A Confluence of Shocks & Structural Deficiencies: The Existential Challenges Facing Caribbean Economies[1]

PRESENTATION

by

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Inaugural Macroeconometric Caribbean Conference

February 9-10, 2023

Nassau, The Bahamas

[1] Thanks to Oronde Small, Romario Cameron and Prudence Serju-Thomas

1. Introduction

I was asked to speak on the main economic issues facing Caribbean economies and in reflecting on this task, I want to frame my talk under the theme *A Confluence of Shocks & Structural Deficiencies: The Existential Challenges Facing Caribbean Economies*. The views expressed are my own and do not necessarily reflect those of Bank of Jamaica.

The outlook for the global economy and small island developing states is currently very challenging with heightened uncertainties and elevated risks.

Developments in the global economy over the last twenty-four months have been largely shaped by two non-economic events that have had significant socio-economic implications, particularly for small island economies in the Caribbean.

(1) The COVID-19 pandemic shuttered borders, halted travel, disrupted supply chains and inflicted significant economic losses for regional economies, particularly those more heavily dependent on tourism where the economic contraction was upward of 14.0 per cent of GDP in some cases. Of course, this figure does not capture the full human cost. While the initial shock has passed, COVID remains a concern and significant risk.

(2) As regional economies began to emerge from the pandemic, Russia's invasion of Ukraine created shockwaves that travelled from the Baltic to the Caribbean Sea, and those shockwaves now threaten the recovery of regional economies. A distinctive economic consequence of the Russia-Ukraine war has been the significant impact on food and commodity prices, in particular oil. Except for commodity exporters in the region (such as Guyana and Trinidad), higher commodity prices imply significant risks to growth, poverty and social cohesion, given the disproportionate effects on the most vulnerable. Once thought to be transitory, the higher commodity prices proved to be more persistent, and are still reflecting in levels of elevated inflation, that in some instances, have not been seen in over a generation.

The region's vulnerabilities have been further exposed (in the post pandemic era) as countries grapple with yet a third exogeneous shock: Notably sharp policy rate increases in advanced and other emerging market economies (EMDEs), in attempts to contain the higher than normal inflationary pressures which have resulted in significantly tighter global financial conditions. These high interest rates, both internationally and domestically, have limited access to critical financing needed to support the ongoing economic recovery, as well as resulted in increased debt service costs, foster a greater risk of capital outflows and have imposed depreciating tendencies for economies with floating exchange rates.

In all of this, small island states have to be responding to repeated climatic shocks. Based on its geographical location and experiences with natural disasters, the Caribbean is ranked as the second most environmentally vulnerable region in the world and is thus likely to suffer disproportionately as these shocks become more frequent and severe.

Caribbean economies are therefore, and will continue to be, confronted by a confluence of exogenous shocks – sometimes sequential and sometimes simultaneous. The fact is that shocks are no longer random, rare sunspot events that can be characterised by Brownian motion, instead, macro-financial and environmental shocks are seemingly becoming the norm.

Against this background, my main takeaway is that the main challenge for regional economies and policy makers is how to structurally adjust economies so as to build greater resilience, thereby promoting sustained growth. This challenge or need to build resilience arises from: (i) the region's acute vulnerability to global macro-financial shocks; and (ii) the region's acute vulnerability to climate shocks.

While Caribbean economies have made significant progress, the development path remains fragile. This fragility is owing to the vulnerabilities that arise not only from our geographical features, which predispose us to severe impacts from climatic shocks, but also from the structure of the economies, quality of human capital and low levels of national savings which comport to relatively low factor productivity and competitiveness. The ability to address these structural issues is constrained by high levels of public debt, precipitated by weak fiscal policy management, which both serve to further constrain the growth and development prospects of the region.

Building resilience therefore requires properly sequenced and integrated structural reforms and critical investments that simultaneously address the macroeconomic constraints and climate risks within a tight fiscal envelope i.e. an integrated policy framework.

2. Salient Features of Caribbean Economies

Despite some degree of heterogeneity across countries, there are key commonalities that identify and characterise Caribbean economies and which give rise to these acute vulnerabilities. I will just list a few key features:

- Narrow economic base i.e. a narrow range of primary production and services;
- Dependence on a limited set of export markets and on remittances;
- Dependence on imported fossil fuels and intermediate inputs;
- Weak public finances;
- Human capital development lag; and
- Vulnerable infrastructure & exposure to weather and geological shocks.

Narrow Economic Base

Caribbean economies are predominantly service-based with services accounting for, on average, 64.4 per cent of total exports between 2013-2020 (see **Figure 2.1**). However, constrained by size and limited comparable advantages, most Caribbean economies are largely reliant on a small number of sectors. Further, the key industries are those most vulnerable to global economic and natural disaster shocks – agriculture, mining, tourism and financial services (see **Figure 2.0**).

Dependence on a Limited Set of Export Markets and Remittances

Consistent with the relatively undiversified economic structure and proximity to the US, export markets are concentrated (see **Figure 2.3**). Specifically, 41.3% of CARICOM's product exports go to the US, which makes the region intricately tied to the US business cycle. There is also intra-regional trade, which has potential for greater expansion.

The story about the role of remittances is well known - a sizeable portion of the region's foreign currency flows come from remittances. Average personal remittances as a share of GDP received by Caribbean small states over the period 2000-2021 were more than twice the average of middle-income countries (see **Figure 2.4**).

Tourism-dependent economies have been the major beneficiaries of remittance inflows over the years (see **Figure 2.5**). Prior to COVID the growth rate for remittances in these economies was stable (see **Figure 2.6**). The largest source markets are US, UK and Canada. There are positives and negatives associated with remittances. Remittances appear to be countercyclical particularly in tourism dependent economies, increasing sharply during the heights of the pandemic. It is argued however, (see for example Namsuk (2012) and Chami (2018)) that the reliance on remittances raises the reservation wage in recipient countries which can undermine competitiveness.

Import Dependence

Heavy import dependence among most Caribbean economies on fuel and food (including agricultural products) is yet another indication of the region's vulnerability to volatile commodity prices. Between 30 per cent and 40 per cent of the region's annual products import bill, between 2002-2021, was spent on agriculture and petroleum products (see **Figure 2.7**). This is significant considering the region's capacity in agriculture and renewable energy production. In this context, CARICOM's policy to cut food imports by 25 per cent in 5 years, though ambitious, is critical to boosting regional food security. There is also added impetus to make rapid progress on energy transition – to a cheaper and more sustainable energy mix.

For fuel, limited generation capacity, outdated power grids and heavy dependence on fossil fuels compounded by high and volatile oil prices contribute to high energy costs, which further impair the region's competitiveness. Cost pressures also emanate from inefficiencies supported by the monopolistic structure that characterises the energy sectors across regional economies.

Estimates by the World Bank suggest that electricity prices in the Caribbean averaged approximately US$0.28 per kWh in 2020, compared to US$0.18 per kWh for the US (see **Figure 2.8**).[2]

[2] https://blogs.worldbank.org/latinamerica/clean-energy-caribbean-triple-win

Of note, high dependence on imported fossil fuels exposes regional economies to volatility in the oil market which can transmit to terms of trade shocks, volatile inflation dynamics due to relatively high pass-through from oil price shocks, and more subdued economic growth. Research by McIntyre et al. (2016) found that oil price fluctuations account for, on average 7.0 per cent of real GDP growth variation in the Caribbean.[3]

Weak Public Finance

As it relates to our record on public financial management, a number of countries have had to grapple with the strength of PFM frameworks. The general weakness of the region's institutional framework is underscored by sub-par ranking on "Government Effectiveness" index in the World Bank's World Development Indicators (see **Figures 2.9**). This index captures the quality and credibility of policy and the quality of public service among others. The average percentile rank for government effectiveness between 2005 – 2021, places Caribbean economies in the 54th percentile, in line with the LAC average but much less than advanced economies such as the US.[4] Weak government effectiveness ranking for the Caribbean, no doubt reflects on the state of the region's fiscal institutions.

Although much improved in recent years, generally weak public financial management (PFM) frameworks across Caribbean economies contributed to a decades-long record of poor fiscal and growth outcomes. Based on the 2022 Global Report on Public Financial Management published by the Public Expenditure and Financial Accountability (PEFA) Secretariat, LAC economies perform relatively poorly, with most Caribbean economies (for which data are available) scoring less that 2.5 (equivalent to a grade of "C") out of a maximum of 4 points (see **Figure 2.10**). The low PFM scores was attributed largely to relatively weak transparency and credibility in the budgetary process, absence of independent fiscal institutions and binding rules in relation to established fiscal limits.

The relatively weak PFM is correlated with a history of fiscal deficits and perpetuated by relatively lower revenue collections when compared to other EMDEs and advanced economies (see **Figure 2.11(a) and 2.11(b)**). The ratio of General Government revenue to GDP over the period 2005-2020 averaged 23.6 per cent for select Caribbean economies, significantly lower than the 35.9 per cent and 28.1 per cent for more advanced economies and the broader LAC grouping, respectively. Of note, regional economies have undergone significant PFM reforms in recent years, particularly in relation to tax policy and administration, aimed at improving the overall efficiency, equity and revenue adequacy of the tax regime, which has contributed to an improvement in revenue intake.

[3] McIntyre, A., A. El-Ashram, M. Ronci, J. Reynaud, N. Che, S. Acevedo, M. Lutz, F. Strodel, A. Osueke, and H. Yun. 2016. "Caribbean Energy: Macro-Related Challenges." IMF Working Paper 16/53, International Monetary Fund, Washington, DC.

[4] Caribbean economies do better than 54% of the countries examined.

Human Capital Development

Caribbean countries have registered generally strong social outcomes. Median life expectancy is 73 years, compared to 70 years for other EMDEs; infant mortality is relatively low; and female labour force participation is relatively high. However, generally the level of human capital development, while in line with Latin American economies, lags behind more advanced economies, due *inter alia* to the quality of, as well as, access to, healthcare and generally weak educational outcomes (see **Figure 2.12**). [5]

The Caribbean has achieved universal primary education and near-universal secondary education, except for Haiti.[6] However, there are access and enrolment gaps with respect to early childhood and tertiary education, due in part to the associated costs.[7] The CDB indicates that primary enrolment gaps are more significant in rural areas and among poorer communities. Though survival rates to fifth form vary across the region, the experience across countries highlights a relatively high number of males who do not matriculate. Access to tertiary education is more problematic, likely due to cost constraints, which become even more binding in the absence of subsidies for attending university.

Aside from enrolment, outcomes in respect of educational attainment (intensive margin measures) are low and appear to be receding in recent years. On average, 46 per cent of registrants for the Caribbean Secondary Education Certificate (CSEC) examinations in 2O21 did not sit the actual exams – absenteeism rates are high. Pass rates for mathematics and science subjects are low and declining over time. All of this suggests that the throughput from the secondary education system is weak.

Tackling the region's human capital challenges has become more urgent, as many of these challenges have been accentuated by the pandemic and the technological changes that disrupted the way students learn. Learning loss in the LAC region has been significant, and is estimated by the World Bank to be equivalent to 1.5 years of learning (World Bank 2022). It is imperative that we make-up for lost time.

The problem is further complicated by a seeming increase in skill-biased emigration from the region. Compared to other EMDEs, Caribbean economies suffer disproportionately from brain drain (see **Figure 2.13**). The share of tertiary educated Caribbean nationals living abroad is estimated at approximately 76%, much higher than other EMDEs.[8] Major push factors include a lack of economic opportunity and high rates of crime. Emigration of skilled workers equates to a reduction in the stock of human capital and has implications for productivity, labour market conditions and output growth.

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[5] The index is measured in terms of the productivity of the next generation of workers relative to the benchmark of complete education and full health (World Bank, 2018). That is, an index closer to 1 indicates that the average worker is able to achieve full health and education outcomes.

[6] Caribbean Development Bank (CDB) (2018). A Policy Blueprint for Caribbean Economies. CDB Working Paper, No.18/01.

[7] Latin American Economic Outlook 2019: Development in Transition, Latin American Economic Outlook, OECD iLibrary (oecd-ilibrary.org)

[8] IMF Book Chapter 2 (Chamon et.al. 2022)

IMF staff estimates suggest that migration of skilled labour has contributed to rising wage costs, with negative effects on external competitiveness in the Caribbean. They further note that the associated negative growth effects outstrip the benefits derived from remittances that migrants send back home.

Vulnerable Infrastructure & Exposure to Weather and Geological Shocks

The Caribbean suffers from significant negative climate externalities. Notably, while the Caribbean accounts for a tiny part of greenhouse gas emissions globally, it is disproportionately more vulnerable to climate risks, compared to more advanced or larger economies and other small island developing states (SIDS).

According to the Inter-governmental Panel on Climate Change (IPCC), average temperatures in the Caribbean region have increased by 0.1° to 0.2°C per decade over the past three decades. Rainfall patterns have shifted in the region, with an expectation for an increase in the number of consecutive dry days. Additionally, sea level rise has occurred at a rate of about two to four cm per decade over the past 33 years, a trend which presents risks to the region's freshwater resources and to its largely coastal population which is dependent on tourism and agriculture.

Moreover, the region is seven times more likely to be hit by natural disasters than larger states and twice as likely as other small states. Recent findings from the IMF research show that the Caribbean is among the most vulnerable to natural disasters (hydrogeological events) and several of the island states are among the 25 most vulnerable nations in terms of disasters per/capita or land area.[9] Between 1950 and 2016, approximately 511 disasters worldwide have hit small states—that is, developing economies with populations of less than 1.5 million. Of these, 324 were in the Caribbean. Caribbean economies were seven times more likely to experience a hurricane than other states and twice as likely compared to small states (see **Figure 2.14**). Average estimated disaster damage as a ratio to GDP was 4.5 times greater for small states than for larger ones, but six times higher for countries in the Caribbean. Caribbean economies have been decimated by monster storms in recent years.

Climate vulnerabilities are exacerbated by the structure of Caribbean economies as well as the social and demographic characteristics. Heavy dependence on climate sensitive industries, including agriculture and tourism, imply more acute economic vulnerabilities to natural disaster shocks. Additionally, social vulnerabilities are reflected in the large shares of the region's population that live in high-risk areas (coastal areas) with weak infrastructure. ECLAC in 2014 estimated that approximately 37.9 per cent of the population of The Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica, Suriname, and Trinidad and Tobago live within 5 kilometres of the coastline (UNECLAC, 2014) and 84.2% live within 25 kilometres of the coastline (World Bank, 2009).[10]

[9] https://www.imf.org/Publications/fandd/issues/2018/03/otker

[10] A-Blue-Urban-Agenda--Adapting-to-Climate-Change-in-the-Coastal-Cities-of-Caribbean-and-Pacific-Small-Island-Developing-States.pdf

Not only are Caribbean states more likely to be impacted, but the severity of the damage is of a magnitude higher than comparable small states and AEs. Average estimated disaster damage as a ratio to GDP was 4.5 times greater for small states than for larger ones, but six times higher for countries in the Caribbean. Caribbean economies have been decimated by monster storms in recent years. Hurricane Ivan (2004) and Maria (2017) inflicted damages of approximately 200% of GDP and 225% of GDP in Grenada and Dominica, respectively (see **Figure 2.15**).

3. Key Economic Trends & Challenges

What are some of the economic challenges that flow from these features? Although, there are notable differences across the region, Caribbean economic history, for the most part is generally characterised by either low or below potential growth and in some countries, high and rising debt. More recently, Caribbean economies, most of which have had a history of low and stable inflation, are grappling with high and rising inflation. These outcomes are the result of macroeconomic imbalances and structural factors noted above which are exacerbated by a confluence of shocks, including shocks to the financial sector in some countries, climate shocks, health shocks and global economic shocks. Policy makers and economists across the region agree that the COVID pandemic, reopening following COVID, the Russia-Ukraine war and a series of natural disasters, have exposed the vulnerabilities of Caribbean economies.

Low & Volatile Growth

Economic growth in Caribbean economies has generally lagged behind that of other EMDEs and to a lesser extent, LAC economies, for tourism-dependent economies (see **Figure 3.0**). In the twenty years prior to COVID, average growth of 3.0% for Caribbean commodity exporters was higher than the 2.1% observed for tourism dependent economies, reflecting positive effects from commodity price increases during the 'booming' 2000s. The question is whether this disparity is due to weaker fundamentals in tourism dependent-economies. The fact is, growth decomposition exercises show that whereas total factor productivity for commodity exporters contribute positively to growth (albeit small), its contribution in tourism-dependent economies is significantly negative (Alleyne et al (2017)). I posit that, as the empirical results of Ferreira et al (2010) for LAC suggest, the negative, and small positive contribution in the case of commodity exporters, reflects a confluence of weak fundamentals and shocks.

The recurrence of shocks results in not only lower average growth, but also higher growth volatility for Caribbean economies relative to other EMDEs, with commodity exporters and tourism dependent economies registering relatively greater output volatility compared to countries with a more diversified economic base (see **Figure 3.1**). Importantly, the growth dynamics for the Caribbean is also characterised by more protracted recoveries when compared to other EMDEs and LAC economies, indicating structural weaknesses (see **Figure 3.2**).

The adverse impact of COVID-19 was more significant for the Caribbean when compared to EMDEs. However, the region has been experiencing a strong recovery from the COVID-19 pandemic with growth of 7.8% and 6.1% in tourism dependent and commodity exporting Caribbean economies, respectively, in 2021. Robust economic activity continued into the first half of 2022 and is expected to support growth of 5.2% and 24.6% for the respective country groupings (see **Table 3.0**).

The IMF in its October 2022 projections indicated that the performance of the region in 2022 will surpass emerging market economies. The major economies are projected to perform well, with projected growth of 2.8% for Jamaica, 4.0% for Trinidad and Tobago and 8.0% for The Bahamas. Above average outturns are projected for the ECCU economies. It is important to note that the recent January 2023 update to WEO growth projections suggests strong outturn for LAC output for 2022 (3.9%) and more subdued growth outturn for 2023 (1.8%). The CDB estimates growth for 2022 for BMCs of 10.3%, led by growth in commodity exporters of 10.3% while service exporters are expected to grow by 4.6%. CDB's forecast for 2023 is for growth of 5.7% for the region.

The improvements reflected a revitalisation of contact intensive industries (including tourism) amid removal of COVID-19 restrictions across several economies and an unwinding of pent-up demand for travel in major source markets. Rebounds in oil prices due to post-pandemic demand, boosted by supply constraints associated with the impact of Russia's invasion of Ukraine, support the projected growth outturn in commodity exporting economies.

Risks to the near-term growth outlook for the Caribbean region are tilted downward, in the context of higher inflation and concomitant tighter financial conditions, a slowdown in global growth and falling commodity prices. More persistent inflationary pressures in the north may elicit tighter than projected US monetary policy rate increases. Higher interest rates and the uncertainties surrounding where rates may go will weigh heavily on economic growth across the Caribbean. Moreover, in countries with high public debt, further tightening may threaten fiscal sustainability, particularly in circumstances where bank holdings of sovereign debt are high and trending upward. Though banks within the region are reported to be well capitalised, higher interest rates will serve to weaken balance sheet positions via asset impairment, including an increase in non-performing loans. Growth prospects are further subdued on account of risks of natural disasters in the upcoming Atlantic Hurricane Season.

There are also risks to longer term growth given the potential effects on human capital from the learning loss. As mentioned earlier, the World Bank study noted that in LAC the number of instructional days that student would have missed between 2020 and 2021 was equivalent to approximately 1.5 years.[11]

[11] Roxana et al (2022) The Impact of COVID-19 on Education in Latin America: Long-Run Implications for Poverty and Inequality

High & Rising Public Debt

The other feature of the region's economic history to note is high and rising debt. Compared to the average for LAC and EMDE economies, some Caribbean economies face higher debt burdens, with most well above the benchmark of 60.0% of GDP (see **Figure 3.3**). Of note are the debt levels in Jamaica and Barbados, which although on a downward trajectory, still remain high. Also, of note is The Bahamas, which although historically has had low debt, has seen a steady rise in its debt/GDP ratio in recent years. Consequently, debt service obligations in the Caribbean economies over the years have diverted significant government revenues away from growth-inducing capital and social expenditures, necessary for sustainable growth and development.

For the Caribbean, an average of 15.6% of revenue was directed towards interest payments over the period 2005-2020 (see **Figure 3.4**). This is 5.8 percentage points higher than the average for LAC economies and more than three times higher than the average for advanced (high income) economies. The relatively high interest costs in the Caribbean is indicative of crowding-out effects associated with the public debt overhang, compared to other LAC economies.

Of note, debt dynamics in the Caribbean are not solely due to fiscal slippage, arising from weak institutions among others– which is generally reflected in slow onset or a gradual build-up in the stock of debt, but rather, have antecedents in other factors. Mooney et al (2021) provides an analysis of the main contributory factors leading up to large spikes in debt for selected Caribbean economies between 2000-2018. The interesting result here is that debt spikes are not necessarily precipitated by fiscal slippage. Other debt-creating flows play an important role, for example the crystallisation of contingent liabilities was responsible for a significant proportion of the spike in the debt for Jamaica and Barbados in 2009. Further, foreign exchange rate depreciation was a major driver of the increase in debt levels for Jamaica and Suriname.

While the impact of COVID-19 on debt trajectories has obviously been significant for all economies, there have been other significant spikes in the past which contributed to the rise in debt for a few economies. In the Dominican Republic, a crisis of confidence in financial institutions in 2003 precipitated strong capital outflows, steep depreciation in the exchange rate and ramped up borrowing by the Government to address the exigencies brought on by the financial sector crisis. This contributed to the most significant annual increase in debt to GDP in that country (in the last two decades at least). Jamaica also had a financial sector crisis in the 1990s the cost of which – approximately 40% of GDP –was financed by government debt.

Tourist-dependent Caribbean economies [Jamaica, The Bahamas and Barbados] were significantly impacted by the economic fallout from the GFC in the north American source markets, which partly explains the spike in debt ratios in 2009.

The economies of Suriname and Trinidad & Tobago (T&T)were impacted by the reduction in commodity prices which ensued during 2014-2016. The impact on Suriname is noticeably much more significant, due in part to strong depreciation of the domestic currency and higher foreign currency debt exposures.

A decomposition of the main factors that explain large spikes in public debt also points to economic and natural disaster shocks as major drivers (see **Figure 3.5**).

In summary, while external shocks (such as natural disasters) and high fiscal deficits are major contributors to increases in public debt in the Caribbean, other factors related to portfolio structure were also significant. In particular, high foreign currency exposure and the crystallisation of off-balance sheet government guarantees, including government loan guarantees and financial sector bailouts, added large amounts to the regional debt numbers over the period (see **Figure 3.6**).

High & Rising Inflation Rates

Another important economic trend I would like to highlight is that of high and rising inflation rates. Though trending upward, inflation dynamics across respective economies within the Caribbean display idiosyncratic patterns. Over the two-year period 2021-2022, headline inflation in Jamaica peaked at 11.8% in April 2022, 8.0 percentage points higher than the 3.8% recorded a year earlier. In The Bahamas, inflation reached as high as 7.1% in July 2022 from a low of 0.8% in January 2021. Inflation in Barbados over the period increased significantly, moving from 1.1% in February 2021 to 11.7% in May 2022 (see **Figures 3.7 & 3.8**)

As we are aware, the recent inflation trends across the Caribbean were largely driven by a set of common exogenous factors, including continued supply chain disruptions, higher shipping costs and increases in commodity prices (particularly oil and grains). Strong post pandemic recovery (driven in part by strong fiscal and monetary policy accommodation) and increases in inflation expectations have gained prominence in recent months.

Recent work by the IMF (Appending et al., 2022) using dynamic factor analysis, indicates that global factors have the most significant impact on inflation in Latin American economies. The impact of global factors can also be corroborated by the contributions of food and energy prices to headline inflation across the Caribbean.

Policy responses to the sharp rise in inflation were a combination of monetary and fiscal policy actions. Monetary policy response depended on the monetary policy regime: the central banks in the Dominican Republic and Jamaica, which are full-fledged inflation targeters, increased policy rates sharply. Bank of Jamaica increased the policy rate ten (10) times with a cumulative increase of 650 bps, from 0.5 per cent in September 2021 to 7.0 per cent in December 2022 similarly, the Central Bank of the Dominican Republic (DR) increased the policy rate ten (10) times with a cumulative increase of 550 bps, from 3.0 per cent in November 2021 to 8.5 per cent in December 2022.

Central banks have to grapple with how to engineer a soft landing in this recovery period. The challenge was more complicated in Jamaica's case due to its weak monetary transmission mechanism. We complemented our interest rate increases with significant liquidity absorption, frequent FX market intervention and some CFM.

Countries with fixed or tightly managed exchange rate regimes relied more on fiscal policy interventions (see **Table 3.1**).

In terms of fiscal measures, some countries lowered tax rates (The Bahamas, Barbados and Guyana), provided subsidies and temporary transfers (The Bahamas, Guyana, T&T) and in the case of The Bahamas, price controls were also introduced. In Barbados, as a form of social pact, lower mark-ups on a select basket of goods which often form part of the consumption of the poor and most vulnerable, were agreed.

Notably, the rate of increase in prices across all countries appears to have slowed in recent months reflecting more subdued price pressures from the main drivers and the impact of policy actions by the more responsive regional central banks. However, policymakers have to keep an eye on the degree of persistence of this inflation shock.

Risks of inflation persistence for Caribbean economies are material and emanate from several factors. The first is that in an environment of high inflation, relative price shocks, such as the food and energy shock, get quickly transmitted to the aggregate price level (De Fiore et al., 2022). This induces demand for wage increases and higher inflation expectations, increasing the likelihood of more persistent price pressures and a general entrenchment of inflation.

Notably, global impulses were more quickly transmitted to goods prices relative to services, which initially limited the extent of the pass-through to headline inflation. This may be due to the nature of the pandemic and the attendant limitations imposed on contact-intensive services, as well as possible stronger nominal rigidities in the pricing mechanism for service providers. However, as economic recovery progresses, the increase in the demand for services will drive a more broad-based transmission of price pressures. This then gets reflected in an increase in, and stickier, core inflation, signalling increased inflation persistence. We already see that core inflation in Jamaica, T&T and DR is elevated and sticky (see **Figure 3.9)**.

Perhaps the most significant near-term risk to the inflation outlook for regional economies is the de-anchoring of inflation expectations. The heightened fragility of inflation expectations in a high and volatile inflation regime is well documented, including in work by the IMF (Andrle and others 2015). In Jamaica we have seen a significant rise in inflation expectations, (see **Figure 3.10**) and although moderating, it is still high.

Spill-overs from Tighter Global Financial Conditions

The final economic issue I would like to highlight is the potential significant spill-over effects to Caribbean economies from policy rate hikes in AEs, particularly by the US FED. This externality is critical for floating rate countries with open capital accounts. Empirical estimates (IMF, 2022b) find that tighter global financial conditions generate strong spill-overs to financial markets in LAC, with broad-based impact on sovereign debt markets**, as shifts in US interest rates lead to a more than one-to-one shift in US dollar and local currency yields**, sizable capital outflows and depreciation pressures on domestic currencies. These spill-overs also constrain domestic output, via tightening of domestic financial conditions (Rey, 2013; Miranda-Agrippino and Rey, 2020).

Benchmark interest rates in the international capital markets correlate very closely with the FED policy rate (see **Figure 3.11**). This is reflected by the sharp increase in the Secured Overnight Financing Rate (SOFR), which serves as the benchmark or reference rate for (some) multilateral loans. SOFR increased by over 400 bps between end-December 2021 and end-December 2022 implying significant increases in interest costs on variable rate external debt and any new external debt incurred by regional economies over the period.

Average yields on global bonds for select Caribbean economies increased by 200-300 bps between end-December 2021 and end-December 2022, reflecting varied effects on individual economies, but suggesting material increases in financing cost in the international capital markets (ICM) (see **Figure 3.12**).

Financial stability risks have begun to germinate in the context of tighter financial conditions. The IMF Global Financial Stability Report (GFSR) for October 2022 assessed that financial vulnerabilities are elevated for the sovereign and non-bank financial institution sectors with risks for future GDP growth skewed to the downside.

Higher domestic interest rates impair asset valuations and could weaken the balance sheet of financial institutions, including central banks. To the extent that FIs hold a large share of their portfolio in Government assets, the risk to sovereign debt sustainability also threatens financial market stability via the sovereign-bank nexus. Furthermore, as noted by the IMF, financial stability risks emerge, where even in the absence of currency mismatches, balance sheets of domestic financial institutions are vulnerable to fluctuations in US rates through their holdings of domestic currency instruments.

Risks to debt sustainability among Caribbean economies have galvanised since the pandemic and have been exacerbated by the rapid tightening of global financial conditions. The higher interest cost and more depreciated exchange rate – precipitated in part by lower net capital flows and more muted growth prospects – amplified risks to debt sustainability for Caribbean economies, particularly those with fragile debt and fiscal dynamics.

Ladies and gentlemen, the Caribbean's underlying vulnerabilities are in many ways a creature of nature i.e. our smallness and geographical location, but these are compounded by structural weaknesses.

We have highlighted the unfortunate consequences of these vulnerabilities in the context of contemporary economic challenges. i.e. because of our vulnerabilities we see that output is more volatile than EMDEs, debt is higher, and while inflation has moderated there are still risks.

The policy response to the economic issues highlighted must recognise the interconnectedness of the macro-financial and environmental challenges. Against this background, I now turn to some important elements of the policy response.

4. Policy Options for Building Resilience in Caribbean Economies

Given the acute vulnerabilities to economic and non-economic shocks and the significant economic and social cost to small Caribbean states, it is beyond debate that building resilience is imperative for sustained growth and development. This is a multifaceted task covering economic, institutional, infrastructure and social resilience. I would like to highlight one such element - building resilience in the macroeconomic policy framework i.e. fiscal and monetary policy framework.

Building Fiscal Resilience

Building fiscal resilience is critical given the impact that debt and debt servicing has on the ability to respond to shocks. This involves looking at both the institutional underpinnings and the budget framework. Institutional reforms include strengthening PFM and Tax Admin capacity to ensure efficient fiscal management. A number of countries, with the assistance of the IMF and other multilaterals have been strengthening their capacity in these areas. Notable examples are Jamaica, The Bahamas and Barbados where reform initiatives have been undergirded by key legislative and operational reforms to the fiscal architecture. Key elements of the legislative reforms include the establishment of fiscal responsibility frameworks and other legislation supporting the establishment of semi-autonomous revenue administrations.

Jamaica's relative success in improving its PFM performance has been noted. Key (operational) tax administration elements of Jamaica's reforms include establishment of Large Tax Payers Office, increased access to third party information, greater use of ITC in facilitating taxpayer registration, filing and payments and implementation of a treasury single account (TSA). Key tax policy reforms included the rationalisation of the waiver and incentives regime, broadening of the tax based and the inclusion of disaster risk financing in fiscal planning. Significant gains have also been made in the area of capacity building or human capital development of staff. Stronger independent oversight of fiscal policy management facilitated through the Economic Programme Oversight Committee (EPOC) and soon to be undertaken by an independent Fiscal Council, can serve as a model for economies within the region. Despite these advances, much more remains to be done, particularly on the expenditures side, including finalising the rationalisation of public procurement processes.

Another important institutional reform is the entrenchment of fiscal responsibility through codifying a carefully calibrated fiscal rule, guided by the adoption of a fiscal anchor to ensure fiscal sustainability. This anchor is typically a debt-to-GDP target, supported by deficit and revenue and/or expenditure rules. Given the likelihood of shocks, flexibility via escape clauses will be critical for the Caribbean. A number of Caribbean economies have implemented fiscal rules, all anchored on a debt-to-GDP target ranging between 55% and 60% (see **Table 4.0**). Jamaica has had a fiscal rule since 2010, anchored on a debt-to-GDP target of 60%, and importantly, has recently announced an independent fiscal council that will oversee adherence to the fiscal rule.

Complementing this is the development of a credible medium-term budget and debt management framework with operational targets consistent with the fiscal anchor. Such a framework has to explicitly factor-in the risks of economic, natural and other shocks. This involves budgeting for climate adaption and mitigation investments as well as disaster risk financing.

The development of an appropriately configured disaster risk financing (DRF) framework is critical as it enables countries to more quickly meet the financing costs associated with relief, recovery and reconstruction expenditures in the aftermath of a natural disaster. Jamaica's DRF's model has a layered structure whereby high impact events such as large earthquakes and major hurricanes are covered by disaster risk insurance – parametric insurance and catastrophe bonds, medium impact events such as floods are covered by contingent lines of credit and low impact events covered by contingent budgetary provisions in line with best practices (see **Figure 4.1**)

The ability to respond quickly to a natural disaster limits the social and economic dislocations that typically accompany such a shock. Moreover, the deployment or triggering of ex-ante DRF resources mitigates the potentially significant fiscal costs to the Government. Jamaica has made significant advances toward the development of the National Natural Disaster Risk Financing Strategy, which seeks to mitigate the direct fiscal costs associated with emergency spending needs in the aftermath of a hurricane.[12]

Creative debt management and financing strategies will also be needed. We have seen where Barbados and Belize have engaged in debt for nature swaps, Barbados and Grenada used state contingent financing instruments and Barbados and Jamaica intend to access multilateral financing in the form of the RSF to help build resilience.

Monetary Policy Framework to Support Resilience

Monetary policy has to be able to quickly respond to shocks in order to support recovery and hence resilience. Here, my remarks are restricted to those countries with floating rates and target either inflation or have as an intermediate target such as the exchange rate or monetary aggregate. More specifically, I would like to draw on the lesson learned from our own experience at Bank of Jamaica during the COVID-19 pandemic.

In response to the pandemic, Bank of Jamaica, provided just over US$1.0 billion (over 7.0% of GDP) in liquidity to the foreign exchange market and injected approximately J$76.0 billion or 4.0% of GDP of liquidity into the financial system. The reasons we were able to do this and do this quickly were:

- The fiscal anchor and fiscal buffer provided by sound fiscal policy which underwrote confidence and continued macroeconomic stability;

[12] These costs are inclusive of the costs associated with emergency repairs to public infrastructure, clean-up and relief and recovery activities as well as social expenditure to assist the indigent and other vulnerable populations.

- We had a strong external position that enabled us to build reserves which allowed us to respond to the fallout in FX earnings;
- The financial system was strong, with risks effectively managed and therefore, although credit risk was elevated, there were no concerns about financial system stability. We took measures to ensure continued financial stability, and of course; and
- We had a shock absorber in the exchange rate.

One thing we found we had to do aggressively was to communicate, especially when we had to quickly pivot to a monetary policy tightening cycle. Underlying these factors was the institutional reform of the central bank, which included clarity on its mandate and recapitalisation. I should note however, that we operate with a weaker than desired monetary transmission mechanism, a result of the depth of the financial system.

From this experience I would posit that the key elements of a monetary policy framework that support resilience are:

- Monetary and fiscal policy coordination;
- Strong external accounts;
- A resilient financial system;
- Deep financial markets; and
- Clear communication that builds confidence.

I have just touched on the macro-economic policy framework which the governments in the region are working to strengthen. However, there are other areas which are critical to building resilient economies, such as:

- Catalysing investments to drive climate, mitigation, adaptation and transition;
- Diversifying the economy, tapping into the potential for green, blue, orange and digital economies;
- Human capital development; and
- Deepening financial markets and greening financial systems in the region.

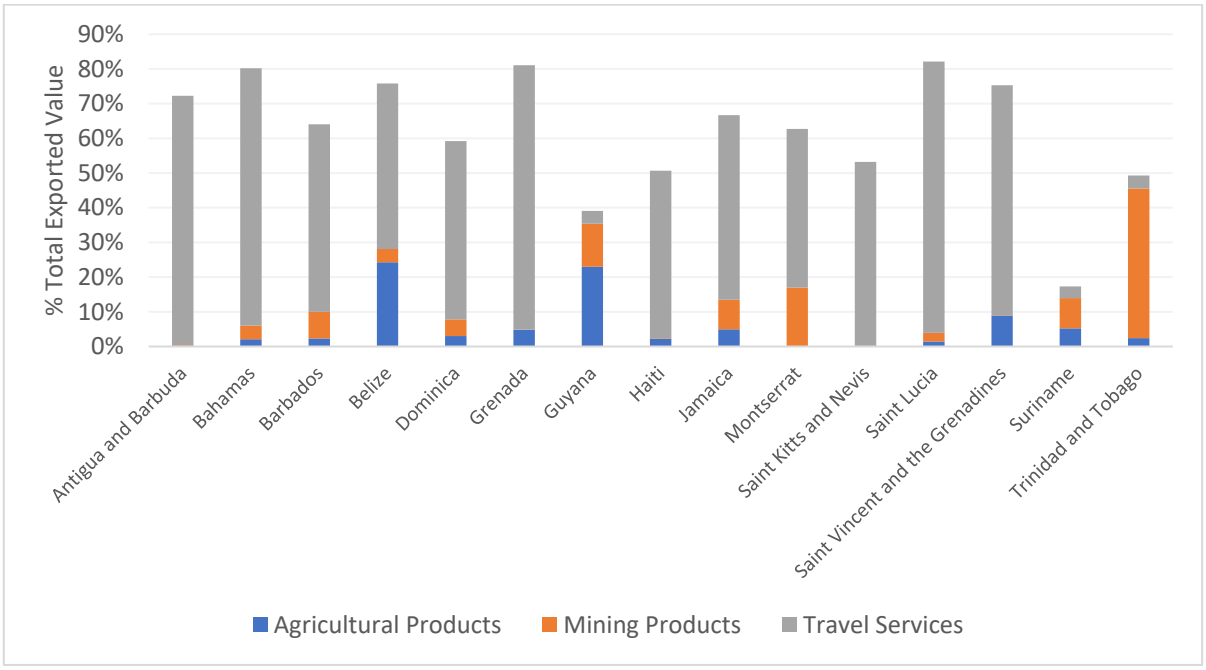
All these have to cohere in an integrated development strategy.

5. Summary & Closing

Ladies and gentlemen, the Caribbean's story is one of vulnerability that derives not only from size and geography, but also from economic structure, strength of fiscal management and the state of human capital development. Our development path, in the context of recurring shocks, is highly challenged and fragile.

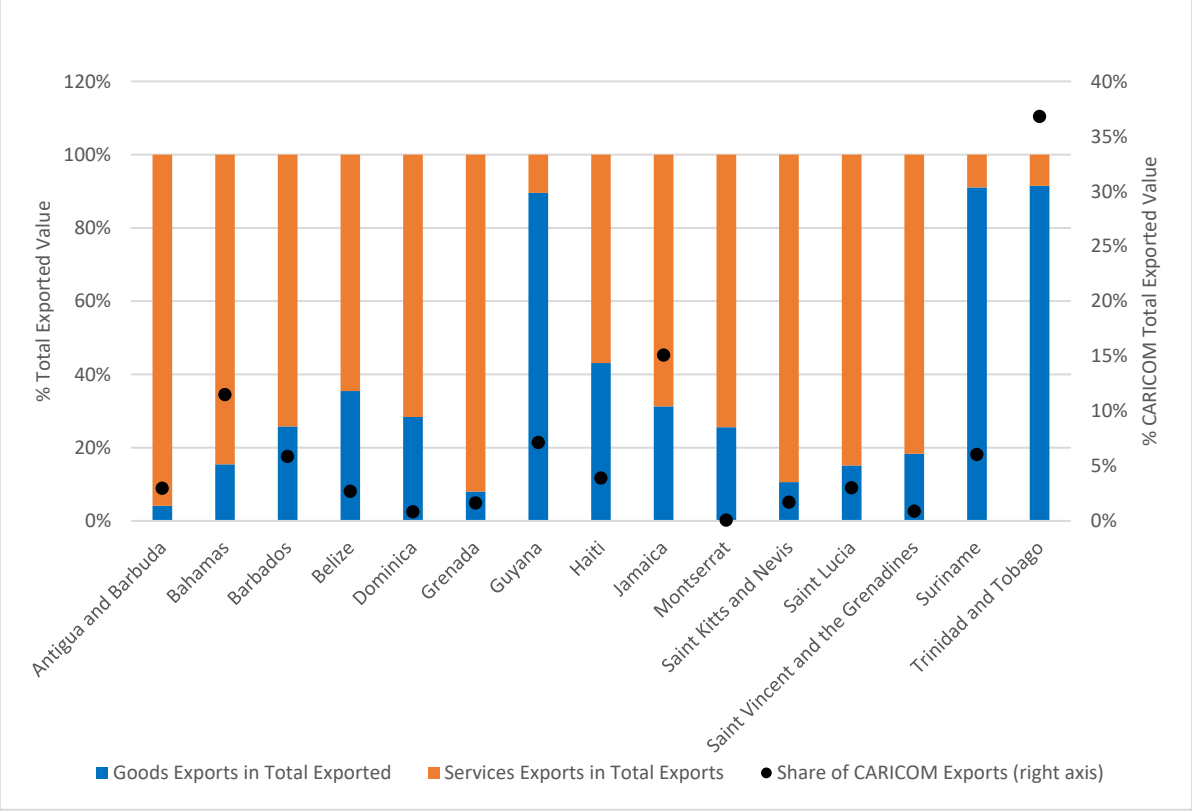
The main challenge for regional economies and policymakers therefore, is to structurally adjust economies so as to build greater resilience, thereby promoting sustained growth. Building resilience requires properly sequenced and integrated structural reforms and critical investments that simultaneously address the macroeconomic constraints and climate risks within a tight fiscal envelope i.e. an integrated policy framework.

Figure 2.0: Average Share of Main Exports in Total Exports, 2013-2022



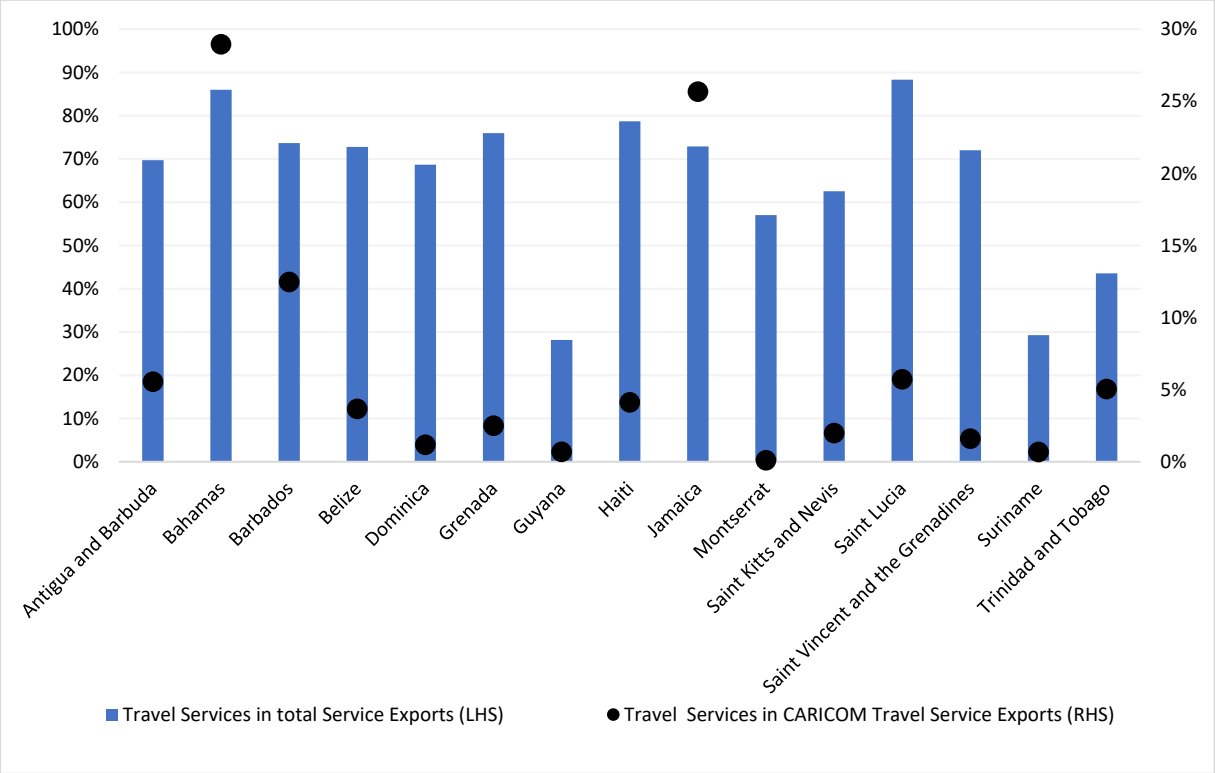
Source: International Trade Centre (ITC) Trade Map Database

Figure 2.1: Distribution of CARICOM Goods and Services Exports, 2013-2020



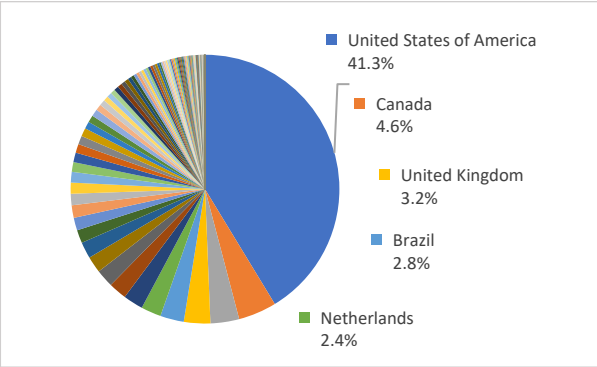
Source: International Trade Centre (ITC) Trade Map Database

Figure 2.2: CARICOM Travel Services Exports, 2002-2020



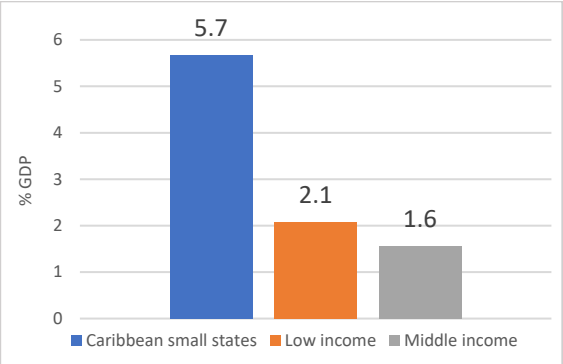
Source: International Trade Centre (ITC) Trade Map Database

Figure 2.3: Main CARICOM Product Export Markets, 2002-2021



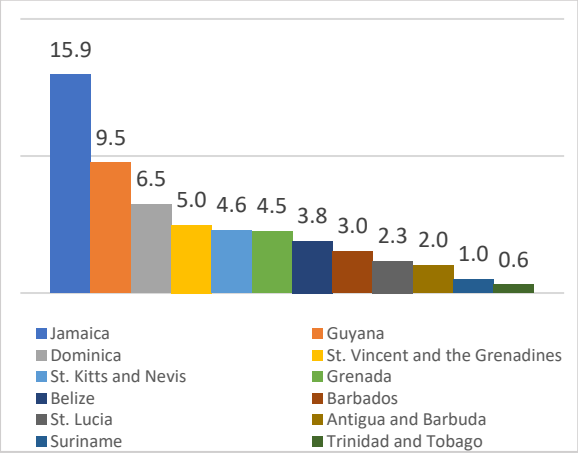
Source: International Trade Centre (ITC) Trade Map Database

Figure 2.4: Average Personal Remittances (% GDP) Received by Group, 2000-2021



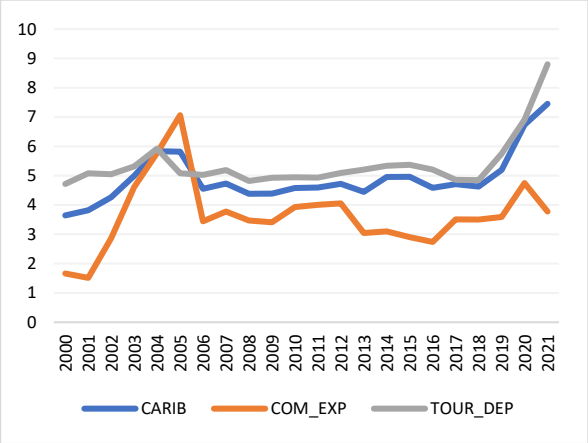
Source: World Bank, World Development Indicators (WDI)

Figure 2.5: Average Personal Remittances Received (% GDP) by Country, 2000-2021



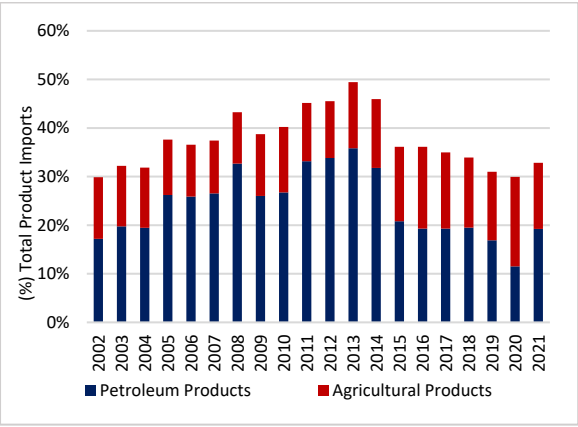
Source: World Bank, World Development Indicators (WDI)

Figure 2.6: Remittance Inflows to Caribbean Economies (% GDP)



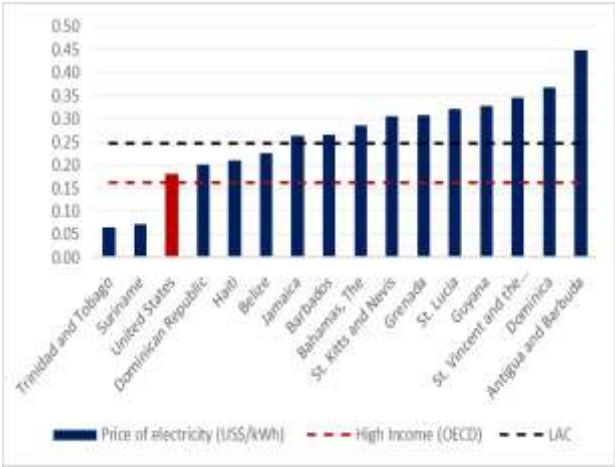
Source: World Bank, World Development Indicators (WDI)

Figure 2.7: Share of Agriculture and Petroleum Product Imports for CARICOM



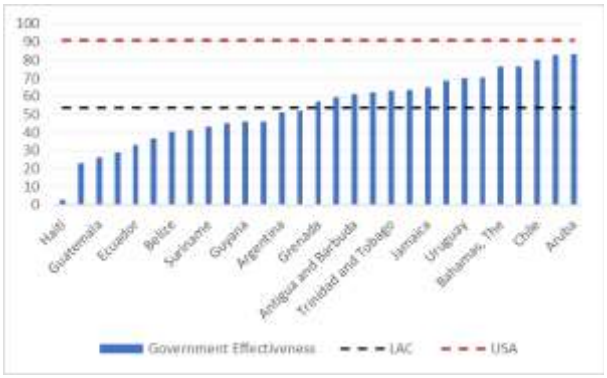
Source: International Trade Centre (ITC) Trade Map.

Figure 2.8: Electricity Tariffs, 2020



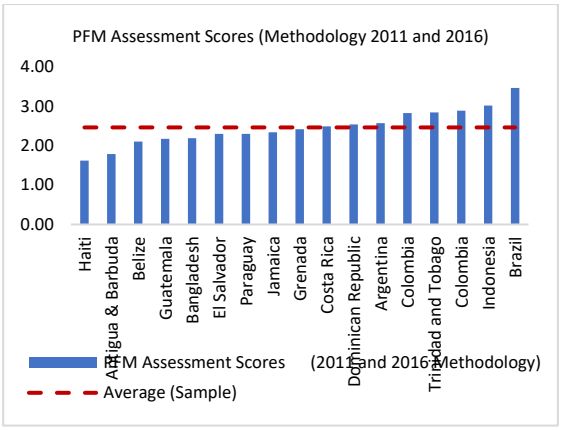
Source: WB Doing Business Report, 2021

Figure 2.9: Percentile Ranking for Select LAC economies on Government Effectiveness, Average 2005-21



Source: World Development Indicators, World Bank.

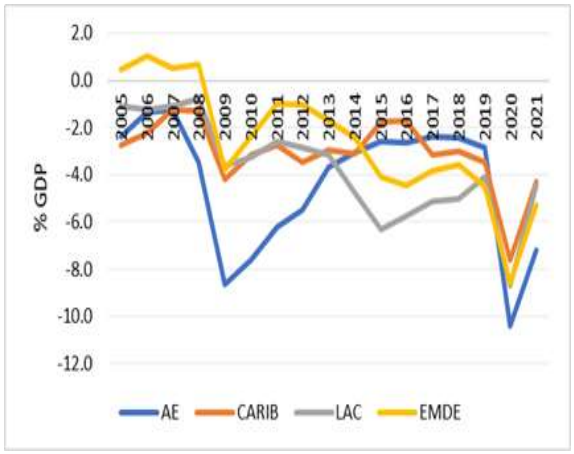
Figure 2.10: PFM Assessment Score for Select Economies, 2022



Source: Public Expenditure and Financial Accountability (PEFA) Secretariat
Notes: Other than Jamaica and the Dominican Republic, data for other Caribbean countries were not available. PEFA scores are ranked from 1-4 and range from weakest to strongest [1 = extremely weak or deficient PFM framework; 4 = strong PFM framework].

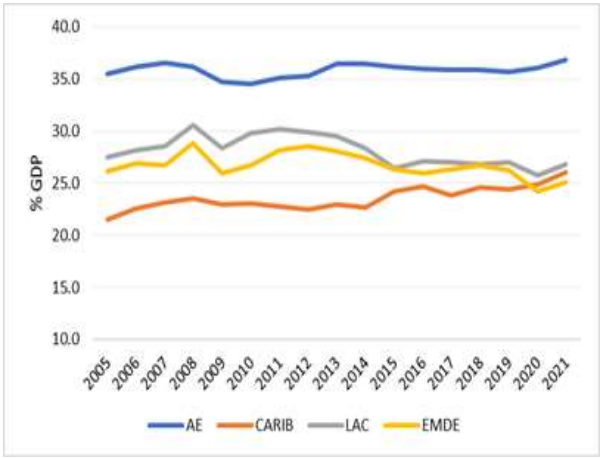
Figure 2.11: Fiscal Deficit (% GDP) & Revenue (%GDP) by Country Group

Panel A: Fiscal Deficit (% GDP)



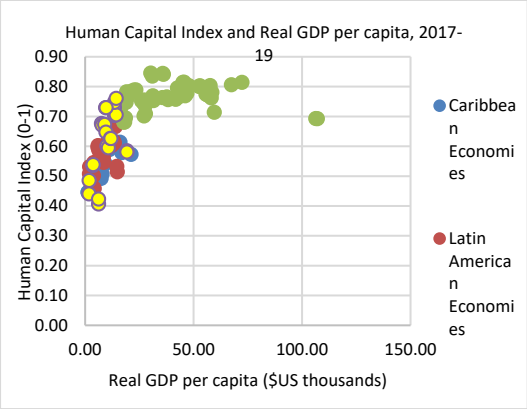
Source: International Monetary Outlook Data, October 2022Fund (IMF) World Economic

Panel B: Revenue (% GDP)



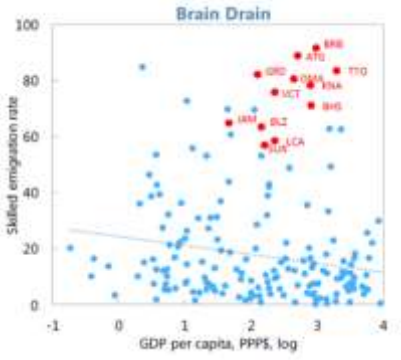
Source: International Monetary Outlook Data, October 2022Fund (IMF) World Economic

Figure 2.12: Human Capital and GDP Per Capita, 2017-2019



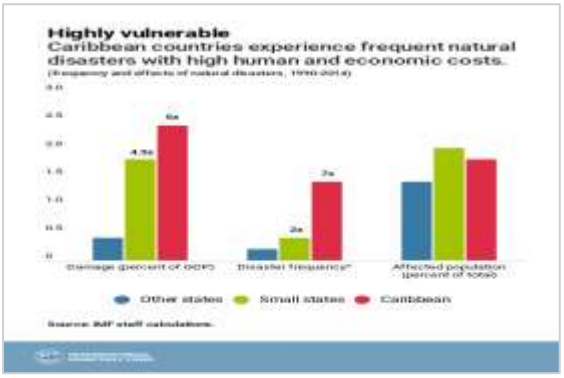
Source: World Development Indicators (WDI), World Bank

Figure 2.13: Skill Biased Emigration from Caribbean Economies



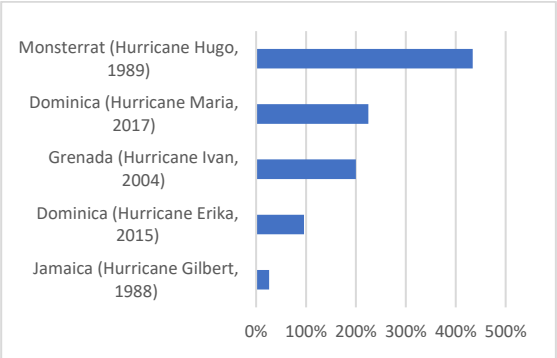
Source: IMF (2021). Unleashing Strong, Sustainable, and Inclusive Growth in the Caribbean

Figure 2.14: Vulnerability of Caribbean Economies to Natural Disaster Shocks



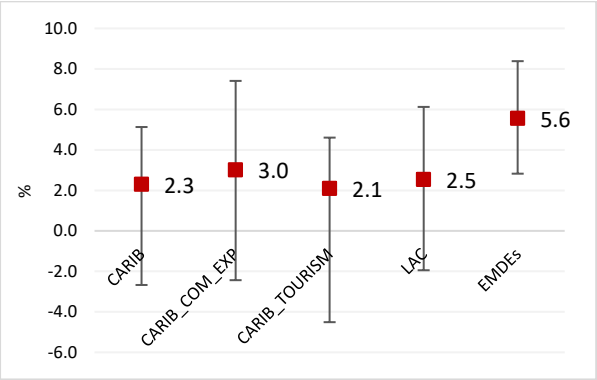
Source: IMF (2018) Building Resilience to Natural Disasters in the Caribbean Requires Greater Preparedness

Figure 2.15: Estimated Damage from Select Named Storms in the Caribbean (% GDP)



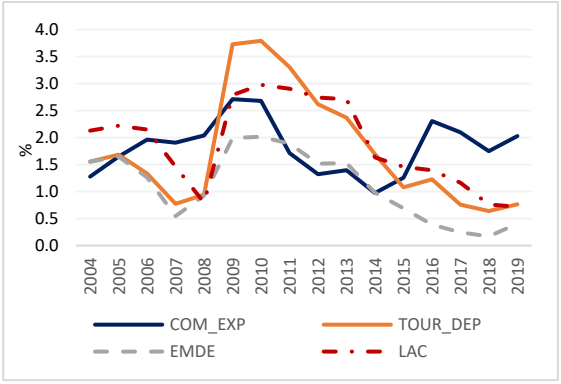
Source: EM-DAT. Emergency Events Database, authors calculations

Figure 3.0: Average Annual GDP Growth for Caribbean Economies, 2000-19



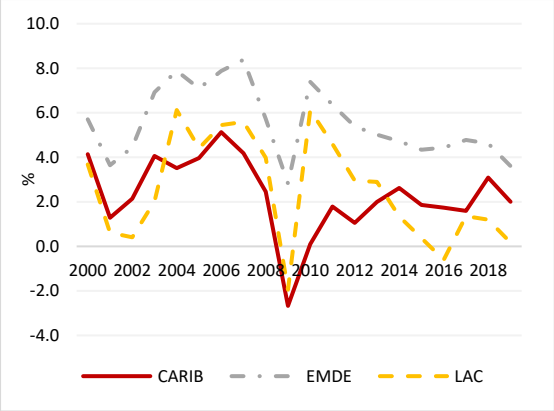
Source: IMF WEO, October 2022.
Notes: Caribbean economies included in the sample are Antigua and Barbuda, Aruba, The Bahamas, Barbados, Dominica, Dominican Republic, Grenada, Jamaica, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines and Haiti. Belize, Guyana Trinidad and Tobago and Surname are the commodity exporters

Figure 3.1: Five Year Rolling Standard Deviation in Real GDP Growth Rates



Source: IMF WEO data base, October 2022.

Figure 3.2: Economic Growth in the Caribbean and Select Country Groupings



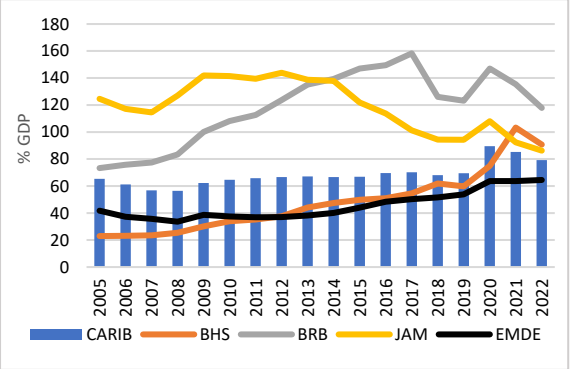
Source: IMF, WEO. October 2022

Table 3.0: Real GDP Growth for Caribbean Economies

	2020	2021	REO - October 2022 2022	2023
Caribbean: Tourism Dependent	**-9.4**	**7.8**	**5.2**	**3.6**
Antigua and Barbuda	-20.2	5.3	6.0	5.6
Aruba	-22.3	17.2	4.0	2.0
The Bahamas	-14.5	13.7	8.0	4.1
Barbados	-13.7	0.7	10.5	5.0
Belize	-16.7	16.3	3.5	2.0
Dominica	-11.0	4.8	6.0	4.9
Grenada	-13.8	5.6	3.6	3.6
Haiti	-3.3	-1.8	-1.2	0.5
Jamaica	-10.0	4.6	2.8	3.0
St. Kitts and Nevis	-14.0	-3.6	9.8	4.8
St. Lucia	-20.4	12.2	9.1	5.8
St. Vincent and the Grenadines	-5.3	0.5	5.0	6.0
Caribbean: Commodity Exporters	**4.0**	**6.1**	**24.6**	**12.8**
Guyana	43.5	23.8	57.8	25.2
Suriname	-15.9	-3.5	1.3	2.3
Trinidad and Tobago	-7.4	-0.7	4.0	3.5

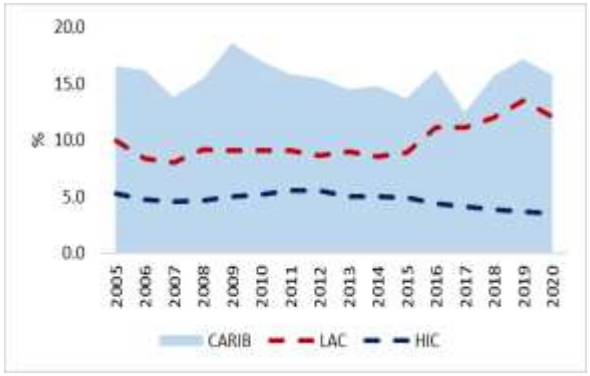
Source: International Monetary Fund (IMF) Regional Economic Outlook (REO), Western Hemisphere. October 2022

Figure 3.3: Debt to GDP Ratios for Select Caribbean Economies



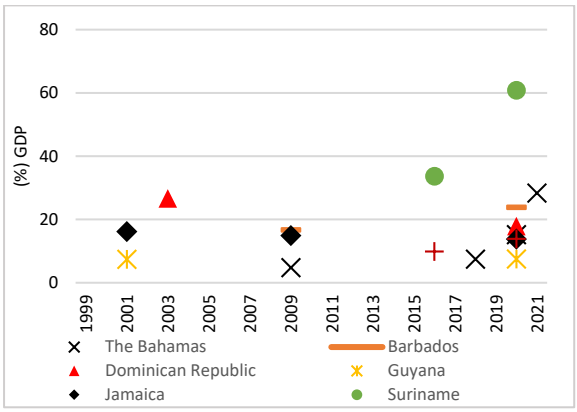
Source: IMF WEO, October 2022
Notes: Data for 2022 are projections.

Figure 3.4: Interest Expense as a Share of Government Revenues



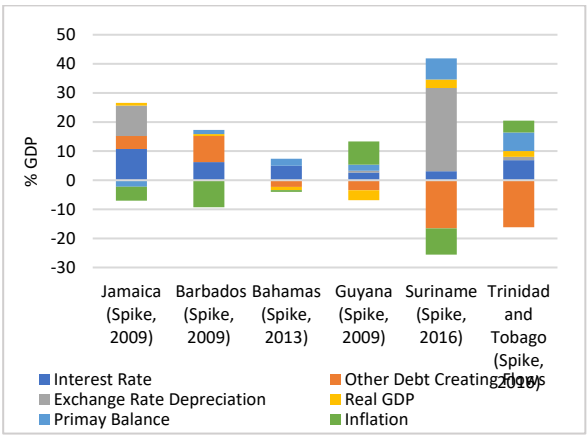
Source: World Development Indicators (World Bank)

Figure 3.5: Major Spikes in Public Debt Ratios for Select Caribbean Economies



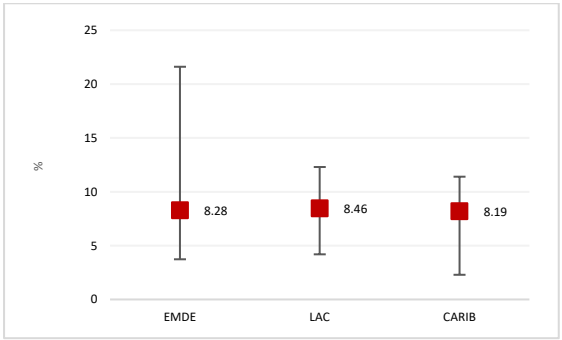
Source: International Monetary Fund, World Economic Outlook (WEO), October 2022
Note: figure shows largest two or three annual increases in debt-to-GDP for select Caribbean economies

Figure 3.6: Main Drivers of Debt Spikes in Select Caribbean Economies



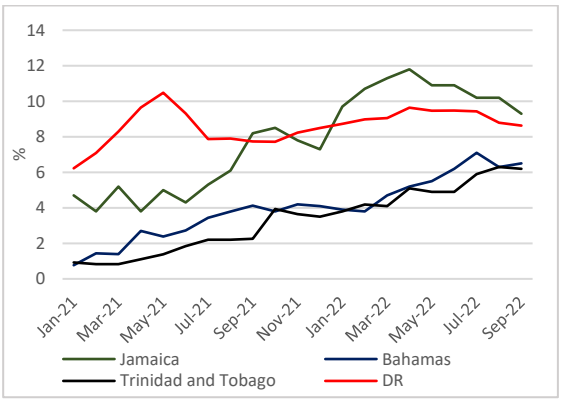
Source: Mooney et al (2021). Best Practices ad Priorities for Reform: Debt Management and Institutions in the Caribbean.
Note: figure shows the contribution of the man factors leading up the spike in public debt for the captioned year. The contributions are cumulative beginning two years prior to the observed spike

Figure 3.7: Maximum Increase in Inflation for Select Countries in Respective Country Groups, 2020-2021



Source: Bank of Jamaica (BOJ), Central Bank of the Bahamas, Central Bank of Trinidad and Tobago and the Central Bank of the Dominican Republic

Figure 3.8: Cumulative Average Change in Inflation for Select Caribbean and EMDEs

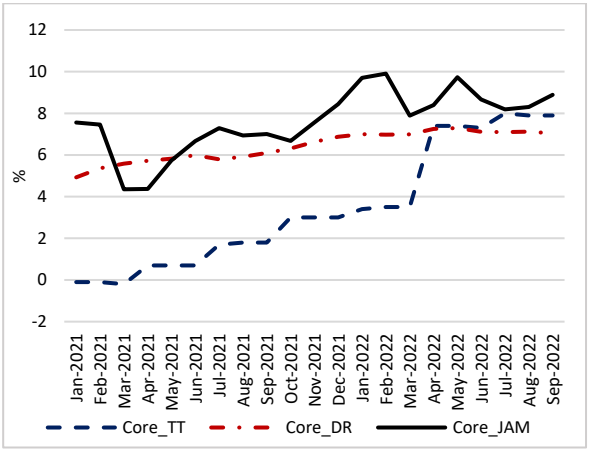


Source: Bank of Jamaica (BOJ), Central Bank of the Bahamas, Central Bank of Trinidad and Tobago and the Central Bank of the Dominican Republic

Table 3.1: Fiscal Policy Response to Inflation in Select Caribbean Economies

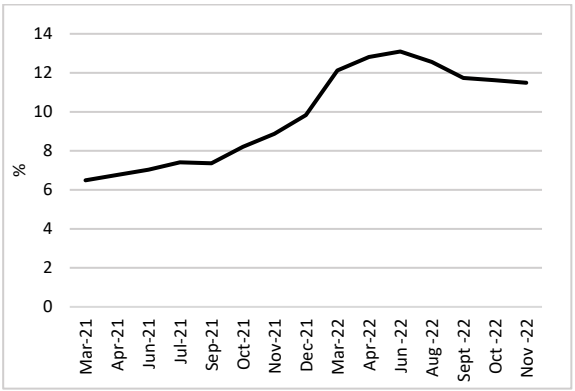
Country	Inflation Measures
Bahamas	1. Implements price controls on selected goods including some prescription and OTC drugs 2. Reduced or eliminated import tariffs on several bread basket items 3. Raised the VAT exemption for electricity bills 4. Increased spending on social assistance by 50% to be disbursed via conditional cash transfer programme 5. Increased funding to NGOs by 10%
Barbados	1. Reduction in VAT rate from 17.5 percent to 7.5 percent for the supply of electricity on the first 250 kilowatt hours (KWh) used by households - introduced for a six-month period 2. Caps on the cost of freight used for the purpose of calculating customs duties and on the maximum VAT to be applied to gasoline and diesel were extended to limit the impact of high costs.
Jamaica	1. Targeted subsidy of 20 percent of electricity bills of households consuming 200 kWh or less. The programme lasted a period of four months. 2. provided one-off vouchers to taxi operators, and permanently increased the transportation benefit for participants in the country's conditional cash transfer program, the Programme of Advancement Through Health and Education (PATH).
Guyana	1. Reduction in the excise tax on petroleum from 20 per cent to 10 per cent 2. Fixed the tariffs on public utilities (Water and electricity) with the Government absorbing the cost 3. Distribution of farm subsidies 4. One-time cash grants to households in the rural interior of the island 5. Increased public assistance payments from US$57. to US$67.0, benefitting approximately 18,000 people. Increased the value of old age pension from US$98.0 to US$134.0
Trinidad and Tobago	1. Increased the eligibility threshold for personal income taxes, exempting those with a monthly income of US$1,100 or less, 2. Increasing the value-added registration threshold, providing support for small and medium-sized enterprises. 3. Provided targeted support for vulnerable groups on government assistance programs, providing a one-time transport grant of approximately US$150 for 175,000 people
Dominican Republic	1. Fiscal consolidation 2. Energy subsidies to lower income household under the BONOLUZ programme which provided cash transfers to beneficiaries to pay energy bill up 100KwH. This was a pre-existing programme but the benefits were more salient in the context of higher energy costs.

Figure 3.9: Core Inflation for Select Caribbean Economies



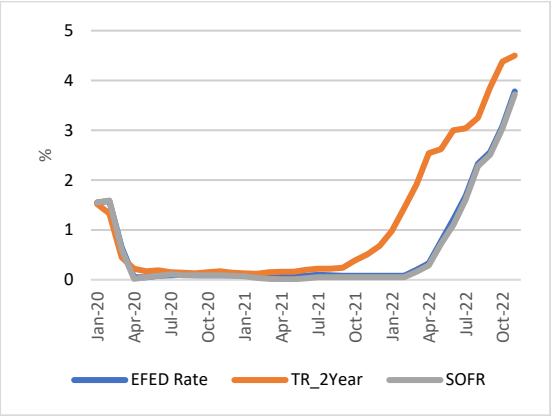
Source: Bank of Jamaica, Central Bank of Trinidad and Tobago and Central Bank of the Dominican Republic

Figure 3.10: Inflation Expectations for Jamaica



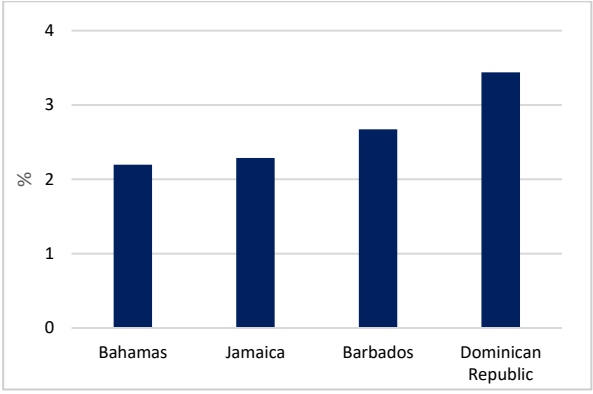
Source: Bank of Jamaica (BOJ).
Note: Figure shows estimates of expected inflation in year.

Figure 3.11: Change in Average Yields on Global Benchmark Interest Rates



Source: Federal Reserve Economic Database (FRED). Federal Reserve Bank of St. Louis

Figure 3.12: Change in Average Yields on Global Bonds for Select Caribbean Economies



Source: Bloomberg

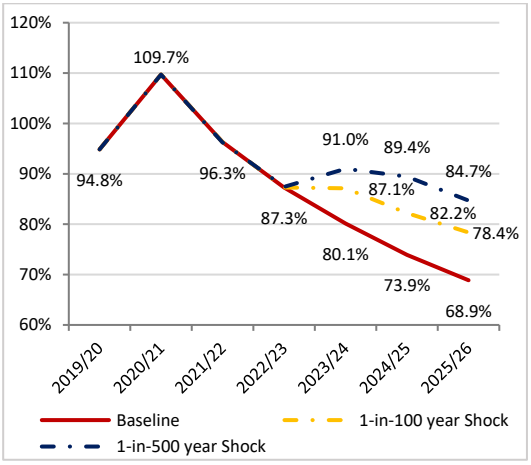
Notes: Figure shows the change in average yield between end-December 2022 and end-December 2021 for select Caribbean economies.

Table 4.0: [insert table "Caribbean Economies with Fiscal Rule]

Counrty	ER: Expenditure rule	RR: Revenue rule	BBR: Budget balance rule	DR: Debt rule	Year Implemented
Antigua and Barbuda	-	-	-	1	1998
Bahamas, The	1	-	1	1	2018
Dominica	-	-	-	1	1998
Grenada	1	-	1	1	1998
Jamaica	-	-	1	1	2010
St. Kitts and Nevis	-	-	-	1	1998
St. Lucia	-	-	-	1	1998
St. Vincent and the Grenadines	1	-	1	1	1998

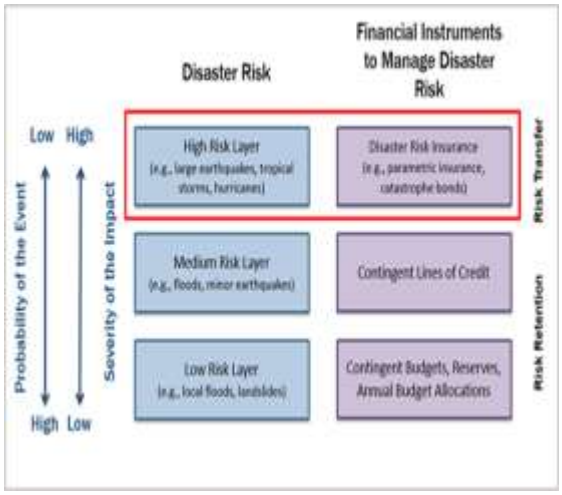
Source: IMF Fiscal Rule Data Set

Figure 4.0: Simulated Impact of Natural Disaster Shock on Debt to GDP



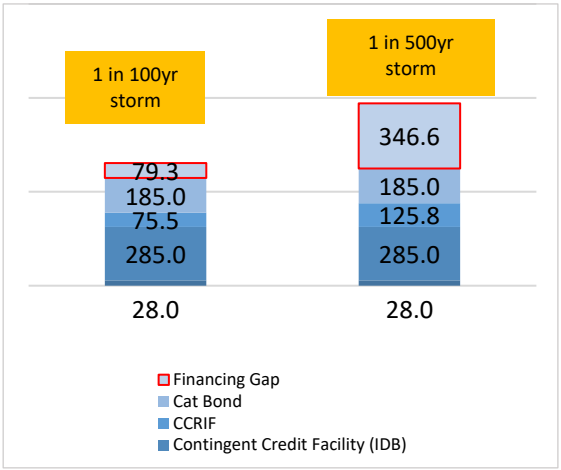
Source: Medium Term Debt Management Strategy. Ministry of Finance, Jamaica

Figure 4.1: DRF Management Framework



Source: Advancing Disaster Risk Management in Jamaica. World Bank (2018)

Figure 4.2: DRF Financing Options for Major Hurricanes, Jamaica



Source: Medium Term Debt Management Strategy. Ministry of Finance, Jamaica