public protests against austerity measures in June 2018 made clear, the adjustments foreseen by the IMF were not socially acceptable. Nevertheless, program documents after 2018 continue with the tradition of calling the debt sustainable.

Box 1

When is debt seen as a problem by the IMF?

For market-access countries, including Jordan, Tunisia, and Morocco, which typically have more or less significant access to international capital markets different from the least developed countries, the IMF does not use clear, statistical thresholds to assess whether a debt is unsustainable. The IMF also does not use a linear rating of the debt distress risk that could be concluded from its analyses. Instead, IMF staff use their judgment.

Public debt is regarded as sustainable as long as the country can still service its debt, no matter what sacrifices this may mean in terms of fiscal space for development spending. Public debt would be considered at risk of becoming unsustainable; “if no realistic adjustment in the primary balance — i.e. one that is both economically and politically feasible — can bring debt below such a level” that is necessary to be able to continue to service public debt. An economically feasible adjustment is one “which preserves growth at a satisfactory level.”

“Politically feasible” means socially acceptable, i.e., to what extent a government is willing and able to sacrifice domestic priorities to meet creditor claims and how much citizens are prepared to accept. This is because the primary balance is the difference between the amount of revenue a government is able to collect and the amount it spends, for instance, on providing public goods and services. Therefore, stabilising the primary balance can happen by either increasing revenue, such as through higher taxes or by decreasing spending, such as by cutting expenditures on the provision of public services. A “politically feasible adjustment” therefore describes the willingness of citizens to live with low-quality health services and poor infrastructure, for example. Frequent social unrest in the MENA region proves there are limits to what is politically feasible.

(Underestimated) risks to the baseline scenario

In all 14 country reports for Jordan, the development assumed as likely by the IMF is subject to significant downside risks, especially in relation to external developments. None of the reports depict the risks as balanced or tilted to the upside. In 2010, two years before entering the stand-by—


agreement (SBA) in 2012, the IMF wrote that the “risks to the economic outlook remain tilted to the downside, given uncertainties regarding world commodity-price developments, as well as fragile regional and global economic conditions.”16 In both the first and second IMF programs, downside risks17 to the baseline scenario, which is considered by the IMF as likely, actually increased further; for example, risks are described as “exceptionally high” in 2014.18 In 2017, the IMF stated: “Stress tests also point to a number of vulnerabilities, with the balance of risk heavily tilted to the downside.”19

Thus, forecast errors, such as being too optimistic growth projections, cannot only be explained by surprising external shocks, such as the impact of the Syrian conflict20 but are an intrinsic part of all programs; an optimistic baseline scenario has been the basis in every IMF debt sustainability analysis for Jordan since 2010.

DISCUSSIONS OF REALISM IN THE IMF REPORTS

In the first review of the SBA program in May 201321, the IMF staff addressed the lag in economic growth for the first time. An adjustment of the expected economic growth for the year 2012 was considered necessary due to delays on trade routes caused by the Syrian conflict and a deterioration in the services sector, among other things. The expected growth for the two subsequent years, thus for the short-term, was also adjusted slightly downwards compared to the assumptions made at the program’s start in 2012. The forecasted growth did not materialise in the following years either. Therefore, growth forecasts for the current year had to be revised downwards regularly – in December 2014, “on account of lower investment and net exports”; in August 2015, “because regional developments [were] adversely affecting export and tourism receipts”; in September 2016, “because regional developments [were] adversely affecting export, tourism receipts, and investment”; in July 2017, “because the regional developments continue to hurt economic activity”; and again in May 2019 without naming the concrete reason.

However, medium-term forecasts remained high during these periods. For the first time in 2017, medium-term assumptions were adjusted downwards and forecasted more strongly in line with past developments (see Figure 1).

In 2013, the IMF’s methodology for debt sustainability analyses was revised and realism tools were introduced. Starting in 2014, IMF staff were required to conduct “realism checks” on the assumptions behind debt sustainability analyses for countries such as Jordan, Tunisia, and Morocco. These checks examine the probability of the predictions based on historical error rates and compared to forecast errors in other countries.

In Jordan, the tools were applied for the first time in 2014. While predictions in Jordan’s debt sustainability analyses involving a period of low involvement with the IMF (between 2005 and 2012) had a low error rate, also compared to other countries, the record deteriorated rapidly the longer Jordan was part of an IMF program. Between 2010 and 2018, the IMF’s predictions for GDP growth were over-optimistic by a median of about 1.6 percentage points.22

Deviations between predicted and real growth of as little as one per cent can make the difference between a sustainable debt ratio and one that grows exponentially. For this period, the IMF’s own realism tool clearly indicated systematic over-optimism in the case of Jordan. Moreover, the tool’s analysis shows that, in 94 per cent of all other countries for which a similar debt sustainability analysis was carried out, the predictions were more realistic than in Jordan. However, this result and its consequences for following analyses in the case of Jordan were not discussed more intensively in subsequent reports.

The first time that reasons for historically over-optimistic growth forecasts were discussed more explicitly was in the 2019 debt sustainability analysis:

> **Growth forecast errors over the past years were heavily affected by the spillovers from the deterioration in regional conditions, particularly with the closure of the Iraq border in 2015 and the sharp slowdown in economic activity in the GCC. Growth projections have been revised markedly since then [...]**23

However, while external developments were described, more inherent problems to the forecasting practice were not mentioned.

MOROCCO

In the assessment period, Morocco did not seek much IMF assistance. Morocco only requested access to precautionary liquidity in 2012 and did not draw on the funds until April 2020. This means that for most of the assessment period,

17 “Downside risk” explains potential negative risks for the development of the economy or debt situation of the respective country. Downside risks can be either external or internal.
20 The conflict in Syria had strong economic and fiscal impacts on Jordan. Jordan lost a major export route to Europe and other countries in the region such as Turkey. Furthermore, there was a large influx of Syrian refugees into Jordan, which raised fiscal costs for public services as well as imports such as for food.
the IMF did not assess the economic situation of Morocco from a program perspective and or see a potential need to safeguard repayments to the IMF outside its routine Article IV consultations.

COMPARING ASSUMPTIONS AND OUTCOMES

Economic growth

Figure 3 shows the expected short and medium-term developments in economic growth compared to actual development.24 It is shown that Morocco's GDP growth was a regular up and down, with one year, such as 2011 or 2015 registering high economic growth that comes close to the IMF's prior 2-year forecasts, followed by a slump in growth as in 2012, 2014, or 2016 that is more negative than forecasted by the IMF two years ago, pointing to over-optimism in the forecasts. Like in Jordan, the IMF was unable to detect or include potential realistic risks for the baseline scenario, such as in the case of the heavy downturn in 2012, which was mainly due to spillovers from the recession in Europe, Morocco's main trading partner, and bad weather that had an impact on the agricultural sector. While the latter is a regular recurring vulnerability in Morocco, this is not reflected in the baseline forecasts.

Regarding medium-term forecasts (a forecast horizon for up to 6 years), more than 5 per cent of GDP growth is expected year after year. However, Morocco did not once realise this level of growth in the period. It was not until 2016, that forecasts changed: From this year, the highest medium-term forecasts begin to remain below 5 per cent.

Public debt development

At the beginning of the assessment period in 2010, Morocco's public debt-to-GDP ratio started to rise from its prior low level. It rose steadily year after year until the end of the assessment period in 2020. Between 2010 and 2012, there was a big jump (from 51 per cent to almost 60 per cent of GDP) mainly due to the severe economic impact of the financial and debt crises in Europe and higher oil prices globally. From 2013 until 2019, the rise was slow (between 0.10 and 2.0 percentage points per year) until the economic repercussions of the COVID-19 pandemic hit the country. The pandemic-related economic impact resulted in a jump of more than 11 percentage points from 2019 to 2020 to a debt level of more than 76 per cent of GDP. This was the first time Morocco surpassed the IMF’s high-risk benchmark.

Looking at IMF forecasts, short-term forecasts (two subsequent years) of public debt-to-GDP were, in most years, slightly too optimistic; however, on one occasion, they were pessimistic, meaning public debt-to-GDP turned out to be lower than expected. Like the other two country cases presented in this analysis, the medium-term forecasts follow the same standard pattern of an expected decrease starting from a higher debt-to-GDP ratio year after year. Nevertheless, the forecasted decrease in Morocco is much less dramatic than in Tunisia or Jordan.

Unlike Jordan and Tunisia, the public debt level remained underneath the IMF high-risk benchmark of 70 per cent for almost the entire period until the COVID-19 pandemic struck. The debt level was regularly assessed as sustainable. Morocco, in effect, had no debt problem until debt risks rose during the pandemic in 2020.

In response to the changing context, the IMF explicitly recommended Morocco be careful with (fiscal) tightening that could potentially jeopardise the recovery (and thus put debt sustainability at risk):

Staff agrees that fiscal consolidation should be gradual and recommends starting it as soon as the recovery is established. In the short run, the priority is to sustain the fragile recovery and address the shortcomings in the social protection system exacerbated by the crisis. Over the medium and longer term the priority is to rebuild fiscal buffers and safeguard debt sustainability. [...] Nevertheless, a slower-than-expected recovery would call for a slower adjustment.25

This is in stark contrast to recommendations given to the high-debt countries Jordan and Tunisia in the context of the COVID-19 pandemic, where the IMF staff did not allow time for a firm recovery to first be established, as they did in the case of Morocco. Jordan and Tunisia were instead encouraged to resume “strong” fiscal consolidation “as soon as the immediate pressures of the crisis abate.”26 However, Jordan, for instance, had much more limited fiscal space to fight the various impacts of the COVID-19 pandemic and other global challenges that have occurred in recent years and therefore had to decide between either safeguarding debt repayments or investing in the recovery and fighting poverty. For the IMF, the choice seems clear.

(Underestimated) risks in the baseline scenario

In 9 out of 10 country reports for Morocco, the IMF predicted more or less significant downside risk. Only one report saw the risks as balanced. This means that the IMF keeps an optimistic baseline scenario, whether or not the country is under a regular IMF program and whether or not a country’s debt is sustainable. While Morocco did not have a debt problem during the assessment period, the debt level rose to a level nearing the high-risk benchmark shortly before the pandemic.

24 For the analysis, 10 country reports from 2011 to 2021 were reviewed (see list in Annex 1).
Figure 3
Actual economic growth compared to short-and medium-term projections by the IMF in country reports, 2009–2020 (Morocco) in %

Note: The forecasts in the figure show the assumed baseline scenarios in each of the mentioned country reports (the dotted line) (see the list of country reports in Annex 1). The baseline scenario describes the development the IMF sees as most realistic. Actual data, such as realised GDP growth (the solid black line), is usually t+2 (e.g., 2012 data taken from a 2014 report).
Figure 4
Actual data and forecasts, public debt-to-GDP, 2010–2020 (Morocco)
(in %)

Note: The forecasts in the figure (dotted lines) show the assumed baseline scenarios in each of the mentioned country reports (see the list of country reports in Annex 1). The baseline scenario describes the development the IMF sees as most realistic. Actual data, e.g. realised GDP growth (the solid black line) is usually t+2 (e.g. 2012 data taken from a 2014 report).
DISCUSSIONS OF REALISM IN THE IMF REPORTS

The first time that the realism of projections was discussed was in 2014, shortly after the introduction of the “realism tools” into debt sustainability analyses. The tools had increased awareness of the importance of the matter. In general, the following reports attest to realistic projections “when compared to a group of market access countries” – although it remains unclear which and how many countries are part of that group. Realism tools show that the IMF’s forecasts for GDP growth in Morocco in different periods were over-optimistic by a minimum of 0.55 (between 2011 and 2019) and maximum of 0.7 percentage points (between 2006 and 2014); this is considerably lower than in Tunisia and Jordan. These lower forecast errors are attributed by the IMF to the low incidence of recessions in Morocco compared to other countries. Still, between 2011 and 2019, in around 65 per cent of all other countries for which a similar debt sustainability analysis was carried out, the predictions were more realistic than in Morocco. This result was not further discussed in the reports.

There have been some explicit namings of downward revisions of GDP growth forecasts, such as in 2014, which resulted in an increase in the debt-to-GDP ratio. However, in most cases, downward revisions of forecasts were not explicitly discussed in the reports.

TUNISIA

Tunisia requested an IMF assistance program in 2013 due to the impact of a heavy recession in 2011 in the wake of the Arab spring revolution and the conflict in neighbouring Libya. While the country was initially hesitant to seek an IMF program, the macroeconomic impact of persistent social and security tensions and a weak demand from the important trading partner Europe made the authorities change their mind. Before beginning the loan, the IMF assessed the economic situation of the country by conducting its routine Article IV consultations. After 2013, one more IMF program followed from May 2016 until July 2019. Currently, the IMF is trying to re-engage with Tunisia for the next conventional loan program, but so far, no agreement could be reached.

Most assessments have been made in the context of the reviews of the two loan programs, which both aimed at stabilising the economic situation and laying the foundations for inclusive growth recovery. Neither of the programs achieved this goal.

COMPARING ASSUMPTIONS AND OUTCOMES

Economic growth

Figure 5 shows the expected medium-term economic growth compared to the actual growth.27 Like in Jordan, year after year, the projected growth assumed by the IMF materialised neither in the short nor medium term.28 At the beginning of the first assistance program, the IMF assumed GDP growth would increase quickly and monotonically. The assumption was for a quick rise to continuous growth levels beyond 4 per cent; this would be, however, above the historical 10-year average. The expectation of (continuous) 4 to 5 per cent growth after two to three years remained pretty much for the whole period of the SBA. The five reviews of program implementation in 2014 alone are emblematic of a complete lack of learning and hint at systemic over-optimism. The original expectation of a growth of 4.5 per cent in 2014 established at the beginning of the agreement was revised downwards from 4.5 to 3, 2.8, and then 2.4 per cent. Meanwhile, the expectation of a quick recovery in the following two years to levels near the original forecasts remained in place. This, however, failed to materialise. The subsequent financing agreement in 2016 started seemingly with a more gradual rise from a lower level. At the end of the program period, GDP growth was always under 3 per cent and, therefore, under every medium-term forecast. On average, real GDP growth was around 1.8 per cent.

(Underestimated) risks in the baseline scenario

In all 13 country reports for Tunisia, the baseline scenario assumed as likely by the IMF is subject to significant downside risks, especially in relation to external developments. In none of the reports were risks seen as balanced or tilted to the upside. Moreover, perceived risks to the Tunisian programs intensified from year to year: From “Risks to the outlook remain high”29 in 2014 and “Risks are high, and tilted to the downside”30 in 2015 to “exceptionally high risks persist that could undermine domestic and external stability”31 and “risks to the program remain elevated” in different months in 2018.32 This means that an optimistic baseline scenario was used in every IMF debt sustainability analysis for Tunisia since 2010: The IMF expected a poorer outcome than what it projected in its baseline scenario.

Similar to the other two country cases – the IMF identified risks to the success of its assistance programs and for the further macroeconomic development that it sees as likely to occur. In order to be able to make sound decisions on this basis, these risks need to be a part of what is used as the basis for political decisions; they need to be included in the baseline scenario. However, instead of including these risks

28 Just three times, the forecast for the following year was slightly more pessimistic than realised growth (2012 1 percentage point more pessimistic, 2015 0.1 and 2016 0.3 percentage points).
Figure 5
Actual economic growth compared to short and medium-term projections by the IMF in country reports between 2010 and 2020 (Tunisia) (in %)

Note: The forecasts in the figure (dotted lines) show the assumed baseline scenarios in each of the mentioned country reports (see the list of country reports in Annex 1). The baseline scenario describes the development the IMF sees as most realistic. Actual data, e.g., realised GDP growth (the solid black line), is usually t+2 (e.g., 2012 data taken from a 2014 report).
Figure 6
Actual data and forecasts, public debt-to-GDP, 2010–2020 (Tunisia)
(in %)

Note: The forecasts in the figure (dotted lines) show the assumed baseline scenarios in each of the mentioned country reports (see the list of country reports in Annex 1). The baseline scenario describes the development the IMF sees as most realistic. Actual data, e.g., realised GDP growth (the solid black line) is usually t+2 (e.g., 2012 data taken from a 2014 report).
in the baseline scenario, the IMF only names these risks without further elaboration, leading to political decisions being made on unrealistic expectations.

Public debt development

Before the Arab Spring revolution and the country’s first IMF program, Tunisia’s public debt was close to 40 per cent; this is lower than debt levels in Jordan and Morocco before they entered into an agreement with the IMF. The aim of the Tunisian government to seek IMF assistance was, therefore, not rooted in concerns over its current debt situation, as was the case in Jordan. Rather, Tunisia aimed to stabilise the deteriorated macroeconomic and fiscal situation that emerged after the beginning of the revolution. However, each IMF program aims to achieve macroeconomic stability, which includes a stable debt situation. The IMF, therefore, forecasted a comfortable debt development under the assumption that Tunisia would fulfil the program’s conditions.

After 2012, IMF forecasts on how the debt situation may evolve were closely linked to the realisation of projected higher medium-term growth. As those expectations did not materialize, the debt-to-GDP ratio steadily increased (see Figure 6). The second IMF program ended in 2019 with a public debt-to-GDP ratio almost 30 percentage points higher than it was at the beginning of IMF involvement in 2013.

In 2013, at the beginning of the first loan program, the IMF stated that a sustainable debt level would hinge on fiscal consolidation envisaged under the SBA. A year later, it became clear that the adjustments the IMF had requested were not feasible; spending cuts fueled social tensions (instead of resolving them) and sparked widespread public protests.

Two years later, the IMF stated that a combined shock to GDP growth and the primary balance (e.g., lower growth than expected and fewer spending cuts or tax increases as envisaged) would raise the public debt to around 80 per cent in 2018. The scenario seen as “realistic” at the time, the baseline scenario under the assumption of the fulfilment of the IMF’s conditions, was a 2018 debt-to-GDP ratio of 57 per cent. In the end, the adverse scenario—the “combined shock” scenario—became a reality, with a public debt-to-GDP ratio of 78 per cent in 2018.

As the debt level reached the IMF’s high-risk benchmark in 2017, the IMF pushed more strongly for ambitious fiscal consolidation to ensure debt dynamics remain sustainable. Most importantly, even more ambitious adjustment efforts were promoted as necessary, since growth did not materialise as expected. However, in the program documents, assumptions on the “fiscal multiplier”, e.g., the potential contractionary impact of fiscal consolidation on growth, were not made transparent. Furthermore, the assumed fiscal consolidation to be achieved by Tunisia under the IMF program was extreme by historical standards. Tunisia’s projected fiscal adjustment described in all reports from 2017 falls into the top quartile of the most ambitious fiscal adjustments historically. This is despite experience showing that even minor sacrifices on the back of the population had already fuelled protests in the past, endangering the transition project instead of supporting it. In effect, in the following years, the debt level remained above 70 per cent, even though Tunisia managed to reduce debt-to-GDP by around 6 percentage points in 2019.

Medium-term forecasts in 2021 show, for the first time, the expectation that debt levels would remain elevated. However, like in Jordan, (preemptive) debt restructuring as an alternative to or in addition to fiscal consolidation did not once play a role in discussions.

 HOW IS THE REALISM OF PROJECTIONS FOR TUNISIA BEING DISCUSSED IN THE IMF REPORTS?

The first time IMF staff explicitly mentioned the need to revise growth forecasts for Tunisia was in the fourth review of the SBA in 2014. Decreased agricultural output and a slower-than-expected recovery in Europe triggered this reevaluation. As the forecasted growth did not materialise in the following years either, like in Jordan, projections of growth had to be revised downwards regularly. For instance, in December 2014, they were changed to reflect “worsening prospects in Europe, delayed implementation of the structural reform agenda, and investors’ wait-and-see attitude pending the formation of a new government”. In June 2016, they were revised again “following weaker economic activity and the recent terrorist attacks”.

From 2014 onward, realism checks were also applied in Tunisia. Between 2010 and 2018, which is to say most of the years with IMF involvement, the IMF’s forecasts for GDP growth were over-optimistic by a median of 1.96 percentage points. Even in a period with lower IMF involvement, the median forecast error was above 1 percentage point. The realism tools show a median forecast error of 1.38 per cent between 2005 and 2013.

Like in Jordan, the realism tool’s analysis shows a damning result. In 97 per cent of all other countries for which a similar debt sustainability analysis was carried out, the forecasts were more realistic than in Tunisia. However, this result and its consequences for subsequent country analyses were not discussed in subsequent reports.

36 Cf. “Realism of Baseline Assumptions” for GDP growth in IMF Country Report No. 21/44.
The tendency of forecast errors to be tilted towards optimism was acknowledged in some reports between 2014 and 2017. In 2014, IMF staff related the forecast errors only to the swing in GDP following the Arab Spring. There was, however, no discussion about consequences for future forecasts. Moreover, IMF staff came to the peculiar conclusion that “forecast errors have been in line with other countries” ever since, implying that they had become more realistic.

In 2017, however, the IMF again acknowledged that their forecasts were too, saying “these were mainly driven by exogenous shocks”, again without discussing consequences for future forecasts. In later reports, growth optimism was not explicitly mentioned.

An independent evaluation of the two financing programs in Tunisia concluded that forecast errors were rooted in an ignorance on the side of IMF staff regarding the political transition and resulting fragility, unrealistic assumptions about the length of the conflict in Libya, and a weak link between the structural conditionality of the programs to growth even though those conditionality were explicitly seen as the backbone for enhancing growth, among other factors. On the impact of the political transitions, IMF analyses assumed that the transition would have been complete by the time the second financing agreement was approved, which proved to be unrealistic. This is despite the fact that Tunisian authorities made clear that some of the IMF targets, such as those related to fiscal consolidation, were not feasible in a context of transition and social tensions. While it was discussed in length in multiple reviews that the Tunisian government did not fulfill the reforms as envisaged by the IMF, reflections on its own practices, like those concluded by the Independent Evaluation Office (IEO) later, were not addressed.

NOT ISOLATED CASES: UNDERSTANDING THE REASONS FOR THE IMF’S SYSTEMATIC TENDENCY TO OPTIMISTIC FORECASTS

During the observation period between 2010 and 2020, Jordan and Tunisia were both hit by major exogenous shocks; the Syrian conflict impacted Jordan, and the 2015 terrorist attack in Tunisia had a major effect on that country. While those external shocks were an important reason that program objectives weren’t met and therefore assumptions about economic growth, for example, proved to be over-optimistic, they are not the only, perhaps not even the most important, reasons for optimism bias. The observations made about the individual cases also occurred systematically throughout the IMF’s practice over time. A large number of studies conducted over the past 20 years by independent bodies, the IMF, and the World Bank reveal a historical and “across-the-board” tendency on the part of the IMF to generate optimistic macroeconomic forecasts, especially when it comes to forecasts of medium-term economic performance and in relation to poorer countries. The latest such study is from 2022, wherein the World Bank explicitly looked at the forecasting practices for the MENA region and found them to be “inaccurate and overly optimistic.” This study even finds that the forecasting error for the MENA region is higher (e.g., forecasts to be more optimistic and more inaccurate) than for the rest of the world.

The systematic overestimation of repayment capacities of high-debt countries has frequently been associated with an overestimation of the pace of recovery as well as with an inability to forecast crises and recessions. During the period between 1990 and 2016, for example, forecasts for GDP growth of developing countries for the following year were, on average, over-optimistic by 0.42 percentage points, primarily due to the inability to forecast economic downturns. There were over 1,000 recessions in individual countries between 1990 and 2016, 76 per cent of which the IMF did not predict. Errors regularly arise in short-term projections, particularly during ongoing recessions. Examples of this include the EU currency collapse in 1992, the Asia crisis from 1997 to 1998, the end of the dot-com bubble in 2000, and the global financial crisis from 2007 to 2009. This may explain the difference between highly optimistic forecasts in Jordan and Tunisia compared to the more realistic forecasts in Morocco; Morocco experienced few recessions compared to Jordan and Tunisia. However, as is the case with Jordan and Tunisia, discrepancies between forecasts and actual growth do not exist merely at the beginning of a crisis. In Jordan, for instance, it has been shown that the assumption that a V-shaped recovery would take place was simply perpetuated year after year. As a result, debt sustainability is repeatedly overestimated. In other countries, such as Greece be-


Examples of this include the EU currency collapse in 1992, the Asia crisis from 1997 to 1998, the end of the dot-com bubble in 2000, and the global financial crisis from 2007 to 2009. This may explain the difference between heavily optimistic forecasts in Jordan and Tunisia compared to the more realistic forecasts in Morocco; Morocco experienced few recessions compared to Jordan and Tunisia. However, as is the case with Jordan and Tunisia, discrepancies between forecasts and actual growth do not exist merely at the beginning of a crisis. In Jordan, for instance, it has been shown that the assumption that a V-shaped recovery would take place was simply perpetuated year after year. As a result, debt sustainability is repeatedly overestimated. In other countries, such as Greece be-


tween 2008 and 2015, this led to necessary debt relief being under-calculated.\footnote{51}

Moreover, IMF studies show that the large forecast errors in the period between 2011 and 2017 and in 133 countries assessed were found in countries undergoing a political or economic transformation.\footnote{52} This may help to explain the difference between more realistic forecasts for Morocco compared to Tunisia and Jordan. In effect, the IMF underestimated the complexity, impact, and duration of the political transitions in Jordan and Tunisia from 2011 and the impact of security-related and regional shocks either on the economic outlook or on the feasibility of program conditions. This is also confirmed by a 2021 independent evaluation of IMF programs in the MENA.\footnote{53}

In addition, in Tunisia, optimistic forecasts were meant to “show hope” to the public in a fragile political context, intending to convey the idea that structural adjustments that may have negative effects on them will pay off. For instance, that wage freezes in the public sector or the reduction of subsidies on food would have long-term benefits. Also, members of the IMF board did not want “Tunisia to fail”\footnote{54}, e.g., the democratic transition was being watched closely as a bellwether for the region. However, making numbers add up by being too optimistic about what Tunisia could reasonably achieve logically backfires and makes the situation even more fragile.

Another reason for forecast errors in countries with IMF involvement is the frequently over-optimistic assumption on the pace and scope of fiscal consolidation,\footnote{55} and the miscalculation of the impact of fiscal consolidation on economic growth. This is particularly true for Jordan where the negative impact of fiscal tightening on growth was severely underestimated; the required fiscal consolidation led to growth shortfalls instead of promoting growth.\footnote{56}

Again, this is not an isolated case: In 133 IMF programs between 2011 and 2017, around a quarter of growth forecast errors could be explained on this basis.\footnote{57} This is particularly the case in the context of extensive fiscal austerity measures: A recent IMF-own study from November 2020 shows a correlation between the magnitude of optimism and expected fiscal consolidation. The authors find that “large planned fiscal adjustments are associated with more optimism bias in growth forecasts than those with smaller planned fiscal adjustments.”\footnote{58} This may very well explain the differences between Morocco on the one hand and Jordan and Tunisia on the other. This finding is particularly important for high-debt countries such as Tunisia and Jordan which are already faced with limited fiscal space to support the recovery from the pandemic and a heavy debt burden.

The generation of over-optimistic forecasts will lead to debt sustainability being overestimated\footnote{59}, and thus to a delay in accepting the inevitable, such as the need for debt relief. The IMF’s own evaluation found that a debt problem in countries with high debt vulnerabilities was downplayed by optimistic forecasts\footnote{60}, prolonging the crisis.

In fact, fiscal austerity is the IMF’s default option. It uses it to try to make the debt appear sustainable, preferring an approach that avoids a necessary debt restructuring in high debt cases as much as possible by imposing austerity alongside the provision of IMF loans to ensure repayment to creditors. This was also the case for the programs in Jordan and Tunisia. The IMF’s IEO found that, out of a menu of growth-promoting strategies, the program in Jordan relied on fiscal policies alone; debt operations, which were seen by the IEO evaluators as an explicitly growth-promoting option, were not considered.\footnote{61}

Peter Doyle, a former IMF mission chief, strongly criticised “the lengths to which the IMF will go to avoid debt write-offs necessary and sufficient to secure macro sustainability.”\footnote{62} The 2018 review of IMF conditionality found that of 33 IMF programs in countries with high debt vulnerabilities, in not even half of them was any kind of debt reprofiling or re-
structuring carried out. A similar reluctance to discuss debt treatments as a credible option for countries with high debt vulnerabilities can be found when looking at debt sustainability analyses conducted after November 2020, i.e., in the middle of the “crisis of the century” (the pandemic and its resulting global recession). In 44 countries with high debt vulnerabilities, debt treatments were mentioned as a potentially necessary option in only five. Out of those five, only three neither defaulted nor entered a restructuring already. That is to say, there were only three countries in which the IMF truly recommended debt relief as an option to pursue: the low-income country Malawi (for which they admitted that adjustment alone will not restore debt sustainability but that debt relief and budget support will be needed), the lower-middle income country Angola (“[…] further debt relief may be needed if downside risks were to materialise”), and the high-income country Seychelles (“authorities could consider further fiscal consolidation and debt restructuring”). In all other cases, no scenarios in which debt treatments play a role or recommendations to incorporate them into the plan were made. By favouring spending cuts and other adjustment measures and avoiding other options such as debt restructuring, the costs of the crisis are shifted entirely onto the population of the debtor country. As a result, the rights of creditors to repayment are implicitly treated as sacrosanct while the basic rights of the population are not. For Peter Doyle, the IMF has become a “brute bailiff-cum-debt-collector” instead of an institution that supports macroeconomic stability.

In theory, the IMF’s lending policy ties the continuation of ongoing programs or the granting of new loans to sustainable debt situations. Therefore, if the debt is unsustainable, the IMF is not allowed to lend. In situations which are no longer sustainable, optimistic forecasts have made it possible for new loan programs to be approved and thus outstanding claims to be serviced on time. Jordan and Tunisia are both good examples of such “defensive lending”, in which, through optimistic assumptions, the acknowledgement of an unsustainable debt situation was avoided at the cost of an ever more deteriorating economic and debt situation.

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64 101 IMF country reports that include debt sustainability analyses between November 2020 and January 2022 were assessed.
Due to factors including regular criticism of over-optimistic assumptions, the IMF has repeatedly adjusted its debt sustainability analyses over the years. Thereby, it has also explicitly taken measures to design forecasts in a more realistic way. The start of this was marked by the introduction of stress scenarios at the beginning of the 2000s which, over the course of the years, have been continually refined. Moreover, the IMF introduced the already mentioned ‘realism tools’ in 2014, by which, for example, the previous error rate in forecasts for key parameters such as GDP growth is made transparent.

Evidently, the refinements have failed to instigate fundamental policy changes. It remains standard practice simply to assume a declining curve for medium-term and long-term projections of debt trends. Moreover, it is a fundamental problem that there are no scenarios which deviate from the standard recommendation of fiscal consolidation as the only appropriate strategy for stabilising the debt ratio. This is tragic, as the IMF sets the parameters for what is considered acceptable macroeconomic policy. Alternative scenarios that incorporate debt operations, such as partial debt relief, and what impact they have on economic recovery and the improvement of debt indicators are non-existent. If such scenarios were to exist, it would be possible to identify debt restructuring requirements at a significantly earlier stage. In addition, this would provide an incentive to draw up more realistic forecasts, as it would decrease the incentive to make the numbers in high-debt cases wherein debt restructuring is not part of the program add up by requiring more austerity.

The last review and redesign of the debt sustainability framework for market-access countries such as Jordan, Tunisia, and Morocco took place in 2021. In this review, the IMF admits that the framework’s “capacity to predict sovereign stress has been limited.” This may explain why, after the 2013 review of the debt sustainability framework, the IMF still missed a significant number of crises. Among other factors, it states that while the introduction of the realism tools in 2014 helped to reduce optimism bias in baseline projections compared to countries, in instances where such tools have not been used, forecasted trajectories remained optimistic and medium-term debt stabilisation was predicted much more frequently than it actually occurred. This is also demonstrated in the cases shown in this report. In the review, there is also the damning admittance that the IMF only very rarely made clear pronouncements that situations were unsustainable, which would have warranted timely action by policymakers. The newly proposed framework has the explicit ambition of providing better predictive accuracy than all the other reviewed frameworks, as similarly promised by earlier iterations of frameworks. To prove to the world that there is a true break with the former approaches, the IMF renamed the framework; it is not only seen as an update but a replacement of former frameworks. In terms of better realism in forecasts, a whole new range of tools will be introduced and more parameters included.

However, it remains to be seen whether the new framework brings with it a more fundamental change, including that measures such as debt restructurings are not seen as extraordinarily exceptional but that debt sustainability assessments derive the need for debt relief also in cases that are not already in default.

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68 Ibid., Annex I, p. 4.
ANNEX 1 – COUNTRY REPORTS

Jordan
- 2010 Article IV Consultation, IMF Country Report No. 10/297 (September 2010)
- Request for a Stand-By Arrangement, IMF Country Report No. 12/343 (December 2012)
- First Review under the Stand-By Arrangement, IMF Country Report No. 13/130 (May 2013)
- Second Review under the Stand-By Arrangement, IMF Country Report No. 13/368 (December 2013)
- 2014 Article IV Consultation, Third and Fourth Reviews under the Stand-By Arrangement, IMF Country Report No. 14/152 (May 2014)
- Fifth Review under the Stand-By Arrangement, IMF Country Report No. 14/225 (August 2015)
- Seventh and Final Review under the Stand-By Arrangement, IMF Country Report No. 15/115 (May 2015)
- Request for an Extended Arrangement under the Extended Fund Facility, IMF Country Report No. 16/295 (September 2016)
- Second Review under the Extended Arrangement under the Extended Fund Facility, IMF Country Report No. 19/127 (May 2019)
- 2020 Article IV Consultation and Request for an Extended Arrangement under the Extended Fund Facility, IMF Country Report No. 20/101 (April 2020)
- Request for Purchase under the Rapid Financing Instrument, IMF Country Report No. 20/180 (May 2020)

Morocco
- 2011 Article IV Consultation, IMF Country Report No. 11/341 (December 2011)
- 2012 Article IV Consultation and first review under the two-year precautionary and liquidity line, IMF Country Report No. 13/96 (April 2013)
- 2013 Article IV Consultation, IMF Country Report No. 14/65 (March 2014)
- 2014 Article IV Consultation, IMF Country Report No. 15/43 (February 2015)
- 2015 Article IV Consultation, IMF Country Report No. 16/35 (February 2016)
- 2016 Article IV Consultation, IMF Country Report No. 17/36 (February 2017)
- 2017 Article IV Consultation, IMF Country Report No. 18/75 (March 2018)
- Second Review under the Arrangement under the Precautionary and Liquidity Line, IMF Country Report No. 20/14 (January 2020)
- 2020 Article IV Consultation, IMF Country Report No. 21/2 (January 2021)

Tunisia
- 2010 Article IV Consultation, IMF Country Report No. 10/282 (September 2010)
- 2012 Article IV Consultation, IMF Country Report No. 12/255 (September 2012)
- Tunisia: Request for a Stand-By Arrangement, IMF Country Report No. 13/161 (June 2013)
- First and Second Reviews under the Stand-By-Arrangement, IMF Country Report No. 14/50 (January 2014)
- Third Review under the Stand-By-Arrangement, IMF Country Report No. 14/123 (May 2014)
- Fourth Review under the Stand-By-Arrangement, IMF Country Report No. 14/277 (September 2014)
- Fifth Review under the Stand-By-Arrangement, IMF Country Report No. 14/362 (December 2014)
- Request for an Extended Arrangement under the Extended Fund Facility, IMF Country Report No. 16/138 (June 2016)
- First Review under the Extended Fund Facility, IMF Country Report No. 17/203 (July 2017)
- 2017 Article IV Consultation and Second Review under the Extended Fund Facility, IMF Country Report No. 18/120 (March 2018)
- Fourth Review under the Extended Fund Facility, IMF Country Report No. 18/291 (October 2018)
- Fifth Review under the Extended Fund Facility, IMF Country Report No. 19/223 (July 2019)
- Request for Purchase under the Rapid Financing Instrument, IMF Country Report No. 20/103 (April 2020)
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The economic and fiscal impact of the COVID-19 pandemic led to a drastic deterioration of the debt situation in developing countries, further exacerbated by the repercussions of the Russian invasion to Ukraine and the rise in global interest rates. In Morocco, Jordan and Tunisia, high debt is a central risk for reversing the slowdown in economic recovery.

The debt sustainability analyses conducted by the IMF are central to the early detection and resolution of debt crises and thus to the question of whether a country has a prospect of economic recovery without debt relief. Central to these analyses are short and medium-term forecasts of how the situation develops in relation to the debtor’s ability to generate revenue. Incorrect or overly optimistic forecasts can lead to debt sustainability being overestimated and thus to a delay in accepting the inevitable, such as the need for debt relief.

Looking at a decade of IMF forecasting practice in the three MENA countries in the research finds a systematic tendency towards over-optimism, most pronounced in high-debt cases Tunisia and Jordan. Even with the introduction of tools to tackle unrealistic forecasts, not much changed. Reasons cannot only be attributed to surprising external shocks, but range from underestimating the pace, impact and complexity of political transition to downplaying debt vulnerabilities with optimistic forecasts in order to avoid a necessary debt restructuring. The findings of the research are of particular relevance for countries that may be entering a new IMF program in the near future.

Further information on the topic can be found here: https://libya.fes.de