GOVERNMENT OF BARBADOS

Fiscal Risk Statement 2025

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1. Introduction

The Government of Barbados recognizes the importance of identifying, assessing, prioritising, managing, and monitoring fiscal risks to ensure the sustainability of public finances. Fiscal risks are factors that may cause fiscal outcomes to deviate from expectations or forecasts depending on its likelihood of realization and potential fiscal impact[1]. These risks can be quantifiable, meaning they have the potential to be estimated and managed (i.e., predictable variation). However, in some cases, they are unquantifiable and hence much more difficult to manage.

For example, measurable key macroeconomic variables such as GDP growth, inflation, and interest rates can pose risks that impact fiscal outcomes. These outcomes include revenues, expenditures, the fiscal balance, the level of borrowing, and the debt-to-GDP ratio. Such variables can cause deviations from budget estimates. These estimates are used to derive the macroeconomic assumptions for the Medium-Term Fiscal Framework (MTFF) and the Mid-Year Review Report for Barbados.

In addition, since the COVID-19 pandemic, the scope of fiscal risk analysis has significantly expanded. The pandemic had a debilitating impact on the domestic economy and fiscal performance. Equally important, ignoring the increasing frequency of climatic events or failing to adequately prepare fiscal responses to these potential risks can adversely expose the country to fiscal shocks, compelling the Government to implement unplanned and disruptive policy measures to maintain credibility and ensure long-term sustainability.

The cumulative impact of both the pandemic and climatic events has, in many instances, disrupted Barbados' short-term initiatives. However, Barbados continues to overcome these challenges, preventing deviations from its medium-term targets. This resilience is underpinned by good governance through sound fiscal policies and forward-looking risk management strategies, all enshrined in its robust legislative framework for public financial management (PFM).

Barbados' PFM Act 2019 mandates the preparation of a Fiscal Risk Statement (FRS), as outlined in the Third Schedule of the PFM Act 2019 paragraph 2(f) . The PFM framework comprises a system of processes, technology, rules, and regulations used by governments to manage public finances, aiming for fiscal discipline, efficient resource allocation, and operational efficiency[2].

This Fiscal Risk Statement (FRS) provides a comprehensive overview of the potential risks to the Government of Barbados' fiscal health, assessing both the likelihood of these risks occurring and their potential fiscal impact in a systematic way. The FRS includes an assessment of contingent liabilities, commitments not included in fiscal forecasts, and other circumstances that

[1] International Monetary fund. 2016. Analysing and Managing Fiscal Risks Best Practices; IMF Policy Paper; May 4, 2016.
[2] International Monetary fund - CARTAC 2024. L-1 PFM Principles and Elements; Barbados Budget Analysis and Scrutiny Training; October 23-30,2024.

may materially affect fiscal and economic projections. By quantifying these risks where practicable, the Government seeks to enhance transparency and accountability in fiscal management.

2. Scope of the Fiscal Risk Statement

The Fiscal Risk Statement (FRS) has 3 main priorities:

1. **Enhancing Fiscal Risk Management:** This is important because fiscal risks can represent a large percentage of GDP, tend to accumulate over time, and can occur surprisingly often. The management of fiscal risk involves a risk management cycle that begins with identifying the risks and continues with monitoring those risks, as indicated in Table 1. This effort is part of the Government's initiative to enhance its capacity for fiscal risk management.

Table 1: Fiscal Risk Management Responsibilities in Barbados

Fiscal risk management responsibilities in Barbados

Risk Category	Responsible Entity
Macroeconomic	Technical Fiscal Working Group
Budgetary contingencies	Budget Department
Asset and liability management	Treasury
Guarantees	Debt Management Unit
Public corporations / SOEs	MAU, Line Ministries
PPPs	PIU, Line Ministries
Financial sector exposure	Central Bank of Barbados
Environmental risks	Various agencies, MFEI
Legal claims on the government	Attorney General, Treasury
Oversight For Fiscal Risk Management	Fiscal Risk Unit

Source: International Monetary fund | Caribbean Technical Regional Assistance Centre | Ministry of Finance, Fiscal Risk Unit | Fiscal Technical Working Group

2. **Quantifying Fiscal Indicators:** The FRS facilitates the identification, quantification, and prioritization of fiscal risk indicators across short, medium, and long-term time horizons, which may impact the fiscal outlook.

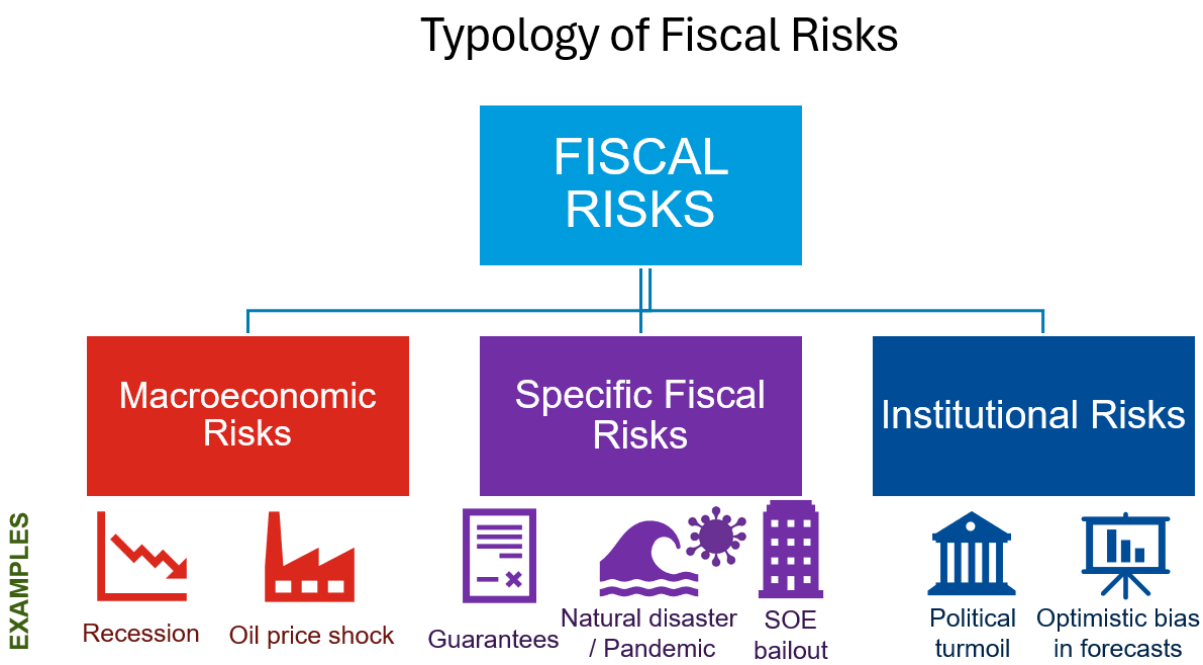
    - **Short-term time horizon:** This looks one year ahead, focusing on the discrepancies between the original budget and the actual outturn of revenues and expenditures.
    - **Medium-term time horizon**: This extends to three years.
    - **Long-term time horizon:** This covers periods greater than three years.

It is expected that when potential risks arise, mitigative actions will be undertaken to minimize the fiscal impact of these risks on the Government’s performance.

3. Main Sources of Fiscal Risks

Minimizing the exposure to fiscal risks requires a thorough understanding of the scope, the context and the environment with in which we must manage the sources of these risks. Fiscal risk can arise from a range of different sources, and it can be classified into three broad groups as highlighted in Figure 1: **Typology of Fiscal Risks.**

Figure 1: Typology of Fiscal Risks



Source: International Monetary fund | Caribbean Technical Regional Assistance Centre | Ministry of Finance, Fiscal Risk Unit

The major risks that the Government of Barbados, through the Fiscal Risk Unit (FRU), actively monitors and manages are detailed in Table 3.

Table 2: Barbados Main Sources of Fiscal Risks and Implications

Risk Factor	**Implications for Fiscal Risk Position**
Macroeconomic Risk	
Reduced Real GDP growth Elevated Inflation Increased Interest rates	Volatility in the macroeconomic indicators can caused deviations in fiscal outputs relative to initial forecasts
Specific Fiscal Risk	
Contingent Liabilities: Government Guaranties State-Owned Enterprises (SOEs)	Possible future explicit and implicit claims that a government guarantees to settle if some unexpected event occurs. These represent unplanned fiscal costs that if realized can worsen government's short, medium- and long-term fiscal position.
Environmental Risks	
Natural Disasters	Barbados is located in a multi-hazard zone, making it susceptible to natural events such as hurricanes, flooding,

	excess rainfall, coastal erosion, high wind speeds and sea level rise. Realization of these events can impair fiscal outcomes due to its inherent uncertainty.
Institutional Risks	
Overestimating revenues or underestimating expenditures	Overestimating revenues or underestimating expenditures can lead to budget deficits. When revenues fall short or expenditures exceed expectations, it can lead to fiscal instability, making it difficult for the government to balance its budget and manage its debt.
Geopolitical factors	
Military Conflicts/War**s** Cutbacks on Official Development Assistance (ODA)	Geopolitical tensions can impact global economic conditions which can significantly pose a risk to Barbados growth prospects. Risks such as slower global growth, elevated inflation and disruption to tourism, trade and financial aid could limit the benefits of the demand for Barbados' goods and services.
Social and Long-term Risks	
Non-communicable diseases (NCDs), Population dynamics, and Pension schemes.	Social and long-term risks such as NCDs, aging population and low birth rates, and the NISSS pension scheme can be a significant risk due to increase fiscal pressures for the Government of Barbados (GoB). Risks such as reduce working age population which can lead to reduce workforce productivity, increased healthcare costs and the unsustainability of social welfare programs.

Source: Ministry of Finance, Fiscal Risk Unit

3.1. Macroeconomic Risks

Barbados' economy is set for sustained growth in 2025 and beyond, with an anticipated annual average real GDP growth rate of 3 percent in the short to medium term. This forecast relies on ongoing investments from both public and private sectors, alongside improvements in productivity and competitiveness. Key sectors such as tourism, business, utility infrastructure, renewable energy, and food security are expected to drive sustainable growth, boost construction activity, and create jobs. The tourism sector is projected to have another strong year in 2025, building on its robust performance in 2024. According to the January 2025 World Economic Outlook, global growth is expected to stabilize at 3.3 percent by the end of the year, driven by advanced economies like the USA, the Euro Area, and Canada. These trends are likely to increase demand for Barbados' goods and services, particularly in tourism and trade[3].

However, risks such as slower global growth, elevated inflation, and trade disruptions—especially in key markets like the UK—could limit these benefits. Geopolitical tensions and the

[3] CBB Outlook for Barbados' Economy in 2025

rising frequency of climate-related disasters, further underscore the need to further build for economic resilience[4].

Financial soundness indicators are expected to remain robust, driven by credit expansion in key economic sectors. The ongoing growth in construction activity and other strategic investments will likely fuel this credit expansion, enhancing overall economic activity. Banks and financial institutions are projected to sustain strong capital adequacy and liquidity levels, ensuring stability within the financial system. As economic conditions continue to improve, the level of non-performing loans is anticipated to decrease further.

A sensitivity analysis was conducted to estimate the impact of a shock of one (1) standard deviation to three (3) macroeconomic variables used in the fiscal forecasts, particularly the fiscal balance as a percentage of GDP and debt as a percentage of GDP. One (1) standard deviation of real GDP growth was 4.4 % from the baseline. The aim was to identify the macroeconomic variables to which fiscal variables are most sensitive, helping to direct risk mitigation efforts. Three scenarios were undertaken:

- **Scenario 1**: 1 standard deviation decrease in real GDP growth in 2025/26.
- **Scenario 2**: 1 standard deviation increase in inflation in 2025/26.
- **Scenario 3**: 1 standard deviation increase in interest rates on government debt in 2025/26.

Table 3: Macroeconomic Risk Sensitivity Analysis

Scenario	Impact as a percentage of GDP on...					
	ues		Expenditures		Budget Balance	Public debt stock
	26		2025/26		2025/26	2027/28
	BBD	% GDP	BBD	% GDP	BBD	% GDP
1 standard deviation **decrease in real GDP growth** in 2025/26						
Baseline value	3794.0	26.9	4068.5	-1.8	-274.5	87.8
Value after shock	3627.1	25.8	3889.5	-1.7	-262.4	83.9
Difference	-166.9	-1.2	-179.0	0.1	12.1	-3.9
1 standard deviation **increase in inflation** in 2025/26						
Baseline value	3794.0	26.9	4068.5	-1.8	-274.5	87.8
Value after shock	3960.9	28.1	4247.5	-1.9	-286.6	91.7
Difference	166.9	1.2	179.0	-0.1	-12.1	3.9
1 standard deviation **increase in interest rates** on government debt in 2025/26						
Baseline value	3794.0	26.9	4068.5	-1.8	-274.5	87.8
Value after shock	3960.9	28.1	4247.5	-1.9	-286.6	91.7
Difference	166.9	1.2	179.0	-0.1	-12.1	3.9

Source: Ministry of Finance, Fiscal Risk Unit

[4] CBB Outlook for Barbados' Economy in 2025

Table 4: A Summary Output of the Macroeconomic Risk Sensitivity Analysis

Scenario	Impact as a percentage of GDP on... Budget balance in 2025/26	Public Debt stock in 2027/28
1 standard deviation decrease in real GDP growth in 2025/26	12.1%	-3.9%
1 standard deviation increase in inflation in 2025/26	-12.1%	3.9%
1 standard deviation increase in interest rates on government debt in 2025/26	-12.1%	3.9%

Source: Ministry of Finance, Fiscal Risk Unit

3.1.1. Real GDP

Based on the output values in Tables 4 and 5, a shock to real GDP, in comparison to inflation rate and interest rate, poses the biggest risk to public finances. If there is a shock to GDP, the mitigation measures that policymakers can take include being conservative in the revenue forecast, building fiscal buffers (savings), and having some fiscal headroom as a source of financing to cushion that shock and cope with low revenues.

3.1.2. Inflation Rate

Elevated inflation[5] can cause increases in the cost-of-living, disproportionately affecting low-income households. This may lead to higher demand for social assistance programs, placing additional strain on public finances. To mitigate the impact on broader society, the government continues to monitor price controls on a specific basket of essential goods and services.

3.1.3. Interest Rate

Barbados's debt comprises of 73 percent fixed rate debt and 27 percent variable interest rate debt. The interest rates risk on the debt stock in the medium term is mitigated by taking on more fixed interest borrowing. In addition, interest rates mostly affect the current account, which has an impact on the fiscal side. Upward changes in interest rates can be costly, especially when there is a high current expenditure. Over the past few years, interest rates have been one of the largest contributors to increases in expenditure. To mitigate interest rate risks, Barbados has implemented a fiscal responsibility framework to ensure prudent fiscal management. This framework includes setting fiscal targets and adhering to budgetary constraints. By doing so, the government aims to manage public finances more effectively and reduce the impact of interest rate fluctuations on the economy.

[5] Barbados inflation is primarily driven by imported inflation.

3.1.4. Debt Portfolio Risk

Every debt portfolio inherently carries risks and associated costs. Effective portfolio management involves identifying these risks and developing strategies to mitigate them, considering any constraints to avoid undue costs and minimize potential losses.

Some key areas of risk in relation to the debt stock are:

Interest rate risk

Interest rate risk refers to the vulnerability of the debt portfolio, and the cost of Government debt, to higher market interest rates at the point at which the interest rate on variable rate debt and fixed rate debt that is maturing is being re-priced.

Refinancing (roll-over) risk

Refinancing risk captures the exposure of the debt portfolio to unusually higher interest rates at the point at which debt is being refinanced; in the extreme, when this risk is too high it may not be possible to roll over maturing obligations.

Foreign exchange rate risk

Foreign exchange risk relates to the vulnerability of the debt portfolio, and the government's debt cost, to a depreciation/devaluation in the external value of the domestic currency.

Source: Medium-Term Debt Management Strategy (MTDS) - Guidance Note for Country Authorities – IMF/World Bank.

Barbados' debt stock currently has a low refinancing risk. Most domestic debt is held in stepped rate bonds that amortize over an extended period, while the external debt portfolio mainly consists of multilateral loans and a sovereign bond that amortizes over five years. Despite this, the debt stock remains a vulnerability. Debt service costs have risen due to higher interest rates on external multilateral debt and scheduled payments on restructured debt obligations. The weighted-average cost of the overall debt portfolio is around 5.1%, up from 4.8% at the end of FY 2023, largely due to increases in the SOFR and the US Fed's interest rate hikes. Barbados mitigative action includes pursuing swaps, that is exchanging expensive debt with cheaper debt. Two (2) notable swaps Barbados has negotiated are: debt-for-climate swap and debt for nature swap.

The portfolio's average time to maturity is 9.5 years, with domestic debt averaging 11.1 years and external debt 6.9 years. Approximately 6.5% of the total debt stock (BBD 962.0 million) will need refinancing in the next 12 months. This includes 4.3% of external debt (BBD 243.0 million) and 7.8% of domestic debt (BBD 719.0 million).

The increased multilateral debt in the portfolio carries variable interest rates, resulting in 69.7% of external debt being subject to interest rate changes within a year as of March 2024, up from 66.3% in March 2023. The SOFR is the reference rate for most variable rate external loans. Although interest rates have continued to rise, the pace has slowed. Overall, about 74.0% of the debt portfolio has a fixed rate structure, mainly due to domestic stepped-up amortizing bonds, fixed rate T-Bills, and fixed rate sovereign bonds and external loans.

Foreign exchange risk remains manageable, with most external debt denominated in US dollars. This acts as a natural hedge since international reserves and export receipts are also in US dollars.

Barbados' fiscal and debt dynamics can be negatively impacted by adverse variations in baseline macroeconomic and market variables, such as weak economic activity, fiscal slippage, and natural disasters.

Barbados is proactively adopting strategies to build climate resilience into its debt portfolio. This includes extending instruments to be covered by natural disaster and pandemic clauses through the enactment of the Barbados Optional Savings Bonds Plus (Offer to the Public) (Amendment) Act, 2023–9, and the Debt (Natural Disaster and Pandemic Deferment of Payment) (Miscellaneous Provisions) Act, 2024-9. These amendments ensure that future borrowings under these Acts will include provisions for the deferment of principal and interest, subject to certain conditions, in the event of a natural disaster or pandemic.

Barbados is committed to manage its debt portfolio effectively, mitigating risks and ensuring fiscal stability.

3.2. Specific Fiscal Risks

Specific risks are events that can happen and have an impact on fiscal outcomes. These events are discrete in nature and are triggered by uncertain events from outside the public sector or from public entities that lie outside government's immediate control. For instance, these include:

3.2.1. Contingent Liabilities

The realization of contingent liabilities, such as government guarantees and obligations of State-owned Enterprises (SOEs), can worsen the government's fiscal position in the short, medium, and long term if unexpected events occur. In such cases, the government may need to step in and settle these claims, leading to increased financial burdens. Quantitative analysis was conducted to attempt to estimate the likelihood and impact of these specific risks facing Barbados public finances.

3.2.1.1. Government Guarantees

Government guarantees constitute an explicit contingent liability, but fiscal risks in this area are relatively limited. Guarantees include external SOE debt consisting of multilateral debt and bond issues on behalf of three state-owned enterprises. The state has committed to issuing no additional guarantees on domestically financed debt.

There have been regular principal repayments on the guaranteed debts, and the current balance is approximately BDS$71.6M (Table 6). A maximum of approximately 70 percent of the secured debt portfolio belongs to the KOMI, although it holds one-fifth of the loans. A 27 percent share of the of the guaranteed debt is held by BIDC, and the remainder of 3 percent share of the secure debt

portfolio is held by University of the West Indies although it holds more than half of the loans. The authorities assess risks from guarantees materializing as a low risk, since the total amount of guarantees poses a minor risk as a percentage of the total debt stock to GDP.

Table 5: List of Government Guarantees Loans (BDS$)

Organization	Amount of Loan $BDS
University of the West Indies-European Union	891,899.00
University of the West Indies-Mona CDB 9/OR-REG	1,030,748.00
University of the West Indies-Mona CDB	253,101.00
BIDC $38M	19,428,053.00
KOMI	50,000,000.00
Total Government Guaranteed Debt	**71,603,801**

Source: Ministry of Finance, Debt Unit

3.2.1.2. State-owned Enterprises (SOEs)

Five State-Owned Enterprises (SOEs)—Queen Elizabeth Hospital (QEH), Transport Board (TB), Caribbean Broadcasting Corporation (CBC), National Petroleum Corporation (NPC), and Barbados Water Authority (BWA)—have been identified as posing a moderate risk to the Government. This assessment is based on indicators pointing to low levels of liquidity and the absence of robust mechanisms for quick cost recovery and maintaining strong financial health, as detailed in Appendix 1: Financial Metrics of Selected SOEs. However, the Government of Barbados (GoB) has begun restructuring and reforming these SOEs to improve their financial stability and operational efficiency.

3.2.1.3. Risk Assessment

An analysis of the financial ratios presented in **Appendix I** indicated that the five State-Owned Enterprises (SOEs) revealed a concerning trend of low liquidity levels and fluctuating profitability. These SOEs include the Transport Board (TB), Caribbean Broadcasting Corporation (CBC), National Petroleum Corporation (NPC), Barbados Water Authority (BWA), and Queen Elizabeth Hospital (QEH). For instance, BWA is largely influenced by challenges with overdue receivables, while QEH generally reports a high level of monthly payables and a working capital deficit.

Two SOEs, namely the Transport Board (TB) and the Caribbean Broadcasting Corporation (CBC), were identified as unable to meet their obligations as they come due. This presents an increased likelihood that they will require some level of capital injection going forward to sustain their operations.

Overall, the five SOEs have been identified as posing moderate risks as a result of the implementation of mitigating measures by the government. However, if this risk materializes, there is a 30% likelihood (midpoint) of requiring supplementary funding, which is considered possible. This could result in a moderate risk-weighted impact of between 0.05% and 0.5% of GDP (based on the 2024 GDP value of $14,428 million).

To address these risks, the Government of Barbados, as part of the IMF Extended Fund Facility (EFF) program, has embarked on significant structural reforms aimed at creating greater efficiency, improving overall financial health, and achieving self-sufficiency for SOEs. These reforms are intended to reduce the SOEs' risk-weighted impact[6]
on public finances. Some of the broad initiatives currently being undertaken include:

i. The elimination of service redundancies through mergers and divestitures.
ii. Introduction of cost control initiatives, business revenue enhancements and expansion initiatives.
iii. Implementing performance benchmarking, stress testing and forecasting to be better able to ensure timely identification and resolution of potential risks.
iv. Strengthening oversight to enhance reporting mechanisms and to facilitate better decision-making and risk management through various oversight committees such as the Fiscal technical Working group (FTWG), Management Accounting Unit (MAU) and the Fiscal Risk Unit (FRU).

3.2.2. Natural Disasters in Barbados

Disaster risk can be quantified as the product of the weather event, vulnerability, and exposure. Vulnerability refers to the propensity to be adversely affected, while exposure refers to the presence of people, livelihoods, infrastructure, and economic, social, or cultural assets in places that could be adversely affected.

A Damage and Loss Assessment (DALA) report on the effects and impacts of Hurricane Beryl was conducted by the Economic Commission for Latin America and the Caribbean (ECLAC) at the request of the Government of Barbados. The cost associated with Hurricane Beryl, amounting to approximately BDS$193.1 million, can serve as a benchmark for assessing the potential impacts and risks of future climatic events with similar characteristics. This figure provides a minimum estimate of the damage that could be expected from such events.

Barbados faces a number of climate related risks including hurricanes, non-hurricane related storm surge and coastal inundation, floods, landslides and saline intrusion. Over the year 2024, Barbados was impacted by Hurricane Beryl, storms, drought and flooding from various weather systems. Natural disasters weaken the fiscal forecasts by undermining economic growth and eroding the public revenue base over the short to medium term. Concurrent increases in expenditure for disaster-related provisioning impact debt and fiscal sustainability. Additionally, disaster-related delays on capital projects further inhibit avenues for economic growth.

The increased frequency of these climatic events exacerbates the size of fiscal adjustments needed to address immediate disaster relief and reconstruction, which may span multiple financial years. This situation crowds out other spending due to government’s limited fiscal space. As a

[6] Risk Weighted Impact = Likelihood of the risk x Fiscal impact of the risk

mitigative measure Barbados continues to enhance its strengthen its adaptive climate resilient strategies into development planning and policies which can help mitigate long-term risks.

3.2.2.1. Rainfalls

Historically, rainstorms in the Caribbean have been intense, with storms of 50-100 mm per hour not unusual. Barbados has had its share of extreme rainfall events. Depending on the geographical location, significant flooding, and drainage system failures, when daily rainfall exceeds 200mm the risks of loss of life and damage to property are high[7]**.** Conversely, the absence of rainfall, drought, or prolonged dry seasons can lead to water scarcity affecting crop yields and livestock resulting in food insecurity, economic losses and health risks.

An analysis of daily rainfall data between 1971 and 2020 was conducted by the Fiscal Risk Unit and the Barbados Meteorological Office. The analysis showed that for Barbados rainfalls levels exceeding 200mm are rare – however, there have been ten days over this 50-year period where rainfall has exceeded 100mm, and two climatic events where daily rainfall exceeded 200mm: Hurricane Tomas in 2010 (235mm) and Tropical Storm Kirk in 2018 (242mm).

Consequently, we consider the likelihood of extreme rainfall events to be remote, and the fiscal impact to be minor (separate from the damage caused by any accompanying high wind speeds). The table below summarises the likelihood of different levels of rainfall in Barbados.

Table 6: Barbados Daily Rainfall 1971-2020

Daily rainfall	% of days 1971-2020	Likelihood of extreme rainfall event
0 mm	44.4	
<10 mm	47.3	
10-20 mm	4.8	
20-30 mm	1.6	
30-40 mm	0.92	
40-50 mm	0.48	
50-100 mm	0.57	
100-150 mm	0.048	Daily rainfall > 100 mm: 1-in-4 year event
150-200 mm	0.007	Daily rainfall > 150 mm: 1-in-13 year event
>200 mm	0.014	Daily rainfall > 200 mm: 1-in-20 year event

Source: Barbados Meteorological Office | Ministry of Finance, Fiscal Risk Unit

3.2.2.2. High temperatures

In 2024, Barbados experienced its highest temperatures during the summer months. The peak temperatures were recorded in July and August, reaching up to 95°F (35°C). These months typically see the highest temperatures due to the tropical climate of the region. The transmission mechanism for increasing temperatures is reflected in the rise of greenhouse gas (GHG) emissions,

[7] Extreme Precipitation: Local data requirements and interpretation for climate risk assessment — CLIMAAX CRA Handbook

which impacts global temperatures. This trend continues, with global temperatures rising by an average of more than 1.5 degrees Celsius per year. This rapid increase in temperatures poses a serious challenge to Barbados in areas of agriculture, tourism, public health and infrastructures. Temperature rises should continue to be monitored, and mitigation measures such as greening the economy and installing hydration units across the island should be implemented urgently.

3.2.2.3 Barbados' Mitigation Strategies to reduce Climate Risks

The government has undertaken a number of mitigation initiatives that are geared towards minimizing the impacts of climate change and its associated fiscal costs. These initiatives are designed to strengthen resilience and adaptation through a comprehensive public investment programme (Roofs to Reefs Programme)[8]. There has been specific focus on:

(i) building resilience in the areas of water (inclusive of potable water, sewage treatment, storm water management, groundwater enhancement, rainwater, harvesting}.
(ii) housing transport and road infrastructure resilience;
(iii) energy, waste and coastal infrastructure; and
(iv) ecosystem services.

In addition, Government met all the structural benchmarks under pillar 2 of the IMF-RSF Programme for 2024 and has included climate budget tagging in its Budget Estimates Process for Fiscal Year 2024/2025.

New and existing measures include natural disaster clauses that allow temporary cessation of debt servicing subsequent to climatic events, facilitating much needed fiscal space. Additionally, the government subscribes to the Caribbean Catastrophe Risk Insurance Facility, which offers parametric insurance in the event of specific climatic events.

Also, with respect to a new, innovative and more easily accessible financial architecture, Barbados has developed the "Bridgetown Initiative 2.0" that represents longer-term reforms for the global financial system, which immediately and fully aligns with climate science. These initiatives are:

(i) reform of the international financial architecture to make debt work for the most vulnerable and to overcome the cost of capital hurdles for climate investment.
(ii) transformation of the international and development finance system;
(iii) a global deal on carbon financing; and
(iv) revolutionize risk management through universal risk surveillance and pre-arranged and trigger-based funds.

[8] *Roofs to Reefs refers to Barbados' National Resilience Plan which outline necessary interventions that seek to minimize the impact of climate change on households and other economic sectors. This includes the upgrade of homes, water borne facilities, the reduction of pollution and greenhouse gas emissions and the protection of ecosystems.*

Similarly, the GCF has approved the establishment of the Blue Green Bank (BGB) which will provide finance for private and public initiatives for green, affordable, gender-inclusive housing, food security, and low-carbon transport and the primary development sectors. The objective of the BGB will be to build climate resilience, inclusive of adaptation and mitigation efforts in Barbados, the Caribbean and beyond. This will be achieved by pioneering innovative and risk-mitigated financial solutions that will mobilize private sector investments and channel international finance to projects aligned with national priorities.

These are innovative financial instruments that seek to revolutionize the financing architecture to assist Small Island Developing States (SIDS) in dealing with the systemic issues of accessing climate finance, to cope with the challenges of climate change impacts from an adaptation and mitigation perspective, as well as other associated development issues such as 'debt for climate' and 'debt for nature' unlocking financing for climate-related spend.

3.3. Institutional Risks

Institutional risks are factors that may constrain the effectiveness of fiscal risk management. Overestimating revenues or underestimating expenditures can lead to fiscal instability, making it difficult for the government to balance its budget and manage its debt.

A sensitivity analysis was conducted using budget data forecast error analysis to identify any systematic forecast biases. This analysis covered the fiscal years 2012-13 to 2021-22, comparing original budget estimates with actual outcomes, excluding revised estimates. The average error, which is the difference between forecasted and actual economic outcomes, was used to determine bias. An optimistic bias occurs when forecasts consistently predict better economic performance than actual results, while a pessimistic bias indicates the opposite.

Table 7: Government Revenue Forecast Errors Analysis

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Nominal GDP	**9315**	**9220**	**9335**	**9393**	**9449**	**9666**	**9963**	**10195**	**10734**	**9560**	**9891**	**11681**	**12776**
Error as a % of nominal GDP		**2.5**	**3.3**	**8.2**	**0.0**	**-1.6**	**1.6**	**-1.0**	**-3.8**		**-0.2**	**0.0**	
Average error 2012/13 to 2021/22 (indicates bias)													**0.9**

Source: Fiscal Risk Unit, Ministry of Finance.

The results in Table 8 showed that over the last ten years (excluding the Covid-19 affected 2020/21), the average forecast error was 0.9 percent of nominal GDP, indicating an optimistic revenue bias. This means that in the average year revenues have been over-forecast by 0.9 percent of GDP each year. However, in recent years revenues have been higher than forecasted, indicating

that the realism of Barbados's revenue forecast has improved. The size of these errors will need to be monitored to ensure errors do not begin to increase into the future.

Barbados has experienced robust economic growth in recent years, driven by sectors such as tourism, business services, construction, and retail trade. The government has made significant strides in improving its fiscal position, achieving a primary surplus and reducing the debt-to-GDP ratio. **However, global economic conditions, such as slower growth in key markets and geopolitical tensions, can impact Barbados' economic performance and contribute to forecast errors.**

In summary, the average error of 0.9 percent of nominal GDP indicates a slight optimistic bias in Barbados' economic forecasts over the past decade. While this bias is relatively small, it underscores the importance of cautious and realistic economic planning to ensure fiscal stability and sustainable growth.

3.4. Social and Long-term Risks

In Barbados, social and long-term risks such as non-communicable diseases (NCDs), population dynamics, and pension schemes have significant implications for the government. NCDs, including heart disease and diabetes, are the leading causes of death, accounting for 8 out of 10 deaths. This places a heavy burden on the healthcare system and increases healthcare costs.

On one hand, comparing life expectancy to GDP per capita is indeed a valuable measure of quality of life and public services. Life expectancy reflects the overall health and well-being of a population, while GDP per capita indicates the economic prosperity of a country. In the case of Barbados, the life expectancy is around 79.92 years as of 2025. This high life expectancy suggests that Barbadians generally have access to good healthcare, nutrition, and living conditions. On the economic side, Barbados has a GDP per capita of approximately $22,673 in 2023. This relatively high GDP per capita indicates a stable and prosperous economy as well as relatively high standard of living. Together, these metrics show that Barbados is doing well in terms of both economic performance and public health, contributing to a higher quality of life for its residents.

Concurrently, population dynamics, such as a low population growth rate and an aging population, challenge the sustainability of social welfare programs and labor market productivity. Pension schemes face fiscal pressures due to the increasing number of retirees relative to the working-age population, necessitating reforms to ensure long-term financial stability. These factors collectively require strategic planning and policy adjustments to mitigate their impact on government resources and societal stability. This is an area of concern that requires policymakers' continual attention and commitment to resolution.

3.4.1. Barbados' Aging Population and Long-Term Fiscal Impact

Barbados is experiencing significant demographic changes, with an aging population posing long-term fiscal challenges. The Barbados Population Policy 2023-2040 highlights several key impacts:

1. **Decreased Workforce and Revenue Decline**: An aging population leads to a shrinking workforce, which in turn reduces economic productivity. Consequently, with fewer working age individuals, the tax base contracts. This contraction results in a decline in government revenues, further impacting the economy[9].

2. **Increased Care Responsibilities**: A smaller working-age population will need to support a larger elderly population, increasing the burden on social care systems.

3.4.2. Long-Term Risks from the Barbados Pension Scheme

The 17th Actuarial Review of the National Insurance Scheme (NIS) in Barbados identified an actuarial deficit, indicating that the scheme's liabilities exceed its assets[10]. However, several steps are being taken to mitigate these risks thus lowering the risk that government will need to bail out the pension scheme): These are:

1. **Revised Contribution Rates**: Adjustments to contribution rates to ensure the sustainability of the pension fund.

2. **Enhanced Governance**: Improved governance and management practices to better oversee the fund's operations.

3. **Policy Adjustments**: Implementation of policies aimed at increasing the working-age population and supporting family well-being.

These measures are designed to lower the risk of the government needing to bail out the pension scheme, ensuring its long-term viability.

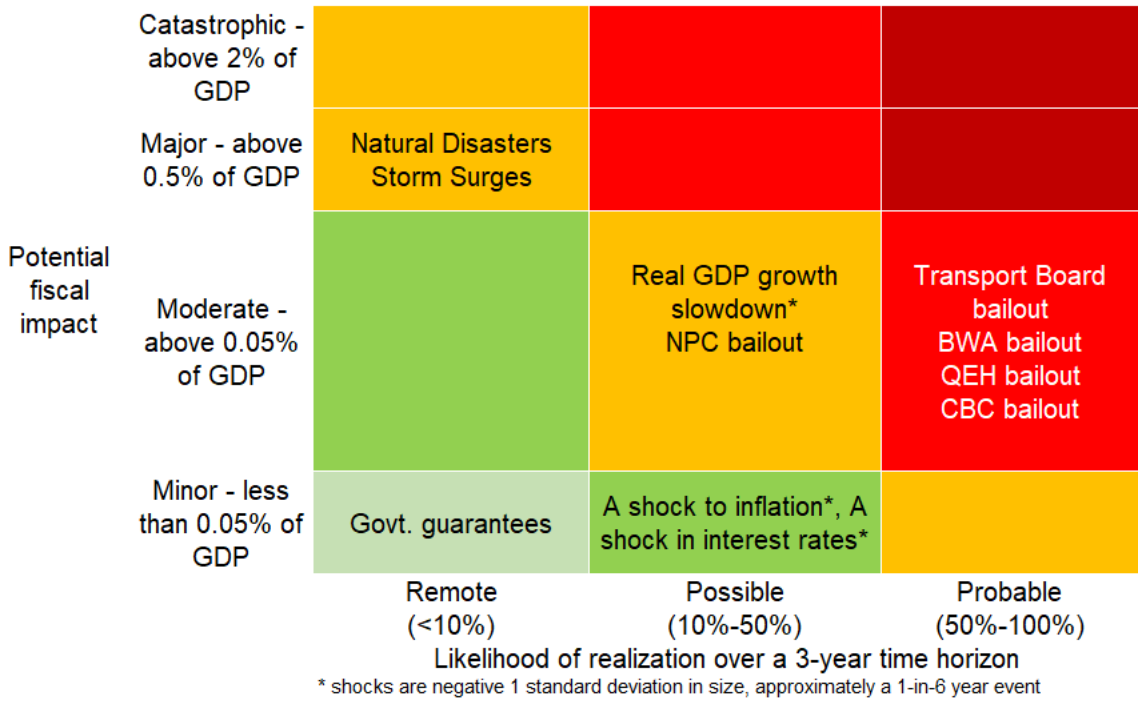
4. Analysis of Risk

In the context of Barbados' potential fiscal risks, a heatmap has been created to serve as a risk visualization summary tool. This heatmap uses three color gradients to represent the magnitude of risk, as indicated in Table 9. The colors are:

- **Red**: Indicates high risk and requires urgent action.
- **Yellow**: Indicates moderate risk that needs careful monitoring.
- **Green**: Indicates low risk that requires attention but is not immediately critical.

[9] Barbados Population Policy
[10] THE NATIONAL INSURANE OARD'S PRINCIPAL RECOMMENDATIONS FOR THE NIS

Table 8: Barbados Fiscal Risk Heat Map



Source: Ministry of Finance, Fiscal Risk Unit

4.1. The Heat Map Scales regarding Fiscal Impact and Likelihood of Realization

4.1.1. Impact

When no number on impact exists, the rule-of-thumb is to use judgement to classify impact as Minor, Moderate, Major, catastrophic. In addition, catastrophic impact is based on Covid-19 impact on the fiscal balance in 2020/21 which was 4.5% of GDP worse than forecast.

Classification:

Minor impact = < 0.05% of GDP → no meaningful impact on the overall balance or debt to GDP

Moderate impact = > 0.05 ≤ 0.5% of GDP → somewhere between Low and High

Major impact = > 2.0 ≤ 4.5% of GDP → fiscal rule violated; debt sustainability undermined

Catastrophic = ≥ 4.5% of GDP → no meaningful impact on the overall balance or debt to GDP

4.1.2. Likelihood

Table 9: Likelihood of Realization

Type of Likelihood	Percentage of Realisation
Remote	< 10%
Possible	10-50%
Probable	> 50%

Source: Fiscal Risk Unit, Ministry of Finance.

5. Conclusion

The fiscal risk statement highlights various categories of potential risks and their fiscal impact on Barbados' public finances, based on their likelihood of realization.

- **Minor risks** with a less than 10% likelihood of realization include government guarantees.
- **Minor risks** with a greater than 10% but less than 50% likelihood of realization include changes in inflation, and changes in interest rates.
- **Moderate risks** with greater than 10 % but less than 50% likelihood of realization likelihood of realization include a reduction to real GDP expansion and a potential bailout of the National Petroleum Corporation (NPC)
- **Moderate risks** with a greater than 50% likelihood of realization include the a potential bailout of the Transport Board (TB), Queen Elizabeth Hospital (QEH), and Caribbean Broadcasting Corporation (CBC).
- **Major risks** with a less than 10% likelihood of realization include Natural disasters.

To mitigate these risks, Barbados is implementing various strategies, including SOE reforms, climate resilience measures, and economic diversification, to reduce the potential fiscal impact given the likelihood of these risks materializing.

Appendix 1: Financial Metrics of Selected SOEs

QEH

Ratios		BenchMark	Year 2024	Risks	Year 2023	Risks
Current Ratio	Liquidity	2.00	0.0	High	0.00	High
Cost Recovery	Financial Performance	1.50	0.0	High	0.93	High
Net Profit Margin	Financial Performance	0.20	-3.60%	High	-15.00%	High
Debt to Assets	Solvency	0.25	0.0	High	0.00	High

TB

Ratios		BenchMark	Year 2024	Risks	Year 2023	Risks
Current Ratio	Liquidity	2.00	0.44	High	0.32	High
Cost Recovery	Financial Performance	1.50	1.01	High	0.9	High
Net Profit Margin	Financial Performance	0.20	-3.60%	High	-59.1%	High
Debt to Assets	Solvency	0.25	3.21	High	2.95	High

CBC

Ratios		BenchMark	Year 2024	Risks	Year 2023	Risks
Current Ratio	Liquidity	2.00	0.03	High	0.04	High
Cost Recovery	Financial Performance	1.50	0.6	High	0.64	High
Net Profit Margin	Financial Performance	20%	-56.1%	High	-59.1%	High
Debt to Assets	Solvency	0.25	2.62	High	2.34	High

BWA

Ratios		BenchMark	Year 2024	Risks	Year 2023	Risks
Current Ratio	Liquidity	2.00	1.96	Good	1.7	Medium
Cost Recovery	Financial Performance	1.50	1.16	Medium	1.0	High
Net Profit Margin	Financial Performance	20%	-2.1%	High	-18.6%	High
Debt to Assets	Solvency	0.25	0.29	Medium	0.29	Medium

NPC

Ratios		BenchMark	Year 2024	Risks	Year 2023	Risks
Current Ratio	Liquidity	2.00	0.54	High	0.5	High
Cost Recovery	Financial Performance	1.50	0.73	High	0.86	High
Net Profit Margin	Financial Performance	20%	-43.4%	High	-22.1%	High
Debt to Assets	Solvency	0.25	0.47	Medium	0.45	Medium