LAPSE OF TIME

SM/20/136

July 31, 2020

To: Members of the Executive Board

From: The Secretary

Subject: **Trinidad and Tobago—Financial System Stability Assessment**

Board Action:	Executive Directors' **consideration** on a lapse of time basis
Deadline to Request Board Meeting:	**Thursday, August 27, 2020** **12:00 (noon)**
Proposed Decision Deemed Approved:	Monday, August 31, 2020
Provisional Board Meeting Date: (if requested)	Monday, August 31, 2020
Additional Information:	The FSSA for Trinidad and Tobago is being issued for discussion on a stand-alone basis because the mission work was concluded prior to the outbreak of the pandemic, so the FSSA has been completed, as envisaged in Extension of Consultation Cycles Due to Covid-19 Pandemic (SM/20/89).
Publication:	Not yet decided*
Questions:	Mr. Dobler, MCM (ext. 36198) Mr. Visconti, MCM (ext. 34228)
Document Transmittal in the Absence of an Objection and in accordance with Board policy:	After Board Consideration—European Investment Bank, Food and Agriculture Organization, Inter-American Development Bank, United Nations Development Programme, World Trade Organization

*** The Secretary's Department has been notified by the authorities that their explicit consent is required prior to the publication of Board documents. At the time of circulation of this paper to the Board, the Secretary's Department has not received a communication from the authorities indicating that they consent to the Fund's publication of this paper; such communication may be received after the authorities have had an opportunity to read the paper.**

INTERNATIONAL MONETARY FUND

TRINIDAD AND TOBAGO

FINANCIAL SYSTEM STABILITY ASSESSMENT

July 30, 2020

Approved By
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Prepared By
Monetary and Capital Markets Department

This report is based on the work of the FSAP mission that visited Trinidad and Tobago in November 2019 and January–February 2020.

KEY ISSUES

COVID-19 pandemic: This Financial System Stability Assessment (FSSA) reflects Financial Sector Assessment Program (FSAP) work conducted mostly prior to the onset of the COVID-19 crisis. The FSSA focuses on Trinidad and Tobago's medium-term financial stability challenges and policy priorities. Given the FSAP's focus on tail risks and strengthening policy and institutional frameworks, including contingency planning and crisis management, the FSAP's findings and recommendations remain pertinent.

Findings: On the eve of the COVID-19 crisis, the banking system was well capitalized and liquid but exposed to sovereign risk and potential liquidity risks stemming from non-bank financial entities in the group. Illustrative stress tests were subsequently run to quantify the possible impact on bank solvency in adverse COVID-19 economic scenarios. Given the unprecedented nature of the ongoing pandemic, these scenarios are associated with a substantial degree of uncertainty. The results suggest that under further strong deterioration of macrofinancial conditions some banks could breach their minimum capital requirements. Banks could also face liquidity pressures in the event of a run on investment funds issued in their groups. Financial vulnerabilities include rising household debt, sovereign exposures, potential spillovers from natural disasters (including climate-related) or sovereign shocks in the region. Regulatory and resolution frameworks have not kept pace with best practice, exposing the authorities to a continuing risk of bailouts.

Policies: While the authorities have made progress in implementing recommendations from the 2010 FSAP, further reforms are required to consolidate and leverage these gains. The authorities recently significantly enhanced the anti-money laundering/ combating the financing of terrorism (AML/CFT) framework and should make similar progress on other areas of financial sector oversight. Financial supervision and resolution frameworks need to be updated to meet best international practice, and supervisors' independence, resources, and powers strengthened. Macroprudential powers should be adopted and used to attenuate banks' sovereign exposures among other risks. Climate risks warrant a comprehensive environmental risk assessment of the financial sector and the development of a green finance strategy.

- The FSAP team was led by Marc Dobler (IMF) and Marius Vismantas (World Bank) and included deputy mission chiefs Claudio Visconti (IMF) and Oliver Masetti (World Bank). The team also comprised Ali Al-Sadiq, Hippolyte Balima, and Ivan Guerra (all IMF); Holti Banka, Ezio Caruso, Rami Mikko Ahmed Galal, Tatsiana Kliatskova, and Martijn Gert Jan Regelink (all World Bank); and external experts Peter van den Broeke, Geraldine Low, José Rutman, David Scott, Matthew Sullivan, and Daniel Waters. AML/CFT issues were covered remotely by Ivana Rossi (IMF) and Kuntay Celik (World Bank).

- The mission met with senior leaders and officials from a number of regulatory and government agencies in Port of Spain, including the Central Bank of Trinidad and Tobago (CBTT), Financial Intelligence Unit of Trinidad and Tobago, Ministry of Finance (MoF), Ministry of Labor and Small Enterprise Development, Trinidad and Tobago Securities and Exchange Commission (TTSEC), and Deposit Insurance Commission (DIC). It also met with representatives from financial institutions, industry organizations, and the private sector.

- FSAPs assess the stability of the financial system as a whole and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.

- This report was prepared by Marc Dobler and Claudio Visconti, with contributions from the members of the FSAP team.

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Glossary

AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
CBTT	Central Bank of Trinidad and Tobago
CET1	Common Equity Tier One
CGBS	Caribbean Group of Bank Supervisors
DFI	Development Finance Institution
DIC	Deposit Insurance Corporation
ELA	Emergency Liquidity Assistance
FATF	Financial Action Tasks Force
FSAP	Financial Sector Assessment Program
FX	Foreign Exchange
GDP	Gross Domestic Product
LLR	Loan Loss Reserves
MoF	Ministry of Finance
NAV	Net Asset Value
NIB	National Insurance Board
NPL	Nonperforming Loan
RAM	Risk Assessment Matrix
SIFI	Systemically Important Financial Institution
SIPS	Systemically Important Payment Systems
STeM	Stress Testing Matrix
TTD	Trinidad and Tobago Dollar
TTSEC	Trinidad and Tobago Securities and Exchange Commission
WEO	World Economic Outlook

EXECUTIVE SUMMARY

The FSAP work was mostly conducted prior to the COVID-19 crisis. Given the FSAP's focus on medium-term challenges and tail risks, its findings and recommendations for strengthening policy and institutional frameworks remain pertinent. As the growth projections were significantly revised downward since the FSAP, the quantitative risk analysis on bank solvency was complemented to include illustrative scenarios to quantify the possible implications of the COVID-19 shock on bank solvency.

On the eve of the COVID-19 crisis, the financial system had weathered the 2016–18 economic slowdown but faced vulnerabilities. The banking system was well capitalized and liquid, and the general insurance sector had recovered from claims pertaining to climate-related events in the region. The Financial Action Task Force (FATF) had removed Trinidad and Tobago from the list of jurisdictions under increased monitoring, following significant progress in enhancing its AML/CFT framework. However, the financial system, which is nearly twice the size of the economy and is of regional importance, still faced vulnerabilities. These included the rise in household debt, a lack of supervisory independence and out-of-date regulatory frameworks; the sovereign-bank nexus and the absence of a macroprudential toolkit; and contagion risks between investment funds and banks. Growing regional exposures increased the potential for regional shocks from natural disasters (flooding, hurricanes, earthquakes) to propagate, while energy-related shocks could negatively impact growth and the fiscal position, with potential spillovers to the financial sector.

While banks appear resilient, potential vulnerabilities arise from group risks and the COVID-19 shock. Illustrative stress tests were subsequently run to quantify the possible impact on bank solvency in adverse COVID-19 economic scenarios. Given the unprecedented nature of the ongoing pandemic, these scenarios are associated with a substantial degree of uncertainty. The results suggest that under further strong deterioration of macrofinancial conditions some banks could breach their minimum capital requirements. The results also show that liquidity risks could arise through group structures. About 60 percent of investment funds are issued at fixed prices, and investors expect both preservation of capital and instant access. If the underlying value of a fund falls below the fixed price, these funds could quickly become depleted and liquidity stress could propagate across financial conglomerate structures from fund issuers to banks in the same group. Reform of the investment fund sector should be carefully sequenced to deliver a significant reduction in systemic risk by transitioning to floating-price products over time.

While the authorities have made progress in implementing recommendations from the 2010 FSAP, further reforms are required to consolidate and leverage these gains. Financial sector legislation and regulation have not kept pace with international best practice. The supervisors operate with guidelines in key areas, instead of binding powers, which limits their authority. Financial supervisors should be given powers to issue regulation independently, and their independence and resources strengthened. Up-to-date insurance legislation is expected to come into effect shortly, more than 10 years after the failure of a regionally systemic insurance group (CLICO), while a new dedicated legal framework for independent prudential regulation and supervision of credit unions is urgently required. The framework for designating and supervising systemically important financial institutions (SIFIs) should be strengthened and enhanced supervisory oversight and capital surcharge buffers implemented. The Central Bank of Trinidad and Tobago (CBTT) should be assigned an explicit macroprudential mandate and powers, and significant gaps in the data needed for financial stability analysis should be addressed.

Risks associated with the state's role in the financial sector should be attenuated. The public sector absorbs roughly one-third of all domestic financial sector funds and sovereign exposure accounts for a sizeable share of financial institutions' assets. The authorities should implement prudential policies that encourage banks to diversify portfolios and limit sovereign exposures. A comprehensive financial sector development policy would outline the goals for the state's role in the financial sector, including for state-owned development finance institutions (DFIs).

The financial safety net should be strengthened to reduce the risk of financial bailouts. An upgraded resolution framework meeting best international practice is required, with a set of tools and powers able to preserve financial stability without putting taxpayers at risk. CBTT's framework for emergency liquidity assistance (ELA) should also be enhanced.

The financial sector is vulnerable to climate and environmental risks and the authorities' awareness and capacity need strengthening. Trinidad and Tobago's exposure to physical and transition risks warrants a comprehensive environmental risk assessment to better understand and raise awareness of the impact of climate change and environmental risks on the financial sector. CBTT should ensure board level commitment and integrate material aspects of climate change and environmental risks into its supervisory approach and guidance over time. The authorities should also explore ways to deepen financial markets for green growth and resilience by developing a green finance strategy.

Table 1. Trinidad and Tobago: FSAP Key Recommendations

Recommendations	Responsible Authority	Time[1]
Financial Sector Oversight		
Undertake scenario solvency and cashflow-based liquidity stress tests for banks and conglomerate stress tests.	CBTT, TTSEC	NT
Strengthen the independence, governance, and resources of financial supervisors, including assigning powers to issue regulation.	MoF, CBTT, TTSEC	NT
Banks Implement the new Basel II/III banking regulations; update supervisory guidance and conduct more in-depth analysis in key risk areas.	MoF, CBTT	NT
Insurers Implement modern insurance legislation and risk-based supervision.	MoF, CBTT	I
Investment Funds Introduce regulation for investment funds, require industry-wide compliance; and implement carefully sequenced industry-wide transition to floating funds.	MoF, TTSEC, CBTT	NT MT
Credit Unions Adopt new legislation and regulation for supervision and assign to a fully independent supervisor with sufficient powers and resources.	MoF	NT
Financial Markets Infrastructure Enact a comprehensive National Payments Law.	MoF, CBTT	MT
Financial Conglomerates Implement consolidated risk assessment methodology for financial conglomerates with cross-sector views of all material entities.	CBTT, TTSEC	NT
Systemically Important Financial Institutions (SIFIs) Revise deemed SIFI list, using best practice methodology, assign commensurate supervisory powers, and implement buffers.	MoF, CBTT	NT
Market Integrity Continue to strengthen the AML/CFT framework and address remaining FATF recommendations.	Authorities	I
System-wide Oversight and Macroprudential Policy Strengthen financial sector data, assign macroprudential powers to CBTT and implement prudential policies that encourage banks to limit sovereign exposures.	Authorities	NT
Financial Safety Net • Amend legislation to align resolution regime with best international practice, establish a resolution unit at CBTT, and initiate resolution planning. • Strengthen emergency lending assistance, deposit insurance, and resolution funding.	MoF, CBTT, DIC	NT
Financial Development and Climate Risk		
Develop a financial sector development policy strategy covering DFI mandates and state-owned commercial banks.	MoF	MT
Undertake a comprehensive environmental risk assessment of the financial sector and develop a green finance strategy.	MoF	MT

[1] "I-Immediate" is within one year; "NT-near-term" is 1–3 years; "MT-medium-term" is 3–5 years.

MACROFINANCIAL CONTEXT

A. Background

1. **Trinidad and Tobago continues to face economic volatility.** At the time of the FSAP the economy had been recovering from an energy-driven slowdown (Table 2). COVID-19 subsequently struck and the authorities adopted a range of policy measures to contain the pandemic and mitigate the economic impact (Box 1). The economic growth projections for Trinidad and Tobago and oil price assumptions were significantly revised downward as a result of the COVID-19 shock. In light of these developments, the quantitative risk analysis on bank solvency was updated to confirm that the FSSA findings remain relevant and informative.

Box 1. The Authorities' Initial Responses to COVID-19

Containment measures: Have included the closure of the country's borders, travel restrictions, and school and university closures.

Fiscal policy measures: The authorities announced fiscal support measures totaling about TT$3.7 billion (2.3 percent of GDP) and estimated the total revenue shortfall due to the outbreak and the energy price shock at around TT$9 billion (6 percent of GDP). The measures include but are not limited to providing salary relief (for up to three months) to temporarily unemployed workers and persons who would have had their incomes reduced; VAT and income tax refunds to individuals and small firms; and liquidity support to individuals and small businesses via subsidized credit union loans.

Monetary policy measures: CBTT lowered the policy rate by 150 bps to 3.5 percent, and the reserve requirement on commercial bank deposits by 300 bps to 14 percent. CBTT also announced that it would temporarily relax (for three months) the regulatory treatment of restructured bank loans (for payment deferrals, rate reductions and waivers of penalty charges) that were previously performing.

2. **While the authorities have made progress in implementing the 2010 FSAP recommendations further reforms are merited.** The work on consolidated supervision has advanced with CBTT adopting consolidated supervision guidance internally. Prudential reporting was expanded with the collection of additional regulatory data. A new modern insurance legislative and significantly strengthened supervisory regime are expected to come into effect shortly. As a member of the Caribbean Group of Bank Supervisors (CGBS), CBTT has provided input into the draft Regional Crisis Management Plan that includes the collaboration and coordination of 15 representative countries. The CBTT has implemented quarterly stress tests on the eight commercial banks. Both single factor and multi factor shocks are used for the solvency stress tests while liquidity stress tests are based on number of survival days (days until illiquid) in local currency and foreign currency. Results are reported in the CBTT Financial Stability Report. Subsequent to the FSAP missions the authorities promulgated the Basel II/III Financial Institutions (Capital Adequacy) Regulations containing, among others, the introduction of Pillar 2 requirements and additional elements of Basel III (including a leverage ratio and the capital conservation buffer). Despite these accomplishments to date, further reforms to strengthen financial sector oversight are crucial as discussed below.

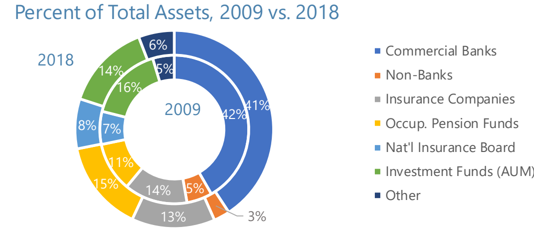
B. Financial System Structure

3. The financial system is large (assets nearly twice GDP), diversified and of systemic importance in the region.

- **Financial conglomerates and SIFIs.** There are six bank-led and two insurance-led groups accounting for about half of financial sector assets. The authorities designated 11 SIFIs comprising 4 bank groups, 2 insurance groups, and 5 statutory corporations. CBTT lacks formal powers to supervise the latter, and not all are systemic from a financial stability perspective. The two largest bank groups are majority government owned, and one is expanding in the region.
- **Banks.** On the eve of the COVID-19 crisis, capital adequacy and return on equity were above 20 percent. Nonperforming loans (NPLs) were low but retail refinancing and debt consolidation loans had risen (Figures 1–5, Tables 3 and 4).[1]

Evolution of the Financial System Structure

Percent of Total Assets, 2009 vs. 2018



Note: AUM in 2009 shows January 2010 amount. 'Other' includes thrift institutions, credit unions and development banks.

Source: CBTT

- **Insurers.** One insurer is the second largest in the region. The 2009 failure of CLICO caused a cross-border shock and precipitated a domestic fiscal outlay of 17 percentage points of GDP. Excluding CLICO, the life insurance has a strong capital base and general insurers were resilient to recent climate-event-related claims.
- **Investment managers.** The largest issuer is state-sponsored; other major issuers form part of bank and insurance conglomerates.
- **Credit unions.** The sector lacks an adequate regulatory and supervisory framework and reporting is weak. While assets of the sector are only 9 percent of GDP, membership is high.

RISK ASSESSMENT

A. Financial Sector Vulnerabilities

4. On the eve of the COVID-19 pandemic, potential vulnerabilities pertained to energy dependence, household debt, regional interconnectedness, sovereign exposures, and conglomerate structures. The economy is highly dependent on the energy sector and closely integrated within the region (Figures 6–11, Box 2). Spillovers could arise from natural (including climate related) and regional or domestic sovereign shocks. Energy shocks that trigger a prolonged downturn could pose financial stability risks. The public sector absorbs roughly one-third of all domestic financial sector exposures, which could potentially create adverse feedback loops. Domestic financial investment opportunities are limited, and outward investments constrained by explicit limits and foreign exchange (FX) shortages. Household debt has increased by almost 12 percentage points of GDP since 2010. Finally, about 60 percent of investment funds by assets under management (AUM) are at fixed prices, for which investors expect preservation of capital and instant access. If the

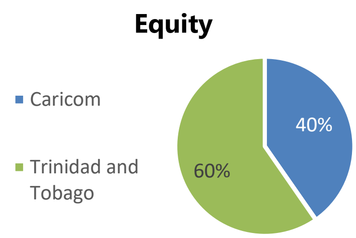
[1] Refinanced loans replace an existing debt obligation into a new loan under different terms; consolidation loans amalgamate multiple debt obligations into a single one—they display higher NPL ratios than other loan categories.

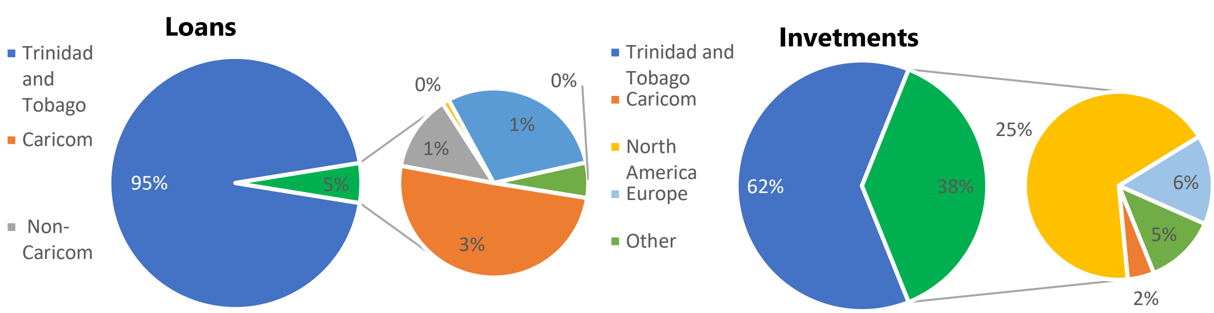
underlying value of funds falls below the fixed price, they could quickly become depleted and propagate liquidity shocks across financial groups.

5. The financial sector is also vulnerable to climate and environmental risks. While Trinidad and Tobago faces relatively less direct exposure to hurricanes (compared to other economies in the northern Caribbean region), the insurance sector was hit by recent hurricanes across the region, notwithstanding reinsurance arrangements cushioning the financial impact. Climate change is expected to add an additional layer of environmental risk—rising sea levels, intensification of hurricanes, and more volatile weather all would increase credit, market, operational, and underwriting risks. As Trinidad and Tobago is the largest natural gas and oil producer in the region, the financial sector is indirectly exposed to significant transition risks.

Box 2. Banks' Cross-Border Exposures by Region (June 2019)

Interconnectedness of onshore banking in the Caribbean is mostly established through the presence of international banks. Trinidadian banks loan books are not internationally exposed, 95 percent of loans are to domestic corporates and households. However, their investment portfolios and cross border equity exposures are more diversified. Most investments are in North America (25 percent), primarily in U.S. treasury bills (17 percent), followed by Europe and the CARICOM area. Investment in subsidiaries and affiliates, is mostly in the CARICOM area, in Barbados (11 percent) and St. Lucia (30 percent).





Source: FSAP calculations based on data provided by CBTT.

6. The financial system is also vulnerable to a prolonged COVID-19 outbreak. The broad impact of the COVID-19 crisis and associated uncertainties could risk impairing the financial system, either through losses in domestic and cross-border holdings or through conglomerate group structures (RAM, Table 5). Risks could materialize from specific or from mutually reinforcing vulnerabilities. Regarding COVID-19 specifically, longer containment and uncertainties about the intensity and the duration of the outbreak could reduce domestic economic activity. A more protracted economic contraction in global growth would have a sustained negative impact on Trinidad and Tobago's production and exports from the energy sector, and on domestic investment and consumption. The resulting economic downturn could lead to stress in the financial sector due to increases in NPLs and or tightened liquidity conditions.

B. Bank Solvency Stress Tests

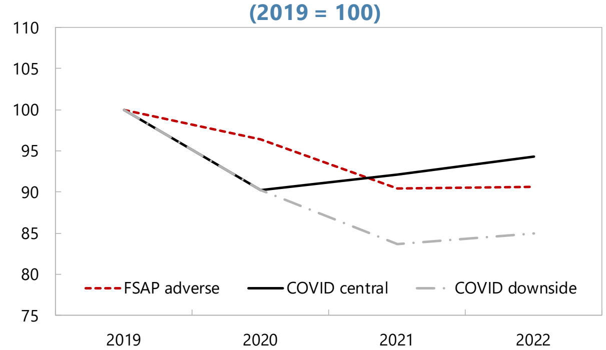
7. The resilience of commercial banks was assessed by three illustrative stress scenarios: two COVID-19 scenarios, and a pre-COVID-19 adverse scenario. It is worth mentioning that while these illustrative scenarios represent severe but plausible macroeconomic shocks, they do not represent staff's economic forecasts for Trinidad and Tobago, and are subject to an unusually high degree of uncertainty given the unfolding impact of the ongoing pandemic.

8. Although the scenarios differ, including with respect to their assumptions on financial conditions, the same methodology is used to quantify their implications on bank solvency. In all three scenarios, credit losses were estimated from cross-country analysis and loan classification and loan loss provisioning were adjusted.[2] Using the methodology developed by Fund staff,[3] credit-loss sensitivities to GDP were applied to the adverse scenario to obtain bank-by-bank credit losses. Two adjustments were made to the pre-stress test position of banks. First, the initial level of provisions was adjusted to that in 2009, given its current relatively low level. Second, the NPLs and capital ratios were adjusted to reflect the higher risk in refinancing and debt consolidation loans. Households may have utilized lower interest rates to restructure debt but could also have been facing loan repayment difficulties given the 2016–18 slowdown. The NPL stock was therefore increased by the total stock of refinancing and consolidation loans and additional provisions applied (using the provisioning rate for sub-standard loans). The impact of these consolidated adjustments plus the adverse-scenario shock raised the aggregate NPL ratio to about 12 percent.

COVID-19 Solvency Stress Test

9. The pandemic has led to a sharp deterioration in the economic outlook. Additional scenario analyses have been performed since the FSAP missions to quantify the impact of COVID-19 on bank solvency. These scenario analyses were based on the same 3-year horizon satellite estimations used in the original exercise (described below and in Appendix II). Two scenarios were considered:

Real GDP level
(2019 = 100)



- The *COVID-19 central scenario*, which incorporates the June 2020 World Economic Outlook (WEO) Global

[2] Cross-country estimates were used as the FSAP was unable to find a robust statistical relationship between bank NPLs and GDP over the period used.

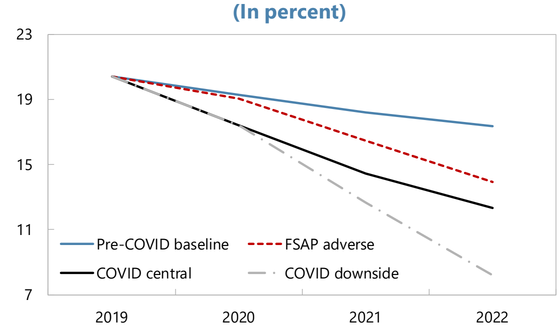
[3] https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Rules-of-Thumb-for-Bank-Solvency-Stress-Testing-41047

Assumptions for oil and gas prices and U.S. growth, envisages a sharp contraction in real GDP of close to 10 percent in 2020, followed by a rebound of 2-2½ percent both in 2021-22.[4]

- The *COVID-19 downside scenario* reflects potential further downside risks to the COVID-19 central scenario. This scenario incorporates a more prolonged recession in 2021, instead of a rebound, with the economy continuing to contract (by 7.2 percent in 2021) before mildly recovering in 2022. This scenario implies a cumulative decline in real GDP relative to the October 2019 WEO projections equivalent to 2.2 standard deviations over two years.

10. The scenarios show that the COVID-19 shock will likely have a significant impact on bank capital. At the end of the risk analysis horizon, the aggregate capital adequacy ratio (CAR) for banks drops by 8 percentage points under the COVID-19 central scenario and by 12 percentage points under the COVID-19 downside scenario. No bank would fail the 8 percent minimum CAR under the COVID-19 central scenario. However, three banks (two large and one small) would go below the minimum CAR in 2022, in the COVID-19 downside scenario (combined recapitalization needs equivalent to 1.6 percent of GDP).

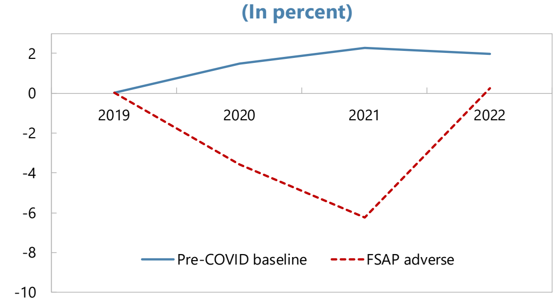
System Capital Adequacy Ratios
(In percent)



Pre-COVID-19 Solvency Stress Test

11. The pre-COVID-19 adverse scenario reflects those risks in the risk assessment matrix (RAM, Table 5) prior to the onset of the pandemic. These included a significant drop in energy prices, regional contagion, a (domestic) confidence shock, and sharp rise in risk premia. Weaker global growth and natural disasters including climate-related risks, were assumed to operate through transmission channels similar to the confidence shock and regional downturns, respectively. The adverse scenario produced a V-shaped recession, with a cumulative real GDP decline relative to the October 2019 WEO baseline equivalent to 1.5 historical standard deviations.[5]

Real GDP Growth Rates
(In percent)



While the risks used in the stress tests precedes the impact of the COVID-19 pandemic, key risks—such as a deep global recession, an abrupt tightening of financial conditions, and lower oil prices—are relevant in the context of the current crisis.

[4] The COVID-19 central scenario reflects a stress test scenario rather than an economic forecast for Trinidad and Tobago.

[5] The 1.5 standard deviation shock was used in recognition that the financial sector had already weathered a multi-year slowdown that led to a negative real output gap in recent years.

12. Based on the stress tests undertaken before the COVID-19 shock no bank would breach current capital minima in the adverse scenario. No bank became undercapitalized—below the minimum CAR of 8 percent required at the time of the stress tests—in the adverse scenario due to their strong initial capital buffers and profitability. However, one large bank did fall below 10 percent, a level which banks are required to transition to within a year under the new Basel II standard, and a smaller bank came close. The FSAP recommended that CBTT introduce scenario-based solvency stress tests.

C. Bank Liquidity Stress Tests

13. Liquidity stress test results suggest that while banks have adequate overall liquidity, they face FX risks. A cashflows-based liquidity stress test was implemented with run-off rates applied for each liability (e.g., up 68 percent for time deposits) by contractual maturity bucket. Cash and shorter-term securities were included in the bank's counterbalancing capacity. Haircuts were applied to longer-term securities, given the lack of a deep secondary market. Banks proved resilient with sufficient counterbalancing capacity to meet severe aggregate deposit outflows. A large bank failed in the shortest maturity bucket, but only by a small share of its total deposits. FX liquidity buffers at three banks were, however, insufficient to meet FX deposit outflows at maturities up to one year. While the total FX liquidity gaps were small at the system-wide level, amounting to 1 percent of FX deposits, the results are significant because of the limited availability of FX.[6] CBTT should implement cashflow-based liquidity stress tests in domestic and foreign currency.

D. Insurance Stress Tests

14. Two top-down solvency stress tests were applied. Shocks were applied to interest rates, market prices, and credit risks in the first test, and reinsurance costs in the second test, which simulated natural disaster shocks. Two solvency hurdles were applied for the current and new capital regime (see below). The tests covered seven of the largest insurers and included two life companies, three general insurers, and two composite insurers, representing 75 percent of the market. The largest five insurers were chosen for the first shock, to which all but the entity in liquidation proved robust, although the results underlined asset and liability duration mismatches. The three general insurers were used for the catastrophe scenario, one with significant regional exposure.

15. The insurers proved potentially vulnerable to a series of severe natural catastrophes. The catastrophic scenario applied three consecutive natural shocks within the region. These represent a significant but realistic escalation on risks realized to date. The catastrophe scenario consumed 30 percent of available regulatory capital under the incoming capital regime, and one general insurer failed.

E. Investment Fund Stress Tests

16. The adverse scenarios encompassed market and redemption risks. The principal objective of the tests was to establish how much support the funds would need from banks within the group to

[6] FX rationing presents risks, e.g., significant intervention would reduce system-wide liquidity.

meet redemptions and continue to operate. The first test applied a 40 percent redemption level combined with higher interest rates and bond spreads, lower equity prices, and haircuts on asset fire sales. The second test simulated a sudden loss of confidence in the sector, resulting in 50 percent redemptions. Given the general illiquidity in the domestic markets, it was assumed that market sales of domestic assets would not be possible under stressed conditions, and the buyer would be the bank in the group, applying a haircut. Five fund managers representing 90 percent of total investment fund AUM were covered—the largest fund manager, a state-sponsored deemed SIFI, the next three largest fund managers (all in banking groups), and the largest in an insurance group. The results from both stress tests showed very sizeable calls on liquidity from the banking sector.

17. The results from the shock on investment funds were overlaid on the bank liquidity stress test results. The results from the second test above were applied and an additional assumption made that Trinidad and Tobago banks' deposits in other countries in the region would be ring-fenced as foreign regulators sought to insulate their financial systems from an abrupt withdrawal of funds prompted by the shock in Trinidad and Tobago. Under this severe scenario, two additional foreign banks fail the liquidity test in all currencies and one additional large domestic bank failed the test in FX. In light of these findings, the authorities should periodically undertake conglomerate stress testing.

FINANCIAL SECTOR OVERSIGHT FRAMEWORK

18. Financial sector supervision is undertaken by several agencies. The MoF is responsible for the enactment of laws and regulations for ensuring a safe and sound financial system. CBTT is responsible for supervising commercial banks, nonbank financial institutions, insurers, pension funds, bureaux de change, and financial market infrastructures. TTSEC supervises the securities market, investment funds, and broker-dealers. While the Commissioner for Cooperative Development at the Ministry of Labor and Small Enterprise Development currently supervises credit unions, it was recently announced that a new agency under the MoF would assume this responsibility. The Financial Institutions Act (2008) provides CBTT with a financial stability mandate; however, currently it lacks a designated macroprudential framework and powers. Significant data gaps need be remedied to enable effective micro- and macroprudential supervision (Appendix I).

A. Strengthening System-wide Oversight

Macroprudential Policy

19. A strong and comprehensive macroprudential policy framework should be implemented. The Central Bank Act should be amended to provide CBTT with explicit macroprudential authority and tools and limits on loan-to-value and debt service-to-income ratios. The law should be amended to provide a legal foundation for macroprudential tools[7] and to collect the data needed to calibrate them. The authorities should implement prudential policies that

[7] https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Staff-Guidance-Note-on-Macroprudential-Policy-Detailed-Guidance-on-Instruments-PP4928

encourage banks to diversify portfolios away from sovereign exposures. The policies could take the form of one or more, non-mutually exclusive approaches, such as a carefully calibrated systemic risk buffer based on concentration of exposures, or Pillar II supervisory measures. Implementation should be phased in to avoid procyclicality and disruptions to both sovereign debt markets and bank lending capacity.

20. The framework for designating and supervising SIFIs should be strengthened. A revised SIFI methodology meeting best international practice should be applied. Identification should be accompanied by implementation of the capital surcharge and supervisory processes (enhanced monitoring), commensurate with the risks they pose. The Financial Institutions (Capital Adequacy) Regulations, 2020 (promulgated after the FSAP missions) introduced an additional charge for systemic banks, planned to be made effective in January 2022.

B. Supervision and Regulation

21. The powers, independence, and resources of the financial supervisors should be strengthened. Financial supervisors should be given powers to issue prudential regulations and take supervisory decisions independently from the MoF. The lack of such powers, combined with the excessively long time it currently takes to implement regulation, means that the supervisors currently operate without binding powers in key areas, limiting their effectiveness and compliance with international standards. Despite these constraints, the supervisors have taken important steps to strengthen supervisory oversight, including strengthening AML/CFT supervision, and oversight of financial groups, as well as commencing a transition to Basel II for banks. CBTT's supervisory staff is stretched, however, given the number of institutions they supervise and should be augmented. TTSEC has limited ability to control its budget, and the remuneration of professional staff is significantly below the level required to attract and retain requisite expertise. A cost-recovery review is underway and should develop realistic proposals to increase TTSEC's resources.

Banking

22. The FSAP undertook an assessment against the international standard (Appendix IV), which identified that CBTT's risk-based supervisory framework needs updating in key areas:

- **Capital:** Draft Basel II/III capital regulations were awaiting parliamentary approval at the time of the FSAP. They were subsequently adopted in May 2020 and will strengthen resilience via higher capital requirements, including pillar II and III requirements, a leverage ratio and a capital conservation buffer.

- **Liquidity:** Liquidity regulations should be issued for a liquidity coverage ratio (being planned) and a net stable funding ratio. Funding strategies, together with contingency liquidity arrangements, should be approved by bank Boards and stress tested.

- **Risks:** CBTT should develop further guidance and/or conduct more in-depth analysis on key risk areas including market, credit (see below), liquidity, interest rate risk in the banking book, FX, cyber, AML/CFT,[8] and climate risks, as well as enhancing its supervisory data in these areas.

- **Corporate governance:** CBTT should update bank corporate governance guidelines to ensure banks have adequate internal control and risk management practices (risk data aggregation, IT, valuation methodology) in place and specify additional requirements for SIFIs (e.g., mandatory Board committees). CBTT needs to communicate examination findings on a timely basis and meet frequently with banks' Boards/independent members.

23. CBTT should continue to strengthen oversight of credit risks. While NPLs were 3.4 percent of total loans at end-June 2019, past-due loans (more than 30 days overdue) were 4.5 percent and riskier refinanced and debt consolidation loans accounted for close to 7 percent of total loans. CBTT should build on steps already taken and conduct in-depth, regular onsite credit reviews at all large banks to assess the continuing adequacy of asset classification, quality of underwriting, and adequacy of provisioning. CBTT's credit risk guidance should be updated to reflect international best practices.

Insurance

24. The recently passed insurance legislation should significantly strengthen the supervisory regime. The failure of CLICO in 2009 triggered substantial fiscal outlays and propagated a cross-border shock. At the time of the FSAP, the insurance supervisor continued to work with serious limitations, including inadequate capital requirements and restrictions on related-party transactions, as well as insufficient legal authority for onsite supervision. Improvements in the new legislation include introducing risk-based capital,[9] enhanced reporting, stricter requirements around corporate governance and in respect of market conduct, and strengthening CBTT's enforcement powers, among others. Final amendments were recently approved by parliament and should be enacted urgently.[10] Risk-based supervision will require enhanced technical skills and additional resources at CBTT. The supervisor will need to develop and issue technical guidelines, monitor the introduction of risk-based capital, develop a supervisory review and reporting framework, and adopt policy on enforcement measures including a "ladder of intervention."

Investment Funds

25. The regulatory regime for collective investment schemes is being updated. A new regulatory regime is being developed, with new binding requirements covering investment restrictions; reporting requirements; segregation and custody of client assets; asset valuation and pricing; fund borrowing; and suspension of redemptions. These reforms are critical for addressing the systemic risks posed by this sector and should be brought into force without delay. TTSEC should

[8] CBTT issued detailed revised guidance on AML/CFT in 2018.

[9] With a five-year transitional period to implement the new capital requirements.

[10] Requiring presidential proclamation, which awaits final revisions to tax legislation and approval of the regulations.

finalize implementation of the risk-based supervision framework as a matter of urgency and develop rules on liquidity management.

26. Investment fund structures should be reformed. The market is dominated by constant NAV funds (those with fixed prices), the regulation of which is insufficient to capture the risks they pose, both to the investors and to the financial groups that issue them. Experience during the global financial crisis triggered international reforms to transition away from such products, except for those with highly liquid, low-risk assets that are unavailable in the domestic market. While transitioning to variable NAV structures presents legal, operational, and market-impact challenges, it is critical to rebalance the sector away from quasi deposit-taking activities into longer-term investments. Reforms should be implemented in a carefully sequenced manner. Moving the industry to variable NAV structures requires levelling the regulatory playing field—removing statutory exemptions from which a large statutory corporation (which manages nearly half the assets invested in constant NAV funds) currently benefits.

Financial Conglomerates

27. Group level supervision of financial conglomerates needs to be strengthened given their systemic importance. To underpin group level risk assessments, risk-based supervision needs to be strengthened at the solo level.[11] Although CBTT has the power to require a regulated financial holding company structure, CBTT's group level risk assessments do not incorporate analysis of all material financial entities (e.g., including insurance and securities firms) in the group. Despite CBTT adopting consolidated supervision guidance internally, it has not fully introduced the necessary prudential requirements nor implemented the principles underpinning this guidance as it pertains to all sectors. CBTT, together with TTSEC, should agree and communicate group level prudential requirements together with expectations and consequences of non-compliance. Last, CBTT and TTSEC should continue to strengthen the regular sharing of data and views on group entities.

Credit Unions

28. The supervision of credit unions requires urgent reform. The current legal framework dates back to 1971 and the supervisor lacks sufficient powers and resources. It also has a dual, conflicting mandate for developing all (including nonfinancial) cooperatives. A new dedicated legal framework should be introduced, with an independent authority that is solely responsible for regulation and supervision, with sufficient powers and resources. CBTT is best placed to meet this role, as replicating supervisory capacity for deposit takers would take time and duplicate scarce resources. If the authorities were to establish a new agency as announced, however, it would need operational independence, sound governance, adequate resources, and legal protection. Its Board should include professional and operationally independent members and exclude industry representatives to avoid conflicts of interest. A system-wide diagnostic followed by a clean-up of the sector is essential before introducing sector-wide deposit insurance.

[11] Including strengthen analysis of key risk areas for banks and finalizing the implementation of risk-based supervision in insurance and securities sectors.

Financial Market Infrastructures

29. The current legal/regulatory framework for payment systems should be updated. The Central Bank Act grants powers to CBTT for the supervision of the payments market. A guideline covers CBTT's oversight of systemically important payment systems (SIPS); however, it does not cover in detail the various onsite and offsite processes and the type of data to be collected, including for cyber resilience measures. The Guideline treats both, large value payment systems and retail payment systems as SIPS in the context of oversight, despite the different levels of risk they introduce to the national payment systems. A comprehensive National Payments Law (as planned by the CBTT) should address these and other gaps in the current framework and allow for new types of payment service and infrastructure providers (FinTech). Local debit cards should also be made usable for online payments. Finally, cyber resilience policies and guidelines should be incorporated into the oversight framework, particularly for payments systems operators.

C. Market Integrity

30. In February 2020, the FATF removed Trinidad and Tobago from the list of jurisdictions under increased monitoring, based on the progress in implementing its AML/CFT framework. The country addressed the seven areas with strategic deficiencies identified in the 2017 action plan. The FATF considers that the institutional capacity and commitment are in place to continue strengthening the AML/CFT framework. Despite an impact from the financial integrity weaknesses identified, banks were able to maintain correspondent bank relationships. While issues with due diligence and wire transfers were reported, domestic banks were largely successful at maintaining their U.S. and non-U.S. relationships without significant disruption to cross-border transactions. The authorities should continue implementing reforms and progress in addressing the remaining FATF recommendations, and enhance internal information technology capacity to support the AML/CFT supervision activities with more data analysis.

FINANCIAL SAFETY NET

31. The resolution regime should be updated to meet best international practice. The authorities resolved past financial failures at significant cost and risk (Box 3). To mitigate this risk, an upgraded resolution regime should be introduced, with powers better able to impose losses on the creditors of failed financial entities while preserving financial stability. The scope of the current regime should be extended to additionally cover any other financial institutions systemic at the point of failure. It should include explicit powers to write-down or extinguish shareholders' financial rights and impose losses on creditors (and/or convert them into shareholders), and to require adequate loss-absorbing capacity. The potential for a court to reverse resolution actions should be replaced with ex post review and compensation. Joint decision-making with the Minister of Finance should be limited to resolution cases that entail public funding. CBTT should be formally designated as the resolution authority, and it should establish a Resolutions Unit, with a clear separation between supervisory and resolution functions. Resolution plans should be prepared for at least those institutions that could prove systemic in failure.

Box 3. Authorities' Response to Past Episodes of Severe Financial Distress

1983-1986 — Seven nonbank financial institutions (e.g., finance houses) failed. Two were liquidated, with costs borne by depositors. Five subsequently failed after receiving liquidity support from CBTT. The depositors were compensated up to TT$50,000 by the nascent DIC.

1989 — The state injected equity (along with banks and insurance companies) and a state-owned asset management company purchased NPLs from failed Workers Bank.

1993 — Two under-capitalized state-owned banks were merged with the nationalized Workers Bank, forming First Citizens bank. The authorities injected capital and an asset management company purchased NPLs.

2008 — Hindu Credit Union failed, and its depositors were rescued by the government—deposits below $75,000 were paid in cash, those above in bonds. The failure was caused by investments in subsidiaries (including nonfinancial companies) and real estate, funded by loans from the credit union.

2009 — Policyholders and depositors in failed Colonial Life Insurance Company (CLICO), British American Insurance Company (BAIC), and CLICO Investment Bank were rescued and government debt increased by 17 percentage points of GDP.

KEY: Resolved: Nonbank financial institutions; Banks; Credit Union; Insurers

Sources include: http://www.ttparliament.org/documents/2243.pdf
https://www.central-bank.org.tt/sites/default/files/presentations/financial-sector-resolutions-lessons-from-trinidad-and-tobago-experiences-a-hilaire-june-2019_0.pdf)

32. Other aspects of the financial safety net should also be strengthened. CBTT should have legal authority, without having to rely on special emergency powers, to accept a wider range of collateral (including loans and not just securities), in providing ELA. Provision should be available to any financial institution that could prove systemic upon failure.[12] Access should be at CBTT's discretion for borrowers deemed solvent and viable on a forward-looking basis, against adequate collateral. If there is any uncertainty on these issues and CBTT still provides liquidity (e.g., in a systemic case), it should be indemnified for potential loss by the MoF. Solvency support should only be available from the government, not from CBTT. Any unrecovered public support should be recouped from levies on the financial sector. The deposit insurance scheme should be strengthened by setting a statutory target for initiation of payouts in seven days; enabling the deposit insurance fund to fund resolution of a member on a least-cost basis; and establishing a stand-by credit-line from the government. A cross-agency body should be established (as planned), chaired by CBTT and comprising the MoF, CBTT, TTSEC, the credit union supervisor, and the Deposit Insurance Corporation. It should be a forum for regular information exchange and coordination in respect of

[12] Potential recipients could include insurers designated as SIFIs, and large credit unions whose disorderly failure could give rise to systemic distress once they are adequately supervised.

financial sector policy, regulatory and development issues, and be the coordinating body in a financial crisis.

FINANCIAL DEVELOPMENT AND CLIMATE RISK

A. State's Role in Financial Intermediation

33. A comprehensive financial sector development strategy should be developed. The efficiency of state-owned DFIs is hampered by their small size, unreliable funding, high NPLs, and, at times, overlapping mandates. Merging those with overlapping mandates into larger and financially stronger entities, and harmonizing regulation of them, would increase their efficiency and developmental impact. Consolidation should form part of a comprehensive financial sector development strategy that outlines priorities and responsibilities of the state's role, financial intermediation, including as majority shareholder of the two largest commercial banks. Such a strategy should be developed by a high-level committee that includes all relevant stakeholders. In order to enhance investment options for the household sector beyond investment funds and bank deposits, the government should upscale its support for capital market development by publicly listing shares of viable state-owned enterprises and allocating a substantial fraction to retail investors.

34. The public pension system requires reform. The National Insurance Board (NIB) manages the public pension system and intermediates a sizeable volume of household savings. Outflows have been exceeding inflows from contributions since 2014, due to an aging population and a shrinking contributor base. Key recommendations from the International Labor Organization's Tenth Actuarial Review include: (i) increasing contributions; (ii) reducing the pension for those retiring before age 65; and (iii) freezing minimum pensions. Without reforms, the NIB would need to embark on asset sales to meet distributions, critically weakening the public pension system.

B. Digital Financial Services

35. The use of digital financial services is low and would benefit from legislative reform. Drivers include the lack of innovative players in the market, high fees, lack of inter-operability in digital payment systems, paper-based government payments, and low financial literacy. The comprehensive national payments law and approval of the CBTT's proposed E-Money Policy are needed to address gaps in the current legal framework and accommodate FinTech. CBTT completed public consultation of an E-Money Policy, which would allow new entrants (for example, telecom and payment services providers) and open up the market and create a level playing field, helping financial inclusion.

C. Climate and Environmental Risks

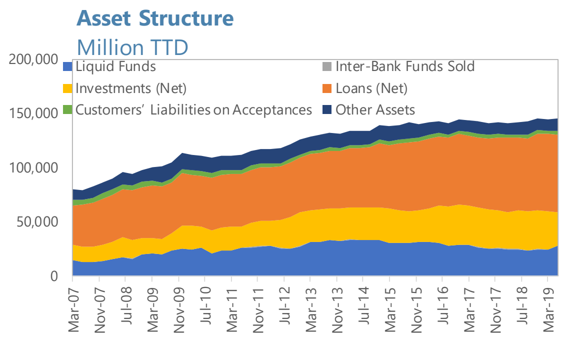
36. The financial supervisors should strengthen the understanding, management, and disclosure of climate and environmental risks. A comprehensive environmental risk assessment would help raise awareness of the impact of climate change and environmental risks on the financial sector. This should be supported by improved data collection and monitoring of regional and sectoral exposures to climate and disaster risks. The authorities should also help deepen financial markets for green growth and resilience. Green finance can help to fund greening of the private sector, ensure and amplify government policy, and potentially accelerate a low carbon transition and help resilience. The authorities should develop a comprehensive green finance strategy to align financial sector policies and incentives with climate objectives, including commitments under the Paris Agreement.

Proposed Decision

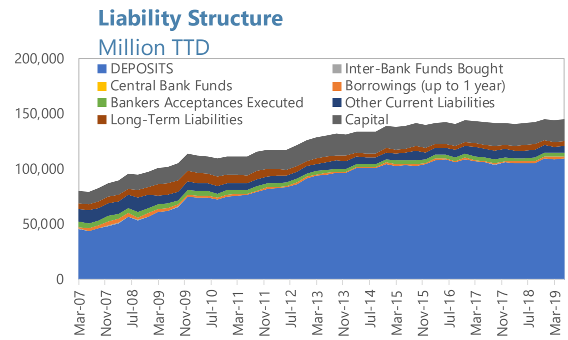
The following decision, which may be adopted by a majority of the votes cast, is proposed for adoption by the Executive Board: The Executive Board takes note of staff's analysis and recommendations in the report on Trinidad and Tobago's Financial System Stability Assessment (SM/20/136, 7/31/2020).

Figure 1. Trinidad and Tobago: Banking System Structure

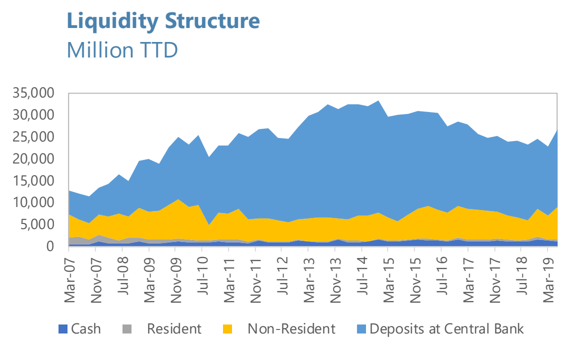
Loans are the main asset classes



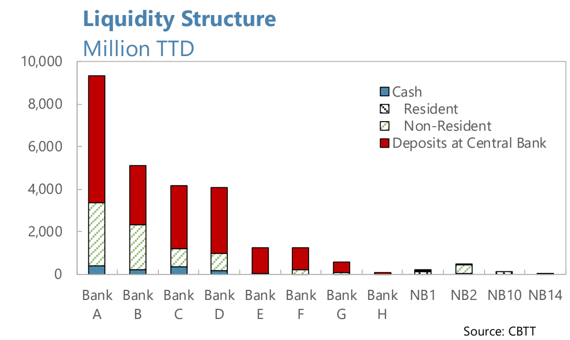
Banks are primarily deposit funded



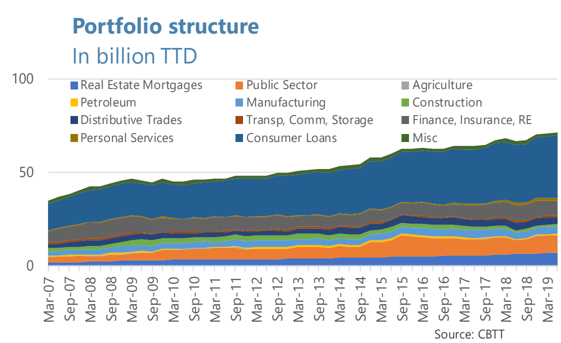
Liquid funds include material placements abroad



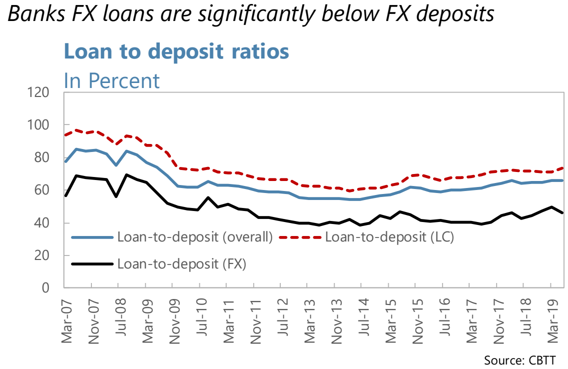
Especially from large banks



About 40 percent of bank loans are to corporates



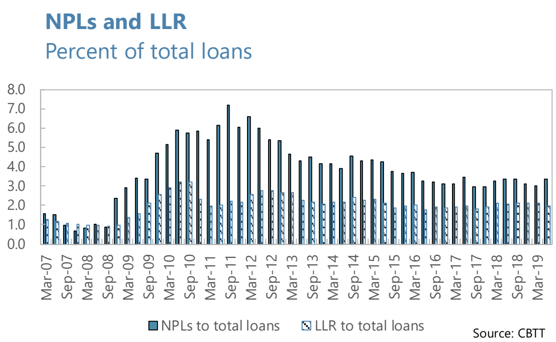
Banks FX loans are significantly below FX deposits



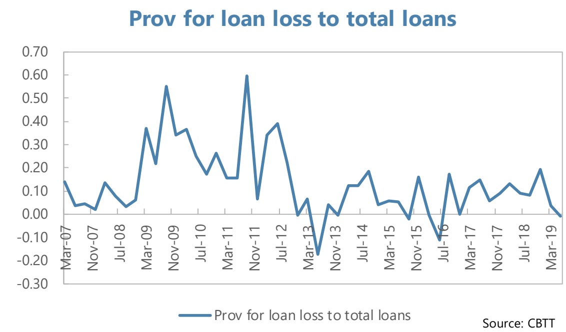
Sources: CBTT and IMF staff calculations.

Figure 2. Trinidad and Tobago: Bank Asset Quality

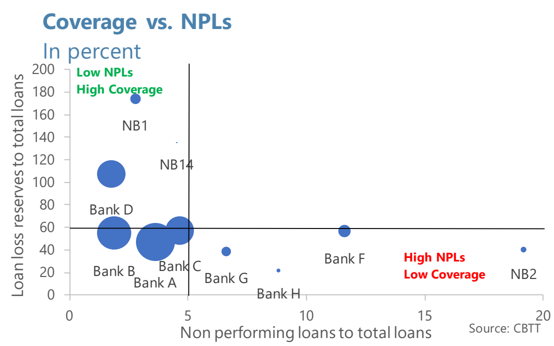
NPLs remain below 4 percent, loan loss reserves are flat



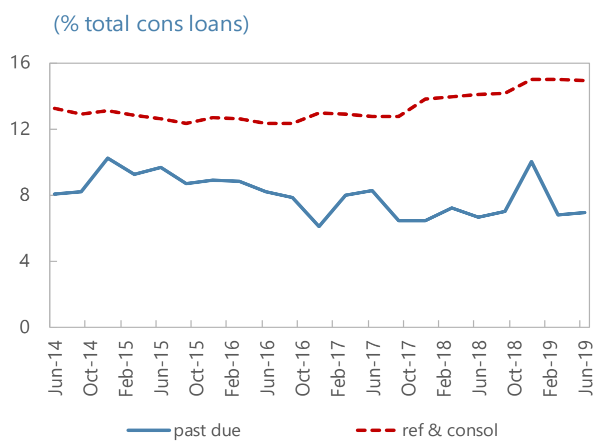
Given low provisioning flow



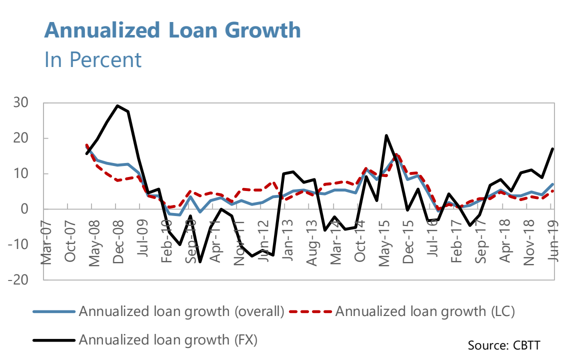
And coverage could be improved at the largest banks



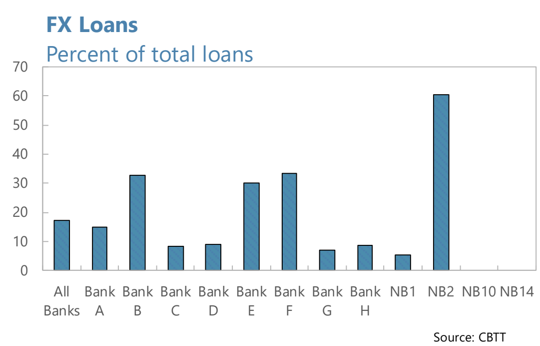
Refinanced and consolidated consumer loans have risen



Loan growth is faster in FX



FX exposures at some institutions are high

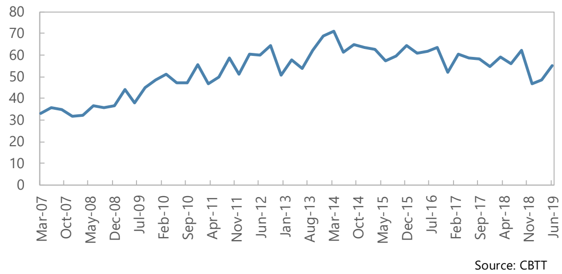


Sources: CBTT and IMF staff calculations.

Figure 3. Trinidad and Tobago: Bank Profitability

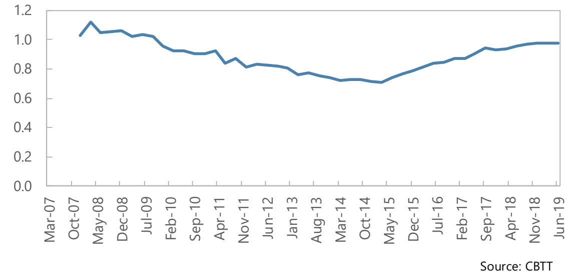
Efficiency has eroded

Efficiency (cost/income)
In Percent



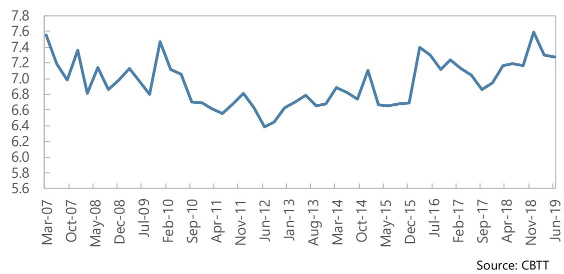
But a recovery in net interest margins

Net Interest Margin
In Percent



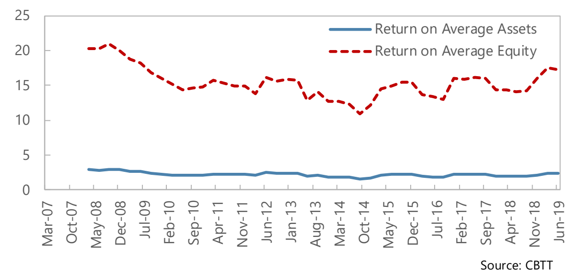
And leverage...

Leverage
Times



Have underpinned returns

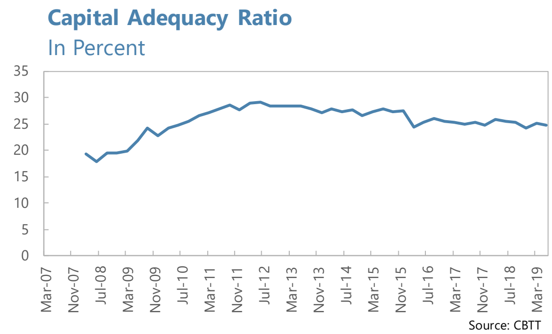
ROAA and ROAE
In Percent



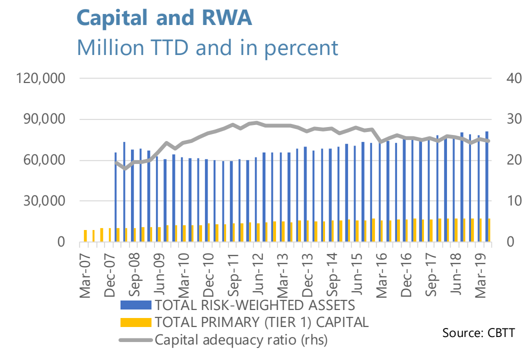
Sources: CBTT and IMF staff calculations.

Figure 4. Trinidad and Tobago: Bank Capital

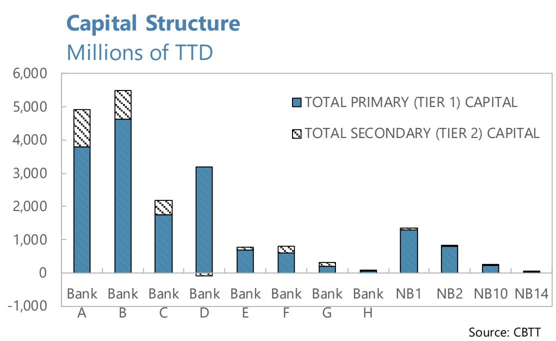
System remains well capitalized



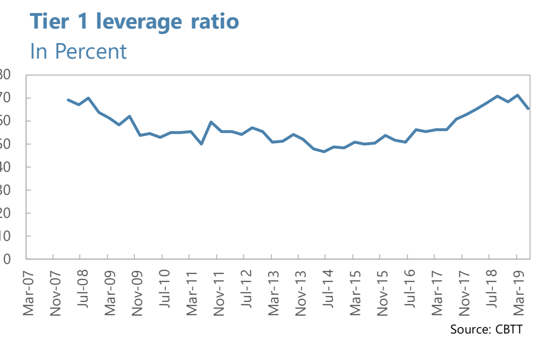
Despite CAR declining



Capital is mainly tier 1



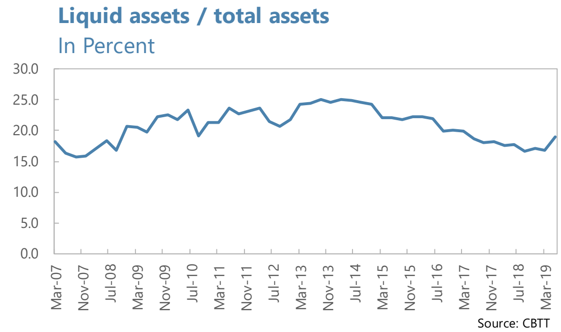
But the tier 1 leverage ratio has been increasing



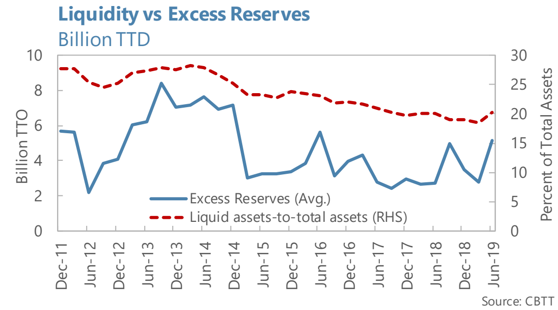
Sources: CBTT and IMF staff calculations.

Figure 5. Trinidad and Tobago: Bank Liquidity

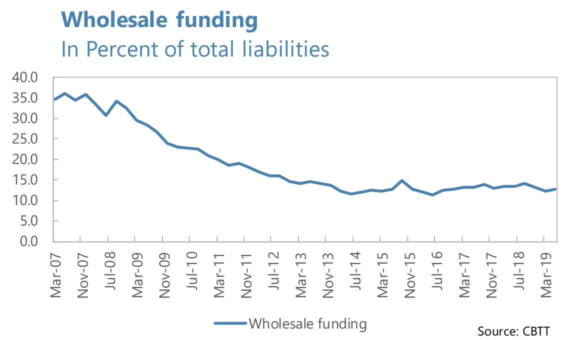
Liquidity has declined



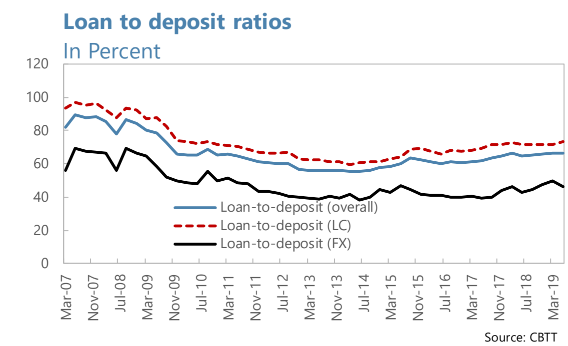
Especially when compared to total assets



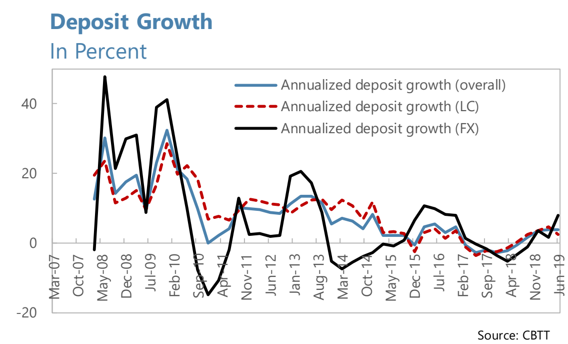
Wholesale funding has also declined



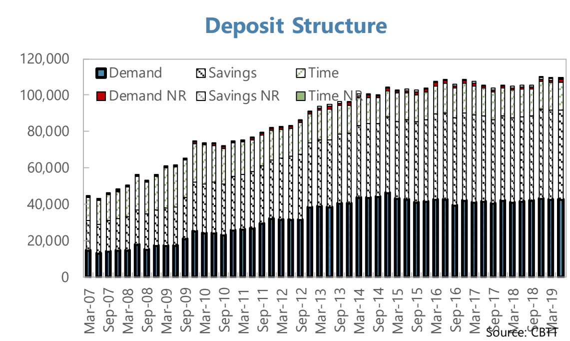
As reflected in lower loan to deposit ratios



While growth in deposits is relatively low

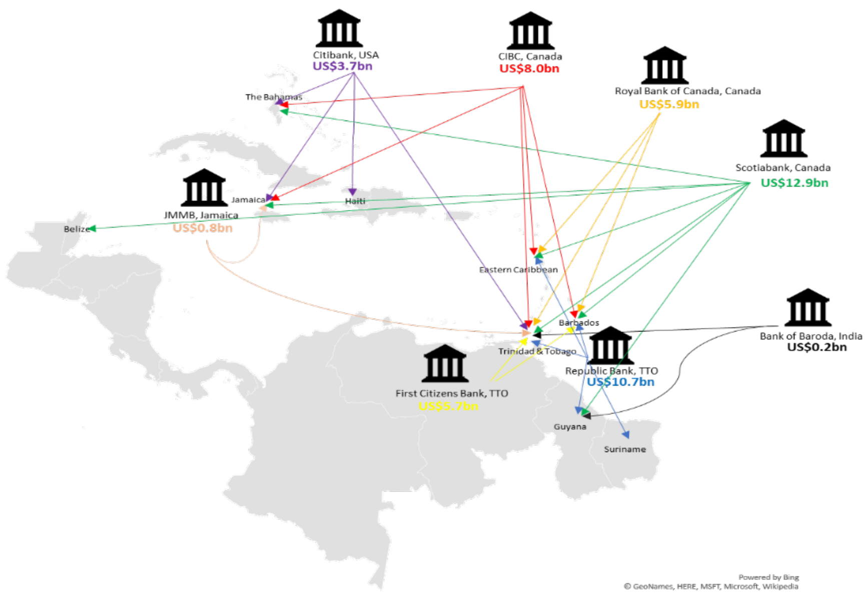


And mostly from residents



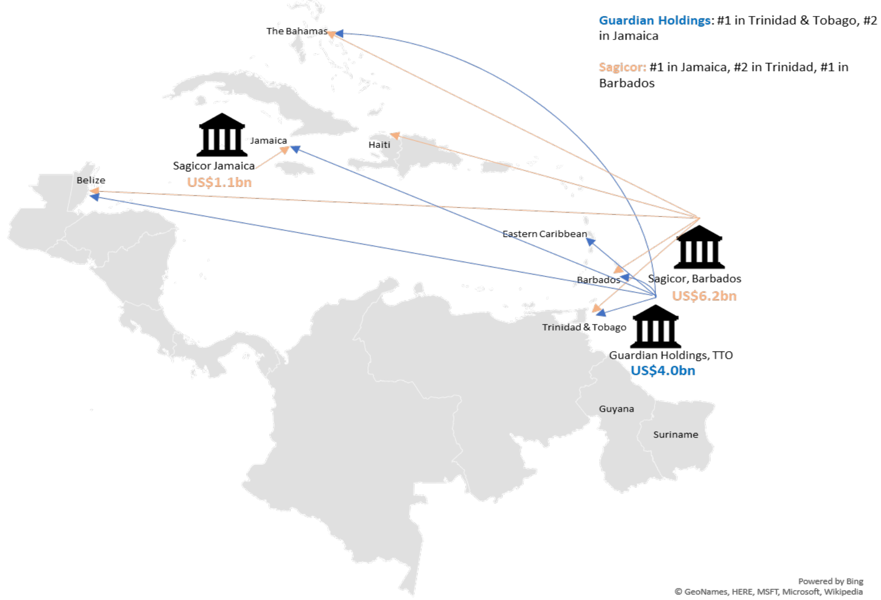
Sources: CBTT and IMF staff calculations.

Figure 6. Trinidad and Tobago: Dominance of Regional Banks, 2018



Source: Team depiction based on the Annual Reports of the respective banks and Fitch Connect.

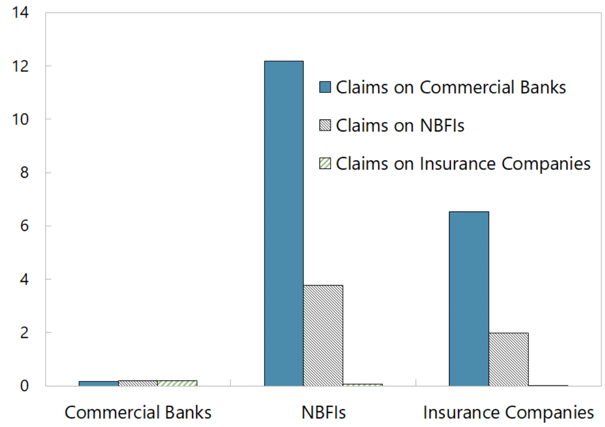
Figure 7. Trinidad and Tobago: Dominance of Regional Insurance Companies, 2018



Source: Team depiction based on the Annual Reports of the respective insurance companies.

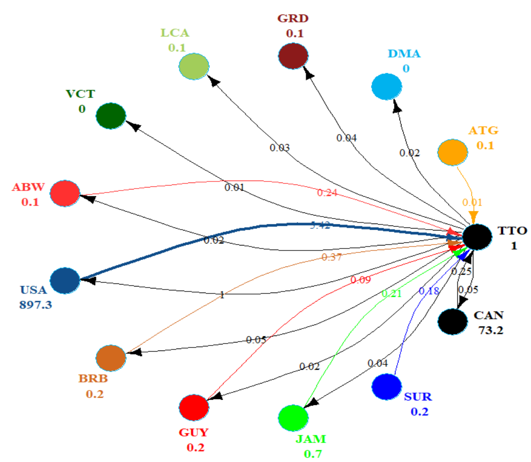
Figure 8. Trinidad and Tobago: Domestic Financial Institutions' Interconnectedness

(Percentage of lender's total assets)



Sources: CBTT and IMF staff calculations.

Figure 9. Trinidad and Tobago: Commercial Banks' Cross Border Interconnectedness

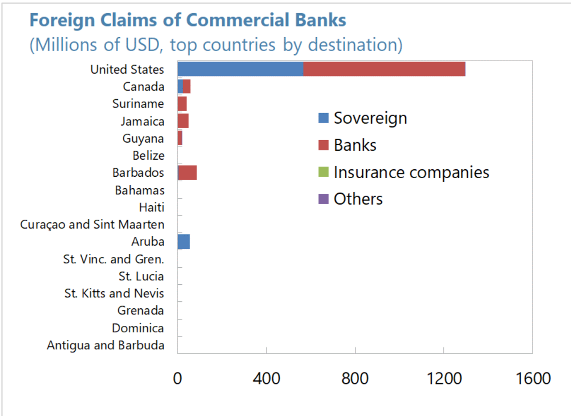


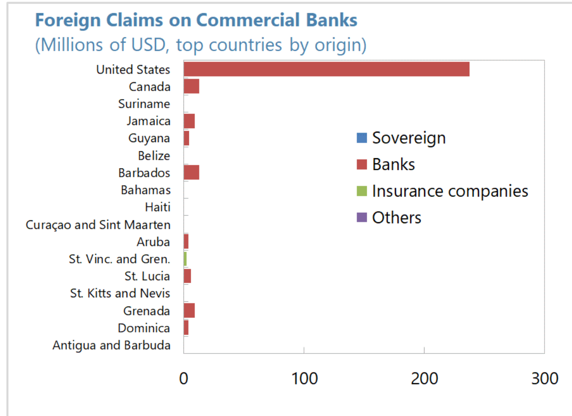
Sources: CBTT and IMF staff calculations.

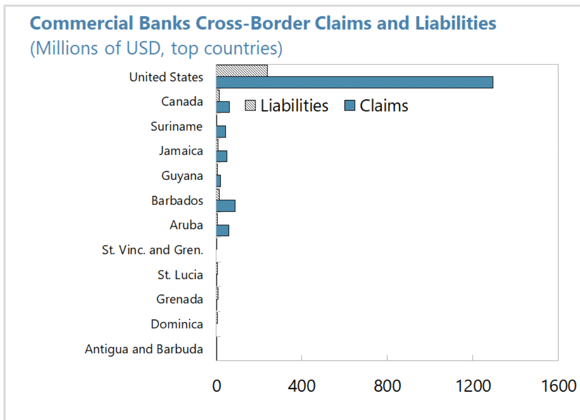
Notes: Data as of June 2019. Arrows point from the country source of the exposure (liability user) to the country carrying the exposure (liability holder). Arrow thickness is proportional to the size of the exposure relative to the GDP of Trinidad and Tobago. Node numbers show the absolute size of the country's GDP relative to the GDP of Trinidad and Tobago.

Figure 10. Trinidad and Tobago: Commercial Banks' Cross-Border Claims and Liabilities

Cross border claims and liabilities are mainly with foreign banks and the United States.



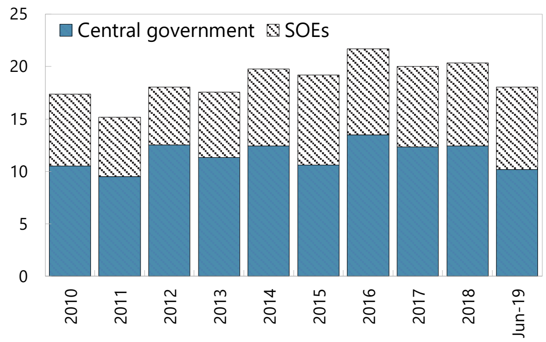




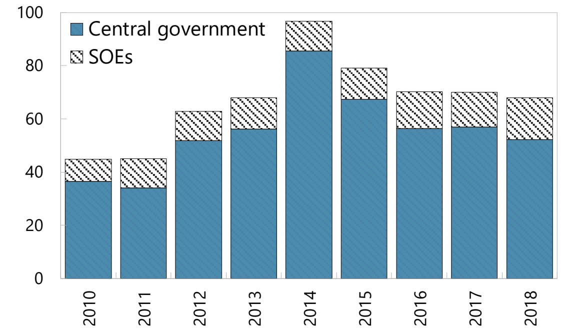
Sources: CBTT, World Economic Outlook and IMF staff calculations.

Figure 11. Trinidad and Tobago: Commercial Banks, Insurers, Pension and Investment Funds Exposures to the Public Sector

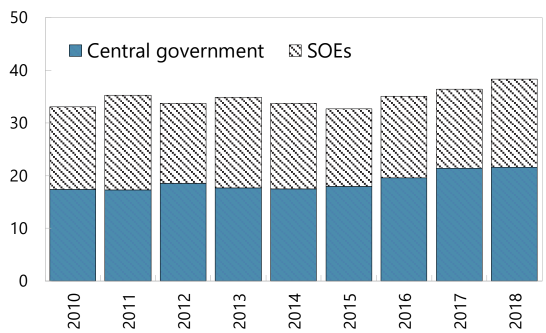
Banking Sector Exposure to the Public Sector
(Percent of total sector assets)



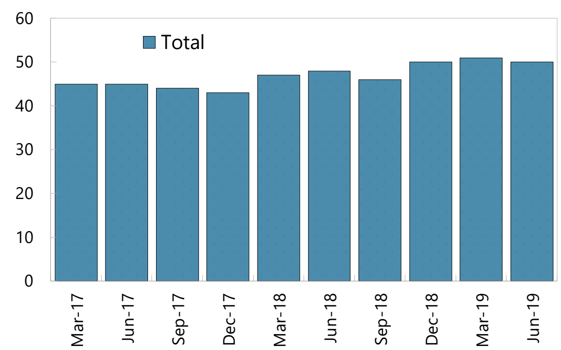
Insurance Sector Exposure to the Public Sector
(Percent of total sector assets)



Pension Sector Exposure to the Public Sector
(Percent of total sector assets)



Investment Funds Exposure to the Public Sector
(Percent of total sector assets)



Sources: CBTT and IMF staff calculations.

Table 2. Trinidad and Tobago: Selected Economic Indicators[2]

GDP per capita (U.S. dollars, 2018)	17,528	Adult literacy rate (2010)	99
Population (millions, 2018)	1.36	Unemployment rate (H1 2018)	3.8
Life expectancy at birth (years, 2018)	73.4	Human Development Index	63
Under 5 mortality rate (per thousand, 2017)	26.1	(2018, of 189 economies)	

					Prel.	Projections	
	2014	2015	2016	2017	2018	2019	2020
	(Annual percentage change, unless otherwise indicated)						
National income and prices							
Real GDP	-0.9	1.8	-6.3	-2.3	-0.2	0.0	1.5
Energy	-1.9	-0.8	-9.8	0.7	-3.2	-0.4	2.1
Non-energy 1/	-0.3	3.4	-4.2	-3.9	1.4	0.3	1.1
GDP deflator	1.7	-11.3	-0.8	5.0	6.1	0.2	1.1
CPI inflation (end-of-period)	8.4	1.6	3.1	1.3	1.0	0.7	1.1
CPI inflation (period average)	5.7	4.7	3.1	1.9	1.0	0.7	1.1
Unemployment rate	3.3	3.4	4.0	4.8	4.9	…	…
Real effective exchange rate	5.8	12.7	-0.9	-2.6	-1.3	…	…
	(In percent of fiscal year GDP)						
Nonfinancial public sector (NFPS) 2/							
Central government overall balance	-4.6	-7.9	-12.0	-11.1	-5.4	-5.0	-4.9
Of which: non-energy balance 3/	-21.5	-20.8	-18.1	-17.4	-13.8	-15.5	-14.8
Budgetary revenue	30.5	28.6	22.6	21.6	25.2	27.5	27.5
Budgetary expenditure	35.1	36.5	34.6	32.7	30.6	32.5	32.4
Of which: interest expenditure	1.8	2.1	2.0	2.9	3.0	2.9	3.1
Of which: capital expenditure	4.8	4.7	2.9	2.2	2.2	3.0	3.0
Central government debt 4/	23.5	27.2	37.1	42.4	43.2	46.9	49.3
Gross NFPS debt 4/	39.8	46.6	57.8	61.7	62.9	67.6	70.8
Heritage and Stabilization Fund assets	20.0	22.2	25.0	25.8	25.4	25.7	26.0
	(In percent of GDP, unless otherwise indicated)						
External sector							
Current account balance	13.8	7.0	-4.4	5.5	5.0	1.4	1.9
Exports of goods (annual percentage change)	-14.9	-23.7	-27.2	13.7	9.2	-19.9	1.9
Imports of goods (annual percentage change)	-14.6	-4.9	-5.9	-9.0	2.6	-12.1	0.7
Terms of trade (annual percentage change)	0.6	4.8	0.5	-1.0	-1.1	0.5	0.5
External public sector debt	8.5	9.9	15.7	16.7	17.3	18.9	20.0
Gross official reserves (in US$ million)	11,493	9,927	9,466	8,370	7,575	6,614	5,747
In months of goods and NFS imports	13.2	12.1	11.9	11.1	11.0	9.5	8.1
	(Annual percentage change)						
Money and credit							
Net foreign assets	7.6	-7.7	2.3	-9.3	-6.5	-9.0	-8.9
Net domestic assets	4.0	46.2	6.5	26.8	18.4	5.4	10.2
Of which: private sector credit	6.7	6.6	3.6	4.9	4.0	1.3	5.7
Broad money (M3)	7.2	1.1	2.8	-0.4	1.2	-3.9	-1.4
Memorandum items:							
Nominal GDP (in TT$ billion)	177.0	159.8	148.6	152.4	161.2	161.6	165.7
Non-energy sector (in percent of GDP)	64.9	76.1	80.3	76.5	74.1	78.7	79.1
Energy sector (in percent of GDP)	35.1	23.9	19.7	23.5	25.9	21.3	20.9
Public expenditure (in percent of non-energy GDP)	54.3	50.0	43.7	42.2	40.9	41.8	41.1
Exchange rate (TT$/US$, end of period)	6.38	6.43	6.78	6.78	6.77	6.78	…
Crude oil price (US$ per barrel)	96.2	50.8	42.8	52.8	68.3	60.6	58.0
Henry Hub natural gas price (US$ per MMBtu)	4.4	2.6	2.5	3.0	3.2	2.5	2.5

Sources: Trinidad and Tobago authorities; UN Human Development Report; WEO; and IMF staff estimates and projections.
1/ Includes VAT and Financial Intermediation Services Indirectly Measured (FISIM).
2/ Data refer to fiscal year, for example 2018 covers FY18 (October 2017-September 2018).
3/ Defined as non-energy revenue minus expenditure of the central government.
4/ Excluding debt issued for sterilization, public bodies' debt, and borrowing from the CBTT.

[1] Projections for 2020 are as of January 2020.

Table 3. Trinidad and Tobago: Structure of the Financial System

	Number of institutions			Assets (TTD billion)			Assets (Percent of GDP)		
	2013	2016	2018	2013	2016	2018	2013	2016	2018
Commercial Banks	8	8	8	125.8	138.6	140.4	72.0	93.3	87.1
Domestic State-Owned Banks	2	2	2	69.5	75.1	78.5	39.8	50.5	48.7
Foreign-Controlled Subsidiaries	6	6	6	56.4	63.5	61.9	32.3	42.7	38.4
Other Financial Institutions	954	1,013	1,033	160.9	174.0	175.0	92.1	117.1	108.5
Credit Unions 1/	130	130	132	12.1	15.1	15.1	6.9	10.1	9.3
Home Mortgage Bank	1	1	1	2.0	3.2	3.2	1.1	2.1	2.0
Finance Companies, Merchant Banks, Mortgage Finance, and Trust Companies	17	16	16	9.3	9.5	9.0	5.3	6.4	5.6
Bureaux de Change	5	5	6	0.0	0.0	0.1	0.0	0.0	0.0
Stock Exchanges	1	1	1	0.1	0.1	0.1	0.0	0.0	0.0
Insurance Companies	35	35	35	45.5	47.7	46.5	26.0	32.1	28.8
Life	15	15	15	40.3	41.9	40.8	23.1	28.2	25.3
Non life	20	20	20	5.2	5.8	5.7	3.0	3.9	3.5
Insurance Brokers	81	80	86	...	...	0.9	...	...	0.5
Insurance Agents	488	529	541	...	...	...	...	...	...
Pension Funds	182	201	200	47.6	50.4	51.4	27.2	33.9	31.9
Investment Funds 2/	14	15	15	44.4	48.1	48.8	25.4	32.3	30.3
Total Financial System	962	1,021	1,041	286.7	312.6	315.4	164.2	210.3	195.7
Memo Item									
GDP (TTD billion)	...	...	...	174.7	148.6	161.2	...	...	...

Source: CBTT, TTSEC

1/ Credit Unions' assets as at December 2016.

2/ Number refers to the number of issuers and assets to "Assets Under Management".

Table 4. Trinidad and Tobago: Banking Sector Financial Soundness Indicators

(In percent)

	2014	2015	2016	2017	2018	2019Q1	2019Q2
Regulatory capital to risk-weighted assets	22.5	22.1	21.9	21.0	20.9	21.9	21.4
Regulatory tier 1 capital to risk-weighted assets	21.8	22.9	20.4	20.3	20.6	20.3	19.3
Non-performing loans net of provisions to capital	7.7	6.7	7.2	6.8	6.2	5.6	7.2
Non-performing loans to total gross loans	4.1	3.4	3.1	2.9	3.0	3.0	3.3
Sectoral distribution of total loans: Residents	96.0	97.5	96.8	95.8	94.9	95.2	95.3
Other financial corporations	0.6	0.5	0.4	0.5	0.8	0.8	0.7
General government	13.5	16.2	14.3	13.1	12.2	12.1	11.8
Nonfinancial corporations	38.4	37.3	37.4	37.0	36.4	36.4	36.5
Other domestic sectors	43.5	43.5	44.7	45.1	45.5	45.9	46.3
Sectoral distribution of total loans: Nonresidents	3.6	2.1	2.6	3.3	4.0	4.3	4.2
Return on assets (ROA)	1.8	2.6	2.7	2.5	2.7	4.0	3.4
Return on equity (ROE)	13.4	18.4	20.9	18.8	21.0	32.3	26.5
Interest margin to gross income	56.4	53.9	59.2	64.3	64.7	53.8	59.2
Non-interest expenses to gross income	62.9	55.1	55.4	55.8	54.4	47.4	52.1
Liquid assets to total assets (Liquid asset ratio)	25.9	24.4	22.6	20.3	19.6	19.0	20.9
Liquid assets to short-term liabilities	31.7	30.4	27.2	24.4	23.5	22.9	25.2
Net open position in foreign exchange to capital	3.6	5.7	12.2	15.4	13.3	13.7	10.9

Source: IMF, Financial Soundness Indicators (FSI) database.

Table 5. Trinidad and Tobago: FSAP Risk Assessment Matrix[1]

Risk	Overall Level of Concern	
	Relative Likelihood	Expected Impact if Materialized
Large swings in energy prices. With the recent break of the OPEC+ alliance, oil supply has become less predictable. Potential price wars, together with demand shocks, have raised oil market uncertainty and volatility, complicating economic management. As shocks materialize, they cause large and persistent price swings. While, on aggregate, lower oil prices should cushion global growth, they would harm oil exporters, and may be less supportive of global demand.	**High**	**High**
Prolonged COVID-19 outbreak, contagion from a major global and/or regional economic downturn, sovereign crisis, or natural disaster. The broad impact of the COVID-19 crisis and associated uncertainties and/or from the other listed risks could impair the financial system, either through losses in domestic and cross-border holdings or through conglomerate group structures.	**High**	**Medium/High**
Domestic confidence shock. A sudden loss of confidence in the system (potentially prompted by a sovereign debt crisis or run on investment funds) could trigger a market sell-off, with negative effects on investment funds and spillovers to the banking sector.	**Medium**	**High**
Sharp rise in risk premia that exposes financial vulnerabilities. An abrupt reassessment of market fundamentals triggers widespread risk-off events that expose financial vulnerabilities that have been building in a period of low interest rates and a search for yield. Risk asset prices fall sharply, leading to significant losses in major financial institutions. Higher risk premia generate debt service and refinancing difficulties; stress on leveraged firms, households, and vulnerable sovereigns; and capital outflows.	**High/Medium**	**Medium**

[1] The Risk Assessment Matrix shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 percent and 30 percent, and "high" a probability of 30 percent or more). The matrix reflects staff's views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

Appendix I. Data for Financial Stability Analysis

The FSAP faced challenges in securing adequate data to thoroughly analyze financial risks. While there has been some progress, e.g., the collection and analysis of macro financial data by TTSEC on collective investment schemes, data collection needs to be strengthened in many areas.

Banks: Expanding the granularity of individual bank-level data would help monitor the build-up of systemic vulnerabilities. CBTT should collect: (i) liquidity positions in domestic currency and FX, including separately categorizing stable and less stable funding sources (weekly or bi-weekly) as well as the term structure of bank's liquidity profiles; (ii) a more granular breakdown of retail deposits, including the term structure of time deposits; (iii) secured and unsecured interbank asset and liability exposures (quarterly) both domestic and cross-border; (iv) market risk exposures of financial instruments; and; (v) NPL data in more dimensions, including by currency, product, sector[1] (including the public sector even if guaranteed), type of institutional borrower, and residence; and a breakdown for allowance for loan losses by risk category. CBTT should improve the granularity of data collection and the speed with which it can be collected by implementing flat-file data bank returns (see proposed headings below). A more precise classification of loans and NPLs would help strengthen analysis (e.g., breakdown by type of borrower and by sector should be clearly separable) and support environmental analysis.

Insurers: CBTT should also enhance data collected from insurers including asset durations, a breakdown of insurance liabilities, reinsurance contracts and probable maximum losses. Datasets should allow for geographical breakdowns at the local and the group-level.

Credit unions: Not all credit unions are providing regulatory returns (fines for non-compliance are fixed in nominal 1971 terms). Inadequate data on loan delinquencies impedes assessment of the true health of the sector and a new regulatory and reporting regime is urgently required.

Investment funds: TTSEC recently strengthened macroprudential reporting. Further granularity on interconnections to banks and asset durations would help strengthen stress testing.

Property: Information on property prices in major cities should be collected to calculate real estate price indices for housing and commercial real estate—including sales prices by property type and location. Information on beneficiaries of government-run social programs that facilitate development of the mortgage market should be collected and analyzed to ensure the programs fulfill their development objectives without jeopardizing stability of the financial system.

Households and corporates: Information on household income and corporate balance sheets is needed to analyze debt servicing capacity, including under stress. Macroprudential indicators such as loan to value and debt service to income ratios are needed to inform the design and calibration of macroprudential tools. Currently, there is no credit registry and supervisors do not have access to data from the existing private credit bureau (to which lenders provide data on a voluntary basis). Information on corporate balance sheets covers few indicators and is limited to listed companies. While establishing a credit registry may take time, CBTT could, in the meantime, access information

[1] For example, the current returns for the "real estate', 'financial services and real estate' and 'consumer' (which includes mortgages) segments do not enable total real estate loans to be separately identified.

from the existing private credit bureau within a legal framework that ensures appropriate privacy. Alternatively, CBTT could collect such data from banks. Additional data on corporate ownership would facilitate monitoring of corporate vulnerabilities.

Flat file data returns should be developed by CBTT to collect the following from banks in a database multidimensional, array form (replacing two-dimensional returns) allowing for separate identification/ aggregation/disaggregation of different categories (e.g., NPLs in foreign currency by state owned enterprises):

Loans, NPLs, by Economic Activity, by bank and by date
Agriculture
Petroleum
Manufacturing
Construction
Distributive Trades
Transp., Comm., Storage
Finance, Insurance (without real estate)
Personal Services
Other economic activities (excluding product lines or borrower types, see below)

Loans, NPLs, by product, by bank, by date
Consumer loans
Ow Credit cards
Ow Other
Mortgages
Ow Residential mortgages
Ow Corporate
Other products

Loans, NPLs, by Institutional borrower, by bank, by date
Households
Government
Local Government
State-owned enterprises
Nonfinancial corporates
Other banks
Nonbank financial institutions
Other institutional borrowers

Loans, NPLs, by Residence, by bank, by date
Domestic
Nonresident

Loans, NPLs, by currency, by bank, by date
In local currency
In FX

Appendix II. Banking Sector Stress Testing Matrix (STeM)

<table>
<tr><th colspan="2">Domain</th><th>Top-down Stress Test by FSAP Team—Assumptions</th></tr>
<tr><th colspan="3">Banking Sector: Solvency Risk</th></tr>
<tr><td rowspan="3">1. Institutional perimeter</td><td>Institutions included</td><td>All eight commercial banks.</td></tr>
<tr><td>Market share</td><td>100 percent of the banking sector assets.</td></tr>
<tr><td>Data source and baseline date</td><td>Source: Supervisory data.
Baseline date: end-June 2019.
Scope of consolidation: Consolidated level data for banks headquartered in Trinidad and Tobago (2) and subsidiary level data for the subsidiaries of foreign banks (6).</td></tr>
<tr><td rowspan="3">2. Channels of risk propagation</td><td>Methodology</td><td>Balance sheet-based approach.</td></tr>
<tr><td>Satellite models for macrofinancial linkages</td><td>Satellite panel data models for bank-level NPLs. Given the insufficient statistical significance of the relation between NPL ratios and macroeconomic variables, global rules-of-thumb for the sensitivities of credit losses to GDP growth were used to estimate credit losses and project NPL ratios.</td></tr>
<tr><td>Stress test horizon</td><td>Three years.</td></tr>
<tr><td>3. Tail shocks</td><td>Scenario analysis</td><td>Scenario-based tests include: a pre-COVID-19 baseline and adverse scenarios; and a post-COVID-19 central and downside scenarios.
Variables in the scenarios include domestic macrofinancial variables (e.g., GDP, inflation, real exchange rate).
Pre-COVID-19 scenarios:
The baseline scenario is based on the October 2019 WEO projections.
The adverse scenario is driven by a combination of external shocks amplified by domestic characteristics, including existing vulnerabilities and policy constraints. The three major drivers of the adverse scenario are:
• Shock 1. Large swings in energy prices. Risks to prices are broadly balanced, reflecting offsetting—but large and uncertain—supply and demand shocks. In the near term, uncertainty surrounding the shocks translates to elevated price volatility, complicating economic management and adversely affecting investment in the energy sector. As shocks materialize, they may cause large and persistent price swings. While, on aggregate, higher oil prices would harm global growth, they would benefit oil exporters.
• Shock 2. Contagion from a major regional economic downturn,</td></tr>
</table>

Domain		Top-down Stress Test by FSAP Team—Assumptions
		sovereign crisis, or natural disaster. This could impair the financial system, either through losses in cross-border holdings or through conglomerate group structures. • Shock 3. Domestic confidence shock. A sudden loss of confidence in the system could trigger a market sell-off, with negative effects on investment funds and spillovers to the banking sector. The adverse scenario leads to a cumulative real GDP decline relative to the baseline equivalent to 1.5 standard deviations over the first two years. COVID-19 scenarios: • The central scenario is based on the June 2020 WEO Global Assumptions (GAS) projections for oil and gas prices and U.S growth. It reflects the deteriorating global economic outlook and envisages a sharp V-shaped recession with a real GDP contraction of 9.8 percent in 2020, followed by a rebound of 2-2½ percent both in 2021-22. This scenario implies a cumulative decline in real GDP relative to the October 2019 WEO projections equivalent to 1.3 standard deviations over two years. • The COVID-19 downside scenario reflects the further downside risks to which the COVID-19 central scenario is subject. It envisages a L-shaped, more prolonged recession in which real GDP continues to contract in 2021 by 7.2 percent, before a mild recovery of 1.5 percent in 2022. This scenario implies a cumulative decline in real GDP relative to the October 2019 WEO projections equivalent to 2.2 standard deviations over two years.
	Sensitivity analysis	Sensitivity tests were conducted to supplement the scenario analysis. They evaluated the impact of four different single risk factors on the existing capital buffers as of 2019Q2: • Exchange rate risk. • Concentration risk.
4. Risks and buffers	Risks/factors assessed	Credit loss from banks' loan portfolios and sovereign exposures, excluding off-balance sheet credit commitments. Increase in funding costs.

Domain		Top-down Stress Test by FSAP Team—Assumptions
	Behavioral adjustments	Balance sheet grows in line with nominal GDP. Dividends are paid out by banks that remain adequately capitalized throughout the stress. Payout rate consistent with past experience. Invariant asset allocation, i.e., no change in business models, lending standards, or investment pattern in response to shocks (over three years).
5. Regulatory and market-based standards and parameters	Calibration of risk parameters	Based on credit models estimated by IMF staff. Credit losses are estimated using peer country averages (Hardy and Schmieder).
	Regulatory/ accounting and market-based standards	Capital shortfalls to be measured in terms of T1, total capital and the leverage ratio.
6. Reporting format for results	Output presentation	System-wide capital shortfall. Number of banks and percentage of banking assets in the system that fall below capital and leverage ratios.
Banking Sector: Liquidity Risk		
1. Institutional perimeter	Institutions included	All 8 commercial banks.
	Market share	100 percent of the banking system assets.
	Data and baseline date	Source: Supervisory data. Baseline date: end-June 2019. Scope of consolidation: Consolidated level data for banks headquartered in Trinidad and Tobago (2) and subsidiary level data for the subsidiaries of foreign banks (6).
2. Channels of risk propagation	Methodology	Cash-flow based liquidity stress test using maturity buckets. All analyses are carried out separately for TTD and FX.
3. Risks and buffers	Risks	Funding liquidity (liquidity outflows). Market liquidity (price shocks) and haircuts.
	Buffers	Counterbalancing capacity. Central bank facilities.
4. Tail shocks	Size of the shock	Run-off rates calculated following historical events, guidelines. Bank run and dry up of wholesale funding markets, taking into account haircuts to liquid assets.
5. Regulatory and market-based standards and parameters	Regulatory standards	National regulatory framework.

Domain		Top-down Stress Test by FSAP Team—Assumptions
6. Reporting format for results	Output presentation	Bank-level and aggregate banking-level liquidity gaps.
Banking Sector: Interconnectedness		
1. Institutional perimeter	Institutions included	All 8 commercial banks. Other major nonbank FIs (subject to data availability).
	Market share	100 percent of the banking system assets.
	Data and baseline date	Source: Supervisory data. Baseline date: end-June 2019. Scope of consolidation: Consolidated level data for banks headquartered in Trinidad and Tobago (2) and subsidiary level data for the subsidiaries of foreign banks (6).
2. Channels of risk propagation	Methodology	Interbank and cross-border network model by Espinosa-Vega and Solé (2010).
3. Risks and buffers	Risks	Credit and funding losses related to interbank cross-exposures (and cross-border banking exposures). Fire-sale of assets.
	Buffers	Banks' own capital and liquidity buffers.
4. Tail shocks	Size of the shock	Pure contagion: default of institutions. Fire sale haircuts.
6. Reporting format for results	Output presentation	Network analyses with supervisory data. • System-wide capital shortfall. • Bank-level capital shortfall. • Number of undercapitalized and failed institutions, and their shares of assets in the system. Evolution and direction of spillovers.

[1] Hardy, D. C., and Schmieder, C., "Rules of Thumb for Bank Solvency Stress Testing." IMF Working Paper. November 2013.

Appendix III. Nonbanking Sector Stress Testing Matrix (STeM)

Domain		Top-down Stress Test by FSAP Team—Assumptions
Life and General Insurance Sectors: Solvency Risk		
1. Institutional perimeter	Institutions included	Five of the 34 insurance companies, including two Life, two Combined (Life and General) and one General insurance company.
	Market share	Sample represents 74 percent of aggregate insurance liabilities, 88 percent of all investment assets and 58 percent of all premiums. The two Life and two Combined insurance companies represent 77 percent of insurance liabilities, 78 percent of investment assets and 70 percent of premiums. The general insurance company is the largest in the sector, representing 37 percent of general premiums and 22 percent of insurance liabilities.
	Data source and baseline date	Source: Supervisory data. Baseline date: end-June 2019. Scope of consolidation: all entities tested at level of stand-alone insurance company.
2. Channels of risk propagation	Methodology	Balance sheet-based approach.
	Stress test horizon	Tests mirror the approach of the bank stress test scenarios for solvency.
3. Scenarios and sensitivities	Scenario analysis	Scenario-based tests mirror the shocks to risk factors determined for the bank stress test scenarios for solvency. Risk factor variables include shocks to exchange rates, interest rates and asset prices, including if relevant mortgages and real estate.
	Sensitivity analysis	Sensitivity analyses conducted to supplement the scenario analysis. To evaluate sensitivity to movements in single risk factors on capital as of 2019Q2: • Exchange rate risk. • Interest rate risk and bond prices. • Market risk attached to equities.
4. Risks and buffers	Risks/factors assessed	Exposure to changes in valuation of investment assets and insurance liabilities. Exposure to surrender/lapse risks and other insurance risks not feasible in top down exercise with limited data.
	Behavioral adjustments	Balance sheets assumed to be static.

Domain		Top-down Stress Test by FSAP Team—Assumptions
Life and General Insurance Sectors: Solvency Risk		
5. Regulatory and market-based standards and parameters	Calibration of risk parameters	Dovetail with the bank stress test scenarios and sensitivities for solvency.
	Regulatory/ accounting and market-based standards	Post stress capital shortfalls to be measured against existing capital requirements.
6. Reporting format for results	Output presentation	Change in excess assets over liabilities and capital adequacy ratios and number of insurance companies that fall below capital requirements.
General Insurance Sector: Solvency Risk		
1. Institutional perimeter	Institutions included	Three general insurance companies.
	Market share	Sample represents 72 percent of aggregate premiums for property and motor.
	Data Source and Baseline Date	Source: Supervisory data. Baseline date: end-June 2019. Scope of consolidation: all entities tested at level of stand-alone insurance company.
2. Channels of risk propagation	Methodology	Balance-sheet-based approach.
	Stress test horizon	Short term.
3. Scenarios and sensitivities	Scenario analysis	Slow-moving, catastrophic hurricane hitting Trinidad and Tobago directly in June doing damage to extent of probable maximum loss. Two further Category 5 hurricanes in region in August and October consuming reinsurance (if it is regionally exposed). Terms of reinsurance determine reinstatement costs (including point in policy year when events occur). Insurers required to meet reinsurance retentions (on events occurring) from own reserves.
4. Risks and buffers	Risks/factors assessed	Exposure to damage claims arising from severe but plausible set of severe natural disasters.
	Behavioral adjustments	Balance sheets assumed to be static.
5. Regulatory and market-based standards and parameters	Calibration of risk parameters	N/A—exposure determined by terms of reinsurance contracts.
	Regulatory/ accounting and	Post stress capital to be measured against existing and incoming capital requirements.

Domain		Top-down Stress Test by FSAP Team—Assumptions
Life and General Insurance Sectors: Solvency Risk		
	market-based standards	
6. Reporting format for results	Output presentation	Change in excess assets over liabilities and capital adequacy ratios and number of insurance companies that fall below capital requirements.
Investment Fund Sector: Solvency and Liquidity Risks		
1. Institutional perimeter	Institutions included	38 investment funds and the five asset managers that administer them.
	Market share	Sample represents 90 percent of aggregate AUM, including 98 percent of fixed NAV assets. Three of the four fund managers are subsidiaries within a banking group, one is a deemed SIFI, one is a regional insurance SIFI.
	Data Source and Baseline Date	Source: Supervisory data. Baseline date: end-June 2019. Scope of Consolidation: all entities tested at level of stand-alone funds and stand-alone administrator, with aggregate impacts ascertained for their commercial banks and holding company, where bank.
2. Channels of risk propagation	Methodology	Balance-sheet-based approach.
	Stress test horizon	Test parameters mirror the approach of the bank stress test scenarios for solvency.
3. Scenarios and sensitivities	Scenario analysis	Test parameters mirror the approach of the bank stress test scenarios for solvency. Risk Factor variables include shocks to exchange rates, interest rates and asset prices, including if relevant and available, mortgages and real estate. Incorporate two additional risk factors relevant to the country situation: excess client withdrawal/redemption; and additional discount needed to sell local assets in crisis situation.
	Sensitivity analysis	Sensitivity analyses conducted on the investment funds to supplement the scenario analysis. The sensitivity tests evaluate sensitivity of assets to movements in single risk factors on capital as of 2019Q2: • Exchange rate risk. • Interest rate risk and bond prices. • Market risk attached to equities. The results also presented as the extent to which the movements in risk factors create a risk for the administering fund manager group.

Domain		Top-down Stress Test by FSAP Team—Assumptions
Life and General Insurance Sectors: Solvency Risk		
4. Risks and buffers	Risks/factors assessed	Exposure to falls in valuation of investment assets. Exposure to sudden increases in client withdrawal.
	Behavioral adjustments	Balance sheets assumed to be static.
5. Regulatory and market-based standards and parameters	Calibration of risk parameters	Test parameters mirror the approach of the bank stress test scenarios for solvency. Client withdrawal in crisis and discount on fire-sale of local assets drawn from supervisor judgement, previous exercises, and from historical information.
	Regulatory/ accounting and market-based standards	Funds required to meet client withdrawals measured against available liquid assets to determine any shortfall. Withdrawals assumed to be met from liquid assets in the following order: cash, international market assets; local market assets.
6. Reporting format for results	Output presentation	Capital support • Absolute size of support required. Liquidity • Cash withdrawn from commercial bank accounts. • Aggregate amount of local market assets that needed to be sold, amount of cash required from holding companies.

Appendix IV. Implementation of 2010 FSAP Recommendations

Recommendations	Timeframe[1]	Compliance
Fully implement consolidated supervision.	ST	LI
Issue regulation to strengthen capital requirements and establish liquidity risk management standards.	ST	PI
Introduce a procedure for collecting administrative fines imposed by CBTT.	ST	I
Increase frequency and timeliness of disclosure of bank-by-bank financial soundness information.	ST	NA
Expand prudential reporting to include more detailed regular reports on loan classification and provisioning; connected party exposures that do not qualify as large exposures; liquidity; and interest rate risk in the banking book.	ST	PI
Require that CUs report detailed financial data to CBTT.	ST	NA
Acquire more specialist skills in CBTT's bank supervision department, such as operational risk (including IT risk) and anti-money laundering/combating the financing of terrorism (AML/CFT).	MT	PI
Put in place guidelines concomitantly with the new Insurance Act to address the inconsistencies of having both statutory funds and risk-based supervision, while establishing investment limits for statutory funds.	ST	NA
Find a speedy resolution to the CLICO problem.	ST	LI
Implement new rules for valuation of insurance liabilities through CBTT Guidelines for 2010.	ST	PI
Implement formulas for risk-based capital through CBTT guidelines as soon as possible.	ST	PI
Consider reforms to the motor liability insurance system to improve consumer protection and market conduct.	MT	PI
Develop a national financial crisis management plan.	ST	LI
Adopt measures to pay deposit insurance promptly.	ST	NA
Assess the preconditions, parameters and requirements of providing insurance for CU deposits, before deciding how to proceed.	ST	NA
Consider a policyholder protection scheme to guarantee claims under retail-style life and general insurance products in the event of insurer insolvency.	ST	NA
Develop a new law or amend laws for financial institution insolvency to provide for efficient resolution.	ST	NA
Participate in the implementation of the CGBS plan for regional financial crisis management.	MT	LI
Strengthen the supervision of systemically important financial institutions.	ST	PI

Recommendations	Timeframe[1]	Compliance
Continue to improve the capability of CBTT to conduct stress tests of the financial sector.	ST	PI
Broaden the regulatory perimeter.	ST	NA
Strengthen CBTT's powers to regulate the financial sector.	MT	NA
Analyze whether to adopt measures to contain the impact of the failure of systemically important institutions, including through the use of living wills and contingent capital.	MT	PI
Assess the pros and cons of dynamic loan provisioning, before deciding whether to adopt.	MT	I
Begin preparations for adoption of Basel III.	MT	PI

1/ ST short term; MT medium term; I implemented; LI largely implemented; PI partially implemented; NA no action.

Appendix V. Report on the Observance of Standards and Codes: Basel Core Principles for Effective Supervision

A. Introduction

1. **This appendix summarizes the assessment of the implementation of the Basel Core Principles for Effective Banking Supervision (BCP) in Trinidad and Tobago.**[1] The assessment was undertaken by the International Monetary Fund (IMF) and the World Bank (WB) during the October 30 to November 18, 2019 mission, as part of the 2020 FSAP. It reflects the regulatory and supervisory framework in place as of that date. It is not intended to represent an analysis of the state of the banking sector or crisis management framework, which are addressed elsewhere in the FSAP.

2. **Assessing the effectiveness of banking supervision requires a review of the legal framework, and detailed examination of the policies and practices of the institutions responsible for banking regulation and supervision.** In line with the BCP methodology, the assessment focused on the Central Bank of Trinidad and Tobago (CBTT) as the supervisor of the banking system and does not cover the regulation and supervision of other financial intermediaries. The assessment team reviewed the framework of laws, rules, and guidance, and held extensive meetings with authorities and market participants. The team met officials of CBTT, the MoF, DIC, ICATT, BATT, Caribbean Information and Credit Rating Agency, and banking sector participants. The authorities provided a comprehensive self-assessment of the CPs, as well as detailed responses to additional questionnaires, and facilitated access to staff and to supervisory documents and files on a confidential basis.

B. Methodology

3. **The ratings assigned during this assessment are not directly comparable to those from the previous assessment.** The methodology issued by the Basel Committee on Banking Supervision (BCBS) in September 2012 was used for the current assessment and the authorities have opted to be assessed and graded on the essential criteria (EC) only. The prior BCP assessment, conducted in 2010, was based on the 2006 methodology. Since then, the methodology has been revised, leading to some substantive changes.

4. **The 2012 methodology reflects lessons from the global financial crisis (GFC) and emerging supervisory best practices.** New principles have been added to the methodology, along with new ECs for each principle, that provide more detail. Altogether, the revised CPs now contain 247 separate essential and additional criteria against which a supervisory agency may be assessed. In particular, the revised BCPs strengthen the requirements for supervisors, the approaches to supervision, and supervisors' expectations of banks. While the BCPs set out the powers that supervisors should have to address safety and soundness concerns, there is heightened focus on the actual use of the powers in a forward-looking approach through early intervention.

[1] The BCP assessment was conducted by Geraldine Low (IMF external expert) and Ezio Caruso (World Bank staff).

5. The standards were evaluated in the context of the sophistication and complexity of the financial system of Trinidad and Tobago. The CPs must be capable of application to a wide range of jurisdictions, whose banking sectors will inevitably include a broad spectrum of banks. To accommodate this breadth of application, a proportionate approach is adopted within the CP, both in terms of the expectations on supervisors for the discharge of their own functions, and in terms of the standards that supervisors impose on banks. An assessment of a country against the CPs must, therefore, recognize that its supervisory practices should be commensurate with the complexity, interconnectedness, size, risk profile, and cross-border operations of the banks being supervised. In other words, the assessment must consider the context in which the supervisory practices are applied. The concept of proportionality underpins all assessment criteria. For these reasons, an assessment of one jurisdiction will not be directly comparable to that of another.

6. An assessment of compliance with the BCPs is not, and is not intended to be, an exact science. Reaching conclusions requires judgments by the assessment team. Banking systems differ from one country to another, as do their domestic circumstances. Furthermore, banking activities are undergoing rapid change after the crisis, prompting the evolution of thinking on, and practices for, supervision. Nevertheless, by adhering to a common, agreed methodology, the assessment should provide the authorities with an internationally consistent measure of the quality of their banking supervision in relation to the revised CPs, which are internationally acknowledged as minimum standards.

C. Preconditions for Effective Banking Supervision

7. Although Trinidad and Tobago's financial system remains stable, notwithstanding the 2016–17 recession, the overall increase in household debt since 2011, together with high sovereign debt concentrations, could prove problematic if economic conditions worsen. Following the real GDP contraction of 6.3 percent in 2016, driven mainly by the energy sector, the economy of Trinidad and Tobago is slowly recovering. Household debt to GDP increased by about 10 percentage points from 2013 to 2018 and continues to be a potential source of vulnerability to the financial system. As of end-2018, total household debt[2] stood at TT$56 billion, representing roughly 35 percent of GDP. The banking sector accounts for approximately 60 percent of total estimated household debt, with exposures to households at 22.6 percent of total assets (or 160 percent of total capital). Further, domestic sovereign exposures in the banking, insurance, and pension sectors accounted for 29.4 percent of their combined assets at end-2018, which, under a negative shock, could significantly impact the health of financial institutions and the broader financial system.

8. CBTT plays a significant role in promoting and maintaining financial stability. To this end, CBTT works closely with the MoF as well as other domestic regulatory agencies on matters concerning financial stability in Trinidad and Tobago. On matters of systemic importance, the MoF

[2] Household debt comprises credit extended to households from: commercial banks, nonbanks, insurance companies, credit unions, the Home Mortgage Ban, the Trinidad and Tobago Mortgage Finance Co. and other retail merchants. (source: CBTT's "Financial Stability Report 2018," December 2018 footnote 22, page 36).

has worked closely with CBTT in dealing with past financial crises, as well as in the drafting or formulation of any legislation pertaining to financial institutions and financial stability measures. Lastly, the MoF has primary responsibility for all fiscal matters.

9. The Trinidad and Tobago public infrastructure, including its legal system, oversight of professionals, accounting standards, and governance and supervision of other financial markets appear strong, as follows:

a. The legal system of business laws, including corporate, bankruptcy, contract, consumer protection, and private property laws, as well as an independent judiciary, are in place;

b. Professionals (e.g., accountants, auditors, and lawyers) are subject to transparent and ethical standards with oversight by their respective regulatory Boards. Trinidad and Tobago has also adopted International Financial Accounting Standards (IFRS 9) that promote fairness, transparency and accuracy with standards of conduct with oversight by the Institute of Chartered Accountants of Trinidad and Tobago (ICATT). Further, the external auditors are subject to a stringent accreditation standards program overseen by the ICATT;

c. Although the banking and insurance sectors and financial markets have rules for regulation and supervision of entities by CBTT and TTSEC, respectively, some pieces of legislation are currently being updated (e.g., the pending Insurance Act, 2018 (IA) expected to be enacted in the near future);

d. The Credit Bureau of Trinidad and Tobago, originally established in 1985 and is privately owned, provides services to both individuals and financial institutions including: credit bureau reporting (both verbal and written reports), business credit assessments, trade references and company title searches. Although banks rely on this information as part of their underwriting of loans, CBTT neither has access to this credit information nor formally requires banks to make use of it; and

e. Basic economic, financial and social statistics are made available to the public through various government websites but are lacking in some important respects (e.g., quarterly GDP data is unavailable).

10. CBTT regulates and supervises Trinidad and Tobago's national payments systems (NPS) and oversees all payment system providers. The NPS consists of all systems which facilitate the clearance and settlement of payments, including the large-value systems (e.g., the Real Time Gross Settlement (RTGS) system and the government Securities Settlement system) and the retail payment systems (e.g., check clearing and card payment schemes). CBTT has adopted the internationally accepted standards of the Core Principles for Systemically Important Payment Systems.

11. The authorities have dealt with several financial crises in past decades at significant financial cost and the framework for crisis management, recovery and resolution planning is

currently under development. CBTT's legislative framework includes a range of resolution tools, including CBTT's special emergency powers for resolving financial institutions in crisis.[3] CBTT is currently rolling out its recovery and resolution planning requirement to all SIFIs. CBTT has drafted a National Crisis Management Plan that proposes arrangements for the coordination of TTSEC, DIC, and the MoF in times of crisis. Further, CBTT, in its capacity as one of the lead supervisory authorities operating in the Caribbean region and as a member of the CGBS, has provided input into the draft Regional Crisis Management Plan that includes the collaboration and coordination of 15 representative countries.

12. The DIC is well funded but the deposit insurance limit has not proven binding. The DIC's mandate includes the collection of annual deposit insurance premiums, the accumulation and management of an ex ante deposit insurance fund (TT$3.5 billion as at June 30, 2019), paying insured deposits and acting as receiver or liquidator of insolvent financial institutions. The current level of the fund represents about 11 percent of insured deposits and about 3 percent of total domestic deposits. DIC's charter does not provide for the authority to conduct its own independent onsite assessment of the financial soundness of its member banks, therefore DIC relies heavily on the information provided from CBTT. The CBTT Governor is DIC's Chairman of the Board and includes four other Board members. All Board members are appointed by the MoF. Trinidad and Tobago has a recurring history of the government bailing out creditors of failed financial institutions (including banks, insurers, and a credit union). Most recently, the DIC paid out the creditors of the failed CLICO investment bank using government funds.

13. CBTT has wide authority to provide ELA, exposing the central bank to potentially undue risks. CBTT may provide immediate liquidity assistance to commercial banks via repurchase agreements, lending via the discount windows or collateralized loans.[4] In addition, CBTT can provide uncollateralized support to a bank, as necessary, to prevent its failure where there is a threat to the financial system of Trinidad and Tobago.[5] Such unsecured lending could expose CBTT to undue financial risks.

14. Although banks have implemented IFRS9, Basel II Pillar 3 disclosure requirements need to be implemented to improve transparency of information to market participants. The accounting, auditing and financial reporting requirements are governed by various corporate laws and the ICATT. Banks fully implemented IFRS9 internationally accepted accounting standards, effective January 1, 2018. TTSEC requires listed companies to produce, publish and file quarterly and annual financial statements. Although banks not listed with the TTSEC are required to file annual audited financial statements (per S. 80 of the FIA), most banks operating in Trinidad and Tobago place quarterly and annual financial information on their websites.

[3] S. 44D of the Central Bank Act (CBA).

[4] S. 36 (1) of the CBA.

[5] 44D (1)(v) and 44(D)(2) of the CBA.

D. Main Findings

Responsibilities, Objectives, Powers, Independence (CPs 1–2)

15. CBTT's independence is limited by the extensive role of the MoF in the supervisor's governance, decision making, and internal organization. CBTT does not have the power to set prudential criteria (FIA S. 9) and the process to update regulations takes excessively long, impinging on CBTT's ability to maintain supervisory standards that remain effective and relevant to changing industry and regulatory practices. The FIA allows the MoF to: (i) make regulations to set prudential criteria (S. 9); and (ii) to intervene in the supervisory decision-making process: for example, CBTT needs to consult the MoF before approving or refusing a banking license (S. 21); the MoF could also prescribe criteria for CBTT's approval of banks' branch and representative offices (S. 50). Furthermore, the Central Bank Act (CBA) enables the MoF to approve CBTT rules "for its internal administration and management" and its Code of Ethics, as well as to request information on salary, organizational structure, and vacant positions.

Licensing, Changes in Control, and Acquisitions (CPs 4–7)

16. The licensing and approval processes are generally sound but requires some improvements. Although banking applications are infrequent, CBTT conducts a robust assessment of the license applications challenging the business plans and the financial projections. However, there is no prohibition against borrowing the required initial capital. Further, CBTT's approval threshold of 10 percent for a change in significant ownership needs to be extended to a potential buyer that is not an 'acquirer' (financial entity or its controlling or significant shareholder), for which the threshold is currently too high at 20 percent.

Supervisory Cooperation, Consolidated and Cross-Border Supervision (CPs 3, 12, and 13)

17. CBTT should create a formal mechanism to strengthen the sharing of SIFI information with domestic agencies that is pertinent to the financial health of systemic banks. It is important that agencies discuss views on both emerging risk issues (macroprudential risks) together with potential impacts on the health of SIFIs (microprudential impacts), in order to take timely financial stability measures during normal times and in the lead up to a major bank failure to protect the stability of Trinidad and Tobago's financial system.

18. Recovery and resolution plans, together with resolvability assessments, need to be conducted and relevant aspects shared with both domestic and foreign regulators. Further, it is key that the draft National Crisis Management Plan and the draft Regional Crisis Management Plan be finalized, as well as the development of internal crisis management operational preparedness measures be put in place. CBTT must also ensure all MoUs are up to date and include appropriately detailed provisions for the ongoing flow of information.

19. Given the nature of the interconnectedness of the financial groups that operate both domestically and internationally, CBTT should continue with its efforts to enhance consolidated supervision. CBTT introduced a Consolidated Supervision Framework in 2016 (for internal purposes), rolled out enhanced data requirements for banking groups and conducted several joint onsite examinations with key foreign regulators. More emphasis is required on the cross-sector analysis of financial entities within financial groups (e.g., investment funds, insurance) to ensure a group level risk assessment view by CBTT. Further, key initiatives are currently being rolled out (e.g., the Internal Capital Adequacy Assessment Process (ICAAP) and Liquidity Coverage Ratio (LCR)) at the group level that will need attention.

Supervisory Approach (CPs 8–10)

20. CBTT's risk-based supervisory framework, needs to be updated to reflect enhanced supervisory requirements for SIFIs. Although CBTT has identified SIFIs within the banks/banking groups and contemplated a capital surcharge back in 2014, CBTT has not required additional prudential requirements nor articulated an enhanced supervisory framework for SIFIs (e.g., communicated the need for enhanced monitoring, formalized data requirements, etc.). While CBTT's risk-based supervisory framework is comprehensive, some aspects of the process are too labor intensive[6] and should be streamlined to make the best use of its supervisory resources. Further, CBTT's Banks, Nonbanks Supervisory Unit's resources should be augmented, given its broad mandate to supervise SIFIs, banks and nonbanks, oversee "Deemed SIFIs" as well as develop regulatory guidance.

21. CBTT's current mix/frequency of onsite examinations and offsite surveillance for SIFIs, timeliness of the release of examination reports, and direct access to banks' Boards needs to be strengthened. Specifically, CBTT needs to strengthen its supervisory assessments of SIFIs to include more frequent onsite supervision of banks' strength in overall risk management and internal control systems, focusing on the key risk areas of credit, market, interest rate risk in the banking book (IRRBB), foreign exchange, and liquidity. Further, CBTT should ensure that the onsite examination reports are completed and released on a timely basis to ensure banks quickly address key examination findings. In addition, given CBTT's current practice to not meet with the full Boards of the banks (e.g., CBTT currently meets with the Chairs of Audit and Risk Committees), to enhance its level of contact with the Boards, CBTT should determine the criteria as to when it would meet with the full bank's Board/independent representatives (e.g., to discuss the findings of onsite examinations, to share key emerging and strategic risk information, as well as to ensure the Board's continued understanding of CBTT's regulatory and supervisory expectations).

22. CBTT should reassess the adequacy of regulatory data that is being collected to ensure that supervisors have access to all the necessary risk data. Data on liquidity, market, foreign currency, IRRBB, country risks, and exposures to related parties should be included or enhanced as appropriate. In addition, any pertinent data that is being collected by CBTT (e.g., data that the Statistics Unit or the Research Department collects) should be made available to supervisors, if

[6] Certain aspects of the supervisory framework appear labor-intensive (e.g., the review of quarterly Board minutes, the production of extensive section notes which are produced either as part of the monitoring or onsite examination framework, the supervisory planning document, etc.) could be streamlined to free up resources to cover other aspects of the supervisory framework.

relevant. Further, CBTT's data validation mechanisms will benefit from the future planned adoption of an electronic software system versus some of the manual verification and validation processes currently in place.

Corrective and Sanctioning Powers of Supervisors (CP 11)

23. Although CBTT has an adequate range of legislative powers to take corrective measures in dealing with problem banks, it should formalize its internal reporting and release its ladder of intervention document to the banks. CBTT should augment its reporting processes for tracking problem financial institutions through an aggregate report on all banks being monitored to both the Inspector (the individual responsible for the supervision of financial institutions at CBTT), and to CBTT's Governor/Board to ensure operational preparedness to deal effectively in practice with emerging risk issues. Moreover, CBTT should contemplate releasing its "Ladder of Intervention" to the banks to clarify what corrective measures CBTT may utilize depending on the risk profile of the problem bank.

Corporate Governance and Internal Audit (CPs 14 and 26)

24. CBTT's Corporate Governance Guideline (2007) is outdated and does not capture several essential elements, including the need for banks' Board-approved risk appetite frameworks. CBTT is currently developing a new Corporate Governance Guideline, expected to be released in 2020, which will address the requirements for Board-approved risk management policies and practices, as well as articulate internal audit and compliance functions. Once the new Guideline is released, CBTT should undertake a full-scope review of banks' corporate governance frameworks, at least for the more complex banks, as well as improve its direct contact with Boards, including independent Board members, to ensure banks' compliance with the new corporate governance requirements.

Capital (CP 16)

25. Laws, regulations, and prudential standards pertaining to banks' capital adequacy requirements have not been updated as necessary to ensure they remain effective and relevant to changing industry and regulatory practices. Although CBTT is in the process of introducing the Basel II capital framework for banks, banks are subject to Basel I capital adequacy requirements. The Draft Capital Regulation, soon to be promulgated by parliament, will bring into force the new Basel II capital adequacy requirements for banks. Banks have been required to report capital requirements under both frameworks on a parallel run basis for close to two years. Further, CBTT's Basel Policy Paper 'Phase 2', published early November 2019 outlined banks' requirements to prepare ICAAPs (based on nature, size, and complexity of the bank) as well as introducing a new leverage ratio, a capital conservation buffer, and Pillar 3 disclosure requirements. Further amendments to the Draft Capital Regulations were released for public consultation on November 26, 2019 proposing, among others, adjustments to risk weights for certain national discretion items and a capital surcharge for SIFIs.

Credit Risk and Problems Assets, Provisions and Reserves (CPs 17–18)

26. Although total NPL levels remain relatively low at 3.4 percent, as at end-June 2019, CBTT should be vigilant in its assessment of the quality of banks' underwriting and asset classification practices. As at end-June 2019 past-due loans (1 to 89 days) amounted to TT$3.2 billion or 4.5 percent of total commercial loans. Further, there was a continued rise in higher risk consumer-refinanced (TT$2.4 billion) and debt consolidation loans (TT$2.6 billion), which together represented 15 percent of commercial banks' total consumer loans of TT$33.3 billion. Given the current level of past-due loans and the continued increase in consumer-refinanced and debt consolidation loans, CBTT should conduct an in-depth thematic credit review to assess their potential impact on the currently reported low NPL levels of 3.4 percent of total loans in the banking sector.

27. CBTT needs to reassess its onsite credit examination program to ensure adequate coverage of all SIFIs as well as updating guidance currently available to banks. CBTT conducted an in-depth thematic credit review in 2016–2017 at five of the largest commercial banks, which indicated at that point in time that banks were maintaining adequate underwriting standards for both consumer and commercial lending. CBTT has also conducted some touch-point follow-up onsite examinations, as well as monitored banks' progress in identifying any deficiencies found at that point in time. CBTT needs to ensure continued adequate assessment of credit risk management practices at the SIFIs on a more in-depth and frequent basis. Further, CBTT's credit risk guidance is spread over several outdated guidelines and, therefore, it should be a priority for CBTT to develop and release an updated credit risk management guideline to banks.

28. Although IFRS 9 accounting standards have been implemented by all banks, CBTT needs to update its current guidance on the measurement, monitoring and control of impaired assets. Further, given CBTT currently places its reliance on the external auditor to assess the adequacy of banks' expected loss credit risk models, as well as the models for valuation of Level 2/3 assets, CBTT should ensure supervisors have a good understanding of banks' credit risk management practices.

Risks (CPs 19–25)

29. CBTT may wish to reassess the adequacy of its large exposure limits for banks that operate in multiple jurisdictions in the Caribbean region to align with international standards, where appropriate. CBTT may wish to consider recalibrating the large exposure limits to be based on Tier 1 capital versus total capital. Further, CBTT may wish to reconsider certain exemptions currently in place (the trading book and the inter-banking exposures) to ensure that banks' exposures to concentration risk are adequately measured and captured.

30. CBTT needs to enhance its monitoring of banks' market risk exposures as well as update its supervisory framework to ensure an in-depth understanding of banks' market risk management policies, processes, and systems. Specifically, CBTT needs to develop guidance around expectations of banks' use of models, valuation practices, and stress testing. Supervisory practices need to be developed to ensure adequate oversight by CBTT of the strength of banks' market risk management practices.

31. **CBTT should develop a guideline on IRRBB and update its supervisory framework to ensure an in-depth understanding of bank's interest rate risk management policies, processes, and systems**. At a minimum, CBTT's IRRBB guidance should set minimum requirements for asset-liability management, including diversification, setting target levels for interest margins, limits for off-balance sheet items sensitive to interest rate changes, establishing procedures for setting interest rates on deposits and other liabilities, and permissible limits of maturity gaps of the bank's assets and liabilities. Supervisory practices need to be developed to ensure adequate oversight by CBTT of the strength of banks' interest rate risk management practices.

32. **Although CBTT has minimum prudential liquidity reserve requirements for banks, it does not yet have in place risk-based liquidity requirements**. CBTT is expected to release a Liquidity Risk Guideline outlining banks' requirements that, among other things, will establish an LCR for banks. In addition, this new guidance should ensure banks use an appropriate range of tools to measure liquidity risk, including bank's capability to aggregate key liquidity risk information on a timely basis at a group level. Funding strategies, together with contingency liquidity arrangements, should be Board-approved and tested under various stress scenarios. Further, CBTT should contemplate adopting the net stable funding ratio (NSFR) Basel III requirements, given the need for banks to assess, and for CBTT to be aware of, banks' longer-term funding horizon.

33. **CBTT needs to develop a guideline on banks' Operational Risk Management frameworks that would encompass banks' requirements to mitigate existing areas of operational and technological risk**. Specifically, CBTT needs to update its current draft Outsourcing Guideline, formulate expectations around recovery and business resumption planning, IT systems, security and integrity of data, and managing and escalating cyber-risk attacks.

34. **The CBTT's technical risk expertise should be strengthened**. Given the need to develop risk guidance for banks and to enhance CBTT's supervisory practices around market risk review procedures specifically, it is essential that CBTT secure industry experience to help build the necessary expertise to assess and challenge banks' practices in this regard. This technical risk expertise should also be able to provide CBTT with support in the other risk areas of IRRBB and liquidity risk.

Disclosures and Transparency (CPs 27–28)

35. **Although all banks fulfill disclosure requirements in accordance with IFRS9, CBTT should work toward adopting Basel II Pillar 3 disclosure requirements**. The Financial Institution Capital Adequacy Regulation (2018) (Draft Capital Regulation), awaiting promulgation by parliament, as well as CBTT's Circular announcing in its draft policy paper "Phase 2—Basel II and III implementation" released November 2019, both outline CBTT's intention to move toward banks' compliance with Pillar 3 disclosure requirements. The Draft Capital Regulation will confer to CBTT

the power to specify which information banks would have to disclose that would strengthen key information for market participants.

Abuse of Financial Services (CP 29)

36. Many recent changes in the legislative and supervisory guidance have augmented the need for banks to effectively comply with all AML/CFT requirements. Many pieces of legislation pertaining to financial institutions' AML/CFT compliance requirements were updated or introduced in 2018–19 (e.g., amendments to the Companies Act, May 2019 to address deficiencies regarding the adequacy, accuracy, and timeliness of obtaining key beneficial ownership information). Further, CBTT updated its AML/CFT Guideline effective April 2018, which strengthened its expectations regarding banks' AML/CFT regulatory and supervisory requirements, including the requirement to have group-level AML/CFT compliance.

37. CBTT needs to conduct regular onsite examinations to secure an independent "supervisory view" of the degree of banks' compliance. In addition to the internal and external auditors' reviews of banks' self-assessment against AML/CFT legislative and supervisory requirements, CBTT must continue with its efforts to roll out its AML/CFT risk-based supervisory program. Together with the assistance of CBTT's AML/CFT experts, it will be key for supervisors to independently confirm banks' compliance with AML/CFT requirements.

38. CBTT should address any outstanding recommendations made by the Caribbean Financial Action Task Force (CFATF) that are specifically related to banking supervision and to reassess the adequacy of its current AML/CFT expertise. CBTT should introduce monetary sanctions for noncompliance with AML/CFT requirements. In addition, CBTT should continue its efforts to address any remaining gaps highlighted in the FATF Mutual Evaluation Report of June 2016 and successive follow-up reports, most recently in June 2019, that relate directly to banking supervision. Further, given CBTT's broader oversight of AML/CFT compliance in other sectors (e.g., insurance), CBTT needs to reassess the adequacy of its AML/CFT expertise to ensure adequate coverage for banks.

E. Authorities' Response to the Assessment

39. The CBTT appreciates the detailed assessment of its banking system against the Basel Core Principles conducted by the FSAP team and takes careful note of the recommendations made to improve oversight of the banking system and by extension financial stability. The CBTT acknowledges that several of the recommendations were identified in the Bank's 2016/17–2020/21 Strategic Plan and were in various stages of progress. Such initiatives include the implementation of Basel II/III, development and/or update of guidelines for inter alia corporate governance, credit, market, operational and liquidity risk management, guidelines for the designation and enhanced oversight of SIFIs, improvement of the stress testing regime, and finalizing of the National Resolution/Crisis Management framework. Consequently, we shall take on board the recommendations made in this assessment to ensure that the frameworks and guidelines developed are robust.

F. Summary Compliance with the Basel Core Principles

Core Principle	Comments
1. Responsibilities, objectives, and powers	CBTT lacks powers to make regulations to set prudential criteria. Regulations are made by the MoF and are subject to negative resolution of Parliament (FIA S. 9). There is evidence that the process takes a long time (for example, the Capital Adequacy Regulation is still in draft) and this impinges on the ability of the regulation to remain effective and relevant to changing industry and international standards.
2. Independence, accountability, resourcing, and legal protection for supervisors	Two members of CBTT's Board are "public service directors." Neither the CBA nor FIA formally prescribe CBTT's independence in the legislation. Several provisions in the law allow the MoF to intervene in the supervisory mandate and in the internal organization of CBTT. There has been a reduction in the resources devoted to the Bank, Nonbank Unit over the past several years, and the Unit requires additional staff to effectively fulfill its mandate. The Act does not require public disclosure of the reasons for terminating the governor's appointment.
3. Cooperation and collaboration	CBTT does not have a mechanism/committee where domestic agencies are able to discuss views on emerging risk issues and potential impacts on the health of financial institutions, at a minimum for SIFIs during normal times and in the lead up to a major bank failure. CBTT does not have industry guidance outlining requirements for all SIFIs to have recovery and resolution plans in place (crisis contingency plans for smaller banks). CBTT has not shared the relevant aspects of the plan they have received with domestic and foreign authorities as part of its crisis preparedness framework. CBTT's National Crisis Management Plan is in draft. Both it, and the Regional Crisis Management Plan (which requires continuing regional coordination to complete), once finalized would be of particular importance to manage a major bank failure were it operating solely in Trinidad and Tobago or a conglomerate operating in multiple jurisdictions in the Caribbean region.
4. Permissible activities	Nonbank financial institutions as defined in the FIA can use the word "bank'' in their name and can take deposits with maturities longer than one year. However, the share of deposits taken by nonbanks is limited (less than 3 percent), and they are subject to a regime of licensing and prudential supervision equivalent to that for commercial banks.
5. Licensing criteria	Applicants can borrow funds to meet the initial minimum capital requirement (TT$15 million) for a new bank, which could inappropriately increase the bank's leverage. Further, given the recent amendment to the Companies Act (May 2019) regarding the changes to the definition of ultimate beneficial ownership (UBO), CBTT needs to assure itself that applicants are able to provide accurate and timely UBO information, both at the time of application and on a go-forward basis. New F&P Guidelines recently came into force and have the potential to strengthen the suitability test of key individuals particularly when it comes to conflict of interest and time commitment issues.

Core Principle	Comments
6. Transfer of significant ownership	When the potential buyer is not an 'acquirer,' the current threshold (20 percent) that requires CBTT's approval of a change in a significant shareholder is considered much higher than in other jurisdictions. This change will strengthen CBTT's ability to scrutinize all requirements of fitness and propriety to cases where the proposed shareholders that are not considered an 'acquirer' by definition might negatively influence the banks' decision-making processes.
7. Major acquisitions	S. 44 and 45 of the FIA, together with s. 73 and 74, adequately outline various criteria that CBTT takes into consideration when assessing a proposed merger transaction, which includes among other things that the combined 'market share' or the size and concentration of economic power in the combination of the proposed acquirer and the licensee does not pose a risk to the financial system at large or deter from CBTT's ability, in general, to supervise the new combined entity. CBTT should consider explicit criteria (for all entities not just Financial Holding Companies (FHCs) or a bank that is the parent company of a financial group) for assessing whether it's ability to effectively supervise the new combined entity would be hindered in any way.
8. Supervisory approach	CBTT's risk-based supervisory framework is comprehensive, however CBTT's Bank Inspection Manual (2003) is outdated and it does not reflect current supervisory practices. Certain supervisory processes appear to be labor intensive thereby limiting availability of resources to concentrate on other key aspects of supervision. The Banks and Nonbanks Supervisory Unit resources are insufficient given the mandate to supervise SIFIs, banks, nonbanks, to oversee CBTT's requirements for "Deemed SIFIs," as well as undertaking the development of regulatory guidance. CBTT has not undertaken resolvability assessments of banks that is key to ensuring the effective resolution of a bank, especially a large conglomerate. Although CBTT has identified SIFIs within the banks/banking groups, it has not contemplated a capital surcharge or other additional prudential requirements, nor has CBTT articulated an enhanced supervisory framework (e.g., communicate to SIFIs the need for enhanced monitoring, formalize new data requirements, etc.).
9. Supervisory techniques and tools	CBTT makes good use of the information that it collects to analyze the risk profile of the banks. CBTT's onsite supervision program for banks, especially for SIFIs, does not provide for adequate coverage of the assessment of all key risks (credit, market, interest rate risk in the banking book, foreign exchange, and liquidity), including the overall risk management and internal control systems. CBTT's onsite examination reports are not completed and released to the banks on a timely basis, nor does CBTT meet with banks' Boards on a consistent basis.

Core Principle	Comments
10. Supervisory reporting	CBTT's regulatory data being collected does not necessarily include all key risk data (liquidity, market, foreign currency, interest rate risk in the banking book, etc.). In some instances (e.g., liquidity), regulatory reporting is lacking. Further, data collected for stress testing purposes is not necessarily being actively shared with the supervisors. CBTT's data validation mechanisms will benefit from the future planned adoption of an electronic software system to replace some of the manual verification and validation processes currently in place.
11. Corrective and sanctioning powers of supervisors	CBTT has an adequate range of legislative powers to take corrective measures in dealing with problem financial institutions. CBTT lacks a practical internal guide to deal with a problem bank/banking group, at a suitably early juncture, well before failure. Although informal communication channels within CBTT work effectively, CBTT does not have formal internal reporting mechanisms (such as formal reporting to the Inspector/Governor or CBTT's Board on CRA rated three banks, for instance) to ensure that operational preparedness is working effectively. The banks are unaware of CBTT's process for using enforcement or corrective measures as outlined in CBTT's internal Ladder of intervention table to the banks.
12. Consolidated supervision	CBTT has introduced a Consolidated Supervision Framework in 2016, including the collection of key data, conducting joint examinations with foreign regulators, and sharing/receiving key quantitative and qualitative information from foreign regulators. Several key components of the Consolidated Supervision Framework do not include the group level Internal Capital Adequacy Assessment Process (ICAAP), liquidity prudential requirements (LCR) and the ability for CBTT to collect key risk data on a group wide basis (e.g., net cumulative cash flow). Further, there is no requirement for group level recovery and resolution plans or resolvability assessments as part of the consolidated supervision framework. Although CBTT currently collaborates well with other relevant supervisors (e.g., insurance and TTSEC), CBTT's risk-based supervisory framework does not analyze all types of entities in the group from the various sectors (e.g., insurance and securities entities).
13. Home-host relationships	CBTT has put in place informal mechanisms to share key quantitative and qualitative bank and banking group information with host regulators. At this time, CBTT does not share pertinent information with host regulators regarding group wide recovery and resolution plans (one has been completed for the largest bank SIFI). Further, the CGBS has not finalized the Regional Crisis Management Plan. MoUs should be updated to include appropriately detailed provisions for the ongoing flow of information.
14. Corporate governance	CBTT's Corporate Governance Guideline, 2007 is outdated and does not sufficiently emphasize the Board responsibility to approve a risk appetite. CBTT is working toward developing a new Corporate Governance Guideline.

Core Principle	Comments
	FIA prescribes only one mandatory Committee (Audit). While in a small or medium bank this could be proportionate, it may be more appropriate for CBTT to mandate additional key committees for SIFIs (such as a Risk Committee). CBTT does not appear to conduct full-scope onsite examinations to review the strength of senior management and the Board. CBTT contact with Board representatives are limited and a thematic review on corporate governance, originally scheduled for 2020, was postponed. Finally, CBTT has not implemented standards on remuneration, and has never carried out any supervisory activity on remuneration.
15. Risk management process	Guidance is lacking on CBTT's expectations on bank's risk management practices concerning a number of key risk areas (market risk, interest rate risk in the banking book, operational risk, and liquidity risk). The risk management function has, to date, not been requested to develop ICAAP, internal liquidity adequacy assessment processes (ILAAP), recovery and resolution planning, forward-looking stress test programs commensurate with their risk profile and systemic importance, as an integral part of their risk management processes. CBTT has not issued detailed requirements on risk data aggregation and reporting. Current guidance does not require the risk management function to be subjected to regular review by the internal audit function. There is no requirement that larger or more complex banks have a dedicated risk management unit overseen by a Chief Risk Officer.
16. Capital adequacy	Although CBTT is in the process of putting in place Basel II capital adequacy requirements for banks, banks are still subject to a Basel I capital framework A Financial Institutions (Capital Adequacy) Regulations 2018 (Draft Capital Regulations) is currently awaiting promulgation by parliament, which will bring CBTT's capital adequacy requirements of banks from a Basel I to Basel II regime. In addition, CBTT's recently released draft policy paper entitled "Phase 2—Basel II and III implementation" (November 2019), announces the introduction of Pillar 2 requirements, ICAAP, the leverage ratio, the capital conservation buffer and Pillar 3 disclosure requirements. Further, recently proposed amendments to the Draft Capital Regulations indicate that CBTT will introduce a capital surcharge for SIFIs as well as address concerns related to certain national discretion items.
17. Credit risk	Although CBTT has carried out extensive onsite thematic reviews at all of the SIFIs three years ago, including making use of an internal credit risk expert/consultant, consistent coverage of onsite credit examinations is lacking. CBTT's credit risk management guideline for banks is outdated and lacks clearly articulated expectations on bank's credit risk underwriting practices in one guideline. It is noted that as there has been an increase in both past-due loans and the substantial increase in consumer refinanced and debt consolidation loans for commercial banks, CBTT is in the process of conducting in-depth credit reviews the banks to assess the adequacy of banks' current asset classification systems.

Core Principle	Comments
18. Problem assets, provisions, and reserves	Although IFRS 9 accounting standards have been implemented effective January 1, 2018, CBTT's current guidance is outdated and does not reflect the new requirements (e.g., CBTT's Guideline for the Measurement, Monitoring and Control of Impaired Assets, July 2007). CBTT currently places some reliance on external auditors to assess the adequacy of bank's provisioning, including bank's expected loss credit risk models (and classification systems, etc.). CBTT currently does not have a good understanding of bank's credit risk models and overall credit risk management practices.
19. Concentration risk and large exposure limits	Banks are required to have policies and processes on concentration risk and the law holds the Board accountable for ensuring that the banks' management information system is adequate to identify and monitoring large exposures. CBTT does collect and assess data received from regulatory reporting on large exposure (CB105). Concentration risk toward sovereigns reached 20 percent of total assets. Recent amendment to FIA (S. 421A) might increase the banking systems' exposures.
20. Transactions with related parties	The Law provides a broad definition of connected parties and capture all the actors in principle able to extract private benefits form the bank. However, certain requirements (arm's-length principle and Board approval) in the legislation mainly focus on related-party lending, rather than related-party transactions, which could result in abuse related to these transactions. Not all limits are monitored by CBTT as loans to directors are not reported as part of the regulatory return. Government credit exposures were recently excluded from the definition of "connected party," with potentially relevant impact for lending to state-own enterprises. An amendment in the wording of the FIA is required to ensure that government exposures continue to be undertaken using the arm's length principle and criteria for approval. The exemption exposures to fully-owned subsidiaries and to a holding company or an FHC, which is itself a licensee or a permit holder, is questionable since it might lead to abuse in intra-group transactions.
21. Country and transfer risks	Although CBTT does have a general expectation that banks take into account country and transfer risk as part on the risk management policies and practices, it lacks guidance to banks on the identification, measurement, evaluation, monitoring, reporting and control or mitigation of country risk and transfer risk. Although some regulatory reporting requirements are in place, CBTT however, is not conducting onsite reviews around the strength of bank's risk management processes pertaining to bank's exposures to country risk and transfer risk.

Core Principle	Comments
22. Market risk	CBTT's reliance on the view of external auditors' bank's market risk management practices, including the IFRS 9 valuation of market risk exposures, provides only one level of assurance. CBTT does not monitor bank's market risk exposures nor do supervisors have a view on the strength of bank's market risk management policies, processes and systems. CBTT does not have guidance on bank's market risk management policies and practices, including guidance on the use of models for valuation and stress testing purposes. CBTT does not currently conduct onsite examinations of banks' systems and controls to ensure that banks marked to market positions are properly valued and revalued frequently. CBTT does not have a market risk expert who could assist in the roll out of new guidance in deficient risk areas (e.g., to cover IRRBB, liquidity and all aspects of market risk including foreign currency and country risk exposures).
23. Interest rate risk in the banking book	CBTT is planning on issuing a new guideline on Management of IRRB in the coming months. CBTT currently has no minimum requirements for asset-liability management, including diversification in the sources and tenor of funding, setting target levels for interest margins, limits for off-balance sheet items sensitive to interest rate changes, establishing procedures for setting interest rates on deposits and other liabilities, and permissible limits of maturity gap of the bank's assets and liabilities. CBTT's proposed new Stress Testing guideline is expected to introduce requirements for bank's stress testing programs to include the testing of IRRBB for risk management purposes.
24. Liquidity risk	At present, CBTT does not place any qualitative nor quantitative liquidity requirements on licensees to, for example, limit maturity mismatches; nor are they subject to any supervision of estimated cash flows. CBTT does track bank's compliance with the reserve liquidity requirements against the limits outlined in the law (per s. 57 of the FIA) as well as track some liquidity coverage ratios as part of bank's regulatory reporting on a quarterly basis, which is factored into the supervisor's overall risk assessment. CBTT currently has high-level requirements for banks to have policies and procedures in place for risk management purposes. CBTT does not conduct onsite examinations of bank's overall liquidity risk management policies and practices. CBTT is working on developing a Guideline on "Liquidity Risk Management," which will introduce the requirement for the Liquidity Coverage Ratio (LCR). CBTT should also contemplate adopting the NSFR Basel III requirement given the need for banks to assess and for CBTT to be aware of bank's longer-term liquidity horizon. CBTT's risk-based supervisory framework does not currently reflect the need for supervisors to examine bank's liquidity risk management policies and practices. CBTT is currently collection of liquidity data will need to meet future data needs to support LCR and other key liquidity information. Current relevant liquidity data collected by the Statistics Unit is not shared with the supervisors.

Core Principle	Comments
25. Operational risk	CBTT's currently developing a new Guideline on the "Operational Risk Management" that should encompass all topics including governance, outsourcing (reliance on cloud service providers), IT systems, security of customer data, disaster recovery and business continuity plans, monitoring and management of cyber risk). CBTT's current onsite examination framework and offsite surveillance programs to assess bank's operation risk frameworks do not necessarily cover all of these key areas.
26. Internal control and audit	Regulatory framework for the internal audit function is currently contained in several different guidelines and should be rationalized. The roles and responsibilities for the Compliance Function, need to be defined beyond the AML/CFT requirements. No definition for independence of the Internal Audit function (e. g. should add no conflict of interest requirement, remuneration structure not related to the performance of the business lines, etc.).
27. Financial reporting and external audit	Financial statements are prepared in accordance with internationally accepted accounting standards (IFRS 9) and duly audited by a certified auditor, on an individual basis and on a consolidated basis. The agenda of bilateral meetings with External Auditors is relatively limited.
28. Disclosure and transparency	Audited Financial Statements are the main source of disclosure for banks. Basel II, Pillar 3 disclosure requirements are expected to be implemented by CBTT.
29. Abuse of financial services	There are many recent changes/enactments in AML/CFT legislation and the issuance of CBTT's new guideline. CBTT is in the process of rolling out its new risk-based AML/CFT supervisory methodology to all banks. CBTT should introduce monetary sanctions for banks' noncompliance with AML/CFT requirements (as planned). CBTT's AML/CFT experts are stretched given the need to roll out an AML/CFT supervisory program for insurance companies.

G. Recommended Actions to Improve Compliance with the Basel Core Principles and the Effectiveness of Regulatory and Supervisory Frameworks

Reference Principle	Recommended Action
Principle 1	• Confer to CBTT the power to make regulations to set prudential criteria (amend FIA S. 9).
Principle 2	• Enshrine CBTT independence in the law and remove MoF representation on CBTT's Board. • Reassess areas within the FIA and CBA where CBTT should possess the power to make approvals relating to operational and financial independence, as well as the regulatory approvals concerning banks. • Prescribe public disclose of reasons for the termination of appointment of the governor.
Principle 3	• Create a mechanism/committee where domestic agencies are able to discuss views on emerging risk issues impacts on SIFIs. • Roll out requirement for SIFI recovery and resolution planning, develop supporting guidance and share relevant aspects of the plans with domestic and foreign authorities. • Finalize draft National Crisis Management Plan.
Principle 4	• Prevent nonbank financial institutions from using the word "bank."
Principle 5	• Change initial capital injection requirement by bank applicants to not permit the use of borrowed funds. • Reassess the adequacy and timeliness of ultimate beneficial ownership (UBO) information being received by applicants.
Principle 6	• Reduce the threshold that triggers for a CBTT significant shareholder authorization from 20 percent to 10 percent, whenever the potential buyer is not an acquirer.
Principle 8	• Update its Bank Inspection Manual (2003) to reflect current supervisory practices and streamline the documentation process to make better use of its limited resources. • Increase the supervisory resources of the Banks and Nonbanks Supervisory Unit, given its mandate to supervise SIFIs, banks and nonbanks, to examine the affairs of "Deemed SIFIs," as well as undertake the development of regulatory guidance. • Undertake resolvability assessments now of its banks to ensure the effective resolution of a bank. • Develop SIFI prudential supervisory framework for enhanced monitoring.
Principle 9	• Reassess mix of onsite and offsite examinations to ensure adequate coverage of risk in SIFIs. • Improve timeliness of the release of examination reports.

Reference Principle	Recommended Action
	• Determine when CBTT should meet with representatives of banks' Boards, including independent Board members.
Principle 10	• Reassess the adequacy of regulatory risk data and reporting. • Ensure the implementation of the new electronic software data validation system.
Principle 11	• Develop a practical internal guide to deal with a problem bank/banking group, including formalizing internal reporting mechanisms to ensure operational preparedness. • Finalize and release the ladders of intervention corrective measures to the banks.
Principle 12	• Reassess key risk data currently collected from conglomerates to align with group level assessment requirements (e.g., LCR, ICAPP, Liquidity—net cumulative cash flow). • Develop group-level recovery and resolution plans, including resolvability assessments that incorporate all sectors of operations (e.g., insurance, investment funds). • Update the risk-based supervisory framework/matrix to ensure the adequate analysis of all types of entities in the group.
Principle 13	• Share relevant information on group-wide recovery and resolution plans once developed. • Assist the CGBS in finalizing the draft Regional Crisis Management Plan. • Ensure all MoUs are up to date and include appropriately detailed provisions for the ongoing flow of all information, including bank's compliance with AML/CFT requirements.
Principle 14	• Revise the new Corporate Governance Guideline to address requirements for banks to have a risk appetite framework. • Introduce minimum mandatory Board Committees for SIFIs (e.g., Risk Committee). • Once the new guideline is released, consider conducting deep-dive examination, thematic review, and/or onsite inspection of the adequacy on governance at SIFI banks. • Taking stock of remuneration policies and practices and assess if they incentivize excessive risk taking.
Principle 15	• Develop overarching guidance on bank's risk management policies and practices to include requirement for banks to have contingency arrangements (including recovery plans), risk data aggregation reporting and testing capability in place for SIFIs, and CRO to oversee Risk Management Units in banks and be subject to regular internal audit reviews.

Reference Principle	Recommended Action
Principle 16	• Roll out Pillar 2 requirements to banks, including the introduction of ICAAP, the leverage ratio, the capital conservation buffer, and Pillar 3 disclosure requirements. • Remove the asset revaluation reserve from Tier 2 capital under the new capital rules (as planned).
Principle 17	• Ensure consistent coverage of credit risk onsite credit examinations for SIFIs. • Develop and finalize a credit risk management guideline for banks. • Finalize the current in-depth thematic credit review on a high-priority basis, which will assess the potential impact on the currently reported low NPL levels, especially given the increase in both past-due loans and refinanced/debt consolidation loans.
Principle 18	• Update all guidance to reflect the adoption of IFRS9. • Supervisors are to become familiar with bank's expected loss credit risk models.
Principle 19	• Consider reassessing adequacy of prudential limits for banks that operate in multiple jurisdictions in the Caribbean region.
Principle 20	• Suggest amending the FIA so as to include transactions, other than lending to those subject to the arm' length principle and to Board approval. • Introduce a new regulatory return to adequately monitor the limits to loans to directors. • Amend the FIA to ensure that government exposures continue to be undertaken using the arm's length principle and criteria for approval. • Amend the FIA to eliminate exemption from the limit of 10 percent granted to exposures to fully owned subsidiaries and to holding company or FHC which is itself a licensee or a permit holder.
Principle 21	• Develop country risk and transfer risk guidelines for banks.
Principle 22	• Update supervisory framework (onsite examinations and offsite surveillance data needs) to ensure supervisors are adequately monitoring bank's market risk exposures, as well as having a supervisory view on the strength of bank's market risk management policies, processes and systems. • Develop market risk guidance for banks, including guidance on the use of models for valuation and stress testing purposes. • Bring on board a market risk expert to cover deficient risk areas (e.g., to IRRBB, liquidity and all aspects of market risk, including foreign currency and country risk exposures).
Principle 23	• Update supervisory framework (onsite examinations and offsite surveillance data needs) to ensure supervisors are adequately monitoring bank's IRRBB as well as having a supervisory view on the strength of bank's IRRBB management policies, processes and systems. • Issue a new guideline on the Management of Interest Rate Risk.

Reference Principle	Recommended Action
	• Ensure the new Stress Testing guideline introduces requirements for banks to include the testing of IRRBB for risk management purposes.
Principle 24	• Develop new Guideline on "Liquidity Risk Management" to reflect LCR requirements. • Update CBTT's risk-based supervisory framework to reflect the new Liquidity Risk Guideline. • Reassess its current collection of liquidity data and assess future data needs to support LCR and other key liquidity information. • Make better use of the limited liquidity data currently collected for stress testing purposes but not currently shared with Supervisors.
Principle 25	• Develop a Guideline on the "Operational Risk Management" that encompasses all key topics. • Update current onsite examination framework and offsite surveillance programs to assess bank's operation risk frameworks will need to be adopted to include the soon to be released new guidance.
Principle 26	• Expand the definition of bank's Compliance Function beyond only the AML/CFT requirements. • Define the concept of 'independence' for the Internal Audit Function.
Principle 28	• Implement Basel II, Pillar 3 disclosure requirements.
Principle 29	• Roll out the new risk-based AML/CFT supervisory methodology to all banks. • Introduce monetary sanctions to banks noncompliance with AML/CFT requirements. • Reassess adequacy of AML/CFT experts, given CBTT's broader mandate.