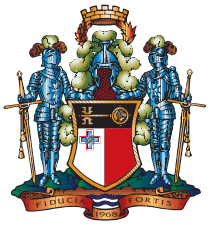

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THE SUSTAINABILITY OF MALTESE GOVERNMENT DEBT

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BOX 5: THE SUSTAINABILITY OF MALTESE GOVERNMENT DEBT[1]

This box assesses the sustainability of Maltese general government debt over different time horizons and evaluates risks stemming from macro-financial linkages. It updates previous debt sustainability analyses (DSA) published by the Bank.[2,3] The term 'sustainability' as used throughout this analysis is in line with the International Monetary Fund's (IMF's) definition; sovereign debt is sustainable if the country is able to finance its policy objectives and service the resulting debt, without resorting to unduly large adjustments which could otherwise compromise its stability.

Main messages

This exercise marks the first assessment of Maltese government debt sustainability since the onset of COVID-19. The pandemic led to a significant deterioration in public finances and brought about new forms of debt sustainability risks which were not considered likely in the previous Annual Report's assessment. The likelihood of these risks materialising varies, depending on the duration and severity of the pandemic. This exercise is therefore subject to a high degree of uncertainty.

The main messages can be summed up as follows:

- A backward-looking analysis using information up to 2019 attributes low risks related to the structure and financing of debt, macro-financial linkages and competitiveness. Thus, the Maltese economy and government finances were in a favourable condition before the onset of the pandemic. This provided fiscal space when COVID-related support measures were first introduced.

- In order to reflect the uncertainty surrounding the impact of the pandemic, this box presents forecasts of government debt on the basis of a baseline and severe scenario. For the period

Favourable economic and fiscal conditions prior to the pandemic, enabling fiscal space for manoeuvre

Medium term debt-to-GDP ratio can be brought down once pandemic subsides, if Government pursues fiscal consolidation

Debt sustainability in short-to-medium term significantly affected by non-quantifiable risks

[1] Prepared by John Farrugia and Juergen Attard, respectively a principal economist and a senior economist within the Economic Analysis Department of the Central Bank of Malta. The views expressed are those of the authors and do not necessarily reflect the views of the Central Bank of Malta. Any errors are the authors' own.

[2] For further details on government debt dynamics and fiscal sustainability, see Farrugia, J. and Grech, O., "The Sustainability of Maltese Government Debt Revisited", in Grech, A.G., and Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta,* Central Bank of Malta, 2017.

[3] This study uses the national accounts vintage up to the third quarter of 2020, published in November 2020 and the general government data vintage up to the third quarter of 2020, published in January 2020. The cut-off date for other information is 15 February 2021.

2020-2023, these are in line with the Bank's latest projection exercise.[4] Both scenarios expect the government debt-to-GDP ratio to remain above the level observed in 2019. The extent to which the debt ratio can be brought back down depends on the extent and speed of the economic recovery, and the timing of fiscal consolidation. Nevertheless, the scenarios do not foresee an explosive debt path even if additional adverse economic shocks take place beyond 2023.

- At the same time, there exist risks which could not be quantified and incorporated in the scenario analysis. Although Government has signalled to the European Commission that it intends to provide state aid to Air Malta, at the time this analysis was finalised, the size of the rescue package had not yet been ascertained. Government-backed guarantees introduced during the pandemic may be at risk of being called if adverse economic conditions render firms more likely to default on loan obligations. Longer-term sustainability risks reflect the impact on Maltese economic activity of new EU-wide revenue raising measures, which Member States agreed to introduce to repay financing related to the NGEU rescue package. That said, the scenarios do not quantify the possible positive economic impact arising from these funds, or their impact on government finances.

Scenario analyses

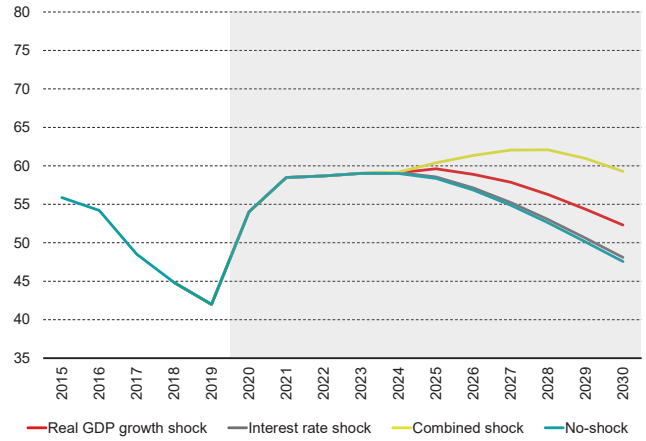
This section outlines the resulting debt paths from 2020 to 2030 under two different scenarios. In the baseline scenario, economic activity is expected to return to pre-pandemic levels by 2022 as vaccination rates remain on target. The severe scenario explores the risk of a weaker than expected economic recovery and a slower rollout of the vaccination programme.

Up until 2023, assumptions for GDP growth, inflation, Government's borrowing costs and the primary balance in both scenarios are in line with the Bank's latest forecast exercise. Thereafter, a series of common assumptions govern the path of macro items, prices and interest rates (see section at the end of this box). The scenarios differ mainly in the forecast path of fiscal consolidation which is assumed to take place once the impact of the pandemic subsides.

Scenario 1 – Baseline Scenario

In this scenario, it is assumed that Government reverts to its pre-COVID target (a budget surplus in structural terms) as soon as possible. Fiscal consolidation measures are assumed to take place between 2024 and 2026, such that the headline deficit-to-GDP ratio is brought well below 3.0% in this period. As a result, a broadly balanced budget in structural terms is achieved by 2026 and a surplus is eventually reached by the end of the projection horizon.

Chart 1
DEBT-TO-GDP RATIO IN BASELINE SCENARIO
(% of GDP)

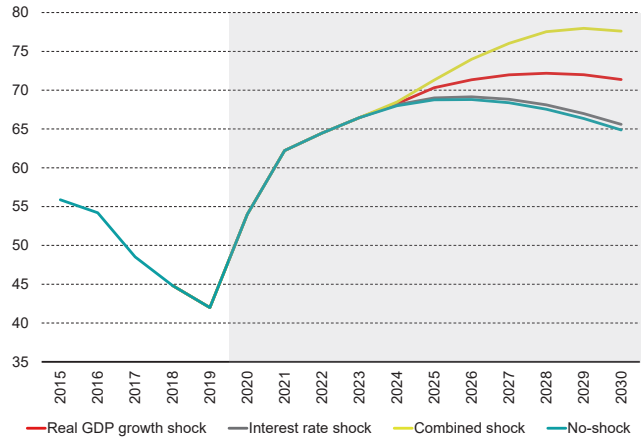


Source: Author's calculations.

[4] This exercise includes the impact of fiscal measures announced at the start of February 2021. It is available here: www.centralbankmalta.org/economic-projections

On the basis of these assumptions, the general government debt is expected to peak in 2023 before declining to just under 48.0% of GDP by 2030, i.e. very close to its pre-pandemic level (see Chart 1). Debt remains on a downward trajectory when assuming individual mechanical shocks to real GDP growth and borrowing costs. In the event of a combined shock as defined in Table 3, during which Government is assumed to initially conduct a less contractionary fiscal stance in response to the shock to GDP growth, the debt-to-GDP ratio stands at just under 60% by the outer year of this exercise.

Chart 2
DEBT-TO-GDP RATIO IN SEVERE SCENARIO
(% of GDP)



Source: Author's calculations.

Owing to the low level of interest rates at the start of the forecast period, an interest rate shock is expected to exert a negligible impact on public debt. On the other hand, owing to the denominator effect, a pure shock to GDP growth would have a significant impact on the debt ratio. If Government adopts a looser fiscal policy in response to the slowdown, the debt burden incurred since the onset of COVID-19 would not be scaled back by the end of the simulation horizon.

Scenario 2 – Severe Scenario

In this scenario, the impact of the pandemic on economic activity and public finances is more prolonged than in the baseline scenario. Consequently, it is assumed that fiscal consolidation is pursued at a more gradual pace compared with the baseline scenario. As a result, although the headline deficit-to-GDP ratio is put below 3.0% by 2026, public finances are set to remain in deficit throughout the simulation horizon.

Excluding the impact of any mechanical shocks, general government debt is set to peak in 2026 before declining to around 65.0% by 2030 (see Chart 2). However, in this period the debt ratio is expected to amount to around 71.0% in the event of a shock to GDP growth and around 78.0% in the event of a combined shock featuring lower GDP growth, higher interest rates and delayed fiscal consolidation.

In this scenario, the debt ratio is not expected to embark on an explosive path even when accounting for possible shocks. However, as the combined shock illustrates, the degree to which the debt burden is brought down is determined by the timing of fiscal consolidation measures. If this shock materialises and consolidation efforts are relaxed in the immediate term, the resulting debt-to-GDP ratio would only stabilise and not decline at all by 2030.

Heat map of indicators

This section assesses a number of indicators which, according to the literature, are highly relevant for debt sustainability in the short and long term. The thresholds used to grade these indicators are

sourced from the European Commission's *Fiscal Sustainability Report* and the *Debt Sustainability Monitor* series. The threat each indicator poses to the debt ratio is colour coded – red indicates a high threat, yellow indicates a medium threat and green signals a low threat to sustainability. The heat map is presented in Table 1.

This is a backward-looking analysis, and hence it precedes the impact of COVID-19 on the economy and on public finances.

Overall, risks surrounding the structure of debt and liquidity risks are limited. In 2019, the share of short-term debt in the total debt maintained its upward trend and consequently remained as a medium threat. The rise in short-term debt reflects a new issue of the 62+ Government Savings Bond. According to ESA methodology, these bonds are classified as deposits and are thus considered as short-term debt. However, there are no significant risks related to financing of debt in the immediate term. In fact, existing deposits held by the Government, which form part of government financial assets, are more than enough to finance debt with a maturity of less than one year.

From a macro-financial perspective, the main risks to debt sustainability stem from the elevated share of NPLs in the total loans extended by the core domestic banks compared with the applicable

Table 1
HEAT MAP

	2015	2016	2017	2018	2019
Structure of debt					
Share of short-term debt					
Change in share of short-term debt (y-o-y)					
Share of foreign currency denominated debt					
Share of debt with variable interest rate in GDP					
Share of debt held by non-residents					
Liquidity risks					
Gross financing needs (% of GDP) (High/Low risk)					
Net financing needs (% of GDP)					
10 year government bond spread over German Bund					
Macro-financial risks					
Private sector debt (% of GDP)					
Private credit flow (% of GDP)					
Net international investment position (% of GDP)					
Share of NPLs to gross loans: core banks					
Change in share of NPLs (core banks) (y-o-y)					
Bank loans-to-deposits ratio (core banks)					
Change in nominal house prices (y-o-y)					
Competitiveness risks (High/Low risk)					
ULCs (% change over 3 years)					
Real effective exchange rate (% change over 3 years)					
Current account balance (3 yr average as % of GDP)					
Export market shares (% change over 5 yrs)					
Implicit/contingent risks					
Commission Ageing Report: 2016-2070 ageing costs (pp of GDP)					
General government guarantees (% of GDP)					

Source: Author's calculations.

threshold. Nevertheless, this share remained on a declining path, and continued to decline further in 2019 to a historical low. This partly reflects cyclical factors, but also de-risking measures by Maltese banks. However, following the outbreak of COVID-19, this metric may deteriorate as firms suffering from lack of liquidity may eventually not be able to honour loan obligations (see section on non-quantifiable risks).

Implicit liabilities, in the form of ageing costs (pensions, healthcare and long-term care), form another significant risk to sustainability. According to the Commission's 2018 *Ageing Report* projections, at 6.8 points, Malta is set to have the second highest increase in age-related spending in the European Union between 2016 and 2070. However, this metric is set to improve, due to more favourable labour market developments observed in recent years. In the December 2020 strategic review of the pension system, the Pensions Strategy Group offer a more optimistic assessment compared with the previous update. While the pension system is still expected to revert to a deficit in the absence of additional reforms, the shortfall has been revised down from 4.8% of GDP by 2060 to 3.0% of GDP by 2070.[5]

Government-guaranteed debt in Malta has declined over the last couple of years. In 2019, it stood at 7.4% of GDP with half of this debt mainly concentrated in the energy sector.[6] This ratio is the lowest value in more than a decade and is also in line with the euro area average. As a result, risks emanating from general government guarantees have now shifted from high to medium risk. However, government guarantees may increase in the near future due to the challenges posed by the pandemic (see below).

Non-quantifiable risks

This section outlines other debt sustainability risks which, owing to the outbreak of COVID-19, are likely to materialise. However, since it is not clear when these risks could materialise, their impact on government debt cannot be quantified at present.

In the immediate term, the largest risk to debt sustainability concerns the likelihood of state support to Air Malta. The company was reported to have been incurring losses of more than €170,000 daily following the pandemic.[7] At the time this analysis was finalised, Government had signalled to the European Commission its intention to provide state aid, which requires approval before any assistance is granted. While the impact of this measure on government finances is likely to be significant, the size and nature of the support package have not yet been ascertained.

In the short-to-medium term, sustainability risks are likely to be affected by the inability of some firms to repay loan obligations. According to the latest available data published on the Bank's website, by September 2020, the share of NPLs to total gross loans of core banks crept up to 3.5% from 3.2% at end-2019.[8] However, according to the Bank's 2020 *Interim Financial Stability Report*, there is a risk of an increase in NPLs once the loan moratoria period ends. Government finances stand to be affected through its exposure to the MDB CGS, if a portion of the guarantees are called. The extent to which this measure affects debt sustainability depends on the duration of the pandemic and its impact on bankruptcies.

In the medium-to-long term, sustainability risks reflect the likelihood of new EU-wide revenue raising measures, which Member States in principle agreed to introduce in order to repay financing of the NGEU rescue package. If implemented, such measures have the potential to significantly affect the Maltese economy and public debt sustainability. Conversely, this analysis does not quantify the positive impact on economic growth and on government finances of EU funds. Given that the latter

5 See www.socialsecurity.gov.mt/wp-content/uploads/2021/02/Pensions-Strategic-Review-Report-2020.pdf
6 See National Audit Office Malta (2020). "Annual Audit Report: Public Accounts 2019" for further details.
7 See www.timesofmalta.com/articles/view/honest-and-credible-plan-for-state-aid-as-air-malta-loses-170000-daily.851468
8 See www.centralbankmalta.org/financial-soundness-indicators

amount to double the previous tranche of funding allocated to Malta, these impacts could be quite substantial.

Assumptions and technical information

Scenario analyses: common assumptions (from 2024 onwards)

Potential output growth is determined exogenously in this framework. Real GDP growth is set to grow in line with the forecast structural primary balance and potential output growth. The growth is therefore determined by the fiscal multiplier – i.e. the degree to which fiscal policy affects economic growth – and the output gap, which eventually closes. For further details, refer to the 2018 *Annual Report* Box.

Inflation, which in this box is measured by growth in the GDP deflator, is assumed to remain at just below 2.0%, in line with the ECB's target for inflation over the medium term.

Meanwhile, the level of the deficit-debt adjustment is assumed to revert to its long-run average. No temporary fiscal measures, other than those related to COVID-19, are assumed to take place.

Government debt is forecast on the basis of different types of maturity. The share of each category of debt is assumed to revert to its long-run average. Interest payment projections are based on separate interest rate estimates, applied to each maturity category.

The forecast path of interest rates is based on ECB assumptions for the EURIBOR (used to determine interest payments on short-term debt) and the 10-year yield on Malta Government Bonds (used to determine interest payments on rolled-over, long-term debt).[9] Interest rates on non-maturing debt are based on the maturity profile of Malta Government Bonds outstanding at end December 2019.

Scenario analyses: mechanical shocks (applied from 2024 onwards)

Permanent shocks to GDP growth and interest rates are based on the standard deviation of historic data, similar to the approach used by the IMF in its Article IV Missions. On average, compared with

Table 2
SCENARIO ASSUMPTIONS: MAIN DETERMINANTS OF DEBT

Per cent

	Baseline scenario		Severe scenario	
	2020-2023 average	2024-2030 average	2020-2023 average	2024-2030 average
Real GDP growth rate	2.0	3.5	1.2	3.3
Inflation (GDP deflator growth rate)	1.7	1.9	1.6	1.9
Interest rate applied to				
Short-term debt	-0.4	0.0	-0.4	0.0
Long-term debt maturing within a year	0.0	0.2	0.0	0.2
Non-maturing long-term debt	3.5	3.8	3.5	3.8
Deficit-debt adjustments (% of GDP)	0.5	0.6	0.5	0.6
Primary balance (% of GDP)	-4.5	1.1	-6.0	-0.4

Source: Authors' calculations.

[9] The euro area interest rate projections were provided by the ECB as part of the common set of assumptions underlying the Eurosystem's December 2020 staff projections.

Table 3
ASSUMPTIONS SURROUNDING PERMANENT SHOCKS

	Real GDP shock	Interest rate shock	Combined shock
Nature	Lower GDP growth	Higher interest rates on short-term and maturing debt	Lower GDP growth; higher interest rates on short-term and maturing debt; delayed fiscal consolidation
Magnitude	1/2 standard deviation of historic real GDP growth	1/2 standard deviation of interest rates on maturing debt	1 percentage point impact on GDP growth and interest rates
Impact on debt ratio	Denominator effect (debt level held constant but GDP declines)	Numerator effect (higher coupon payments but no offsetting fiscal consolidation)	Numerator and denominator effects (worsening nominal balance and lower GDP)

the no-shock scenarios, there is a 1.4 percentage points decrease in the yearly, real GDP growth and a 0.9 percentage point increase in the interest rate.

Combined permanent shock scenarios are calibrated such that real GDP growth declines and interest rates increase by 1.0 percentage point each. This is in line with the method adopted by the European Commission in such analyses. At the same time, fiscal targets are revised such that the pace of fiscal consolidation is relaxed in the first few years of the shock, but is then pursued more vigorously in the last few years of the simulation.

The forecast path for the main determinants of debt is shown in Table 2, while the nature of shocks is shown in Table 3.