



CENTRAL BANK OF
TRINIDAD & TOBAGO

FSR

FINANCIAL STABILITY REPORT

2020



Financial
STABILITY REPORT
2020

Central Bank of Trinidad and Tobago

Financial Stability Report

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List of Abbreviations

ABBREVIATION	NAME
ACH	Automated Clearing House
AE	Advanced Economy
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
ATI	All T&T Index
ATM	Automated Teller Machine
AUM	Assets Under Management
BA	British American Insurance Company (Trinidad) Limited
BATT	Bankers Association of Trinidad and Tobago
bbl/d	Barrels per Day
BIS	Bank for International Settlements
BOJST	Bank of Japan Stress Test
BPSP	Bill Payment Service Provider
CAF	Development Bank of Latin America
Capital Regulations	Financial Institutions (Capital Adequacy) Regulations, 2020
CAR	Capital Adequacy Ratio
CARICOM	Caribbean Community
CARTAC	Caribbean Regional Technical Assistance Centre
CBDC	Central Bank Digital Currency
Central Bank	Central Bank of Trinidad and Tobago
CET 1	Common Equity Tier 1
CIS	Collective Investment Scheme
CLI	Cross Listed Index
CLICO	Colonial Life Insurance Company (Trinidad) Limited
COVID-19	Novel Coronavirus
DFAST	Dodd-Frank Act Stress Test
EMDE	Emerging Market and Developing Economy
ERA	Environmental Risk Assessment
FD	First Differenced
FHC	Financial Holding Companies
FIA	Financial Institutions Act, 2008
fintech	Financial Technology
FIUTT	Financial Intelligence Unit of Trinidad and Tobago
FOD-GMM	Forward Orthogonal Deviation GMM Method
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSIs	Financial Soundness Indicators
FSR	Financial Stability Report
FY	Fiscal Year
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GFSR	Global Financial Stability Report
GMM	Generalised Methods of Moments
GORTT	Government of the Republic of Trinidad and Tobago

List of Abbreviations - Continued

ABBREVIATION	NAME
HSF	Heritage and Stabilisation Fund
Hub	Regulatory Innovation Hub
IA 2018	Insurance Act, 2018
IAIS	International Association of Insurance Supervisors
IAM	Integrated Assessment Model
ICAAP	Internal Capital Adequacy Assessment Process
ICT	Information and Communication Technology
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOPS	International Organisation of Pension Supervisors
JFSC	Joint Fintech Steering Committee
LAC	Latin America and the Caribbean
M&A	Merger and Acquisition
mmbtu	Metric Million British Thermal Unit
mmscf/d	Million Standard Cubic Feet per Day
MPEST	Macroprudential Extension Stress Test
MST	Macroprudential Stress Test
NAV	Net Asset Value
NEDCO	National Entrepreneurship Development Company
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
NIS	National Insurance Scheme
NPL	Non-Performing Loan
OTC	Over-the-Counter
OLS	Ordinary Least Squares
POS	Point of Sale
PPD	Policy Proposal Document
PSP	Payment Service Provider
R-CBDC	Retail CBDC
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement System
RWA	Risk-Weighted Assets
SME	Small and Medium-Sized Enterprise
TA	Technical Assistance
TATT	Telecommunications Authority of Trinidad and Tobago
TTSEC	Trinidad and Tobago Securities and Exchange Commission
UK	United Kingdom
US	United States
VASPs	Virtual Asset Service Providers
W-CBDC	Wholesale CBDC

PREFACE

The Central Bank of Trinidad and Tobago (the Central Bank) plays a vital role in maintaining financial stability and promoting confidence in the domestic financial system. Financial stability refers to the resilience of the financial system in the face of adverse shocks so as to enable the continued smooth functioning of financial intermediation and settlement of payments. Efficient financial intermediation involves the ability of households and businesses to channel savings into productive investments at a reasonable cost and with high confidence. This intermediation is essential for sustainable economic growth and the welfare of Trinidad and Tobago.

The Financial Stability Report (FSR), which is currently published annually, complements the Central Bank's bi-annual *Monetary Policy Report* and other publications by providing an overview of developments in the financial system and insights into the system's vulnerabilities and risks to stability posed by domestic, regional and international factors. Financial system vulnerabilities can increase susceptibility to shocks. However, effective governance and risk management, adequate capital measures and proactive oversight help improve the loss-absorbing capacity of the financial system and enhance its resilience. The FSR also highlights the ongoing efforts of the Central Bank to strengthen these areas and aims to foster informed discussion on financial stability issues.

The FSR is available on the Central Bank's website at <https://www.central-bank.org.tt/latest-reports/financial-stability-report>.

OVERVIEW

The External and Domestic Macro-Financial Setting

The dynamic and multifaceted response to the novel coronavirus (COVID-19) pandemic attenuated risks to global financial stability in 2020. Since the declaration of the pandemic in early 2020, countries' authorities have provided fiscal, monetary and financial policy support which have been instrumental in alleviating macro-financial disturbances, boosting investor sentiment and maintaining credit creation. Though growth prospects were grim over the greater part of 2020, optimism sparked by vaccine deployment in early 2021, alongside renewed fiscal stimulus in larger economies, lifted projections for global economic recovery. The International Monetary Fund (IMF), in its April 2021 World Economic Outlook, forecasted 6.0 per cent growth in 2021 – 0.5 per cent higher than its January 2021 estimate. Nonetheless, the emergence of new coronavirus strains and problems with vaccine access for many countries shadows the outlook. The pandemic has exacerbated existing vulnerabilities in the global financial system. According to the IMF's April 2021 Global Financial Stability Report, escalating corporate and household debt in some economies, external financing challenges, overvaluation of financial assets stemming from extraordinary policy measures, and the withdrawal of policy support could weigh on medium-term financial stability. While pandemic-related issues have taken centre stage, long-standing threats to financial stability persist, including slow policy action on climate change and cybersecurity concerns as a result of digitalisation.

Advanced economies (AEs) and emerging market and developing economies (EMDEs) were challenged by increased public and private sector debt in 2020, alongside volatility in international financial markets.

The growing debt stock presents risks to credit providers as the eventual removal of policy support, including loan deferral and guarantee programmes, may impinge on asset quality. The US and Canada also grappled with concerns surrounding overheating in the housing market. AEs introduced expansive policy support to mitigate the macro-financial fallout of containment measures, which significantly impacted economic activity in early 2020. Despite economic conditions, banking sectors in major AEs maintained adequate capital levels towards the end of 2020.

Among EMDEs, limited fiscal space to fund pandemic-related expenditure and bouts of capital flow volatility at the onset of the crisis undermined performance. According to the IMF, however, a strong but uneven recovery is expected for EMDEs in 2021 partly due to limited vaccine supplies. Nevertheless, as the outlook for AEs improves due in part to accelerated vaccination and US bond yields rise, capital outflows in EMDEs may accelerate, undermining their economic growth prospects.

In addition to the broad risks faced by other EMDEs, the Caribbean region has unique financial stability concerns.

Restrictions on international travel stifled growth in tourism-dependent territories. This was compounded in Saint Vincent and the Grenadines by the volcanic eruption in April 2021. Other environmental risks, including weather-related disasters due to climate change, remain relevant. The risk of the withdrawal of correspondent banking services from the region also prevails as additional countries were listed by the European Union (EU) as "non-cooperative" for tax purposes. The exit of international banking groups from the region continued in 2020, which led to intensified merger and acquisition activity by regional financial institutions, raising market concentration and interconnectedness concerns. Meanwhile, several territories made progress on the financial technology (fintech) front – The Bahamas launched a digital version of the Bahamian dollar, the "Sand Dollar", in October 2020; the Eastern Caribbean Currency Union expanded its CBDC pilot project; and the Bank of Jamaica announced its intention to introduce a digital version of the Jamaican dollar.

Domestically, the COVID-19 pandemic weighed on economic and financial indicators.

The Central Bank's Quarterly Index of Economic Activity contracted by 8.8 per cent in 2020, fuelled by the underperformance of the energy sector amid plant shutdowns due to tepid global energy demand. In contrast, there were pockets of recovery in the non-energy sector as restrictions eased in the second half of the year and businesses made strides in adapting to the "new normal". Inflation was subdued, averaging 0.6 per cent in 2020. Constraints on economic activity were also reflected in the labour market as retrenchments climbed to 2,744 persons in 2020 compared to 1,530 persons in

2019. A sizeable shock to government revenue occurred in fiscal year (FY) 2019/2020 owing to lower energy prices and reduced non-energy tax receipts. Budget financing included withdrawals from the Heritage and Stabilisation Fund, some external borrowing and domestic bond placements. As a result, net public sector debt-to-GDP increased to 80.9 per cent in FY 2019/2020 from 65.5 per cent in FY 2018/2019.

The Performance of the Domestic Financial Sector

The financial sector remained resilient in 2020 in the face of the unprecedented shock to economic activity. Financial soundness indicators (FSIs) for the banking and insurance industries suggested that risks related to the pandemic were largely contained. Institutions maintained healthy capital and liquidity buffers, while contending with deterioration in asset quality and profitability ratios. Though the initial impact of the pandemic adversely affected pension sector investment portfolios, asset valuations improved by the end of the year on account of some recovery in foreign equity markets. The suite of domestic macroprudential indicators as at December 2020 (**Appendix B**) pointed to moderate-to-elevated risks over the short term. Early warning indices signalled low levels of systemic risk build-up and a slight upturn in system-wide stability after June 2020, but at the micro level, there may be growing pockets of vulnerability within the banking sector triggered by high levels of household indebtedness and sovereign exposure.

Although profitability and asset quality slipped, the performance of the banking sector remained robust in 2020. In general, capital levels at individual banks, and at the system-wide level, remained well above the new regulatory minimum capital adequacy ratio (CAR) of 10 per cent under the new Basel II/III rules which came into effect in May 2020 compared to the former minimum ratio of 8 per cent under Basel I. This suggested that the financial system had sufficient loss-absorbing capacity. Over 2020, public health restrictions and the reluctance of persons to incur additional debt due to the exogenous shock of the pandemic, coupled with a negative outlook and uncertain external environment, restrained any recovery in already sluggish private sector credit. While business sector loans contracted by 0.1 per cent, loans to consumers increased marginally by 0.4 per cent owing to expansion in residential mortgages, refinancing and debt consolidation. The pandemic-induced shock to the banking sector's loan portfolios was ameliorated by the

Central Bank's introduction of a regulatory moratorium on loan deferral programmes on either an 'opt in' or 'opt out' basis. On an 'opt in' basis, banks facilitated customers' requests for a moratorium on their loan payments while the 'opt out' automatically granted customers loan deferrals, which would be removed if the customer decided to continue servicing loan payments. Accordingly, the banking sector's non-performing loan (NPL) ratio edged upward slightly from 3.1 per cent in 2019 to 3.4 per cent at the end of 2020. Notably, there has been no further deterioration of the NPL ratio, which remained at 3.4 per cent as at March 2021. Meanwhile, profitability suffered in 2020 as financial institutions, in accordance with (International Financial Reporting Standards (IFRS) 9 requirements, took proactive measures and increased provisions in line with the expectation of higher loan losses due to the pandemic. Return on equity nearly halved, falling from 24.3 per cent in 2019 to 12.4 per cent as at December 2020. Stress test results have indicated that commercial banks had adequate capital and liquidity levels to withstand a number of shocks to their balance sheets (**Appendix D**).

The insurance industry was relatively stable in 2020 in spite of deterioration in some FSIs. Assets in the long-term insurance sector expanded by just over 2 per cent in 2020 – compared to average annual growth of 7.0 per cent over the last five years – on account of the economic slowdown and volatility in global financial markets. For the said reasons, profitability and investment yields weakened, though these indicators remained favourable. In contrast, efficiency levels improved with the decline in expenses as a result of reduced administrative costs in light of COVID-19 restrictions and the implementation of work-from-home arrangements. Curtailed economic activity also augured well as insurance claims receded in the motor sub-sector of the general insurance sector, contributing to an uptick in underwriting profits at the end of the year. However, a reduction in the demand for the number of vehicles insured per household, alongside strategies to increase reinsurance protection in the property sub-sector, led to a contraction of 6.5 per cent in net premium growth. In both the long-term and general insurance market segments, liquidity levels increased in anticipation of a new government bond issue at the end of the year.

During 2020, the temporary closure of businesses as part of COVID-19 contagion containment measures negatively affected a few pension plans. Due to COVID-19 containment measures, some businesses furloughed workers, which led to reduced contributions being paid into their plans for the year. At least five plans were forced to sell assets in order to pay benefits. However, the majority of pension plans were able to maintain contributions and retain their assets. Overall, the assets owned by all occupational pension plans increased by 1.6 per cent to \$54.8 billion at the end of December 2020 compared to the previous year.

Several pension plans have funding deficits due in part to lower than projected returns on investments. Many employers expressed either their inability or unwillingness to make further contributions to their plans in order to liquidate the deficits. It is likely that this situation will persist in 2021 leading possibly to more pension plans going into deficit.

Vulnerabilities and Risks

Though the financial sector was resilient amidst the uncertain economic environment, risks to financial stability are slightly higher as the pandemic persists. The 2019 Financial Stability Report highlighted three vulnerabilities in the sector – growing household indebtedness, high sovereign concentration and rapid digitalisation. While nominal household debt contracted minimally over the year, financial institutions maintained significant exposure to the household sector. Credit risk has intensified given shocks to household disposable income and the true impact on banks' loan portfolios will only manifest as pandemic support measures are lifted. Additionally, high banking concentration and interconnectedness-related risks have emerged in the financial services industry.

High sovereign concentration in the financial system. Domestic sovereign concentrations have increased over the year. Sovereign exposures represented approximately 22 per cent of banks, insurers and pension plans combined assets. Lower fiscal revenues, induced by the pandemic, and the less than sanguine outlook for economic recovery in the short term, have substantially increased the potential for spillovers to financial institutions' balance sheets.

*Significant exposure of financial institutions to the household sector.*¹ Household debt levels contracted for the first time since its compilation (2003) on account of pandemic-related containment measures and the resultant slowdown in economic activity. Nevertheless, the stock remained high at just about 48 per cent of the banking sector's loan portfolio. Rising unemployment and depressed income levels, exacerbated by renewed restrictions, may have increased the financial sector's vulnerability to households. While extended loan deferral programmes have helped cushion the immediate shock to banks' financial soundness indicators, asset quality and profitability may become compromised as loan obligations become due following the end of moratoria.

Rapid digitalisation in the financial services industry. Financial institutions have increased the digital delivery of products and services in response to customers' needs for remote access. While improved digitalisation can reduce some dimensions of operational risks, it can also increase vulnerability to cyber threats. As financial sector participants embrace innovation in the digital space, new and dynamic risks to financial stability are presented. Cyber incidents have surged globally in the financial sector in recent years. At the same time, authorities have noted an increase in ransomware attacks locally. The rapid adoption of technology-based solutions must therefore be accompanied by the requisite safety nets to guard against evolving operational threats.

High banking concentration and interconnections in the financial services industry. The banking sector's dominance in the financial system and role as a major intermediary has facilitated liquidity support for borrowers and the flow of credit throughout the economy. While the sector has weathered the effects of the pandemic thus far, subdued economic activity triggered by a weakened energy sector and the reintroduction of containment measures can hinder future performance. Weaker financial performance of the banking industry could spillover to other financial sub-sectors due to positive correlations and interconnections among the entities.

¹ Household debt comprises credit extended to households from: commercial banks; non-banks; insurance companies; credit unions; the Home Mortgage Bank; the Trinidad and Tobago Mortgage Finance Company; and other retail merchants.

Promoting Financial Stability

As the Strategic Plan (2016/17 – 2020/21) nears completion, the Central Bank has made noteworthy progress on the achievement of its financial stability objectives.

Developments on key initiatives in 2020 and early 2021 include:

Improving Risk-Based Supervision

The proclamation of the new Insurance Act 2018, effective January 2021, represented a significant milestone in strengthening the regulation and risk-based supervision of the insurance industry and protecting the interests of policyholders. In addition, the Financial Institutions (Capital Adequacy) Regulations, 2020, which provides for the implementation of new and more robust risk-sensitive Basel II/III Capital Adequacy standards on a phased basis. Phase 1 (Pillar 1) of the new Basel standard came into effect in May 2020 and prescribes minimum capital requirements for credit, market and operational risk. The introduction of the more rigorous capital adequacy measure contributed to the average banking system's CAR declining by approximately 260 basis points due to better alignment of the institutions' risk with capital required.

Notably, the Bank delayed the implementation of Phase 2 Basel II/III measures to no earlier than January 2022. These measures included Pillar 2 (capital for additional risks), leverage ratio, capital conservation buffer, higher loss absorbency requirements for domestic systemically important banks and the liquidity coverage ratio. The delay was due to the pandemic and to limit the potential for greater financial and operational burden that could be placed on the banking sector and by extension the customers of those institutions.

The Central Bank continued to work towards promoting sound risk management practices within the wider financial sector through the development and issuance of guidelines related to, inter alia, credit, outsourcing and liquidity risk and corporate governance. Additionally, after consultation with stakeholders, the Guideline on Communication with Pension Plan Members was issued in October 2020 with an aim to encourage transparency in the operations of pension plans and increase members' knowledge and understanding of benefit entitlements.

Ensuring Compliance with International Standards for AML/CFT and Tax Transparency

Trinidad and Tobago remained rated as "non-compliant" by the Global Forum with respect to tax transparency and "high risk" by the EU in relation to its AML/CFT framework as some deficiencies remain. The Government has undertaken legislative reform to address these shortcomings and secure removal from the relevant blacklists. On the supervisory front, the Central Bank published the AML Risk-Based Supervisory Framework in November 2020 to sensitise institutions to the Bank's approach to AML supervision and assessment of licensees. The Central Bank also collaborated with other domestic regulators – the Trinidad and Tobago Securities and Exchange Commission (TTSEC) and the Financial Intelligence Unit of Trinidad and Tobago (FIUTT) – to develop proposals for the implementation of administrative monetary penalties. Moreover, a National AML/CFT Risk Assessment commenced in March 2021 to identify, inter alia, the vulnerabilities in the country's legal and institutional systems which could be exploited by criminals to launder illicit funds or facilitate the financing of terrorism. The Central Bank has a key role in this initiative and is leading the AML risk assessments on financial entities under its purview.

Strengthening Technical and Analytical Capability in Supervision and Resolution

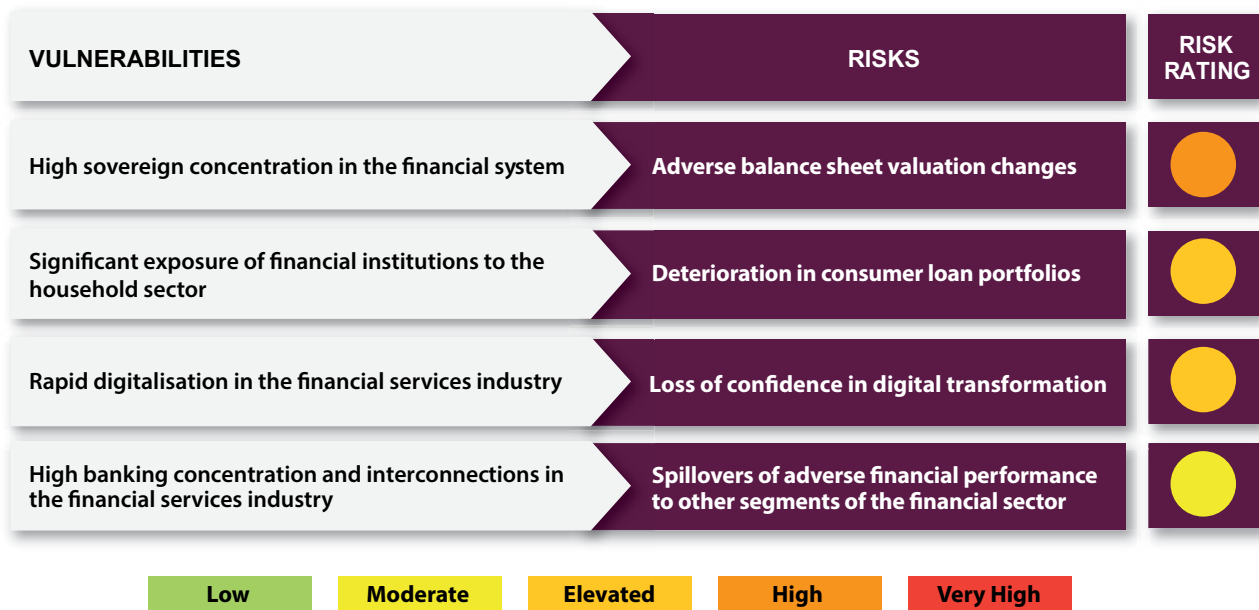
The Central Bank, as part of the reconstituted Financial Stability Committee, collaborated with key financial stakeholders to refine the National Crisis Management Plan. Over the year, the regulator has also engaged financial institutions on a number of fronts, including the roll-out of the revised banking stress testing framework and the Mergers and Acquisitions Guideline.

Review of Recent Developments in Payments Systems

As payments systems innovation accelerates, the Central Bank has kept pace with the issuance of e-money and fintech matters. The E-Money Issuer Order became effective in August 2020 and allows persons, other than financial institutions licensed under the Financial Institutions Act, 2008 (FIA), to issue e-money. There has been notable interest in fintech products and services as evidenced by activity on the Regulatory Innovation Hub, which was launched by the Joint Fintech Steering Committee in October 2020. This committee is comprised of senior

representatives of the Central Bank, TTSEC and FIUTT. Entities have been engaging with the regulators on e-money initiatives and crypto-currency via the Hub, with a few submitting applications for the former. Work continues on the development of a Regulatory Sandbox for the testing of innovative business ideas. The Central Bank, supported by the IMF, has also worked on developing comprehensive payments systems legislation and issued a policy proposal document to inform a Payments Systems Bill, which was released to the industry in May 2020 for comment.

Summary Heat Map Key Vulnerabilities and Risks to Financial Stability in Trinidad and Tobago



Source: Central Bank of Trinidad and Tobago

CHAPTER 1

THE MACRO-FINANCIAL ENVIRONMENT

CHAPTER 1

THE MACRO-FINANCIAL ENVIRONMENT

Global financial conditions eased in 2020, following significant policy support in response to the novel coronavirus (COVID-19) pandemic.² Since the declaration of the pandemic, economies have been providing massive monetary, fiscal and financial policy support. This support has been instrumental in alleviating macro-financial disturbances, boosting investors' sentiments and keeping credit channels open.³ Though some optimism exists around vaccine development and distribution, uncertainty regarding the duration of the pandemic remains a risk to global growth. Nevertheless, COVID-19 has highlighted the need for regulators to develop frameworks which capture the impact of system-wide risks. These frameworks pinpoint vulnerabilities and feedback effects, which can help policymakers mitigate disturbances in the real economy and financial system.

Global financial vulnerabilities have been mounting which can threaten favourable growth prospects. Due to the pandemic, building economic resilience has come at a cost. According to the IMF's April 2021 Fiscal Monitor, global authorities spent about US\$16 trillion in fiscal support since the start of the pandemic to March 17 2021. However, several governments are now facing higher public debt levels. In 2020, global public debt was recorded at 97.3 per cent of gross domestic product (GDP), 13.6 per cent higher than the previous year.⁴ Further to this, the pandemic has disrupted international trade, with muted cross-border service trade anticipated. According to the IMF's April 2021 Global Financial Stability Report (GFSR), uneven access to vaccines is expected to contribute to divergent recoveries globally. The GFSR also highlighted that escalating corporate and household debt in some economies, external financing challenges, overvaluation of financial assets stemming from extraordinary policy measures, and the withdrawal of policy support (**Box 1**) can pose further financial stability challenges. Added to this, the World Economic Forum's 2021 Global

Risks Report rated environmental factors, such as extreme weather and the inability to combat climate change impacts, amongst the highest likely global risks over the next ten years.

The pandemic has also spurred the acceleration of financial system digitalisation and work-from-home arrangements but has challenged banks' and insurers' management of their capital and liquidity. Although greater digitalisation has provided customers with more convenient options through contactless payment avenues, increased dependence on electronic delivery channels and financial technology (fintech) can magnify operational risks, for example through cyber-attacks. Banks have been resilient during the pandemic due to adequate liquidity support and capital buffers. However, the withdrawal of COVID-19 regulatory policy measures, instituted during the pandemic, can result in the potential erosion of capital and add to pressures faced by the sector. Moreover, lower interest rates have weighed on insurance companies' investment portfolios which may have encouraged increased risk-taking in search of higher yields. At the same time, faced with large claim pay-outs stemming from increased mortality levels from the pandemic and catastrophe losses, reinsurance could become more expensive.

Economic growth in advanced economies (AEs) is projected to improve, buoyed by the United States (US), whilst emerging market and developing economies (EMDEs) are faced with formidable pressures exacerbated by the COVID-19 crisis. Despite economic conditions, banking sectors in the US and the Euro Area maintained adequate capital levels towards the end of 2020. Both AEs and EMDEs have been utilising accommodative monetary policy and unconventional tools, such as asset purchase programmes, to safeguard macro-financial stability from the effects of the pandemic. Moreover, expansionary fiscal measures have worsened public debt levels, thus signalling

² Figures 4 and 5 outline key financial stability developments and concerns by international bodies as well as some of the major risks highlighted in selected Financial Stability Reports (FSRs).

³ The International Monetary Fund (IMF) April 2021 World Economic Outlook revised global growth for 2020 upward to -3.3 per cent compared with -3.5 per cent in its January 2021 Update.

⁴ IMF Fiscal Monitor April 2021.

higher financial system risks. Particularly for EMDEs, as the pandemic persists, increasing pressure on public finances may lead to greater reliance on external financing, thus further deepening debt burdens. AEs and EMDEs are also vulnerable to increased public and private sector borrowing stemming from the COVID-19 crisis. Furthermore, concerns of overheating in the Canadian housing market (which has traditionally been a financial stability risk) arose, warranting the enforcement of control measures.

Nevertheless, higher economic growth is expected for AEs in 2021, backed by the US\$1.9 trillion stimulus approved by the US Congress in March 2021 for COVID-19 relief efforts, along with accelerated vaccination efforts. This

expected rebound led to higher US treasury yields in early 2021, fuelling asset repricing in financial markets. Unlike AEs, EMDEs' recovery is expected to be uneven partly due to limited vaccine supplies. Other areas of concern relate to reduced cross-border trade due to supply chain disruptions and exchange rate pressures. If these disruptions result in higher inflation and tighter financial conditions as AEs' economic outlook improve, then capital outflows may accelerate, thus weakening economic growth prospects and adding to borrowing challenges. In Latin America and the Caribbean (LAC), although recovery is also expected in 2021, volatility in international financial markets and economic deterioration in the region's main trading partners can pose significant downside risks to growth.

The Caribbean continued to experience adverse macro-financial and environmental events. These include

high debt levels and the blacklisting of new territories⁵ by the European Union (EU) as non-cooperative jurisdictions for tax purposes and anti-money laundering/combating the financing of terrorism (AML/CFT). Susceptibility to weather-related disasters from climate change also remain an area of concern. The La Soufrière volcanic eruption in Saint Vincent and the Grenadines in April 2021 and the resultant destruction of agricultural produce on which the economy is highly dependent can adversely impact already dampened economic activity. Meanwhile, the sale of Caribbean subsidiaries of international banks as well as the search for portfolio diversification triggered a slew of mergers and acquisitions in the region, led by Jamaica and Trinidad

and Tobago financial institutions. Whilst this development can be fruitful, market concentration issues could arise. The Caribbean region also continued to make strides in fintech (**Box 2**), with The Bahamas leading the way as the first country to launch a central bank digital currency – 'the Sand Dollar' which is a digital version of the Bahamian dollar – in October 2020. The Eastern Caribbean Currency Union has also expanded its pilot project for a CBDC and the Bank of Jamaica announced its intention to introduce a digital version of the Jamaican dollar in August 2021.

THE DOMESTIC SETTING

Domestic economic activity contracted in 2020 amid the COVID-19 pandemic. Reduced energy demand and production, coupled with dampened non-energy sector activity due to pandemic containment measures, weighed on economic activity. This was evidenced by a contraction in the Central Bank's Quarterly Index of Economic Activity by 8.8 per cent during 2020. Labour market conditions also deteriorated in 2020 as data from the Ministry of Labour revealed that the number of persons retrenched increased to 2,744 in 2020 compared to 1,530 in 2019. Moreover, the number of job advertisements in the daily newspapers (a proxy for labour demand) fell by 40.1 per cent in 2020 compared to the previous year. Food inflation rose, averaging 2.8 per cent in 2020 compared to 0.6 per cent in 2019, fuelled by rising food prices globally and supply challenges stemming from COVID-19 disruptions. Higher food prices in the future can further reduce disposable income in an environment where the private sector may already be facing debt servicing difficulties. Sovereign credit ratings were BBB- with a negative outlook (Standard and Poor's Global Ratings) and Ba1 with a negative outlook (Moody's Investors Service) based on the economic and fiscal challenges stemming from the COVID-19 crisis and lower oil and natural gas prices. Given the resurgence of domestic COVID-19 cases during the second quarter of 2021, the reinstatement of containment measures can further impinge on an already fragile recovery with knock-on effects for the financial sector.

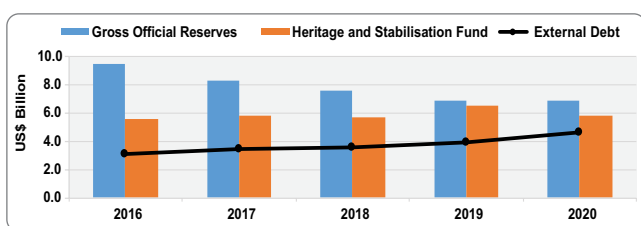
External buffers have been useful to help mitigate the effects of the COVID-19 pandemic. In 2020, gross official reserves rose marginally to US\$7.0 billion (8.5 months of

⁵ The European Union removed the Cayman Islands from the list and added Anguilla and Barbados in October 2020. In a February 2021 update, Barbados was subsequently de-listed and Dominica included. As at February 22 2021 the Caribbean countries on the list included Anguilla, Dominica and Trinidad and Tobago. See European Council Notice 2021/C 66/10 - Council conclusions on the revised list of non-cooperative jurisdictions for tax purposes.

import cover) from US\$6.9 billion (7.7 months of import cover) in 2019. This increase was driven mainly by higher inflows associated with external borrowings and withdrawals from the Heritage and Stabilisation Fund (HSF) to cushion the effects of the pandemic. However, greater external borrowing increased external debt by 20.5 per cent to US\$4.7 billion in 2020 (Figure 1).

The fiscal deficit expanded in fiscal year (FY) 2019/2020 (Figure 2). A larger fiscal deficit-to-GDP ratio of 11.2 per cent was recorded in FY 2019/2020 compared to a deficit of 2.6 per cent in the previous fiscal year. This was mainly attributed to a decrease in revenue (27.1 per cent) as a result of a decline of both energy and non-energy earnings. The fall in energy receipts was due to depressed energy prices and lower production whilst reduced tax collections on income and profits and non-tax revenue pushed down non-energy revenue. Concurrently expenditure remained flat, growing marginally by 0.1 per cent attributed to negligible increases in transfers and subsidies, capital expenditure and net lending. The Government relied on domestic and external borrowing, as well as withdrawals from the HSF⁶, to finance the fiscal deficit. Net public sector debt-to-GDP increased to 80.9 per cent in FY 2019/2020 from 65.5 per cent in FY 2018/2019.

Figure 1
External Sector Dynamics,
2016 – 2020

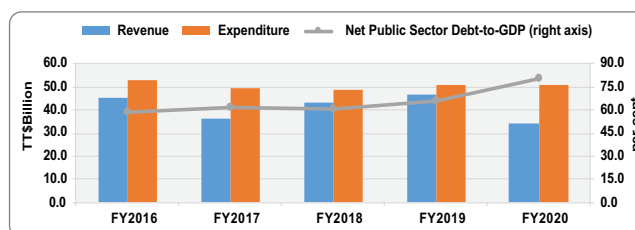


Source: Central Bank of Trinidad and Tobago

Monetary and financial conditions were geared towards preserving macro-financial stability against the effects of the pandemic. The Central Bank’s lowering of the repo rate from 5.0 per cent to 3.5 per cent and the commercial banking sector reserve requirement from 17 per cent to 14 per cent in March 2020 were instrumental in boosting liquidity and reducing interest rates. Net domestic fiscal injections surged from \$3,363.3 million in 2019 to

\$10,933.9 million in 2020 and, daily excess liquidity swelled to an average of \$9,353.3 million in 2020 compared to \$4,005.6 million in 2019. Meanwhile, the weighted average commercial bank lending rate decreased from 7.7 per cent at the end of December 2019 to 7.3 per cent in December 2020. Consolidated financial system credit growth weakened in 2020 to an average of 2.5 per cent from an average of 3.4 per cent in 2019. Business credit contracted, despite an improvement at the end of 2020 when compared to the prior year. Although COVID-19 restrictions eased modestly in the fourth quarter of 2020, adverse business conditions resulted in the closure and downsizing of many establishments relatively dampening borrowing activity in the business sector. Consumer lending also declined⁷ and was partly attributable to the slowdown in home improvement/renovation, debt consolidation and real estate-related borrowing activity. Although real estate mortgage growth dipped marginally, lending remained positive throughout 2020 (Figure 3). Notably, the Central Bank’s 2020 regulatory moratorium extended to the banking sector tempered potential risks while facilitating banks’ ability to continue to extend credit to customers. National lockdown measures were later reinstated at the end of April 2021 due to a spike in COVID-19 cases. A second regulatory moratorium on deferred loan payments was instituted for the period May to September 2021 to forestall the negative effects of the pandemic on institutions’ financial performance. However, the benefits may be short-lived when the programme ceases.

Figure 2
Fiscal Operations, FY 2016 – FY 2020

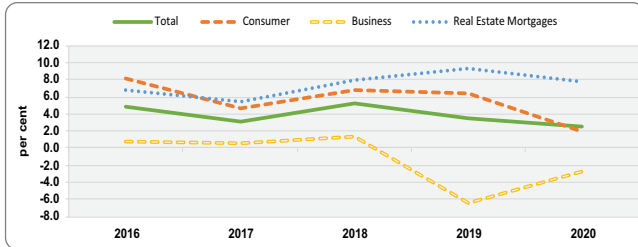


Source: Ministry of Finance

⁶ Over the FY 2019/2020, \$6.6 billion was withdrawn from the HSF.

⁷ Based on the banking activity of residents.

Figure 3
Private Sector Credit Granted by the
Consolidated Financial System –
Average, 2016 – 2020



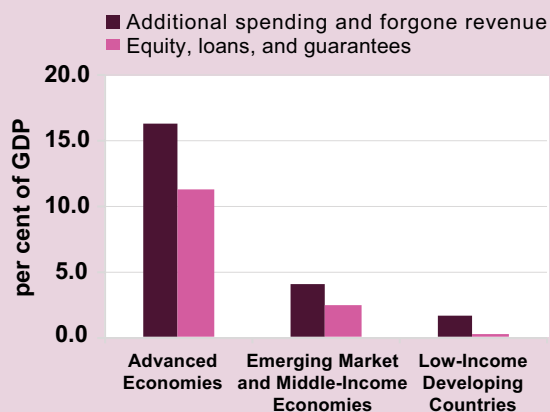
Source: Central Bank of Trinidad and Tobago

BOX 1: GLOBAL RESPONSES TO SAFEGUARD FINANCIAL STABILITY FROM COVID-19

COVID-19 prompted a global economic recession as the International Monetary Fund’s (IMF) April 2021 World Economic Outlook estimated that world economic growth contracted by 3.3 per cent over 2020. To combat the spread of the virus, many nations: closed certain businesses (deemed non-essential); implemented curfews and effected gathering restrictions. Although these policies helped to slow down COVID-19 cases, as well as uphold the delivery of healthcare services, the ‘lockdowns’ came at the cost of economic activity and put severe pressure on financial markets and institutions. Policymakers mitigated the economic cost of these restrictions and safeguarded macro-financial stability, by implementing an unprecedented array of fiscal, monetary and macroprudential policies.

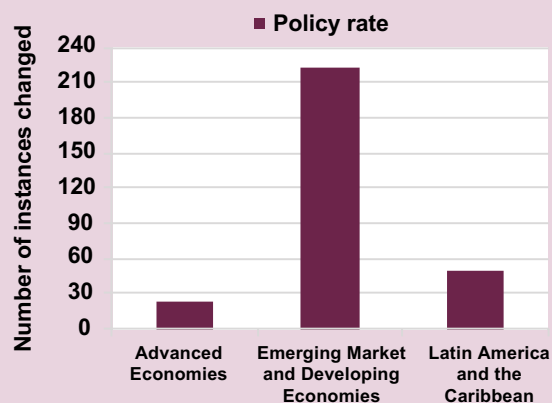
The economic crisis caused by the virus required parallel efforts between the fiscal and monetary authorities to provide lifelines to vulnerable households and firms. Pandemic-related fiscal support (Figure 1) came in the form of temporary tax cuts (forgone revenue), salary relief grants and liquidity support programmes for the private sector (including loans, guarantees, and equity injections). For the most part, the expansionary fiscal stance was supported and complemented by accommodative monetary policies. For instance, following the outbreak of the virus, the first policy measure employed by many central banks was a reduction in monetary rates (Figure 2) to support aggregate demand by easing funding costs. However, the most crucial monetary response to the pandemic was the expansion of central banks’ lending operations¹ as this, in part, subsidised pandemic-related fiscal responses.

Figure 1
Selected Fiscal Responses to the COVID-19 Crisis, by Country-Group



Sources: Database of Country Fiscal Measures in Response to the COVID-19 Pandemic and IMF staff estimates
Note: Estimates as of March 17 2021.

Figure 2
Selected Monetary Responses to the COVID-19 Crisis, by Country-Group



Source: Alonso Gispert, et al. (2020)
Note: Estimates as of March 29 2021.

¹ For instance, monetary authorities in the United States, Canada and Japan increased the amount of repurchase agreements (usually, a short-term debt instrument for dealers in government securities) offered and lengthened their maturities.

BOX 1: Continued

Financial regulatory and supervisory authorities used a wide-ranging set of complementary measures to safeguard financial market operations and maintain the provision and delivery of these services to the real economy. The World Bank has compiled a database, which is publicly available, that tracks interventions (by type of instrument and measure of financial stability), in over 150 economies. Based on this information, financial regulatory supervisors' pandemic-related policies focused on addressing risks in the key areas shown in Table 1.

Table 1
Financial and Regulatory Supervisors' Pandemic-Related Policies, by Area

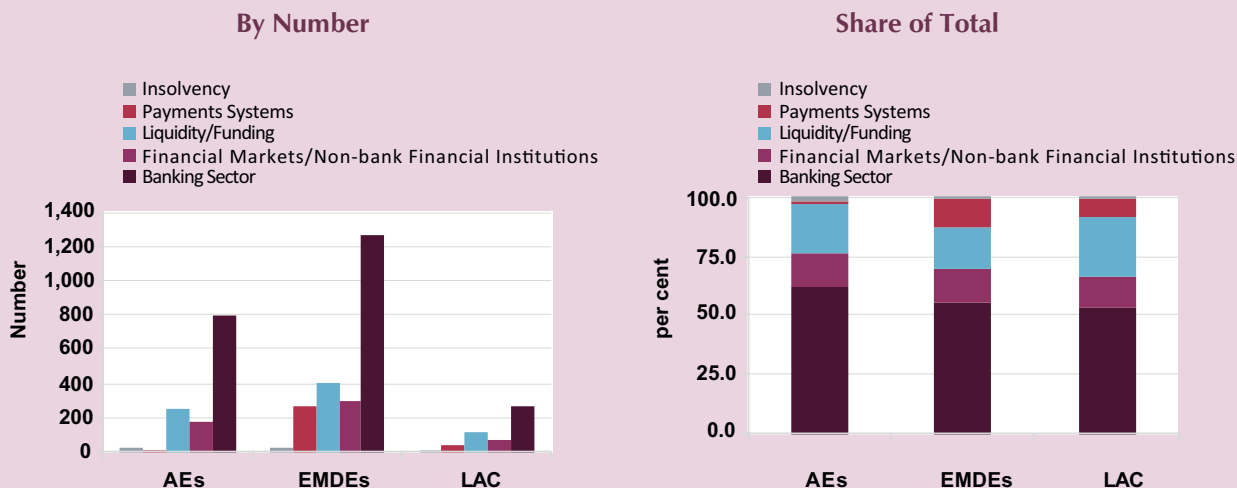
Key Area Addressed	Description of Policies Focused on...	Major Actionable Steps
Banking Sector	Maintaining the flow of credit while safeguarding banks' resiliency.	Lower capital and liquidity buffer requirements; flexible treatment of non-performing loans and debt repayment moratoriums.
Liquidity/Funding	Ensuring that financial intermediaries have the resources or reserves needed to satisfy credit demands.	Direct liquidity injections; establishing US dollar swap lines between central banks.
Insolvency	Assisting cash-strapped financial institutions, individuals and/or businesses.	Encouraging loan restructuring and offering public sector guarantees for loans or subsidies.
Payments Systems	Ensuring the continued use and smooth functioning of financial market infrastructures.	Suspending fees for electronic payments and withdrawals and ensuring the availability and acceptance of digital payment methods.
Financial Markets and Non-bank Financial Institutions	Ensuring the proper functioning, support and regulatory guidance of the remaining segments of the financial market (such as asset managers, insurance companies and pension funds).	Guidelines on grace periods, such as insurance premium payments and relaxing deadlines for the submission of supervisory reports.

Source: Alonso Gispert, et al. (2020)

Interventions associated with safeguarding financial stability were somewhat similar in advanced economies (AEs), emerging market and developing economies (EMDEs) and Latin America and the Caribbean (LAC). In the database, out of the policy measures taken, 32.7 per cent, 48.3 per cent, 11.1 per cent and 0.6 per cent were implemented at the end of March 2020, June 2020, September 2020 and December 2020, respectively. The depth and breadth of measures taken by financial regulatory and supervisory authorities highlighted the seriousness of their concerns about the size of the threat the COVID-19 pandemic posed to financial stability. However, it should be noted that compared to the AEs (31.6 per cent), only 8.2 per cent of EMDEs and 13.8 per cent of LAC countries issued measures to address systemic risks under all five key areas (Figure 3). The database also showed differences in the policy mix (Figure 4) across the country-blocks for particular cases.

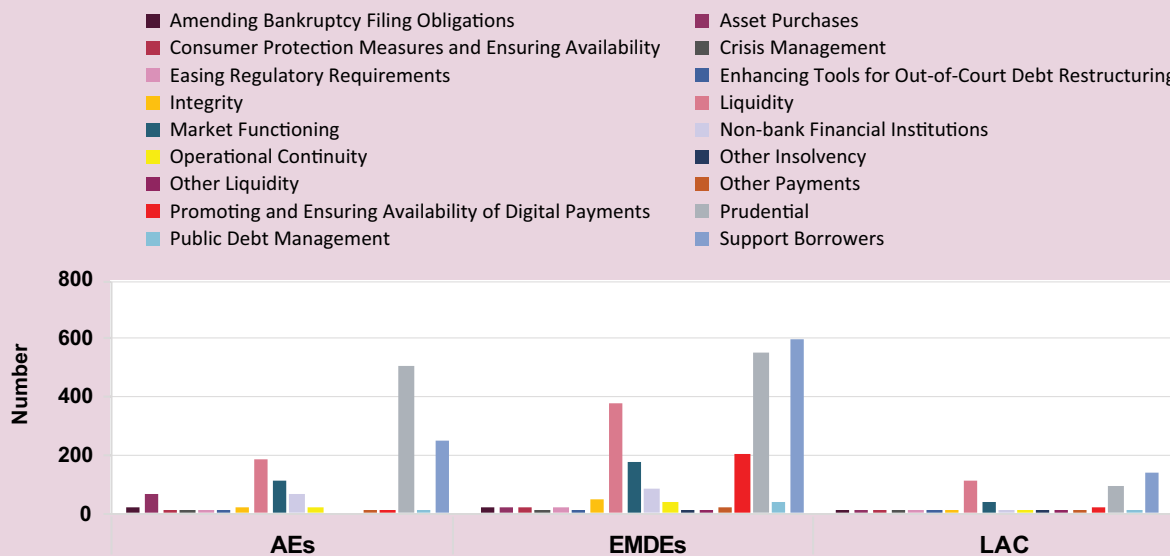
BOX 1: Continued

Figure 3
Policies to Address Financial Instability due to the COVID-19 Crisis, by Area and Country-Group



Source: Alonso Gispert, et al. (2020)
Note: Estimates as of March 29 2021.

Figure 4
Policies to Address Financial Instability due to the COVID-19 Crisis, by Measure and Country-Group



Source: Alonso Gispert, et al. (2020)
Note: Estimates as of March 29 2021.

Massive policy support buffered the impact of COVID-19 however growth prospects remain uncertain, despite growing vaccine coverage. As several variants of the virus emerge, it is unclear if countries will still have room to initiate policies to mitigate the negative externalities resulting from COVID-19. As such, the global outlook hinges on vaccine deployment as well as on how effectively national authorities can once again coordinate fiscal, monetary and macroprudential policies to fulfil their mandates of promoting economic and financial stability.

BOX 2: CENTRAL BANK DIGITAL CURRENCY DEVELOPMENTS

Central Bank Digital Currency (CBDC), a digital form of fiat money, is a “safe, neutral and ultimate settlement medium that can extinguish all claims in a transaction” (Carstens 2021). In 2019, monetary authorities took serious note of Facebook’s announcement of its stablecoin, formerly called the Libra, and began giving more active considerations to CBDC in order to preclude the adverse impacts on monetary and financial stability of private sector digital currencies.¹ To date, several jurisdictions have completed pilots and are in advanced stages of CBDC research and distribution. This Box provides an update on CBDC developments, as at April 2021, and presents the Central Bank of Trinidad and Tobago’s (the Central Bank’s) early, but still evolving, views on the matter.²

The threat of losing monetary sovereignty, *inter alia*, has compelled regulators to consider issuing CBDC. For some, diminishing cash use, costly and lengthy payment transactions, tax evasion, and financial inclusion are key reasons for issuing digital fiat. According to the literature,³ the main benefits for regulators of a well-designed CBDC are improved operational efficiency and prudential surveillance, reduced financial exclusion and enhanced macro-financial supervision, which address some of the issues created by traditional forms of money. However, several drawbacks also exist such as, cyber-attacks, which are likely to lead not only to service disruptions but also adversely affect economic activity, as well as potentially high initial operating and social costs.

According to a Bank for International Settlements’ survey conducted in January 2021, over 80 per cent of the world’s central banks have explored CBDCs, at varying levels.⁴ As at April 2021, there have been over fifteen pilot projects (three of which have been completed), two live CBDCs and over 30 publicised projects in the exploration and research phase. As it stands, there are two CBDC variants that have been adopted, tested or are under-research, retail CBDCs (R-CBDC) and wholesale CBDCs (W-CBDC). R-CBDC is a cash-like variant that is accessible to the general public, and W-CBDC is analogous to central bank reserve money that is only accessible to selected entities. Thus, of the projects undertaken, R-CBDC appears to be the popular choice, especially in emerging markets. Other accommodations made to permit the issuance of CBDC have required changes to jurisdictions’ legislation and regulation. The progression of these developments is depicted in Figure 1.

¹ Stablecoins are private sector digital currencies that are either backed by fiat money, other assets or are algorithmically derived. The Diem, formerly known as Libra, is a single-currency stablecoin fully backed by ‘the Reserve’ (which would consist of cash or cash equivalents and very short-term government securities denominated in that currency) (Diem Association 2021).

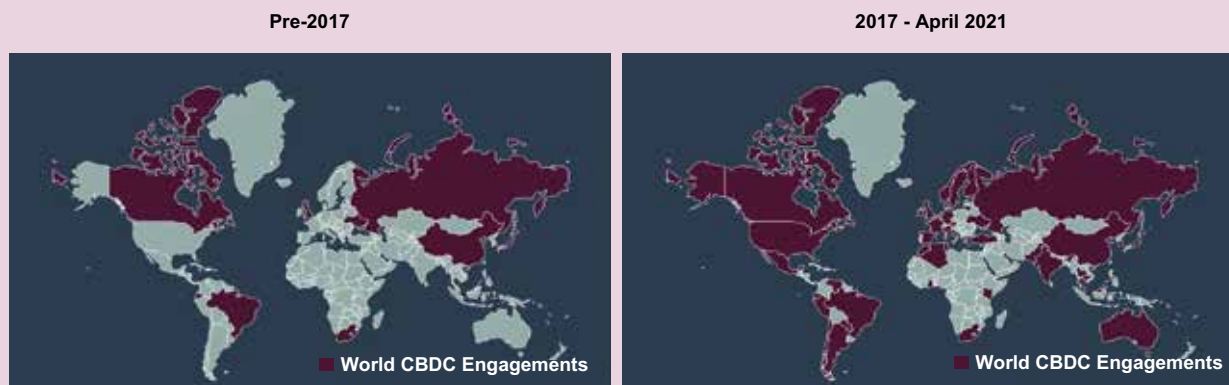
² Previous discussions on the matter can be found in past editions of the Central Bank’s Financial Stability Reports (2018, 2019, 2020).

³ Major sources include: Committee on Payments and Market Infrastructures (CPMI) (2015); Fung and Halaburda (2016); Barrdear and Kumhof (2016); Dyson and Hodgson (2016); Engert and Fung (2017); Davoodalhosseini (2018); Kumhof and Noone (2018); CPMI (2018); The Bank of Canada et al. (2020); Auer, Cornelli and Frost (2020) and Auer and Böhme (2020).

⁴ Based on the BIS’ latest survey (2021), detailing CBDC developments “found that 86 per cent are actively researching the potential for CBDCs, 60 per cent were experimenting with the technology and 14 per cent were deploying pilot projects”.

BOX 2: Continued

Figure 1
Growth in CBDC Engagements*



Source: Published statements and reports of global central banks, regulatory bodies

Note: * CBDC engagements include pilot projects (ongoing, completed and cancelled), CBDC launches, CBDC research and development and public expressions of interest.

Cross-border use cases have also contributed to the adoption of CBDC engagements. Driving these initiatives is the need to improve international payments systems. For these use cases, the W-CBDC variant has dominated this area of CBDC research and experimentation. Recent examples include Project Stella (European Central Bank and the Bank of Japan), Project JasperUbin (Bank of Canada and the Monetary Authority of Singapore) and the Multiple CBDC, mCBDC (in conjunction with the Hong Kong Monetary Authority, the Bank of Thailand, the BIS Innovation Hub, the Digital Currency Institute of the People's Bank of China and the Central Bank of the United Arab Emirates).

Particular to the Caribbean, operational inefficiencies created by the geographical dispersion of persons and services was a driving factor for considering CBDC in The Bahamas and the Organisation of Eastern Caribbean States. In 2020, the Sand Dollar was launched in The Bahamas, and in March 2021, DCash – a pilot project – was launched in the Eastern Caribbean Currency Union.⁵ In Jamaica, there are plans to pursue a local CBDC. The Bank of Jamaica is collaborating with Ireland-based technology firm eCurrency Mint to develop and test a prototype CBDC over the period May to December 2021. Other territories in the region have expressed interest but are still in the exploratory phase.

In Trinidad and Tobago, several public and private initiatives, are improving the flow of funds in the economy. These initiatives, along with Trinidad and Tobago's electricity access, internet and mobile usage penetration and global connectivity indicators, suggest that the country is prepared for fintech innovations.⁶ With regards to CBDC the Central Bank continues to be open but cautious and pragmatic in its approach. In 2020, the Central Bank conducted preliminary research into the feasibility of issuing a local CBDC and is furthering its due diligence study in 2021 with the assistance of the IMF whilst focusing on strengthening the broader framework for payments via key channels (such as legislation and infrastructure).

⁵ The Bahamian Sand Dollar is an account-based R-CBDC and W-CBDC, and DCash is a token-based R-CBDC.

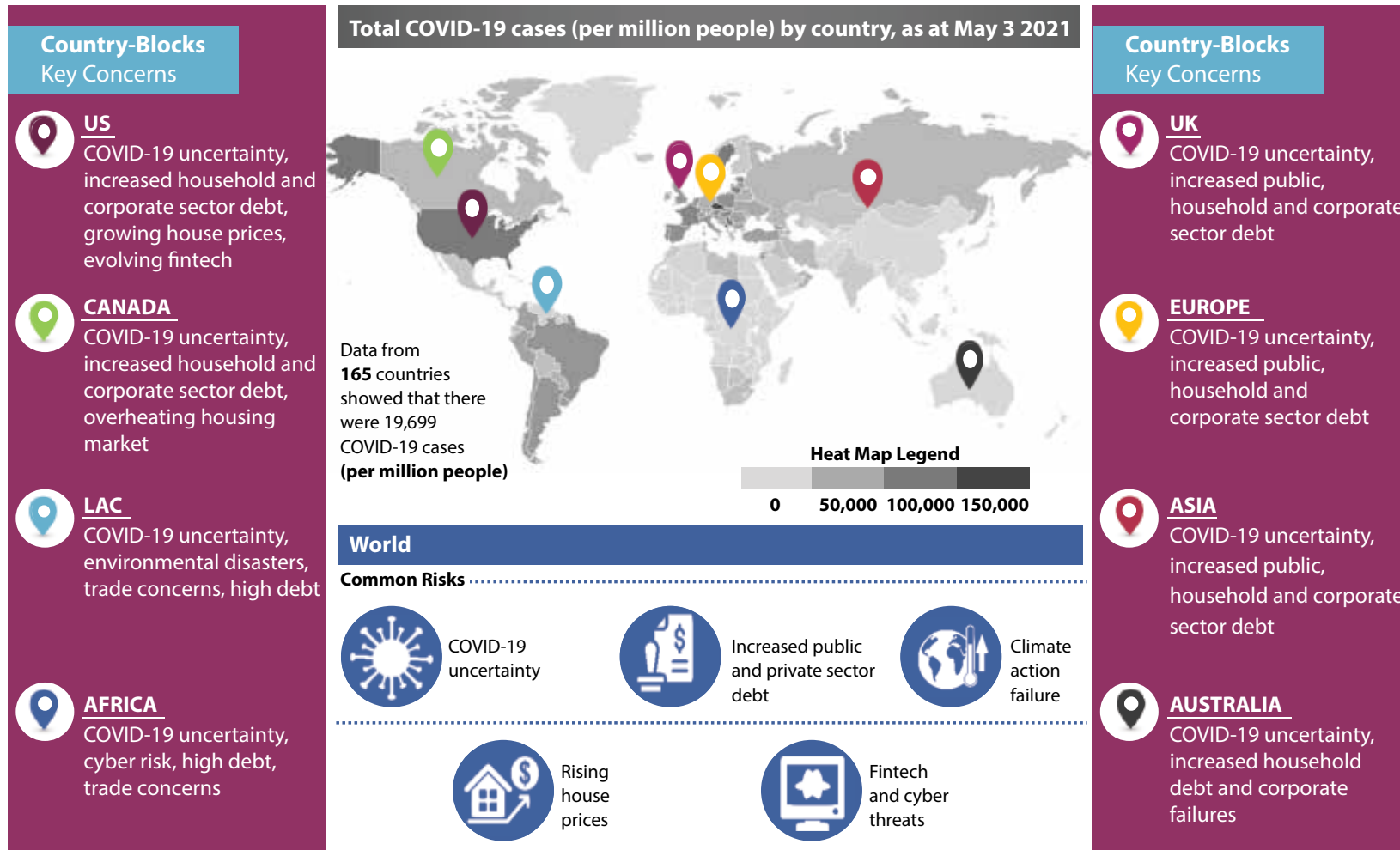
⁶ Work done by the Miniwatts Marketing Group (2019), The World Bank Group (2020), GSM Association (2020) and Kepios Pte. Ltd (2020) show that electricity access (100 per cent of the population), internet and mobile usage penetration (77 per cent and 136 per cent of the population) data are favourable, and global connectivity scores (four key enabling factors - infrastructure, affordability, consumer readiness and content) signal Trinidad and Tobago's 'advanced' status in mobile internet connectivity (67.2 per cent).

Figure 4
Key International Financial Regulatory Developments
and Perspectives in 2020 and Early 2021



Source: Various international regulatory and supervisory bodies' reports

Figure 5
Summary of Global Financial Stability Risks



Source: Various countries' FSRs and Johns Hopkins University Center for Systems Science and Engineering COVID-19 Data

CHAPTER 2

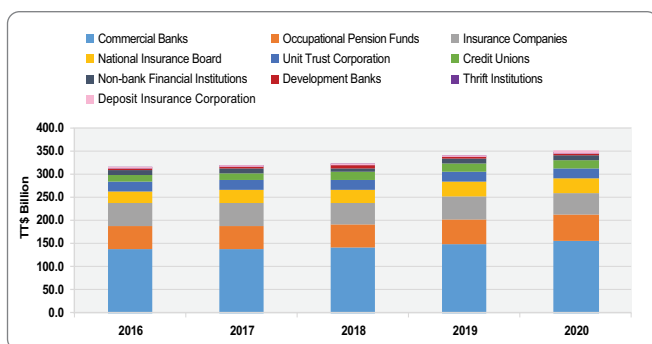
FINANCIAL SECTOR DEVELOPMENTS

CHAPTER 2

FINANCIAL SECTOR DEVELOPMENTS

The domestic financial sector remained resilient throughout 2020 despite the contraction in economic activity. Total financial sector assets, which were approximately \$350 billion as at December 31 2020 continued to be dominated by the banking, insurance and pension segments. These sectors collectively accounted for approximately 77 per cent of total domestic financial assets as at December 2020 (Figure 6). Financial soundness indicators (FSIs) in the banking and long-term insurance industries demonstrated adequate capital and liquidity buffers amidst declining profitability and moderate erosion in asset quality.

Figure 6
Composition of Assets in the
Financial Sector, 2016 – 2020



Source: Central Bank of Trinidad and Tobago

Note: The data for Credit Unions are estimated.

FINANCIAL SOUNDNESS INDICATORS⁸Banking Sector⁹

Credit risk in the banking sector heightened slightly at the end of 2020, evidenced by a moderate increase in non-performing (NPLs). Moreover, increases in general and specific provisioning reflected commercial banks' recognition of the severe economic impact of the pandemic on borrowers, as well as their prudent and conservative approach to the heightened credit risk environment. This

resulted in higher year-on-year operational expenses in the banking sector that eroded profitability, measured by return on equity (ROE) – the ratio declined to 12.4 per cent from 24.3 per cent in 2019.

The banking sector retained strong capital and liquidity indicators (Table 1A). Proactive monetary policy actions by the Central Bank amplified liquidity, mainly held in primary cash reserves. The banking sector transitioned fully to the more stringent and risk sensitive Basel II/III standard following the promulgation of the new Financial Institutions (Capital Adequacy) Regulations in May 2020. Notwithstanding the introduction of the more robust Basel II/III capital adequacy standard, the banking sector's overall capital adequacy ratio (CAR)¹⁰ remained healthy and well above the new regulatory minimum of 10 per cent as shown in Table 1B (previously 8 per cent under Basel I) indicating an adequate buffer against adverse events, despite the decline in the CAR which was observed. The noted decline could be attributed to the higher weights applied to riskier credit exposures, as well as an inclusion of a capital charge for operational risk under the Basel II standard which would have led to an increase in risk-weighted assets relative to capital. Regulatory capital remained relatively stable during the period averaging \$21.3 billion and comprised mainly common equity tier 1 (CET 1). On average, tier 1 capital represented 95.0 per cent of regulatory capital of which 99.8 per cent was CET 1 capital. Sectoral balance sheets reflected a broad preference for low-risk investments and a funding profile concentrated in low-cost savings and demand deposits to manage credit and liquidity risks. Over 2020, the banking sector also increased its net open position to foreign currency by 346 basis points due to USD sovereign bond investment growth. US dollar exchange rate fluctuations also accentuated the portfolio's market risk.

⁸ Trinidad and Tobago is an FSI Reporting Country to the IMF's Statistical Department <https://www.imf.org/en/Data/Statistics/FSI-guide>.

⁹ The banking sector includes the licensed commercial banks and non-bank financial institutions (non-banks) in Trinidad and Tobago, licensed pursuant to the FIA.

¹⁰ Refers to the Regulatory capital-to-risk weighted assets ratio in Table 1A.

Table 1A
Banking Sector: Financial Soundness Indicators, 2016 – 2020
 /Per cent/

	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20
Capital Adequacy*					
Regulatory capital-to-risk-weighted assets	23.8	23.4	23.3	23.6	19.6
Common equity tier I capital-to-risk-weighted assets	-	-	-	-	18.8
Regulatory tier I capital-to-risk-weighted assets	23.0	23.1	23.5	22.4	18.9
Regulatory capital-to-total assets	12.5	12.9	12.7	13.0	12.6
Net open position in foreign exchange-to-capital	13.8	16.9	14.4	11.2	14.7
Asset Composition					
Sectoral distribution of loans-to-total loans					
Households	45.7	46.7	47.2	47.4	48.4
Public sector	13.9	13.3	12.8	13.3	12.7
Financial sector	15.1	16.0	16.2	16.1	16.1
Oil and gas sector	3.5	3.1	4.9	4.8	4.2
Construction	6.1	4.5	4.1	2.8	3.8
Transport and communication	2.7	2.8	3.1	2.2	1.9
Non-residents	2.9	3.4	4.1	6.2	6.9
Foreign currency loans-to-total loans	15.5	16.0	17.0	18.1	16.3
Asset Quality					
Non-performing loans-to-gross loans	3.2	3.0	3.1	3.1	3.4
Non-performing loans (net of provisions)-to-capital	6.3	5.9	5.1	5.4	3.3
Total provisions-to-impaired loans**	60.3	65.6	68.6	61.6	88.0
Specific provisions-to-impaired loans	37.4	37.8	53.4	48.8	71.2
General provisions-to-gross loans**	0.7	0.8	0.5	0.4	0.6
Specific provisions-to-gross loans	1.2	1.1	1.7	1.5	2.4
Earnings and Profitability					
Return on assets	2.9	2.9	3.0	3.6	1.8
Return on equity	19.9	19.0	20.2	24.3	12.4
Interest margin-to-gross income	62.0	64.7	64.5	61.7	67.1
Non-interest income-to-gross income	38.0	35.3	35.5	38.3	32.9
Non-interest expenses-to-gross income	60.0	58.1	58.4	54.8	70.9
Liquidity					
Liquid assets-to-total assets	21.8	19.7	19.0	21.5	22.5
Liquid assets-to-total short-term liabilities	27.8	25.3	24.4	27.9	28.9
Customer deposits-to-total (non-interbank) loans	164.6	154.7	153.2	150.3	164.4
Foreign currency liabilities-to-total liabilities	26.0	26.4	26.4	25.8	24.5

Source: Central Bank of Trinidad and Tobago

Note: * Although the new Capital Adequacy Regulations were passed into law on May 2020, regulatory reporting on Basel II/III only became effective from August 2020. All capital adequacy ratios prior to August 2020 are based on the Basel I framework. Adjustments related to the new framework seek to raise the quality and quantity of the regulatory capital required and enhance the risk coverage of the capital framework. For further information on Central Bank's Basel II/III framework implementation, please view: <https://www.central-bank.org.tt/core-functions/supervision/basel-ii-iii-implementation>.

** These ratios are not the typically used measures of financial soundness but are included for comparison purposes.

Table 1B
Capital Ratios and Risk-Weighted Assets, December 2020¹¹
 /Per cent/

Capital Ratio	Minimum Requirement	Banking Sector Ratio
Regulatory capital-to-risk-weighted assets	10.0	19.6
Regulatory tier I capital-to-risk-weighted assets	6.0	18.9
Common equity tier I capital-to-risk-weighted assets	4.5	18.8
Risk-Weighted Assets (RWA)	as a per cent of RWA	TT\$ Billion
Total RWA	100	109.1
RWA Credit Risk	77	84.3
RWA Operational Risk	13	14.1
RWA Market Risk	10	10.7

Source: Central Bank of Trinidad and Tobago

Long-Term Insurance Sector¹²

The long-term insurance sector continued to conserve its strong capital base. As the impact of the pandemic unfolded over the past year, the fallout was manageable and trends in the FSIs remained favourable (Table 2). The expense ratio improved as a consequence of lower administrative costs due to COVID-19 restrictions and

increased work-from-home arrangements. However, the impacts on profits and the investment yield were expected due to the global economic downturn that triggered volatility in the local, regional and international equity and bond markets. Nevertheless, the FSIs reflected a relatively profitable sector with adequate liquidity. The rise in liquid assets in 2020 was in anticipation of a new government bond issue at the end of the year.

Table 2
Long-Term Insurance Companies: Financial Soundness Indicators, 2016 – 2020
 /Per cent/

	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20
Capital Adequacy					
Capital-to-total assets	20.3	21.5	20.9	23.2	21.1
Capital-to-technical reserves	27.6	29.8	29.0	33.2	30.1
Asset Quality					
(Real estate + unquoted equities + debtors)-to-total assets	8.0	8.6	8.8	8.4	9.5
Earnings and Profitability					
Expense ratio = expense (incl. commissions)-to-gross premium	26.6	28.4	28.2	27.2	25.4
Investment yield = investment income-to-investment assets	4.7	4.7	4.7	4.9	4.6
Return on equity = pre-tax profits-to-shareholders' funds	15.4	13.8	13.1	16.7	11.0
Liquidity					
Liquid assets-to-current liabilities	27.3	24.9	22.0	23.9	25.1

Source: Central Bank of Trinidad and Tobago

Note: Excludes data from Colonial Life Insurance Company (Trinidad) Limited (CLICO) and British American Insurance Company (Trinidad) Limited (BA) which remained under the emergency control of the Central Bank.

¹¹ The minimum capital requirement prior to the promulgation of the Financial Institutions (Capital Adequacy) Regulations in May 2020 was 8 per cent CAR and 4 per cent tier I capital.

¹² In previous FSRs the long-term insurance sector was referenced as the life insurance sector. The nominal change was done for consistency with the Insurance Act, 2018 (IA 2018).

General Insurance Sector¹³

The general insurance sector has since recovered from significant adverse claims experienced in 2017 due to climate-related events. Profits also trended upwards as the net loss ratios improved, particularly in motor lines following

reduced activity arising from measures imposed due to the pandemic. Liquidity levels increased, partly due to the lower levels of claims, as well as cash held in anticipation of purchasing a new government bond issue at the end of the year (Table 3).

Table 3
General Insurance Companies: Financial Soundness Indicators, 2016 – 2020
/Per cent/

	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20
Asset Quality					
(Real estate + unquoted equities + accounts receivables)-to-total assets	17.9	18.0	18.3	17.4	16.6
Debtors-to-(gross premiums + reinsurance recoveries)	16.0	11.0	14.6	13.4	14.7
Reinsurance and Actuarial Issues					
Risk retention ratio = net premiums written-to-total gross premiums	45.8	45.2	46.0	46.9	43.3
Net technical reserves-to-average of net claims paid in the last three years	155.9	146.3	139.7	130.9	132.7
Earnings and Profitability					
Combined Ratio	102.8	110.4	106.2	100.1	98.4
Expense ratio = expense (incl. commissions)-to-net premiums	55.5	56.8	56.8	54.9	57.4
Loss ratio = net claims-to-net earned premiums	47.2	53.6	49.4	45.2	41.0
Investment income-to-net premium	6.1	6.6	7.4	6.7	6.7
Return on equity = pre-tax profits-to-shareholders' funds	12.7	4.5	7.3	11.2	12.4
Return on assets	5.8	2.0	3.1	5.1	6.0
Liquidity					
Liquid assets-to-current liabilities	49.3	49.8	47.2	54.3	58.1

Source: Central Bank of Trinidad and Tobago

BANKING SECTOR (COMMERCIAL BANKS AND NON-BANKS) PERFORMANCE

Assets¹⁴

Banking sector assets grew by \$8.9 billion (5.6 per cent) to \$169.3 billion as at December 2020 (Figure 7). Expansion in the deposit base of commercial banks mainly funded growth in two asset classes, liquid funds and investments. The asset composition was relatively unchanged when compared to the previous year, remaining concentrated in loans, investments and liquid funds, which accounted for 46.8 per cent, 22.7 per cent and 21.1 per cent of total

banking sector assets, respectively. During the year, loans declined marginally by 0.6 per cent on account of reduced government borrowing.

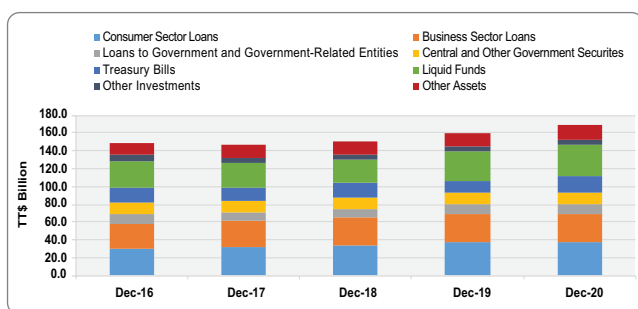
Business sector lending remained relatively flat over the year. There was a resurgence in loans for construction activity as public health containment measures eased in the latter half of 2020, while the manufacturing sector increased debt levels to manage cash flows mainly in the food, drink and tobacco sub-sector. However, prevailing containment measures to lessen COVID-19 infection rates reduced credit demand from the Distribution (includes restaurants and bars), Transport, Storage and Communication, as well

¹³ In previous FSRs the general insurance sector was referenced as the non-life insurance sector. The change was also done for consistency with the IA 2018.

¹⁴ Credit and lending data in this section refer to banking sector loans recorded in Central Bank CB30 regulatory returns, inclusive of non-resident activity.

as Personal Services sub-sectors. As a result, credit to the services sector declined year-on-year by 3.4 per cent (\$600.8 million) in December 2020. Loans to the consumer segment increased modestly. Growth in residential mortgages and debt refinancing tempered the overall decline in loans in the banking sector.

Figure 7
Asset Composition,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

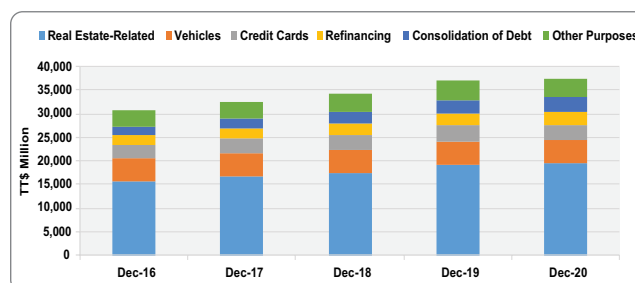
Consumer Sector Loans

The exceptional shock of the pandemic on the financial position of households was reflected in the meagre 0.4 per cent (\$163.0 million) increase in consumer credit over the year. Loans totalled \$37.3 billion (47.0 per cent of gross loans) as at December 2020 (Figure 8 and Table 4). Consumers preserved cash by accessing fewer personal expense loans for vacations abroad as the country's borders were closed, as well as for miscellaneous purchases, which

led to an overall contraction in Other Purpose Loans by 7.3 per cent (\$302.1 million) compared to growth of 9.9 per cent (\$374.5 million) in 2019. Restrictions on overseas travel and reduced consumer spending resulted in credit card balances outstanding declining by 2.5 per cent (\$81.6 million), while loans for second-hand motor vehicles increased by \$64.9 million or 7.4 per cent as customers sought more affordable options. A decline of \$80.6 million (2.0 per cent) for new auto loans was also registered

Growth in consumer loans was buoyed by net increases in debt consolidation and refinancing of \$258.5 million (4.7 per cent) which accounted for a share of 15.4 per cent (\$5.7 billion) of total consumer loans. Residential mortgages, the largest component of real estate-related loans, held the largest share of consumer loans at 44.2 per cent (\$16.5 billion) and contributed 4.2 per cent (\$666.4 million) growth in housing loans which dampened overall declines.

Figure 8
Consumer Loans by Purpose,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

Table 4
Growth in Consumer Loans by Purpose¹⁵, 2016 – 2020
/Year-on-Year Per cent Change/

CATEGORIES	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20
Real Estate-Related (including mortgages)	4.1	5.5	4.1	9.8	1.7
Vehicles	7.5	3.0	0.6	2.5	-0.6
Credit Cards	13.7	6.1	7.6	3.8	-2.5
Refinancing	5.2	10.4	11.4	9.1	6.7
Consolidation of Debt	10.1	16.0	18.4	13.6	2.9
Other Purposes	2.5	3.2	6.4	9.9	-7.3
TOTAL GROWTH IN CONSUMER LOANS	5.7	5.8	5.5	8.4	0.4

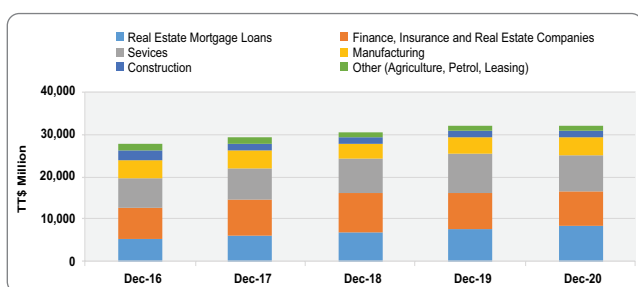
Source: Central Bank of Trinidad and Tobago

¹⁵ Absolute values are available in Appendix A.

Business Sector Loans

Business sector loans accounted for 40.3 per cent of the total share of loans extended in the banking sector (Figure 9) as at December 2020. The increase was mainly due to additional exposures to commercial real estate mortgages. Supply-side delays, caused by reliance on freight shipping as a consequence of reduced air cargo, ramped up demand for locally-produced food and drink. As a result, credit to businesses in the manufacturing food, drink and tobacco sector grew by 34.8 per cent or \$277.6 million. Similarly, there was a moderate regeneration in the Construction sector reflected by a 7.5 per cent increase (\$118.3 million) for the twelve months to December 2020.

Figure 9
Business Loans by Activity,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

The closure of businesses offering personal services, especially travel agencies, as well as those in the personal care and salon industry led to reduced demand of 20.4 per cent (\$350.2 million) for loans in this category. This constricted any notable growth in business sector lending, which remained relatively flat (declining by 0.1 per cent or \$33.0 million), tempered only by increases in commercial real estate mortgages of \$491.3 million (6.3 per cent).

Performance of the Loan Portfolio

Credit quality in the banking sector, as measured by the NPL ratio, deteriorated moderately over the year with the ratio increasing from 3.1 per cent in 2019 to

3.4 per cent at the end of 2020 (Figure 10). NPLs grew by \$230.3 million (9.4 per cent) amidst a shrinking loan portfolio with a deeper concentration in past due debt to consumers. The consumer NPL ratio worsened to 2.8 per cent from 2.1 per cent year-on-year, with growth of 35.4 per cent or \$255.9 million in the stock of NPLs. Sub-sector categories which accounted for the largest growth in the consumer NPL stock were Other Purpose Loans (29.0 per cent or \$71.4 million), Residential Mortgages (42.2 per cent or \$65.7 million) and Debt Refinancing/Consolidation¹⁶ (31.1 per cent or \$52.5 million). There was also notable uptick in motor vehicle loan delinquency with an increase of \$34.7 million or 62.9 per cent mainly for new car loans.

Business sector NPLs grew by \$125.2 million (9.5 per cent) in 2020 to stand at \$1.4 billion (Table 5).¹⁷

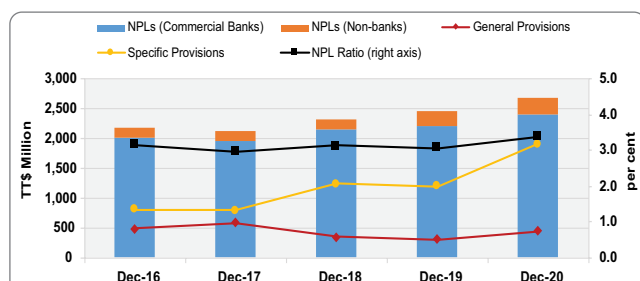
Over the period in review, the deterioration in the asset quality of business sector loans was particularly evident in the Services sectors. Consequently, the business sector NPLs reflected loans in the Distribution sub-sector of \$72.5 million (75.6 per cent); All 'Other' Services of \$40.2 million (13.8 per cent) which mostly comprises retail trade; and Transport, Storage and Communication of \$23.6 million (16.2 per cent). Petroleum sub-sector NPLs remained flat over the year as one commercial bank recovered payments on one large non-performing facility in the final quarter of 2020, thus returning \$91.0 million (98.9 per cent) to current status. The improved Petroleum sub-sector NPL ratio is therefore not reflective of a general improvement in credit risk in the sector.

There was some improvement however, declines were noted in construction sector NPLs (decrease of \$14.6 million or 12.9 per cent). Commercial Real Estate Mortgages NPLs increased by \$10.4 million or 3.5 per cent while the Manufacturing subsector declined by \$8.1 million or 12.5 per cent. Specific provisioning for the banking sector increased by \$715.8 million or 59.8 per cent over the year in review as the outlook for credit risk remains high amidst the pandemic and the resulting economic downturn (Figure 11). The share of business sector NPLs accounts for 59.5 per cent of total NPLs compared to 40.4 per cent (\$978.7 million) for consumers.

¹⁶ Debt refinancing refers to the replacement of existing debt with a completely new loan at more favourable terms and conditions while debt consolidation combines multiple loans into a single loan with one payment. The category shows loans extended to improve borrowers' debt management.

¹⁷ NPLs by sector is not available for non-banks. However, commercial banks account for 90 per cent of system NPLs therefore figures are representative of industry performance.

Figure 10
Banking Sector NPLs,
2016 – 2020



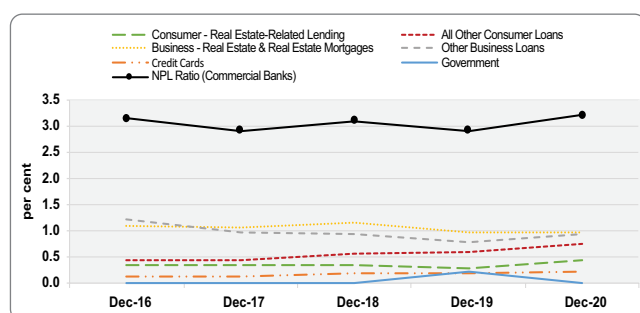
Source: Central Bank of Trinidad and Tobago

Table 5
NPLs by Sector, 2019 – 2020
/TT\$ Thousand/

	Dec-19	Dec-20	Change	Change (per cent)	Dec-19 NPL Ratio (per cent)	Dec-20 NPL Ratio (per cent)
Consumer NPLs	722,864	978,733	255,869	35.4	2.1	2.8
Business NPLs	1,315,034	1,440,234	125,200	9.5	4.4	4.8
Government NPLs	173,045	1,153	(171,892)	-99.3	1.6	0.0
NPLs – Commercial Banks	2,210,948	2,420,185	209,237	9.5	2.9	3.2
NPLs – Non-banks	244,192	265,274	21,082	8.6	6.2	6.5
Total NPLs – SECTOR	2,455,140	2,685,459	230,319	9.4	3.1	3.4
Loan loss provisions (specific and general)	1,511,648	2,364,165	852,517	56.4		

Source: Central Bank of Trinidad and Tobago

Figure 11
Commercial Banks' Sectoral NPLs
to Gross Loans,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

Sovereign Exposure

The Government's deployment of COVID-19 relief over the year was financed by borrowings from the banking sector, which increased their sovereign investment exposure by 17.9 per cent (\$4.9 billion) compared to a decline of 9.4 per cent at the end of 2019. The banking sector's treasury bills grew by \$4.2 billion (29.6 per cent), driven primarily by the commercial banks. TT-dollar treasury bills accounted for \$18.4 billion or 47.9 per cent of the total banking sector's investment portfolio in 2020. Exposure to state-owned financial institutions fluctuated over the year as maturities were reinvested into 'AAA'-rated foreign currency sovereign bonds. Although notable growth in the second half of 2020 was registered, whereby investment exposures to state-owned (other) financial institutions increased by \$930.6 million (69.0 per cent), year-on-year, a

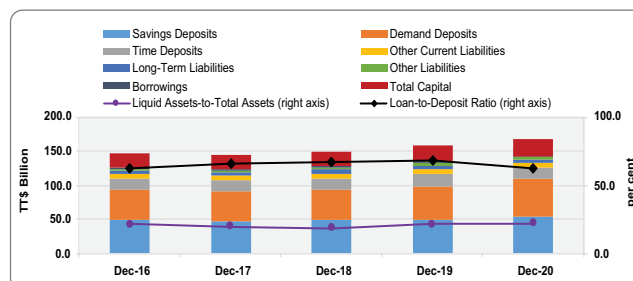
decline of \$119.0 million (4.9 per cent) was reported. Sovereign investments accounted for 19.0 per cent of total assets as at December 2020. Domestically, the banking sector also purchased \$728.8 million (9.9 per cent growth) in Government of the Republic of Trinidad and Tobago (GORTT) Central Government securities in local currency during the year. Sovereign investments accounted for 83.5 per cent of the banking sector's investment portfolio¹⁸ at the end of 2020, having increased marginally from 83.2 per cent in December 2019.

Sovereign loan exposure declined mainly due to reduced borrowing from state-owned financial institutions of \$185.0 million (29.6 per cent) and loans to other government bodies of \$460.3 million (4.9 per cent). The banking sector's concentration in sovereign loans therefore reduced to 12.7 per cent at the end of 2020 from 13.3 per cent in 2019. Total banking sector sovereign exposure accounted for \$42.1 billion or 24.9 per cent of total assets.

Liability Profile and Funding

Low-cost savings and demand deposits remained the primary funding source in the banking sector, accounting for 76.5 per cent of total liabilities. Total deposits stood at \$126.1 billion at the end of December 2020 (Figure 12), representing growth of \$8.8 billion (7.5 per cent). The increase over the year was mainly as a result of the demonetisation of the TT\$100 note announced at the end of 2019 and business sector placements of \$5.5 billion (12.0 per cent). Against the backdrop of high excess liquidity conditions, commercial banks relied less on short-term inter-bank borrowings with a decline of \$2.2 billion (67.0 per cent) over the year in stark contrast to three-year historical average growth of 16.4 per cent.

Figure 12
Deposits, Other Liabilities and Capital,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

The loan-to-deposit ratio¹⁹ experienced a decline – after averaging a conservative 67.0 per cent over the prior three years, the ratio dropped to 62.9 per cent as at December 2020. The banking sector therefore had increased levels of excess liquidity and ample capacity to extend credit. Due to muted credit activity in the system, the declining loan-to-deposit ratio impacted spread income.

The demonetisation of the paper-based \$100 note in March 2020, together with the reduced repo rate and primary reserve requirement, resulted in high levels of excess reserves in the banking sector. Accommodative liquidity conditions made it easier for banks to access cheaper funding and further amplified liquidity ratios. At the end of December 2020, consumer deposits remained the largest source of the deposit base (47.2 per cent) for the banking sector. Overall, liquid asset buffers remained comfortable and banks continued to be well placed to respond to liquidity shocks. Banking sector liquidity, as measured by the ratio of liquid assets to total assets, increased to 22.5 per cent as at December 2020 from 21.5 per cent in December 2019.

Sources of Earnings and Profitability

Banking sector profits were almost halved in 2020. Before-tax profits of \$2.9 billion reflected a sharp reduction of \$2.6 billion (46.8 per cent), from the year prior. As the economic outlook deteriorated in the first half of 2020, the banking sector ramped up specific

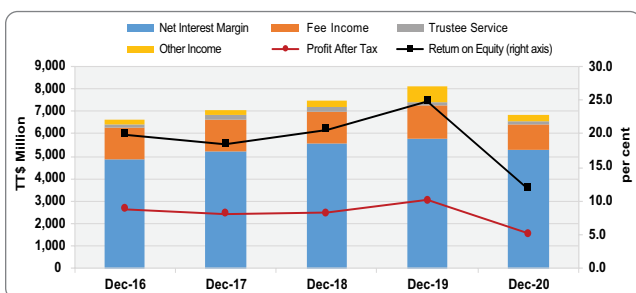
¹⁸ Investment in US Treasury Bills amounted to \$6.5 billion (TT\$ equivalent) or 17.1 per cent of sovereign exposures as at December 2020.

¹⁹ The loan-to-deposit ratio is the ratio of a bank's total outstanding loans for a period to its total deposit balance over the same period.

provisioning for loan losses. By the end of 2020, these additions to provisions for loan loss allowances increased ten-fold by \$878.5 million, which led to an overall increase in operating expenses. Tempering the impact of prudent credit risk management was a year-on-year decline in salaries and employee benefits of \$169.0 million (7.3 per cent). In addition, commercial banks opted to streamline their operations using technology to their advantage while closing several branches. Profitability indicators eroded drastically with the sector’s ROE²⁰ decreasing by approximately 1190 basis points to 12.4 per cent from 24.3 per cent a year earlier, while return on assets (ROA) decreased by 180 basis points to 1.8 per cent in 2020 from 3.6 per cent in 2019 (Figure 13 and Figure 14).

The COVID-19 pandemic negatively impacted earnings in the review period. The overall deterioration in operating income was driven by a decline in the net interest margin (\$501.0 million or 7.9 per cent), a decrease in earnings from fee income (\$417.4 million or 21.4 per cent), and lower foreign exchange profits (\$187.4 million or 19.7 per cent). Fewer loan bookings consistent with muted credit growth in the banking sector contributed to the decline in service fees. Banks also waived penalty charges, late payment, and other fees on credit facilities. An overall decline of \$470.0 million or 62.7 per cent in ‘other income’ was also reported. However, this was not pandemic-related, but attributable to the fact that in 2019, a \$424.8 million one-off increase was recorded following one large institution’s write-back on deferred taxes for its post-retirement medical plan.

Figure 13
Commercial Banks’ Contribution to Profit by Source, 2016 – 2020

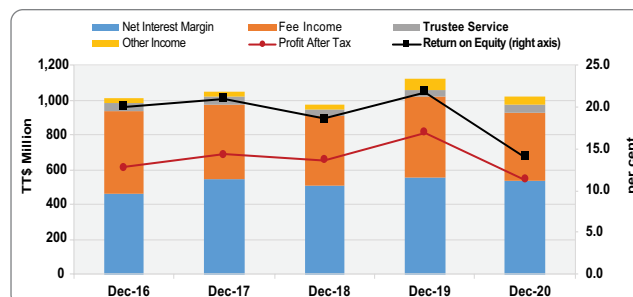


Source: Central Bank of Trinidad and Tobago

²⁰ ROE is a measure of financial performance calculated by dividing net income by shareholders’ equity.

²¹ Figures exclude data from CLICO and BA.

Figure 14
Non-banks’ Contribution to Profit by Source, 2016 – 2020



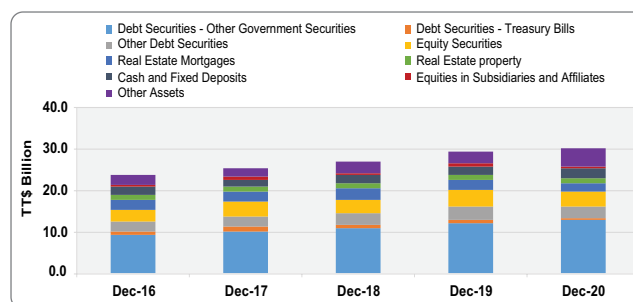
Source: Central Bank of Trinidad and Tobago

LONG-TERM INSURANCE SECTOR

Assets

Total assets of the long-term insurance sector²¹ were \$30.3 billion as at December 2020. This represented growth of 2.2 per cent, markedly reduced from an average annual growth rate of 7.0 per cent over the last five years (Figure 15).

Figure 15
Assets – Long-Term Insurance Sector, 2016 – 2020



Source: Central Bank of Trinidad and Tobago

The sector’s asset composition as at December 2020 remained relatively consistent with prior periods. Debt securities accounted for more than 50 per cent of assets and remained the preferred class of investments due to its longer-term duration which facilitates appropriate matching to the long-term liabilities. Government and government-guaranteed debt presents a low-risk facet and accounted for close to 80 per cent of total debt securities. Although there was an increase in

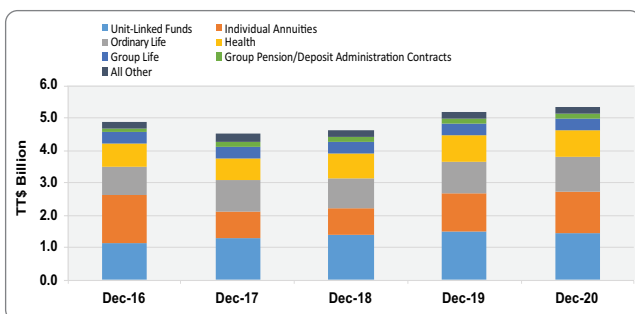
the allocation towards liquid investments such as Cash and Fixed Deposits and Mutual Funds (Other Assets), in anticipation of purchasing a new government bond issue at year’s end. The shrinkage in the equity portfolio echoed the movements in the stock exchange as market capitalisation contracted globally following the tightening of economies impacted by the COVID-19 pandemic. Notably, there were two systemically important regional market players, which together accounted for 62.4 per cent of the sector’s assets and 70.3 per cent of annual gross premium income.

Lines of Business

Despite economic challenges over the last year, the long-term sector showed signs of premium growth, though at a slower rate than in the previous year due to the sluggish economic activity stemming from the COVID-19 pandemic. In 2020, the growth rate was 3.0 per cent compared to the average annualised growth rate over the last five years (excluding the impact of the premiums from the pension plans in wind-up) of 4.0 per cent.

Unit-linked products dominated the market in terms of premium income (Figure 16). There was also significant growth in individual annuities which spiked intermittently over the last five years due to acquisitions of annuity portfolios from pension fund plans in wind-up as the premiums were absorbed by insurers. The premiums from these plans resulted in individual annuities overtaking ordinary life policies as the second major contributor to premium income in 2019 and 2020.

Figure 16
Gross Premium Income –
Long-Term Insurers,
2016 – 2020



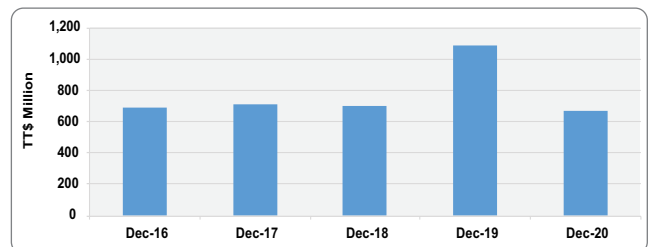
Source: Central Bank of Trinidad and Tobago

Reported Profits

Over the last three years, annualised profits before taxes fluctuated as a result of volatility in the local and international bond and equity markets particularly in the US (Figure 17). The US equity market boomed in 2019, after an average performance in 2017 and has been volatile throughout 2020 due to several factors such as the impact of the COVID-19 pandemic.

Expenses

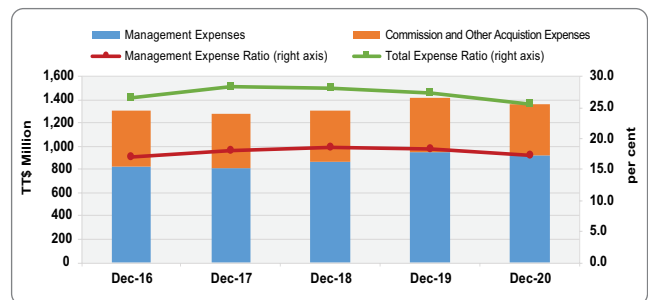
Figure 17
Profits Before Taxes – Long-Term Insurers,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

Management expenses decreased in 2020 as administrative costs declined as a result of the national lockdown measures instituted at the end of March 2020. The increase in 2019 was one-off and due largely to costs associated with the industry’s preparation for International Financial Reporting Standards (IFRS) 17. Overall, the expense ratios, which are based on the net premium income, trended downwards largely due to the increases in premium income fuelled mainly from the annuity business (Figure 18).

Figure 18
Expenses and Expense Ratios –
Long-Term Insurers,
2016 – 2020



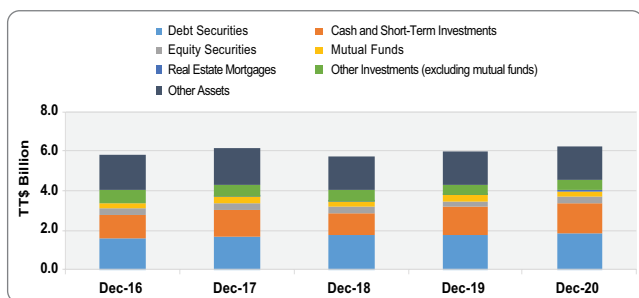
Source: Central Bank of Trinidad and Tobago

GENERAL INSURANCE SECTOR

Assets

Over the last five years, total assets in the general insurance sector grew at an average annual growth rate of 2.1 per cent to \$6.2 billion at the end of December 2020 (Figure 19). Due to the shorter-term nature of the sector’s insurance liabilities, companies maintain a higher allocation in cash and short-term investments and mutual funds as compared with the long-term sector. The level of assets fluctuated over the period 2017-2019 due to funds advanced from reinsurers to the local market in light of claims stemming from natural catastrophes in the region. However, as these claims were largely paid and settled, the growth rate of assets normalised in the subsequent period.

Figure 19
Assets – General Insurance Sector, 2016 – 2020



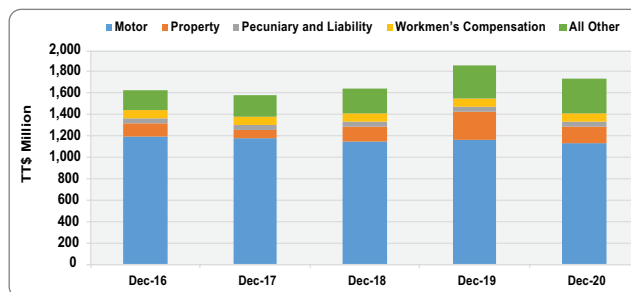
Source: Central Bank of Trinidad and Tobago

Lines of Business

Annualised gross premium income for the general insurance sector was \$4.0 billion for the year ending December 2020. Gross premium growth recovered in 2018 and continued in an upward trend, following the contraction in the energy sector (a major contributor to general insurance premium growth) and the softening of property insurance rates in earlier years. This momentum was primarily driven by the increasing demand for property insurance post significant weather-related events. One institution with a regional presence controls approximately one-third (35.3 per cent) of the market share based on annualised gross premiums, while the next three largest institutions control a combined market share of 31.6 per cent.

Net retained premium income stood at \$1.7 billion in 2020, a decrease of 6.5 per cent from the previous year (Figure 20). Net premium income contracted both in the property and motor lines. While decreased risk retention influenced the former, the motor line was affected by lower vehicle usage. Restrictions on mobility and work-from-home arrangements due to COVID-19, resulted in individuals reducing the number of vehicles insured per household. The gross premiums written for the motor and property lines accounted for 32.9 per cent and 49.1 per cent of total gross premiums, respectively. However, after deduction of reinsurance premiums, the composition shifted to 65.1 per cent for motor business and 8.7 per cent for property business of total net premiums retained. This disparity is due to the fact that a large proportion of risk underwritten in the property line is reinsured whereas for motor business, most of the risk is retained locally by insurers.

Figure 20
Net Retained Annual Premium Income – General Insurers, 2016 – 2020



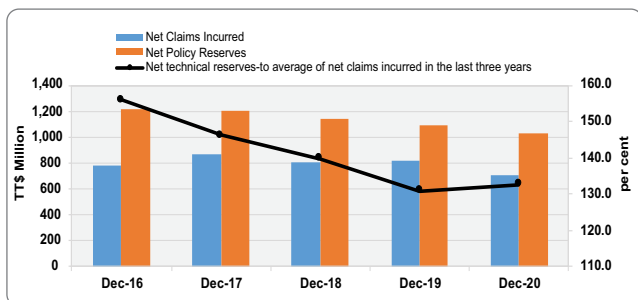
Source: Central Bank of Trinidad and Tobago

Claims Adequacy

Claim reserves contracted since 2017 as greater focus was placed on the claims management process, quicker settlements of claims and in 2020 a push to settle long outstanding claims (Figure 21). Also, in 2020, net claims incurred decreased as there were no adverse events as in previous years (most notably 2017 and 2019) and claims from the motor line of business reduced mainly due to the restrictions on movement attributed to the pandemic. Although the ratio of the net technical reserves to the three-year average net claims

incurred increased in 2020, this was due to the decline in the claims incurred in that year which substantially lowered the three-year average of net claims incurred.

Figure 21
Net Technical Reserves/ Three-Year Average
Net Claims Incurred,
2016 – 2020

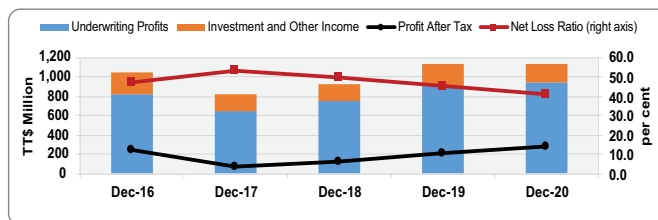


Source: Central Bank of Trinidad and Tobago

Earnings and Profitability

Underwriting profits have grown steadily, surviving the impact of adverse claims from hurricanes, earthquakes and floods in 2017 (Figure 22). In 2020, underwriting profits were achieved largely due to the improvement in the loss ratio for motor business. This was as a consequence of the restrictions in mobility following the measures imposed for the COVID-19 pandemic.

Figure 22
Contribution to Profit and Expenses –
General Insurers,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

OCCUPATIONAL PENSION PLANS

As at December 2020, there were 182 active registered pension plans, of which 44 were sponsored by Government or Government-related entities (Table 6). Four pension plans were wound-up during the year and no new plans were registered. The Central Bank has been advised of a further three plans to be wound-up in 2021. Given the challenges that the pension sector is facing, Central Bank’s plans for a reform agenda are highlighted in **Box 3**.

Table 6
Pension Plan by Type, 2020

	Sponsored by Government or Government-Related Entities		Private Company Sponsored		Total
	Defined Benefit	Defined Contribution/ Hybrid	Defined Benefit	Defined Contribution/ Hybrid	
Number of Plans	36	8	66	72	182
Total Assets (TT\$ Billion)	32.2	0.4	14.6	7.6	54.8

Source: Central Bank of Trinidad and Tobago

Investments

Total occupational pension plan assets increased by 1.6 per cent (\$0.9 billion) from \$53.9 billion as at December 2019 to \$54.8 billion as at December 2020. In the first quarter of 2020, pension plans experienced losses in the value of their investment portfolios due to the initial impact of the COVID-19 pandemic on financial markets. However, market values recovered somewhat during the year leading to the sector reporting an overall gain.

The assets continued to be held mainly in GORTT securities and shares in local and foreign companies (Figure 23). These asset classes accounted for approximately 40 per cent and 29 per cent of the sector’s holdings, respectively. The value of the local and foreign shares held decreased by \$0.5 billion (2.8 per cent) for the year ended December 2020. This was primarily due to the decline in value of local shares, since the All T&T Index (ATI) and Composite Price Index fell over the same period by 5.2 per cent and 9.9 per cent, respectively (Box 4). However, these losses were mostly offset by gains on the foreign shares. Additionally, there was a 9.9 per cent decrease in interest and dividend payments received for the year ended December 2020 compared to 2019. This decline may, in part, have been due to some fixed income instrument issuers deferring payments to bondholders and a few traded companies deciding not to pay dividends to shareholders due to the effects of the pandemic on their businesses.

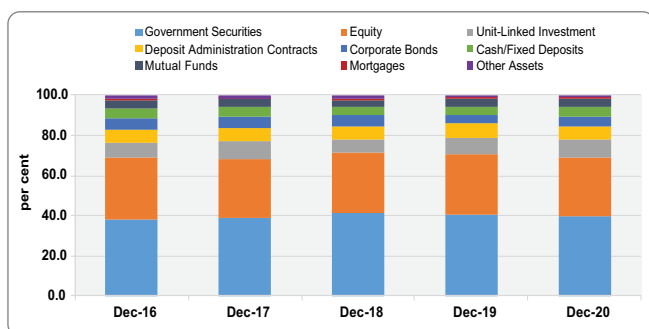
The Insurance (Pension Fund Plan Investments) Regulations 2020 increased the percentage of foreign assets which could be held by a pension plan from approximately 20 per cent to 30 per cent of total assets. Investment managers were therefore seeking to increase the pension plans’ foreign investments. However, the corporate trustees indicated that the desired increase in foreign investments may not be possible in the near term as the inflow of foreign exchange into the pension plans is not substantial.

Funding

As at December 2020, 65 pension plans reported funding deficits on an ongoing basis and 59 pension plans reported funding deficits on a termination basis. This represented approximately 36 per cent and 32 per cent of active pension plans as at December 31 2020, respectively. Notably, there are currently 16 occupational pension plans that are funded indirectly by the Government which have recorded a combined total deficit of approximately \$0.9 billion as of December 31 2020.

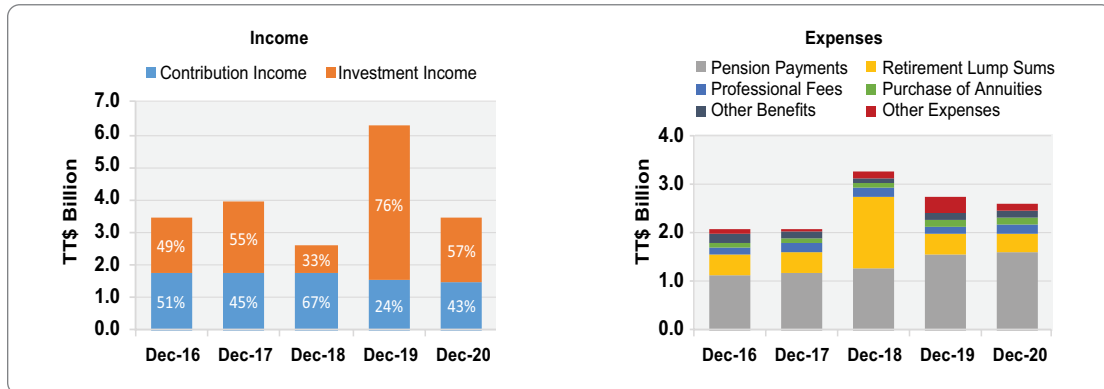
There are various factors that may have contributed to the current deficit positions being experienced by these pension plans, such as lower than expected returns on investments, the impact of the changes in market conditions on asset values and the actuarial valuation of plan liabilities (Figure 24). Additionally, the long-term impact of the COVID-19 pandemic on the funding levels of pension plans is currently unknown as the situation is ongoing. However, with the volatility in investment income and the increasing difficulty some employers may face in paying increased contributions towards deficit funding, it is expected that, at least in the near term, there will be an overall negative impact on the plans’ funding status.

Figure 23
Assets as a Proportion of Funds – Pension Plans’ Asset Mix, 2016 – 2020



Source: Central Bank of Trinidad and Tobago

Figure 24
Pension Sector Income and Expenses,
2016 – 2020

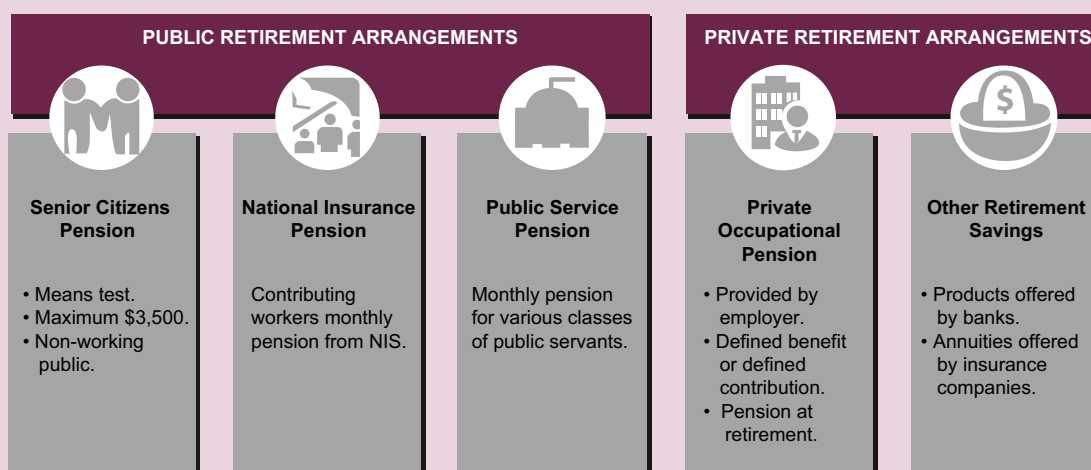


Source: Central Bank of Trinidad and Tobago

BOX 3: PENSION REFORM IN TRINIDAD AND TOBAGO

A well-functioning, robust pensions system is important to an individual's financial security and, more broadly, a country's fiscal sustainability. In Trinidad and Tobago this system is made up of a combination of public and private sector arrangements as illustrated in Figure 1.

Figure 1
Pension Framework in Trinidad and Tobago



Source: Central Bank of Trinidad and Tobago

The Central Bank of Trinidad and Tobago (Central Bank) is the regulator for all Private Occupational Pension Plans in Trinidad and Tobago. The Central Bank's mandate is primarily focused on both the stability of the sector as well as to ensure that, where applicable, the plans' membership accrued benefits are protected.

Why is Saving for Retirement Important?

Upon retirement, a person's average disposable income usually falls below income previously received from employment. Retirement savings are a useful buffer to smooth the transition between pre and post retirement income. In the context of changing demographics including increased life expectancy, policies which support private retirement savings are encouraged. Other labour market dynamics suggest that lower retirement savings could increase recourse to the state, which can potentially undermine fiscal sustainability if the state pensions system is overburdened.

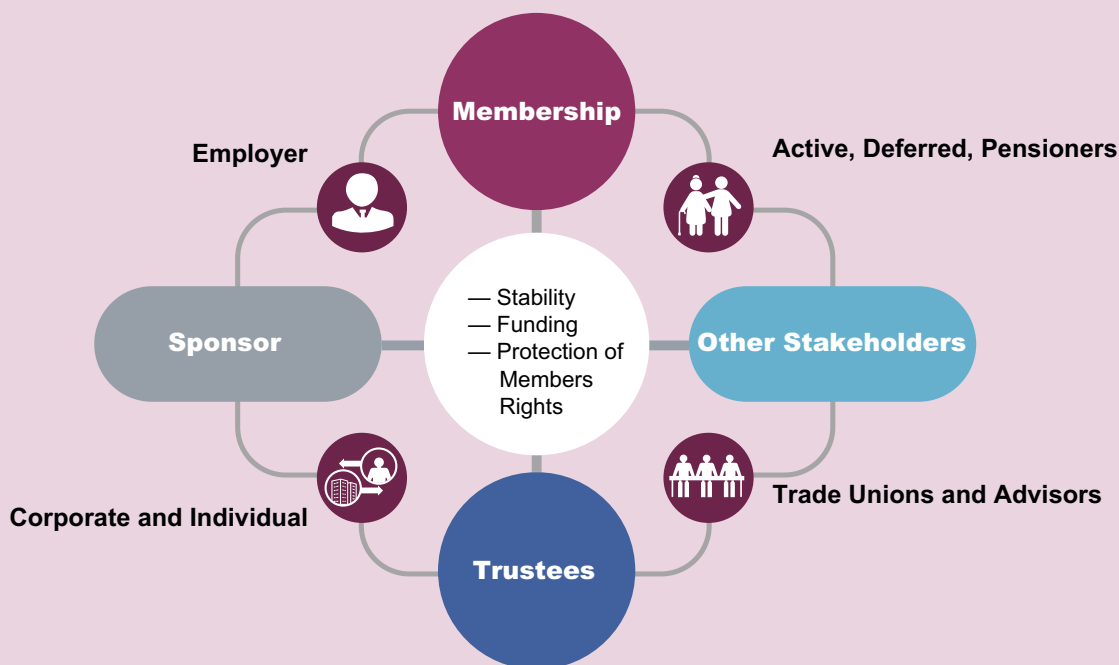
Private Occupational Pension Plans and the Need for Reform

The Organisation for Economic Co-operation and Development, the International Monetary Fund and the World Bank have strongly recommended that the structural and supervisory framework for Private Occupational Pension Plans needs to be robust and fit for purpose. In 2004, the Government of the Republic of Trinidad and Tobago articulated in a White Paper on Financial Sector Reform, among other things, the need to modernise the legislative and supervisory framework to facilitate effective regulation and management of the private occupational pension sector. The 2004 White Paper also made recommendations for wider reform of public sector pensions.

BOX 3: Continued

The Central Bank incorporates a risk-based framework in regulating the private occupational pension sector. The Central Bank’s supervisory framework is built on active communication with all stakeholders to articulate the expected roles and behaviours of the stakeholders (Figure 2). The role of the various stakeholders is ultimately to ensure good governance of the pension plans and also the protection of the rights of the membership. In its assessment, the Central Bank focuses not only on the stability of the pension arrangements but also the strategies incorporated to ensure these arrangements are adequately funded.

Figure 2
Major Stakeholders and Objectives of the Pension Sector



Source: Central Bank of Trinidad and Tobago

The legislative framework to support proper regulation of the Private Occupational Pension Sector has several gaps. The Central Bank has been the regulator for the private occupational pension plans since 2004 and the supervisory authority is vested in the Insurance Act, 2018. The Central Bank held widespread consultations with the industry in 2012 and prepared a Policy Proposal Document (PPD) (available on the Central Bank’s website). The PPD recommended an increased mandate for the regulator and expanded the governing framework for private occupational pension plans. As highlighted in Figure 3, the proposals included enhanced governance and risk management standards inclusive of fit and proper criteria. Minimum expected prudential practices in relation to fund management as well as increased transparency and communication were also advanced. Pension reform is a priority for the Central Bank, as highlighted in the Central Bank’s upcoming five-year Strategic Plan for 2021/22-2025/26.

BOX 3: Continued

Figure 3
Central Bank’s Private Occupational Pension Plans Policy Proposal Recommendations



Source: Central Bank of Trinidad and Tobago

Other Reform Considerations

Macroeconomic and demographic developments are challenging the structure and sustainability of private occupational pension plans, with potential spillovers to public pension arrangements. Factors such as longevity, low long-term interest rates and changing employment patterns have similar implications for private as well as public pension plans. As such, many of the considerations put forward for the reform of private occupational pension plans has cross-applicability for public sector pension plans. These complementarities could provide the basis for a more holistic national pension reform agenda to ensure that all retirement vehicles, both public and private, are not only fiscally sustainable, but also fit for purpose.

PAYMENTS SYSTEM (LOCAL CURRENCY PAYMENTS)

Overall, the total value of electronic payments (large-value and retail payments) fell in 2020. Likewise, the value of payments made by cheques declined, the largest reduction in five years. In terms of consumer behaviour, consumers appeared to have reduced their use of cash as a result of health concerns associated with handling cash. Additionally, due to instituted COVID-19 safety measures that included nationwide lockdowns, many stores remained closed for long periods and some persons experienced a loss in income or jobs resulting in less in-store purchases. This was reflected in the decline in the number of debit and credit card Point of Sale (POS) purchases. Consumers also migrated to the use of the internet in greater numbers, using online banking to make routine payments such as bill payments. Further evidence of an increased thrust towards digital payment channels was observed as banks promoted online banking channels and businesses promoted e-commerce opportunities in an effort to reduce 'in-store' traffic at their establishments.

Wholesale (Large-Value) Payments Transaction Volume and Value

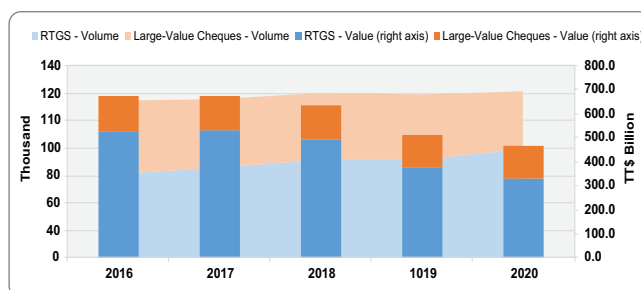
At the end of 2020, the volume of transactions processed via the Real Time Gross Settlement System (RTGS) amounted to 79,022, an increase of 11.3 per cent when compared to 71,021 in 2019. Notwithstanding, the value of RTGS transactions declined by 11.1 per cent to \$332.1 billion in 2020, when compared to \$373.5 billion processed in the previous year. The RTGS processes both large-value and time-critical payments. These payments may either be interbank payments or customer payments which are made by banks on behalf of their customers. In 2020, there was an uptick in the volume of customer payments, leading to the overall increase in the volume of RTGS transactions. The increase in the volume of transactions via the RTGS is reflective of the switch to electronic payments in preference to cheques in light of the COVID-19 pandemic, although the value of the transactions in total fell, reflecting the lower economic activity.

²² Refers to retail electronic and cheque transactions.

²³ There were only marginal increases in debit transfers during the period.

Cheque transactions have been decreasing over the last several years and this trend persisted in 2020. The volume of large-value cheque transactions shrank (11.3 per cent) to 42,374 in 2020 from 47,791 in 2019, while the value of large-value cheque transactions fell (3.2 per cent) to \$133.8 billion in 2020 from \$138.2 billion one year earlier (Figure 25).

Figure 25
Share of Wholesale Payments –
Volumes and Values,
2016 – 2020



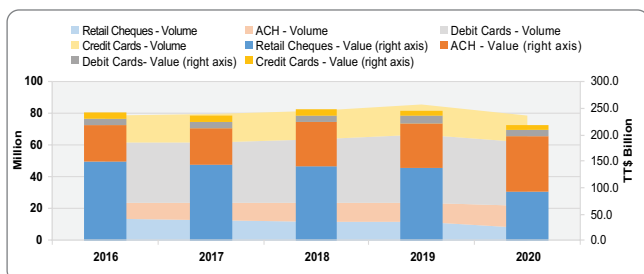
Source: Central Bank of Trinidad and Tobago

Retail Payments - Transaction Volume and Value

The volume and value of all retail payments²² fell by 8.0 per cent and 10.7 per cent, respectively in 2020 despite significant growth in Automated Clearing House (ACH) payments. During the year, the ACH processed a total volume of 13.2 million transactions valued at \$103.1 billion, an increase of 8.5 per cent and 21.2 per cent, respectively when compared to 2019. This was due to an increase in the use of the ACH by commercial banks to facilitate interbank transfers that originated at bank branches and online credit transfers requests from customers using internet banking.²³ Additionally, commercial banks used the opportunity to heighten their promotion of online banking services to its customers during the COVID-19 pandemic.

Despite a significant fall of 32.2 per cent in the value of retail cheques from \$137.1 billion in 2019 to \$93.0 billion in 2020, the value of retail cheques remained high. Similarly, the number of retail cheque payments processed plummeted by 26.9 per cent to 8.3 million in 2020, from 11.3 million one year earlier (Figure 26).

Figure 26
Share of Retail Payments –
Volumes and Values,
2016-2020



Source: Central Bank of Trinidad and Tobago

Notwithstanding the decline in the volume of in-store POS purchases using payment cards, debit and credit cards payments still dominated retail payments in terms of its usage relative to other payment instruments. Debit and credit card payments accounted for 51.1 per cent and 21.7 per cent, respectively of all retail payments in 2020. ACH transactions volumes accounted for 16.7 per cent while retail cheques volumes accounted for 10.5 per cent.

In terms of value, ACH transactions accounted for the largest share of retail payments at 47.0 per cent, followed by retail cheques at 42.4 per cent. This was an important market development as for the first time, retail cheque values did not account for the largest share of the value of all retail payments. Debit cards accounted for 6.0 per cent followed by credit cards at 4.7 per cent.

Payments Infrastructure

At the end of 2020, the number of Automated Teller Machines (ATMs) in Trinidad and Tobago stood at 491, a decrease of one ATM from the year prior. The number of POS machines in operation also declined to 21,846. However, this reflected one institution’s correction of the inaccurate reporting of its POS machines stock rather than a fall in the number of machines in use.

ATMs and POS machines play a crucial role in enabling electronic payments. To this end, commercial banks have been using ATMs to improve access to electronic banking services whilst at the same time reducing the volume of

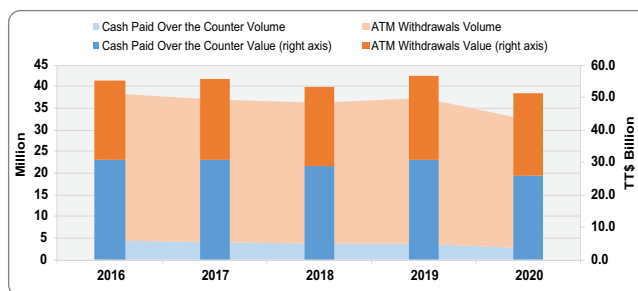
over-the-counter (OTC) transactions. Banks have also been seeking to increase their merchant base and convenience to customers by offering POS machines including mobile POS devices. Moreover, the introduction of the VISA/LINX co-branded EMV²⁴ card is expected to facilitate domestic e-commerce activity.

Cash Withdrawals

Overall, businesses and consumers withdrew less cash in 2020 as represented by a decrease in the volume and value of cash withdrawals by 13.9 per cent and 9.7 per cent, respectively, when compared to one year earlier. The number of OTC cash withdrawals at commercial banks fell by 31.7 per cent and ATM withdrawals fell by 12.0 per cent. Consequently, the value of cash paid OTC decreased from \$30.8 billion in 2019 to \$26.1 billion in 2020, and ATM withdrawals fell from \$26.1 billion in 2019 to \$25.3 billion in 2020 (Figure 27). This was partly attributed to the overall downturn in aggregate demand, occasioned by a reduction in consumer and business spending.

Prior to the pandemic, commercial banks were already promoting their online banking and mobile applications to reduce the foot traffic in banking halls. Since then, COVID-19 restrictions hastened the use of online banking and mobile applications to carry out tasks such as managing accounts, paying bills and transferring funds. Cash in Active Circulation has also been on the decline since 2018, falling from 7.9 billion in 2018 to 7.3 billion in 2020.²⁵ When taken as a percentage of GDP, the percentage of cash in circulation has also been falling.

Figure 27
Cash Withdrawals – Volumes and Values,
2016– 2020



Source: Central Bank of Trinidad and Tobago

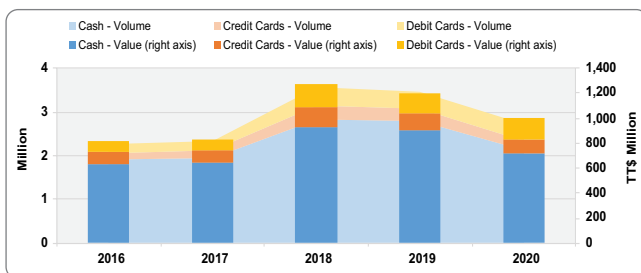
²⁴ An EMV chip is a security standard for storing account information on payment cards. The cards are named after Europay International, Mastercard, and Visa (EMV), the three companies that created the technology.

²⁵ Source: Central Bank of Trinidad and Tobago.

Bill Payment Service Providers (BPSPs)

In 2020, the three registered BPSPs processed a total of 2.7 million transactions valued at just under \$1.0 billion, compared with 3.5 million transactions valued at \$1.2 billion in 2019. Cash remained the most popular means of making payments at BPSPs, accounting for over 70 per cent in both the volume and value of all payments made (Figure 28). Meanwhile, both the volume and value of payments by debit cards and credit cards declined in 2020 when compared to the previous year for BPSPs. The fall in the volume and value of BPSP payments was attributable to the COVID-19 restrictions as two major BPSPs closed some of their outlets during the period due to reduced traffic.

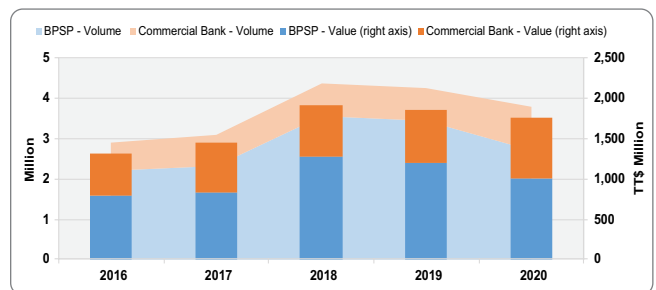
Figure 28
Trends in Domestic Retail Payments – Bill Payments, 2016 – 2020



Source: Central Bank of Trinidad and Tobago

Conversely, there was a significant expansion in both the volume and value of utility payments processed by commercial banks of 34.6 per cent and 16.5 per cent, respectively, in 2020. This was attributable to a significant rise in utility payments made via the internet on commercial bank websites as consumers chose this method of bill payment rather than going to utility or BPSP offices (Figure 29).

Figure 29
Trends in Domestic Retail Payments – Bill Payments from BPSPs and Commercial Banks, 2016 – 2020



Source: Central Bank of Trinidad and Tobago

BOX 4: CAPITAL MARKET DEVELOPMENTS IN TRINIDAD AND TOBAGO

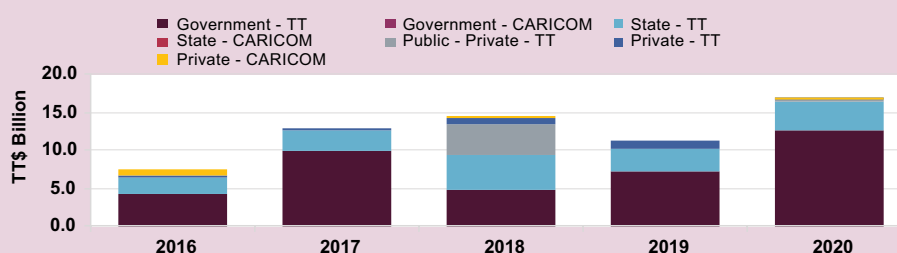
During 2020, capital market activity was heavily influenced by Government transactions to support novel coronavirus (COVID-19) measures. The monetary policy response to the pandemic and the subsequent increase in liquidity conditions facilitated the Government's financing activities. These issues were primarily taken up through private arrangements by the banking sector, driving most of the primary market activity. The domestic stock market experienced a major market shock over March to April 2020 and recorded an overall decline for the year. However, both the equity markets and local mutual fund industry began to display signs of recovery into the first quarter of 2021.

Fixed Income / Bond Market

Provisional information suggests that during 2020, the fixed income security market recorded 25 private placements (\$16.8 billion), compared to 17 issues (\$11.3 billion) in 2019 (Figure 1). The Central Government was more active during 2020, issuing 12 bonds at \$12.5 billion for budget support, VAT refunds, and refinancing of existing facilities. In comparison, during 2019 the Central Government issued 10 bonds at just under \$7.3 billion. State enterprise activity during 2020 was also higher with ten bonds issued, raising \$3.9 billion, compared to five bonds at \$3.0 billion in 2019. Furthermore, in 2020, the private sector (local and Caribbean Community (CARICOM)) issued three bonds at \$465.0 million, compared to one bond raising just over \$1.0 billion in the prior year.

During the first quarter of 2021, activity continued to be strong with eight private placements raising \$5.4 billion. The Central Government continued to be the major borrower, issuing four bonds at \$5.1 billion, while state enterprises issued four bonds at \$341.7 million.

Figure 1
Primary Fixed Income Security Market,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

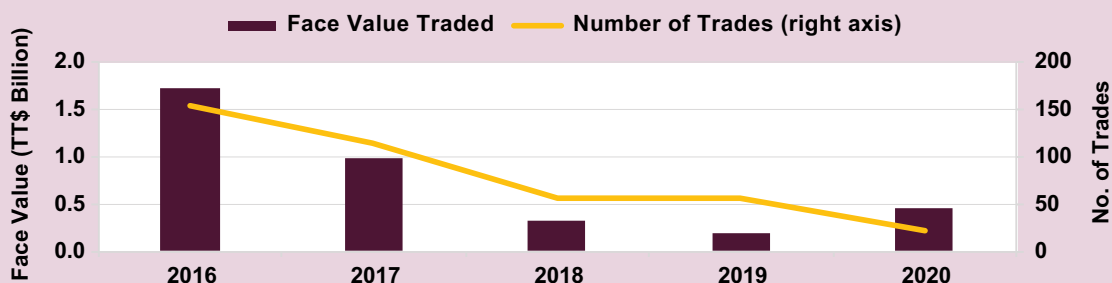
Note: Caribbean Community (CARICOM). The data represent fixed income securities issued in the domestic market, which includes some USD securities issued locally and converted into TTD equivalent.

While the number of trades in the secondary government bond market continued its downward trend, the face value of bonds traded increased in 2020. Over the year, the market observed just 22 trades at a face value of \$448.7 million, compared to 55 trades at a face value of \$182.0 million in 2019 (Figure 2). On the other hand, during 2020, while the number of trades on the secondary corporate bond market increased to 131, the face value traded declined to \$14.8 million, compared to 118 trades at a face value of just under \$22.0 million.

Activity on the secondary bond markets continued to be strong over the first quarter of 2021 as 11 Central Government bond trades were recorded at a face value of \$73.9 million. On the corporate bond market, 55 trades were registered, exchanging \$37.5 million in face value.

BOX 4: Continued

Figure 2
Government Bond Trading,
2016 – 2020

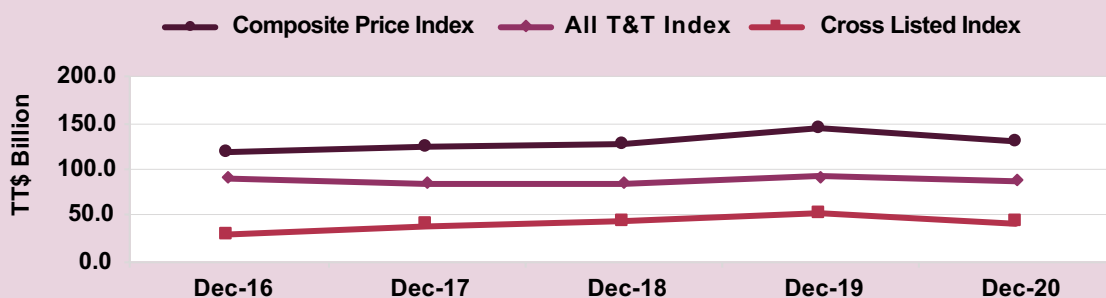


Source: Central Bank of Trinidad and Tobago

Equity Market

Performance indicators of the domestic equity market revealed substantial contractions during 2020, primarily due to the effects of the COVID-19 pandemic. Total stock market capitalisation fell by 9.8 per cent to \$129.4 billion, driven by a 5.2 per cent decline in the All T&T Index (ATI) and an 18.4 per cent plummet in the Cross Listed Index (CLI) (Figure 3). The only sub-index to record growth in 2020 was Manufacturing II (25.0 per cent) driven by the same increase in Trinidad Cement Limited. All other sub-indices registered deteriorations, with the largest declines occurring in the Energy (-29.0 per cent), Non-banking Finance (-13.4 per cent), Manufacturing I (-12.7 per cent), and Property (-12.5 per cent).

Figure 3
Stock Market Capitalisation,
2016 – 2020



Source: Trinidad and Tobago Stock Exchange

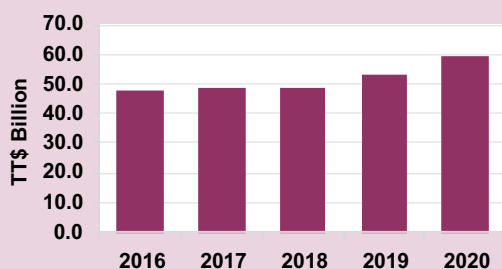
At the end of the first quarter of 2021, the domestic stock market displayed some recovery. Over the period, the Composite Price Index (CPI) recovered 1.5 per cent, driven by a 3.9 per cent growth in the CLI, and 0.4 per cent increase in the ATI.

BOX 4: Continued

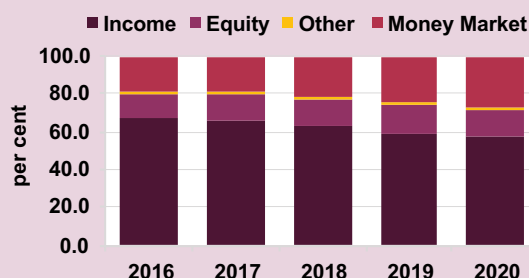
Mutual Fund Industry

According to the Trinidad and Tobago Securities and Exchange Commission, the Collective Investment Scheme (CIS) industry observed a 12.9 per cent increase in assets under management (AUM) to \$59.6 billion during 2020¹ (Figure 4) compared to an 8.0 per cent increase in AUM during 2019. Despite recording this increase in 2020, the impact of the COVID-19 shock on the domestic and international capital markets resulted in AUM declining by 4.1 per cent (-\$2.3 billion) in March 2020, following which the market observed a sustained recovery.

The Central Bank captures information on mutual fund providers² which accounted for roughly 84.7 per cent of the total CIS industry AUM³ at the end of 2020. Total AUM for these institutions expanded by 7.1 per cent to just under \$50.5 billion over the year. With respect to the investment structure (Figure 5), income funds and equity funds increased by 3.9 per cent to \$29.0 billion and 4.8 per cent to \$7.3 billion, respectively, while money market funds increased by 16.1 per cent to \$13.6 billion. Given the volatility in capital markets during 2020, the drive towards the safety and liquidity was reflected in a 9.5 per cent increase in fixed net asset value (NAV) funds to \$36.8 billion, while floating NAV funds recorded just a 1.2 per cent increase to \$13.7 billion.

Mutual Fund Data, 2016 - 2020**Figure 4**
Assets Under Management

Source: Central Bank of Trinidad and Tobago

Figure 5
Portfolio Investment Structure

Source: Central Bank of Trinidad and Tobago

There were important developments in the international mutual funds market which should be noted domestically. During the Global Financial Crisis (GFC), several large runs on US money market funds occurred, as redemption requests outstripped the ability of fund managers to liquidate assets, triggering knock-on effects and contagion risks through the financial system. As a result, international policymakers considered implementing a number of safeguards to protect the financial stability of money markets. According to the International Monetary Fund (IMF)⁴, international reforms following the GFC generally transitioned away from fixed NAV funds, except for funds with highly liquid and

¹ At the end of 2020, there were 15 issuers offering 68 registered CISs, unchanged from the end of 2019.

² The Central Bank collects mutual fund information from the Trinidad and Tobago Unit Trust Corporation, RBC Investment Management (Caribbean) Limited, Republic Bank Limited and First Citizens Asset Management Limited.

³ Total CIS industry data is sourced from the Trinidad and Tobago Securities and Exchange Commission at <https://www.tsec.org.tt/wp-content/uploads/CIS-Data-as-at-December-2020.pdf>.

⁴ IMF. Trinidad and Tobago: Press Release; Financial System Stability Assessment; and Statement by the Executive Director for Trinidad and Tobago. (Washington, DC: IMF, 2020). <https://www.imf.org/en/Publications/CR/Issues/2020/10/29/Trinidad-and-Tobago-Press-Release-Financial-System-Stability-Assessment-and-Statement-by-the-49846>.

BOX 4: Continued

low-risk assets. Policymakers have reconsidered a complete transition away from fixed NAV funds as this would result in the elimination of the money market⁵ which is crucial to short-term funding.

In this regard, safeguards which have been considered include NAV buffers, such as capital reserves, capital commitments from sponsors and short-term cash insurances which provide a backstop against fund losses when valuations deviate from the fixed NAV price. These buffers improve the ability of the short-term funding markets to weather periods of financial stress and could mitigate incentives for runs. Additionally, proposed liquidity safeguards would establish appropriate thresholds and reduce destabilising runs. Portfolio composition safeguards would ensure that fixed NAV funds hold a sufficient mix of safe assets and limit exposure to higher risk securities.

⁵ Elimination of fixed NAV funds could reduce a money market fund's ability to provide short-term credit and commercial paper credit to local governments and financial institutions. Technical Committee of the International Organisation of Securities Commissions, Money Market Fund Systemic Risk Analysis and Reform Options - Consultation Report. (Spain: IOSCO, 2012). <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD379.pdf>.

CHAPTER 3 VULNERABILITIES AND RISKS

CHAPTER 3

VULNERABILITIES AND RISKS

This chapter adopts an integrated approach²⁶ to discuss the transition of vulnerabilities to risks in the macro-financial system. The risk assessment, similar to previous FSR publications, is based primarily on expert judgement complemented by an analysis of domestic macroprudential indicators (**Appendix B**). The framework for risk assessment and risk ratings are defined in Appendix C. Stress tests also play a role in these assessments. **Box 5** highlights a more dynamic macroprudential-based approach, in addition to the Central Bank's traditional single-factor shock method (**Appendix D**). Moreover, in light of the pandemic during 2020, the banking sector's resilience to forbearance measures was analysed to identify potential sources of systemic risks (**Box 6**). Ending the chapter, **Box 7** highlights a common reference framework for quantifying climate-related risks that can aid Central Bank initiatives to develop country-specific stress scenarios.

Financial system vulnerabilities identified in this year's FSR have remained broadly similar to the 2019 FSR, with some notable exceptions. The 2019 FSR highlighted the following key risks to financial stability:

1. Growing household indebtedness;
2. High sovereign concentration in the financial system; and
3. Rapid digitalisation in the financial services industry.

The 2020 Report highlights the mounting impact of pandemic-related measures on the financial system's sovereign and household exposures. The accelerated migration to online platforms has amplified the extent to which digitalisation is considered a potential vulnerability. Additionally, vulnerability to high banking concentration and interconnectedness with other financial services entities have become more compelling in the current macroeconomic context.

Consequently, all three risks from the 2019 Report have migrated into 2020, with varying degrees of intensity. The risk assessments related to sovereign and household exposures now reflect the added impact of the pandemic. Consistent with the international environment, unprecedented levels of public sector support to curtail the fallout of COVID-19 have magnified financial stability risks from the sovereign exposure channel. Although the stock of household debt has moderated, it is expected that weak economic conditions could continue to impinge on households' debt servicing capacity in the foreseeable future. Furthermore, as virus cases surge and containment measures are reinstated, spillovers to the financial sector are likely to be more intense. As the demand persists for online services, cybersecurity threats are also anticipated to escalate.

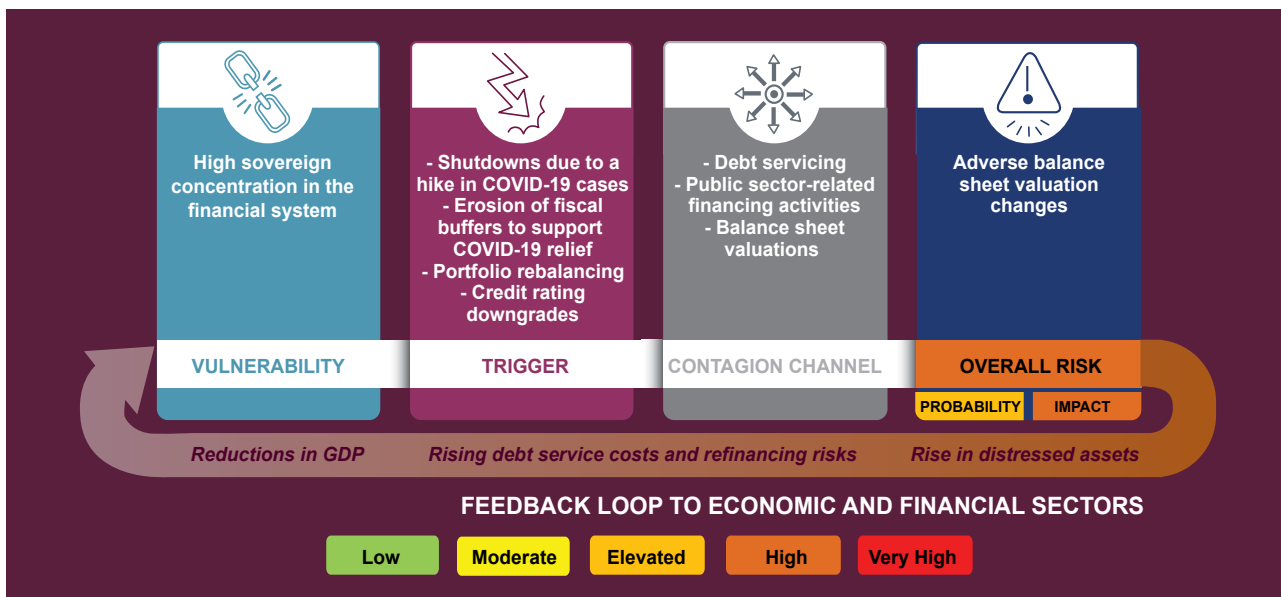
HIGH SOVEREIGN CONCENTRATION IN THE FINANCIAL SYSTEM

The ongoing COVID-19 pandemic continues to dampen prospects for an economic recovery in the short term, and available fiscal space is severely challenged. Fiscal policy plays a leading role in recovery efforts.²⁷ Consequently, attempts to manage the economic fallouts of the COVID-19 pandemic have led to considerable public sector borrowing by governments. According to the IMF, global public debt to GDP – at 97.3 per cent in 2020 – is projected to expand by approximately 1.6 per cent in 2021 to 98.9 per cent, well beyond pre-pandemic levels. Hence, with the majority of the Government's financing needs consistently funded by domestic sources, high sovereign concentrations on the balance sheets of local financial institutions remains a potential vulnerability (Figure 30).

²⁶ The framework was adapted from the approach used by the Bank of Canada and is based on work undertaken by Adrian, T, D Covitz, and N Liang. "Financial Stability Monitoring." Federal Reserve Board Finance and Economics Discussion Paper, 2013 and the 2013 Annual Reports of the US Department of the Treasury and the Office of Financial Research.

²⁷ According to the IMF Fiscal Monitor April 2021, countries have announced US\$16 trillion in fiscal actions from the start of the pandemic to March 17 2021.

Figure 30
 Vulnerabilities and Risks Assessment Framework
 – High Sovereign Concentration in the Financial System

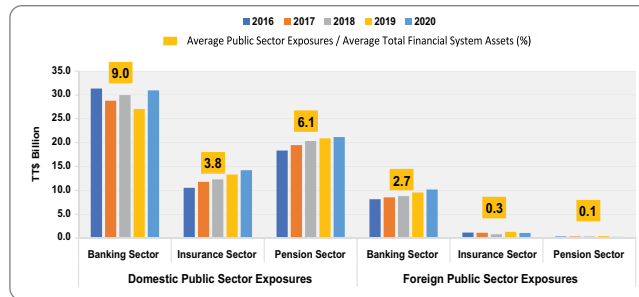


Source: Central Bank of Trinidad and Tobago

Sovereign exposure concentrations continue to deepen across the major segments of the domestic financial sector. The banking, insurance, and pension sectors, on average, account for over 75 per cent of total financial sector assets (166.5 per cent of GDP). Accordingly, these sectors also account for a significant share of the local financial system’s exposures to the public sector²⁸. As at December 2020, these sectors’ sovereign holdings rose by 7.4 per cent and accounted for 22.3 per cent of total financial sector assets (up from 21.3 per cent recorded last year) (Figure 31, Panel A). The rise in concentration, relative to system assets, was driven by the banking sector (largely domestic), despite the fall in the long-term segment of the insurance industry and the pension sector foreign exposures (Figure 31, Panel B).

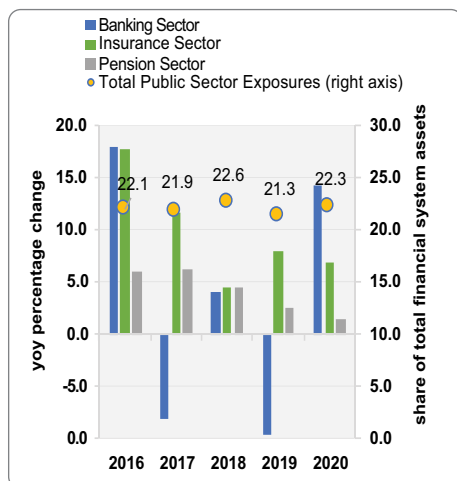
²⁸ This consists of the sectors’ exposures to the Central Government, statutory bodies and state-owned entities.

Figure 31
Financial System Public Sector Exposures,
2016 – 2020
Panel A

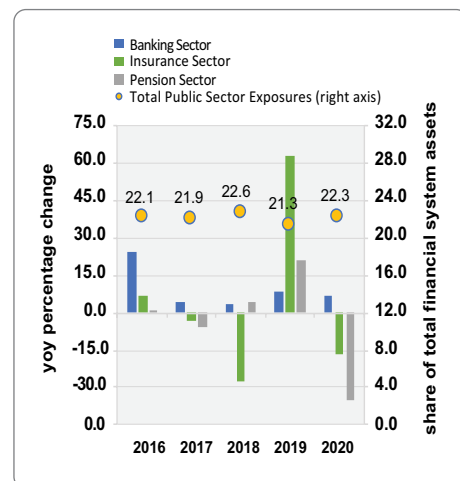


Panel B

Domestic Public Sector Exposures



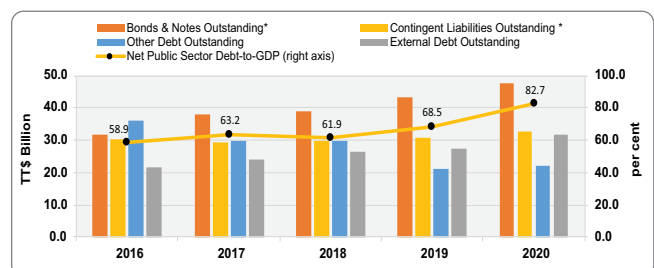
Foreign Public Sector Exposures



Source: Central Bank of Trinidad and Tobago
Note: yoy – year-on-year.

With the continuation of the pandemic, the Government has signalled – through the FY2021 fiscal package – that support will continue, particularly to sustain the social safety net. However, similar to many countries, fiscal conditions have worsened, but financing requirements remain high the longer pandemic-related expenditure takes place.²⁹ As shown in Figure 32, efforts to quell the effects of COVID-19 may have dented public sector debt sustainability.³⁰

Figure 32
Domestic Public Sector Debt Profile,
2016 – 2020



Sources: Ministry of Finance and the Central Bank of Trinidad and Tobago
Note: * indicates domestic debt. 'Other Debt Outstanding' includes sterilised securities such as open market operations and debt management bills.

²⁹ Additionally, government-guaranteed loan programmes also have the potential to deepen the sovereign-bank-corporate nexus.

³⁰ According to the IMF Guidance on Debt Sustainability for emerging market economies, debt-to-GDP ratios exceeding 60 per cent are considered unsustainable.

For the financial system, the recent resurgence in COVID-19 cases signals that sovereign exposures may be more prone to risk.

Though the execution of national vaccination programmes has improved, future surge-shutdown cycles are still possible. Given revenue constraints and possible higher external borrowing costs should credit ratings deteriorate, the Government could be faced with limited financing options. This outcome could be further intensified if domestic financial entities decide to rebalance their portfolios in order to adhere to exposure limits and broader risk management policies. Perceptions of changing default risks could be reflected in the market valuation of government securities. For financial institutions with significant domestic sovereign exposure, adverse valuation changes can directly impact balance sheets and, if severe enough, potentially undermine capital positions.

Stress testing results for the commercial banking sector's credit risk on large exposures highlights that banks are most susceptible to a shock to the domestic sovereign.³¹

As at December 2020, the results showed that the commercial banking sector's CAR suffered the largest loss (12.1 per cent drop in CAR) when GORTT Group exposures were shocked (50 per cent of the GORTT loans and securities become impaired). A few banks fell below the Basel II regulatory minimum CAR of 10 per cent. The probability of such risk materialising is rated as **'elevated'**, but is mitigated by less dependence on financial sector funding. There has been growing recourse to other sources of funding which can limit the pace of public debt accumulation, such as the HSF. As the market values of sovereign exposures fluctuate, the risk of adverse balance sheet valuation changes for highly exposed financial entities and the likely impact on financial stability are rated as **'high'**.

³¹ See **Appendix D** for the summary of stress testing results for the commercial banking sector.

BOX 5: DEVELOPING A MACROPRUDENTIAL STRESS TESTING FRAMEWORK FOR TRINIDAD AND TOBAGO

Macroprudential stress testing uses econometric models and deterministic forecasting techniques to assess the resilience of a portfolio, institution or financial system when faced with exceptional but plausible shocks. This area of research emerged as regulators recognised that the links between the real and the financial sector were key in the run-up to the global financial crisis (GFC) and existing stress testing techniques were ill-suited at capturing these interactions. This Box introduces the approach to macroprudential stress testing that is being pursued by the Central Bank of Trinidad and Tobago (Central Bank). As background, an account of macroprudential stress testing in other jurisdictions is outlined, as well as the details of the standard approach taken in macroprudential stress testing.

Advanced economies (AEs) and emerging market and developing economies (EMDEs) have made considerable strides with macroprudential stress testing.¹ Typically, these exercises included a baseline scenario and at least one severe but plausible adverse scenario.² Approaches to set the baseline scenario varied: the DFAST used an average of a survey of professional economic forecasts while the MSTs used in-house macroeconomic projections. Typically, adverse scenarios were founded on past periods of financial fragility. For example, the MST and BOJST used macro-financial conditions during monetary policy normalisation (in key source markets) and the GFC, respectively. Most exercises explored how initial shocks to credit, market, interest rate and/or operational risks affect the capital adequacy of financial institutions, which may include capturing the second effects (feedbacks) due to network externality. Typically, this was done using econometric techniques like Ordinary Least Square (OLS) regressions or Dynamic Stochastic General Equilibrium models.

In AEs and EMDEs, macroprudential stress testing frameworks evaluate resilience of the financial system by comparing the impact of baseline and adverse scenarios on the capital adequacy ratios (CARs) of financial institutions. In most jurisdictions, the CAR represents the buffer or resources available to absorb losses from institution-specific and macroprudential risk events. The general starting point for macroprudential stress testing exercises is the design of appropriate stress scenarios. Scenarios either: (i) replicate a historical episode; (ii) simulate a hypothetical situation; or (iii) imitate assumptions from mathematical models. Once this is determined and suitability assessed, the scenario is then mapped onto risk factors, which are usually credit, market, interest rate and operational, to evaluate its impact on a portfolio, an institution or the financial system.

A similar framework has been explored for the domestic setting. Based on data availability, macroprudential stress testing could be applied for the banking and insurance sectors. Banks and insurers comprised 58.7 per cent of total financial system assets in 2020 and are paramount in transferring private savings (households and businesses) into productive investments. Internationally, macroprudential stress tests broadly cover solvency risks of the financial system. However, to better identify latent avenues of systemic risks, a macroprudential stress testing framework should also consider all of the potential conduits of financial instability.

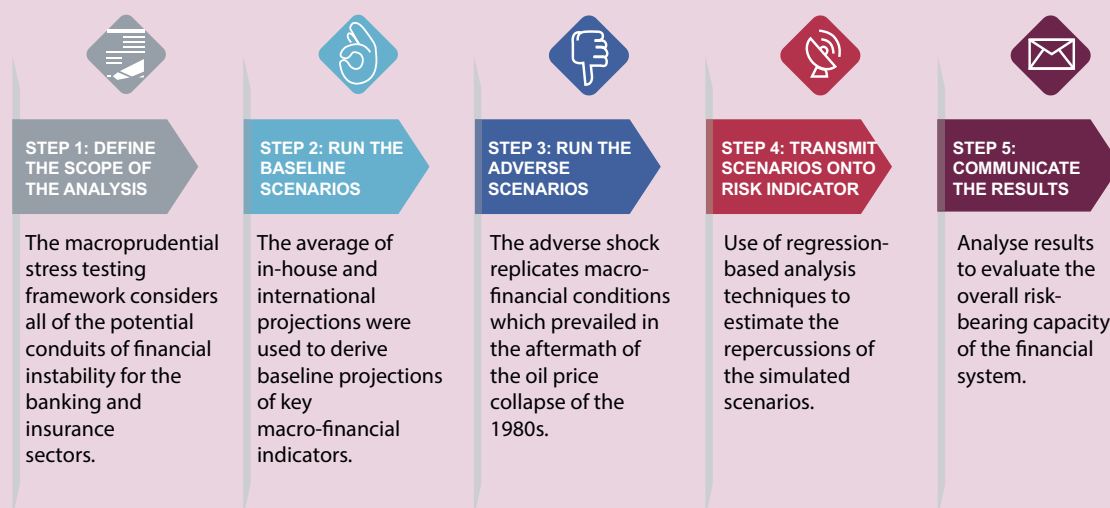
¹ For the European Union there is the Macroprudential Extension Stress Test (MPEST). The United States has the Dodd-Frank Act Stress test (DFAST). Japan uses the Bank of Japan stress test (BOJST). In Thailand, there is the Internal Capital Adequacy Assessment Process. Lastly, South Africa deploys Bottom-up and Top-down Macroprudential Stress Tests (MSTs).

² Scenarios refer to a set of hypothetical events that could have a bearing on resilience. More specifically, the baseline scenario is a set of macro-financial conditions that is generally consistent with the likely path of future growth, while the adverse scenario is a set of macro-financial conditions which is designed to stress a portfolio, institution and/or financial system.

BOX 5: Continued

For Trinidad and Tobago, the baseline scenario adopts assumptions similar to DFAST and takes an average of in-house and international projections of 12 economically meaningful variables.³ Adverse scenarios are in the mould of the BOJST, that is, using macro-financial deteriorations comparable to those from systemic events. For example, for an adverse shock, Gross Domestic Product is projected to contract by 10.3 per cent, inflation rises to 17.7 per cent and unemployment increases to 11.1 per cent – replicating developments that took place domestically during the oil price crash of the early 1980s. Once the scenarios have been specified, regression-based analysis techniques (such as OLS regression) are employed to predict possible movements in the potential channels of financial instability for the banking and insurance sectors. The framework is summarised in Figure 1.

Figure 1
Macroprudential Stress Testing Approach for Trinidad and Tobago



Source: Central Bank of Trinidad and Tobago

The early results from the deployment of this framework suggest that the banking and insurance sectors are resilient. In the face of an adverse scenario informed by historical events, capital adequacy levels remained well above regulatory requirements. It should be noted that there were some unfavourable movements in a few risk indicators. For instance, it was observed that banking sector exposures to the sovereign expand at a higher rate than for other financial institutions (see **Chapter 3: Vulnerabilities and Risks - High Sovereign Concentration in the Financial System**) and, banks' earnings display greater volatility under extreme conditions. On the other hand, for insurance companies, the simulations showed that asset quality and liquidity are the indicators which can come under pressure from an adverse scenario, primarily due to variations in investment yields. Nonetheless, the negative impulses were insufficient to trigger significant deterioration in financial stability. Fine-tuning of the framework would take place in 2021 with a view to publishing the detailed findings alongside the results for the microprudential stress tests results (**Appendix D**) by 2022.

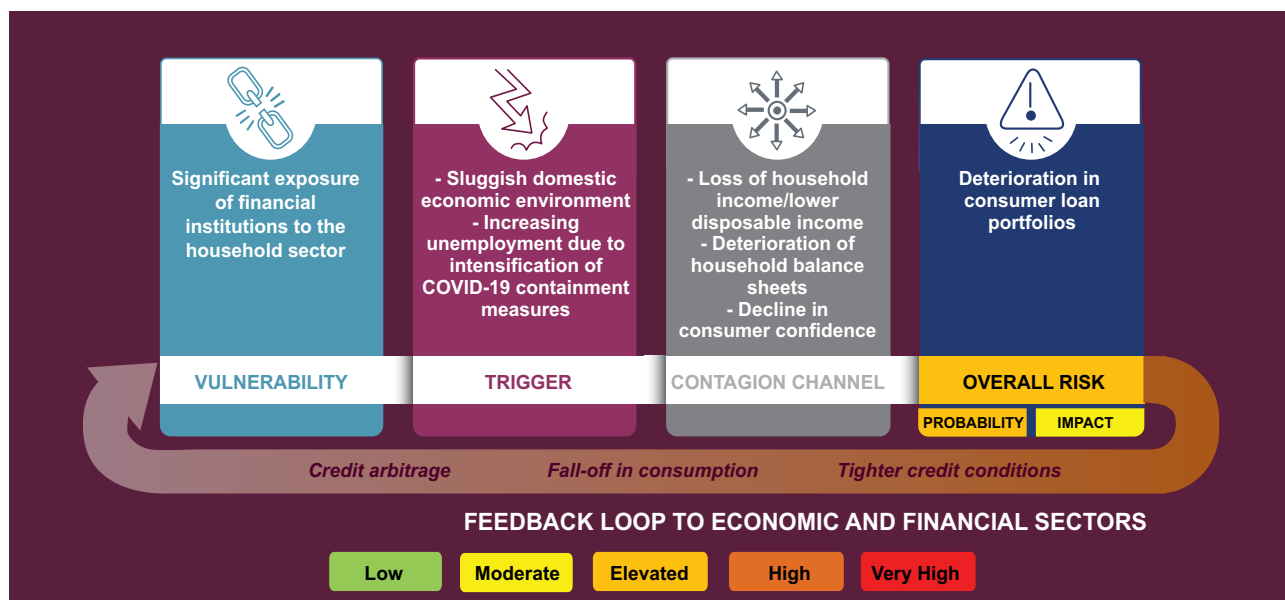
³ Specifically: current account balance (TT\$ million); GDP at market prices (TT\$ billion); inflation rate (end of period, per cent); crude oil production (bbl/d, year-on-year growth); Henry Hub natural gas price (US\$/mmbtu); natural gas production (mmscf/d, year-on-year growth); WTI crude oil price (US\$/bbl); exchange rate (TT\$ to US\$); non-energy fiscal balance (TT\$ million); overall fiscal balance (TT\$ million); weighted average loan rate (end of period, per cent); and 30-day Treasury Bill rate.

SIGNIFICANT EXPOSURE OF FINANCIAL INSTITUTIONS TO THE HOUSEHOLD SECTOR

For the first time since its compilation (in 2003) household debt contracted, however it remains a relevant vulnerability (Figure 33). The continued slowdown in economic activity can challenge households’ finances, raising the chances of deterioration in consumer credit quality.³² Although estimated household debt (Figure 34) fell by \$0.3 billion in 2020, the ratio of household

debt-to-GDP rose by 216 basis points to 40.0 per cent. The COVID-19 pandemic may have slowed lending to consumers, however 48.4 per cent of the banking sector’s loan portfolio (compared to 47.4 per cent in 2019) remained concentrated in consumer loans and, if households struggle to meet their financial obligations, credit risks may rise and weaken financial institutions’ resilience. Striking the right balance between appropriate growth-enhancing lending and managing risk can help bolster economic recovery efforts.

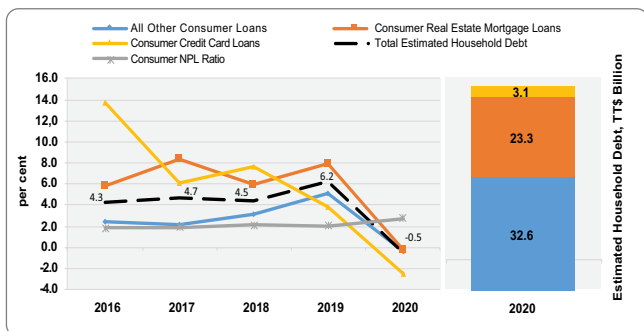
Figure 33
Vulnerabilities and Risks Assessment Framework
 – Significant Exposure of Financial Institutions to the Household Sector



Source: Central Bank of Trinidad and Tobago

³² Household debt comprises credit extended to households from: commercial banks; non-banks; insurance companies; credit unions; the Home Mortgage Bank; the Trinidad and Tobago Mortgage Finance Company; and other retail merchants.

Figure 34
Estimated Growth in Household Debt³³,
2016 – 2020

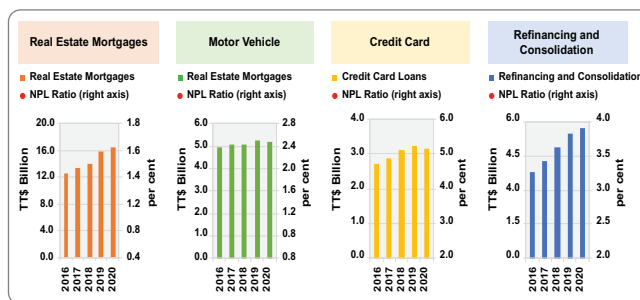


Source: Central Bank of Trinidad and Tobago

Restrictions to slow down the spread of COVID-19 disrupted business activities resulting in retrenchments, temporary layoffs or reductions in working hours. Although loan deferrals³⁴ and government COVID-19 relief measures helped to mitigate the economic impact of pandemic-related disturbances on households, the banking sector’s consumer NPL ratio rose by 72 basis points to 2.8 per cent. While marginal, the increase in NPLs may be cause for concern as it implies that some borrowers were still unable to meet their loan obligations during a period of significant financial support – in 2020, on average 15.3 per cent of the consumer loan portfolio was deferred. With some support having come to an end before being instituted again in April 2021 and economic conditions still subdued, there is a risk that weaknesses in the consumer loan portfolio could widen over time. Based on data as at December 2020 (Figure 35 and Figure 36), credit risk appears lowest for the largest segment in the consumer loan portfolio, residential real estate mortgages (loans secured by deeds and other liens to finance activities in the real estate sector), as its associated NPL ratio rose by only 40 basis points to 1.4 per cent. Additionally, for the remaining large consumer loan categories for example, motor vehicles, credit cards and refinancing and consolidated loans, credit risks appear negligible given their low NPL ratios. Still, these loan segments recorded larger increases in their NPL ratios compared to residential real estate mortgages. For instance, the NPL ratios for motor vehicle, credit card and refinancing

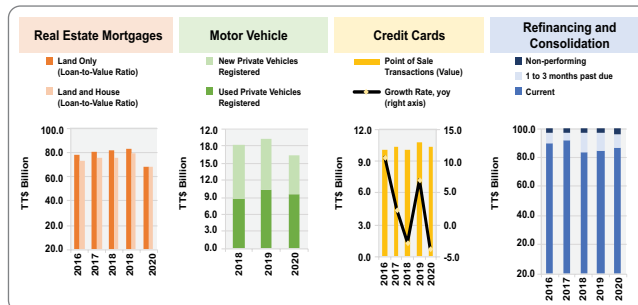
and debt consolidation loans rose by 84, 122 and 83 basis points to 2.1, 5.1 and 4.0 per cent, respectively.

Figure 35
Selected Loan Categories,
Value and NPL Ratios³⁵,
2016 – 2020



Source: Central Bank of Trinidad and Tobago

Figure 36
Selected Loan Categories,
Sub-categories and Growth Rates,
2016 – 2020*



Source: Central Bank of Trinidad and Tobago

Note: * New Private Vehicles Registered and Used Private Vehicles Registered were compiled from 2018.

Financial sector vulnerability to this sector is dependent on consumers’ ability to remain resilient in the face of adverse shocks. Households’ financial positions can be compromised by a further slowdown in the local economy or increasing unemployment due to an intensification of COVID-19 containment restrictions to control a rise in new cases. These triggers could, inter alia, lead to a loss of income and a fall in aggregate demand. These factors can spawn the risk of deterioration in consumer loan

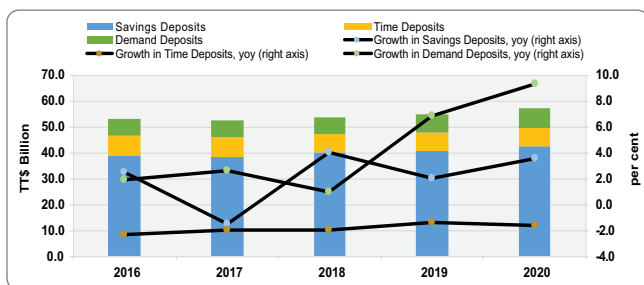
³³ All Other Consumer Loans comprises of those loans made to households for: purchasing motor vehicles; refinancing and consolidation; education; medical; travel; and other miscellaneous expenses.

³⁴ The Central Bank relaxed its regulatory treatment for restructured loans due to deferred payments or rate reductions and past due facilities from March 31 2020 to December 31 2020. For further details refer to Central Bank Circular Letter CB-OIFI-1731/2020.

³⁵ NPL ratios are based on commercial bank data only.

portfolios. Savings and time deposits (Figure 37) have increased³⁶ over the year, but the extent to which this can sustain household financial obligations may be limited. Moreover, if institutions face simultaneous increases in loan delinquencies and deposit withdrawals, their balance sheets could come under pressure. Investment assets may have to be sold off prematurely (to meet withdrawal demands) and credit terms may have to be raised (to protect against adverse selection).

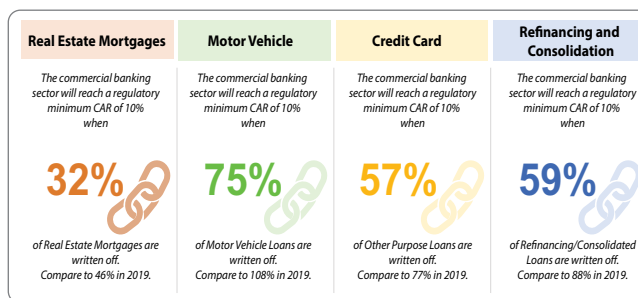
Figure 37
Consumer Deposits by Type, 2016 – 2020



Source: Central Bank of Trinidad and Tobago
Note: Demand deposits include all deposits on current accounts and therefore withdrawable on demand; savings deposits are interest-earning accounts that are not payable on a specified date; and time deposits specify maturity or other withdrawal conditions.

Breaking point stress testing was used to evaluate the degree at which the financial system may be at risk to a deterioration in the consumer loan portfolio. These exercises provide valuable information on the extent to which loans must be written off for CAR to reach the regulatory minimum of 10 per cent. Given its size (44.8 per cent of financial system assets) and share (59.9 per cent) of estimated household debt, emphasis was placed on evaluating the breaking point of the commercial banking sector. Compared to 2019 (Figure 38), there was some observed deterioration in the resilience of the commercial banking sector. This may be due to large differences in economic and labour market activity between the two periods. Still, the stress test indicated that commercial banks are well placed to withstand large write-downs in their main consumer loan portfolios.

Figure 38
Stress Testing to the Breaking Point³⁷



Source: Central Bank of Trinidad and Tobago

The outlook for the household sector critically depends on the success of the rollout of the national COVID-19 vaccination programmes and effectiveness of containment measures. The baseline scenario suggests that economic challenges will persist at least over the short run, as such the likelihood of deterioration in the quality of consumer credit in the banking sector remains ‘**elevated**’.³⁸ Nonetheless, given the contraction in household debt, the resumption of loan deferral programmes and evidence which suggests that licensed financial institutions are capable of managing significant shocks to their consumer loan portfolios, the impact on financial system stability would be ‘**moderate**’ if the risk was to materialise.

RAPID DIGITALISATION IN THE FINANCIAL SERVICES INDUSTRY

The COVID-19 pandemic and the associated containment measures have boosted the demand for remote access to financial services and have thrust financial sector participants further into the digital ecosystem. The 2019 FSR foretold burgeoning migration to digital delivery of products and services, which could present new and dynamic risks to financial stability. Evidence suggests that the vulnerability has indeed intensified – the common theme across 2020 annual reports for the banking and insurance industries has been greater channelling of human and financial resources toward the acceleration of digital transformation projects. Specifically, costs were related

³⁶ Although, some of this growth may be a by-product of the pickup in the number of deposit accounts at commercial banks due to the demonetisation of the \$100 cotton note. For further details refer to, Hilaire, Alvin and Reshma Mahabir (2020). “The Great Exchange: Rapid Demonetisation in Trinidad and Tobago.” Central Bank of Trinidad and Tobago, Working Papers WP 03/2020. <https://www.central-bank.org.tt/sites/default/files/latest-news/great-exchange-working-paper-03-june-2020-linked.pdf>.

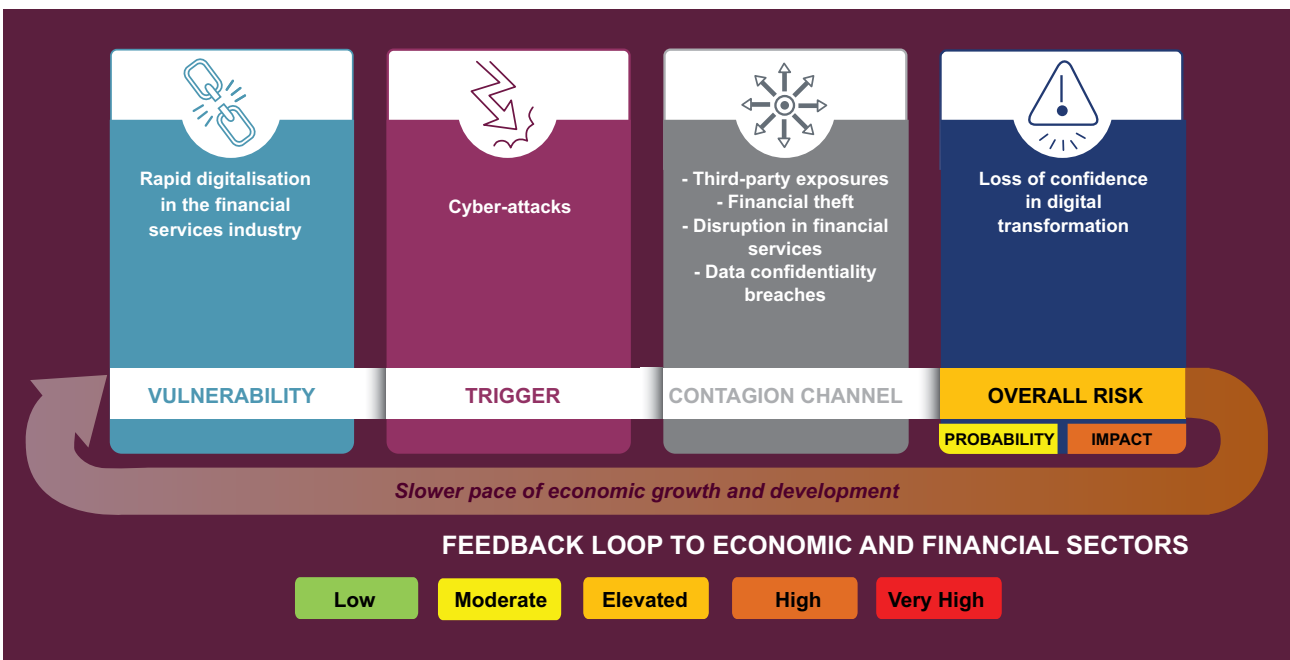
³⁷ ‘Other Purposes’ includes credit card loans and other miscellaneous expenses, where credit card loans account for 52 per cent of the total.

³⁸ The Central Bank re-introduced the moratorium on loans from May 1 2021 to September 30 2021 via Circular Letter CB-OIFI-976/2021.

to enhancement of already-existing digital platforms to improve efficiency in sales and services; customer outreach to encourage digital on-boarding for online and mobile access; expansion of the functionality of ATMs to reduce in-bank transactions; and an uptick in legal and professional fees, as well as software development expenses. Institutions have also intensified use of technology internally and have facilitated work-from-home arrangements for employees and the automation of routine procedures, where feasible.

These initiatives have allowed institutions to retain and improve their competitive edge, while supporting financial inclusion and maintaining effective financial intermediation in an uncertain economic environment. However, the rapid adoption of technology-based solutions must be accompanied by the requisite safety nets to guard against operational threats and mitigate the risk of a loss of confidence in digital transformation (Figure 39).

Figure 39
Vulnerabilities and Risks Assessment Framework –
Rapid Digitalisation in the Financial Services Industry



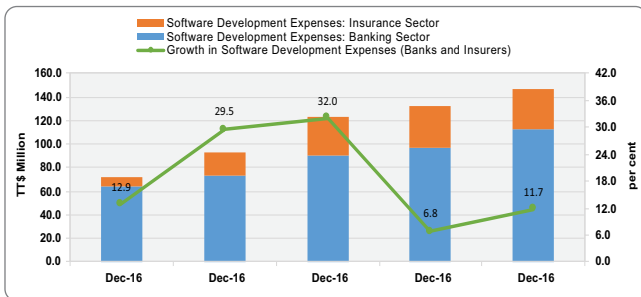
Source: Central Bank of Trinidad and Tobago

Selected indicators collected by the Central Bank point to expanding digital transformation in the financial sector and corroborate assertions in industry reports. Funding for software development in the banking and insurance sectors picked up over the year ended December 2020 (Figure 40), though the movement was attributed entirely to 15.8 per cent growth in the banking sector. This reflected the relative importance of digital communication channels between clients and banks, compared to insurers, as more frequent interaction and access to services are required. With respect to electronic credit transfers³⁹ in the banking sector, significant year-on-year growth was observed in the

value of internet banking transactions (9.4 per cent) and transfers facilitated via the ACH (23.6 per cent). Notably, ACH transactions increased as a share of total electronic credit transfers (36.1 per cent in 2020, compared to 28.3 per cent in 2019), at the expense of large-value transactions facilitated by the RTGS. Despite increased investment in ATMs noted by institutions, there was a sharp decline in both volume and value of credit transfers and withdrawals at machines as customers opted for contactless alternatives.

³⁹ Credit transfers or 'push transactions' originate from the payer of the funds and are more direct indicators of consumers' active uptake of digital services.

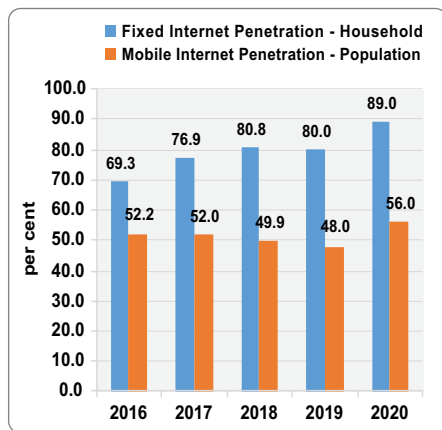
Figure 40
Financial Sector Software Development Expenses, 2016 – 2020



Source: Central Bank of Trinidad and Tobago

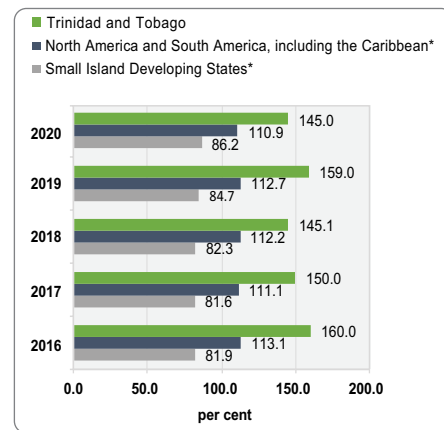
Though the pandemic has underscored gaps in access to information and communication technologies (ICTs), the local telecommunications industry continues to foster an enabling environment for digital transformation. In response to the pandemic, the Telecommunications Authority of Trinidad and Tobago (TATT) engaged with service providers and government agencies to supply internet and voice services to the population, particularly low-income households, at reduced or no cost.⁴⁰ Fixed broadband and mobile internet penetration rates in Trinidad and Tobago trended upward in 2020 as users relied on connectivity for, inter alia, work-from-home and virtual school arrangements (Figure 41). On the other hand, mobile voice penetration rates fell slightly at the end of 2020, but indicated that the average citizen owns at least one device at a rate of 145.0 subscriptions per 100 persons (Figure 42). This remains well above the average of the Americas, as well as the group of Small Island Developing States (110.9 and 86.2 subscriptions per 100 persons, respectively).

Figure 41
Internet Subscription Penetration Rates, 2016 – 2020



Sources: Telecommunications Authority of Trinidad and Tobago and ITU World Telecommunication/ICT Indicators database
Note: * June 2020.

Figure 42
Mobile Voice Penetration – Population, 2016 –2020



⁴⁰ Telecommunications Authority of Trinidad and Tobago. "TATT Facilitates Improved Services to Mobile Customers." March 21 2020 https://tatt.org.tt/Forms/DownloadableDocuments.aspx?Command=Core_Download&EntryId=1336.

The accelerated shift to digital delivery of products and services and remote work arrangements induced by the pandemic have increased the attack surface for cyber incidents. The year 2020 was marked by a proliferation in cyber-attacks globally, with the greatest proportion in the financial sector.⁴¹ Trinidad and Tobago has not been immune to these malicious attacks and experienced an increase in ransomware targeting both public and private entities.⁴² As discussed in previous FSRs, cyber-attacks have the ability to disrupt financial services, critical business operations or key payments system participants, which may give rise to settlement risks (due to the inability to close transactions) and liquidity risks (due to the temporary unavailability of funding). Risks may be magnified due to highly interconnected financial networks. Moreover, data breaches stemming from theft or fraud may prove costly to resolve, especially when unauthorised administrative access enables criminals to siphon funds from the financial system. Additionally, electronic crimes including phishing, identity theft or skimming may impact both institutions and customers directly. As technology advances, a greater number of services are being outsourced to external providers. While this can improve efficiency within the institution, it also exposes them to third-party risk. Failure in these companies can have a direct impact on the reputation of the financial institution and the confidence in digital products and services. Spillovers to traditional financial services that reduce confidence in financial institutions can hinder inclusion and adversely affect growth and development in the wider sector and the real economy.

As malicious threats evolve, it is imperative that financial institutions and regulators keep pace with the adoption and calibration of appropriate cybersecurity safeguards. Financial institutions' risk management frameworks could include mechanisms to detect and respond to threats, continuous improvement in internal controls and sensitivity training for staff. The Central Bank continues to monitor licensed financial institutions' capital buffers in line with their operational risk appetites. A thematic review of cyber risk in the commercial banking sector, which began in 2020, is expected to be completed within the 2021 financial year. The examination will assess the adequacy of the cybersecurity governance and risk

management programmes, systems and controls, and cyber incident management and resilience processes. Further, it will evaluate the quality of threat intelligence and the management of external dependency, and determine whether cyber resilience is being managed in accordance with international best practices.

The rapid digitalisation in financial services over the year, compounded by the ongoing digital transformation in the broader economy, has magnified susceptibility to cyber-attacks. However, financial institutions have given attentive focus to building the necessary safeguards in line with increasing exposure. As such, the probability of a loss of confidence in financial services due to cyber-attacks remains **'moderate'**. Nevertheless, the growing reliance on digital products and services suggests that the impact of the risk is increased from 'elevated' to **'high'**. As such, the overall risk is 'elevated'.

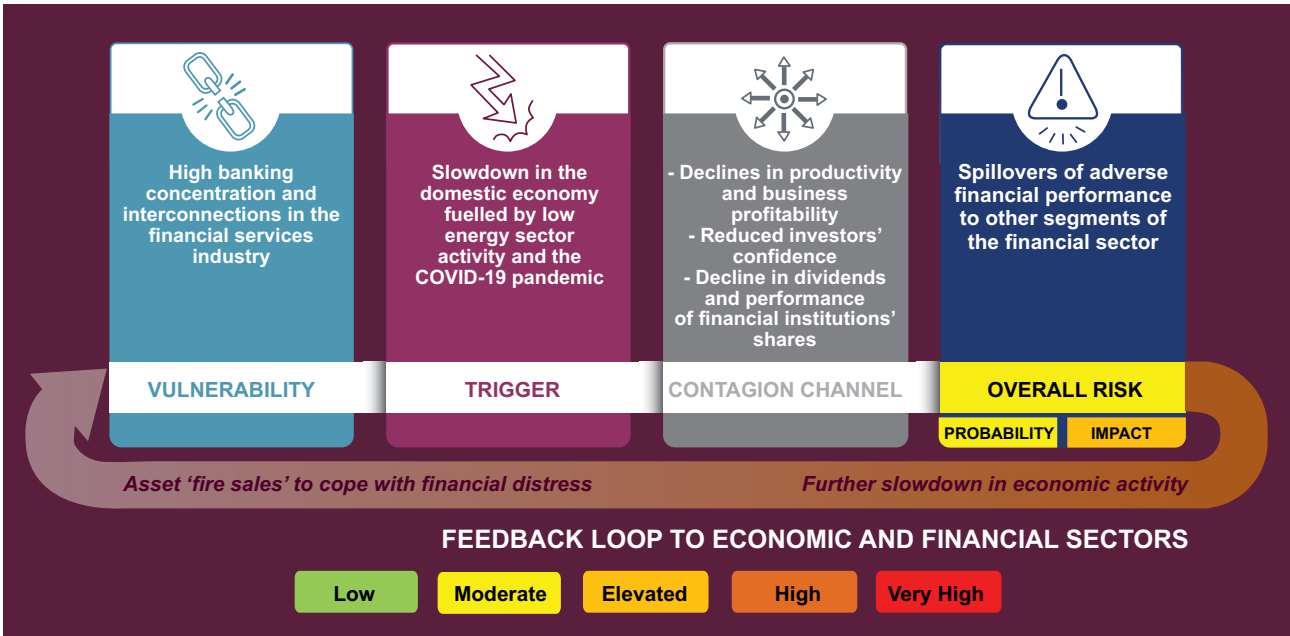
HIGH BANKING CONCENTRATION AND INTERCONNECTIONS IN THE FINANCIAL SERVICES INDUSTRY

The domestic economy is largely reliant on the banking sector as the dominant channel for financial intermediation. With economic activity stifled by COVID-19, the dominance of the banking sector and its interlinkages with other financial intermediaries is a potential vulnerability. Weaker financial performance of the banking industry could elicit balance sheet impairments in other entities in the financial services industry with knock-on effects to the real economy (**Figure 43**).

⁴¹ Aldasoro, Iñaki, Jon Frost, Leonardo Gambacorta, and David Whyte. 2021. *COVID-19 and cyber risk in the financial sector*. BIS Bulletin No. 37, BIS.

⁴² Trinidad and Tobago Cyber Security Incident Response Team. "Increase in ransomware attacks targeting public and private entities in Trinidad and Tobago." October 27 2020 <https://tcsirt.gov.tt/ransomware-alert-2020/>.

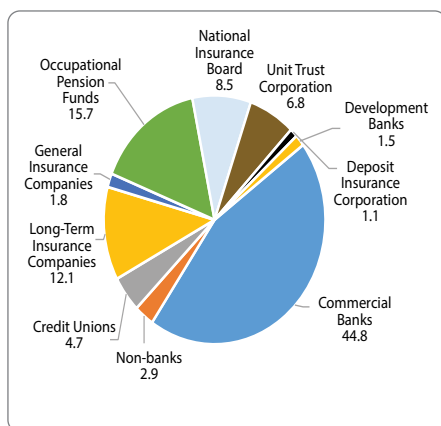
Figure 43
Vulnerabilities and Risk Assessment Framework
 – High Banking Concentration and Interconnections in the Financial Services Industry



Source: Central Bank of Trinidad and Tobago

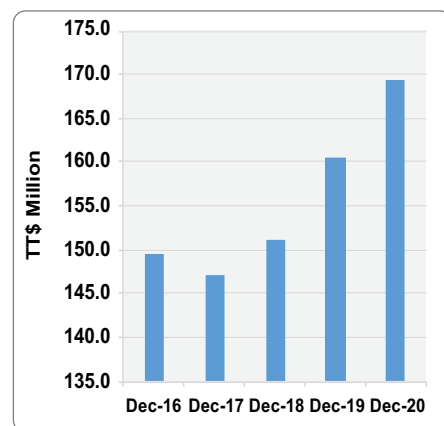
The banking sector has generally remained resilient despite the challenges posed by the ongoing pandemic. At the end of December 2020, the banking sector accounted for 113.0 per cent of GDP and 47.7 per cent of total financial systems assets (Figure 44), respectively. Over the last five years, banking sector assets have been trending upwards (Figure 45) signalling positive financial performance for the sector.

Figure 44
 Share of Total Financial System Assets, Dec 2020



Source: Central Bank of Trinidad and Tobago

Figure 45
 Banking Sector Assets, 2016 – 2020



In 2020, despite the COVID-19 pandemic, the positive financial performance of the banking sector (**Chapter 2**) can partly be attributed to the policy responses instituted by the Central Bank and industry measures such as loan deferral programmes (**Box 5**). However, the cessation of forbearance, coupled with ongoing economic adjustments due to pandemic-related setbacks, may weigh on the sector's performance. The re-introduction of stringent lockdown measures in April 2021 can further dampen economic activity as the effects reverberate across the business and household sectors. Slowing productivity and cash flow challenges can ultimately lead to further business closures and rising unemployment. As debt servicing capacity diminishes, credit risks are amplified. There are also implications for bank liquidity⁴³ and profitability via deposit drawdowns and lower credit demand, respectively.

Deterioration in banking sector performance can negatively influence other financial intermediaries through their interconnections. Insurance and pensions companies have investments in the banking sector (for example, shareholdings with the intention of earning steady dividends). However, weaker banking sector performance can reduce these institutions earnings via the investment channel. A correlation analysis of financial intermediaries' profitability FSIs and banks' profitability and a stock market indicator⁴⁴ highlighted a positive correlation (a coefficient value of 0.3 for the banking sub-index and ROE for long-term insurers; a coefficient value of 0.5 for non-banks' ROE and the pensions and long-term insurance sectors investment yield; and a coefficient value of 0.2 for non-banks' ROE and general insurers' investment income) suggesting that a rise in banking sector profitability/share performance will also increase the profitability of the other intermediaries. Whilst results were positive, there were no strong correlations between the banking sector and other financial intermediaries.⁴⁵ This may be attributed to the fact that there are limits imposed on the acquisition of shareholdings stipulated in the Financial Institutions Act, 2008 (FIA) which possibly dampened the significance of the observed correlations. In general, the positive correlations within the sectors and the moderate interconnections between the non-banks, long-term insurance and pension sector suggest that declining banking sector performance,

can affect the insurance sector's income streams and widen the pension funding gap. In terms of the former, severe liquidity challenges can impair the timeliness of claims settlement if banking underperformance is prolonged.

Knock-on effects from financial sector events can translate into further deterioration in macro-financial conditions. Lower availability of funds to households and businesses through non receipt of claims and pension payments may further dampen aggregate demand. However, in an attempt to meet claims and pensions obligations, insurers and pensions companies may sell off their assets at discounted prices, to aid in shoring up liquidity. Thus far, policy measures have dampened the full effects of the pandemic on the financial system. Therefore, the probability and impact of the risk of spillovers of adverse banking financial performance to other financial intermediaries are rated as **'moderate'** and **'elevated'**, respectively. As the Central Bank builds out an integrated stress testing framework, the cross-sectional risks inherent from this vulnerability could be better assessed quantitatively going forward.

⁴³ Stress test results revealed that the commercial banking sector had a comfortable liquidity position since it was able to sustain a run above the 30-day benchmark. However, with the exclusion of reserves the number of days till illiquidity was compressed by 21 days.

⁴⁴ Investment yield was used as the measure of profitability for the insurance and pension sectors, however given that the banking sector does not have an investment yield FSI, ROE and ROA were applied instead.

⁴⁵ This finding can also be supported by the Central Bank's FSR 2019 that found that low interconnections exist in the banking sector.

BOX 6: THE EFFECT OF PANDEMIC FORBEARANCE MEASURES ON COMMERCIAL BANK FINANCIAL SOUNDNESS

The novel coronavirus (COVID-19) pandemic has necessitated the adoption of extraordinary strategies to preserve economic and financial stability. Since March 2020, the Government introduced containment measures to curb the spread of the virus and alleviate the burden on the healthcare system. However, some of these measures exacerbated financial constraints for consumers and corporations alike. In response, the Central Bank announced a series of protective measures which supported liquidity and credit conditions in the financial sector. This included, inter alia, the reduction in banking sector reserve requirements and regulatory forbearance on credit facilities. Regulatory forbearance accommodated the restructuring of loans through deferred payments or rate reductions.¹ This Box outlines domestic forbearance activity in the commercial banking sector during 2020 and reviews the Central Bank's interim analysis of the effect on International Monetary Fund (IMF) financial soundness indicators (FSIs). The findings provide insight into banking sector resilience and unearth possible sources of systemic risk.

The Central Bank aimed to manage the increase in non-performing loans (NPLs) provisioning and thus, mitigate the erosion of bank capital by freezing the asset quality status of loans that were current or past due up to 89 days as at March 1 2020. Moreover, the temporary suspension of banks' delinquency procedures could stabilise the financial system by limiting large-scale asset write-downs and sell-offs. A review of forbearance activity² among systemically important commercial banks indicated that real estate mortgages dominated deferrals in value – on average, mortgages accounted for 47.7 per cent of the deferred loan portfolio over the ten months to December 2020. In the long run, protracted forbearance can increase systemic risk as institutions' profitability and cash flows are compressed. Furthermore, downside risks of the pandemic, such as restrictions from successive waves of infection, protracted economic contraction, and higher operational costs have the potential to deplete institutional capital and liquidity levels. In light of this, close supervision of banking sector resilience is warranted, especially amidst forbearance extensions.

In June 2020, the Central Bank examined the financial stability implications of forbearance measures. Forbearance measures were expected to affect income, provisioning and NPL balances. These changes were filtered through the financial statements and ultimately resulted in adjustments to the FSIs for the eight commercial banks and the overall sector. Capital adequacy, asset quality, profitability and liquidity levels were assessed by the Regulatory Tier I capital-to-risk-weighted assets, NPLs-to-gross loans, return on assets (ROA) and liquid assets-to-total assets ratios, respectively. The study gauged the impact of extended forbearance to September 2020 (Scenario 1) and December 2020 (Scenario 2). Subsequently, banking vulnerability was evaluated by comparing the results to either regulatory or historical thresholds.³

¹ Guidance applied only to regulatory treatment of restructured facilities and the banking sector continued to provision for the loans in line with international accounting standards. The forbearance period was extended into 2021 by means of a Central Bank Circular CB-OIFI-976/2021. The reintroduced moratorium was proposed for the period May 1 2021 to September 30 2021.

² The measures were introduced by the Bankers Association of Trinidad and Tobago (BATT), in coordination with the Banking and Insurance Financial Services Sub-Committee of Cabinet, the Central Bank and various business organisations. BATT. "Banks respond to customers' cash flow needs in the face of COVID-19 economic impact." March 19, 2020. <https://batt.org.tt/banks-respond-to-customers-cash-flow-needs-in-the-face-of-COVID-19-economic-impact/>.

³ The capital ratio was compared to regulatory benchmarks, while other ratios used historical averages and minimums.

BOX 6: Continued

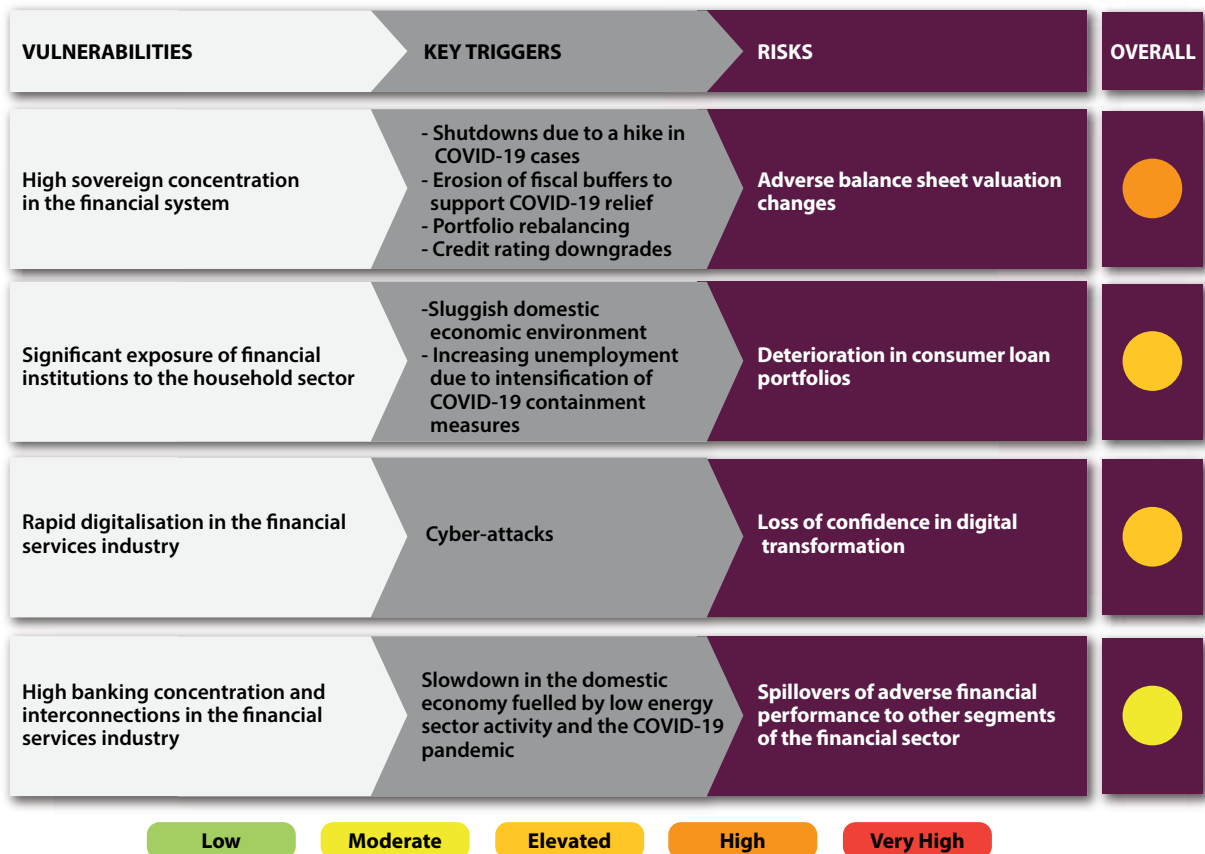
Projections to March 2021⁴ suggested that regulatory forbearance measures partially alleviated short-term financial stability risks but underscored disparities among banks. Capital adequacy, liquidity and profitability ratios for the sector remained above the applied thresholds, implying low financial stability risks. Asset quality, however, did not fare as well in the post-forbearance period and hinted that sectoral NPLs could exceed long-run averages once measures ended. The possible deterioration in NPLs validates the general belief that default risk may rise once support is withdrawn which can propagate into sectoral vulnerability and wider systemic risks. Scenario 2 performs marginally better than Scenario 1 in the short run since borrowers are able to benefit from more time to recoup their financial positions. Individual bank performance was also analysed using maximum and minimum outcomes in response to the shocks applied. Institutions with vulnerable pre-pandemic capital adequacy levels were resilient during the forbearance period, but ratios fell below the threshold thereafter. At the same time, institutions with high NPLs or low profitability performed consistently worse than the historical average, whether or not forbearance was applied. Debt moratoria translated into lower liquidity levels during the forbearance period, but liquid asset ratios improved thereafter.

The findings suggest that the domestic commercial banking sector was largely resilient to adverse forbearance scenarios and, pandemic aside, appeared well-positioned to withstand a broader array of severe shocks. Actual deferral activity waned at the end of the 2020 due to the phased withdrawal of measures by some banks and was lower than assumed. This contributed to lower systemic risk and confirmed that the projected results were sufficiently robust. Even so, credit exposures to vulnerable sectors were a potential channel for propagation of risks. With containment measures reinstated in 2021, judicious use of further forbearance measures is required to safeguard against the build-up of systemic risk.

⁴ Actual data for March 2021 was not available at the time this Report was published.

The heat map below (Figure 46) summarises the key vulnerabilities and associated risks along with an overall risk assessment.

Figure 46
Summary Heat Map –
Key Vulnerabilities and Risks to Financial Stability in Trinidad and Tobago



Source: Central Bank of Trinidad and Tobago

BOX 7: DEVELOPING CLIMATE RISK SCENARIOS FOR TRINIDAD AND TOBAGO

Climate-related risks have assumed significant importance for central banks and financial regulators because of the implications not only for financial stability but also for the conduct of monetary policy. In December 2017, the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) was established as a forum to share best practices and collaborate on issues related to environmental risks among central banks, other regulatory bodies and private sector interest groups. In particular, the NGFS seeks to support the fulfilment of those objectives outlined in the 2015 Paris Agreement that are in line with central bank mandates. This has led to the identification of five workstreams – microprudential/supervision, macro-financial, scaling up green finance, bridging the data gaps, and research. The Central Bank of Trinidad and Tobago (the Central Bank) has a keen interest in investigating the avenues by which climate-related risk management can be strengthened at the macro and micro levels. As such, the Central Bank became a member of the NGFS – one of a handful of small island developing states – in February 2021 and joined the microprudential/supervision and macro-financial workstreams. This Box discusses the activities of the macro-financial workstream, with particular reference to the quantification of climate-related risks in stress scenarios. The common reference framework can serve as a useful starting point for further work at the Central Bank in the development of country-specific scenarios.

The NGFS macro-financial workstream, as part of its multi-year programme to develop an analytical framework for assessing climate-related risks¹, has suggested six climate scenarios for reference by central banks, supervisors and the broader economy (Figure 1).² The definition and calibration of forward-looking scenarios has been challenging given the immense uncertainty in the global warming trajectory and the variability in climate-related policies across sectors and economies. As such, the proposals represent a range of lower and higher risk outcomes that vary according to temperature rise and speed of transition. “Orderly” scenarios consider the early introduction of climate policies, which gradually become more stringent; they are associated with relatively low physical and transition risks. On the other hand, “disorderly” scenarios assume that policies have been delayed or are applied suddenly or unevenly across sectors and economies, resulting in high transition risks but subdued physical risks. The “hot house world” scenarios reflect partial implementation of climate policies globally, which fail to limit temperature increases; these generate high physical risks but low exposure to transition risks. Moreover, the “too little, too late” quadrant represents significant exposure to both physical and transition risks, but a specific scenario has not been defined.

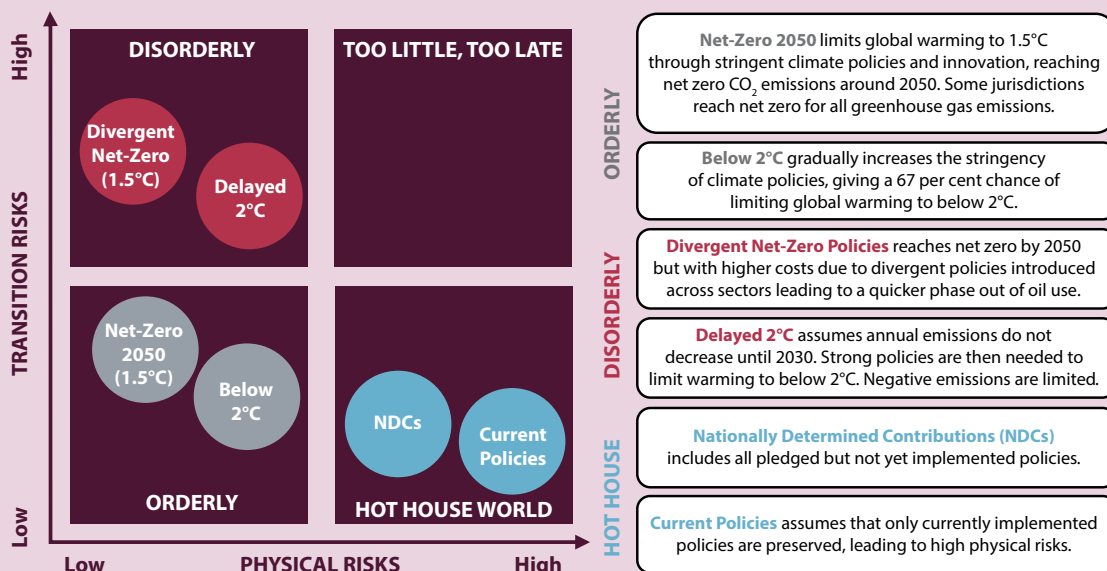
Several academic and research experts have collaborated with the NGFS to expand the dataset related to physical and transition risks by enhancing the econometric analysis for the quantification of scenarios. The partnerships have facilitated improved regional coverage, deeper granularity in sectoral data, integration of physical and transition risk models, and expansion of macroeconomic outputs. Specifically, the updated modelling framework supplements scenario narratives with data projections produced by a complementary suite of climate, natural catastrophe, integrated assessment and macroeconomic models. Multiple greenhouse gas emissions pathways and the associated global mean temperature rises contextualise model output. Climate and natural catastrophe models produce, inter alia, global mean temperature rises, precipitation by region and agricultural yields by crop.

¹ NGFS. 2020. “WS2 - Macro-financial workstream Mandate and Workplan from April 2020 to April 2022.” September 3 2020. https://www.ngfs.net/sites/default/files/media/2020/09/03/ws2_mandate_final.pdf.

² The scenarios were initially introduced in June 2020, but narratives and variables have been refined as of June 2021 (NGFS 2021).

BOX 7: Continued

Figure 1
NGFS Scenarios Framework



Source: NGFS (2021)

Note: Positioning of scenarios is based on an assessment of physical and transition risks out to 2100.

Estimates are then applied as exogenous shocks into macroeconomic models to project corresponding GDP losses. Direct losses from extreme weather-related events including tropical cyclones and flooding are also forecasted. Transition pathways are projected using integrated assessment models (IAMs)³, which estimate variables such as emissions pathways, carbon prices, energy demand and capacity, and renewable energy investment flows. Finally, the impacts of physical and transition risks on key macroeconomic and financial variables are captured using a global macroeconometric model and IAMs. The framework also provides country-level climate data and allows for the production of country-level transition variables through the application of a standardised, downscaling methodology⁴.

The framework provided by the NGFS can be used as a practical building block for the development of climate risk scenarios for Trinidad and Tobago, but a robust design will require a coordinated approach among local and regional stakeholders in the financial and scientific fields. The 2018 FSR discussed the domestic financial sector’s susceptibility to climate-related events, including the main avenues through which climate-related risks could manifest. However, collaborative work is needed to identify and collate sectoral exposures that will effectively capture these transmission channels. This could be encompassed in a formal environmental risk assessment (ERA) of the financial sector – a medium-term recommendation of the 2020 IMF/World Bank Financial Sector Assessment Program (FSAP). The NGFS suggests a proposed course of action for conducting an ERA and emphasises iteration in the three phases of development, namely the preparatory, analytical and concluding phases.⁵ Moreover, the NGFS notes that the development of a thorough ERA report has taken up to “one year and a dedicated team fully supported by senior management” in some organisations. The FSAP recommendation echoed this sentiment for buy-in at the highest levels. The Central Bank will leverage its relationship with the NGFS to make tangible progress in this sphere.

³ IAMs are useful for scenario analysis because they provide internally consistent estimates across economic, energy, land-use and climate systems (NGFS 2020b).

⁴ This approach is applicable for 132 countries. It is assumed that each country begins in its current state and gradually converges to the regional pathway projected by the IAM (NGFS 2021).

⁵ NGFS (2020a).

CHAPTER 4

PROMOTING FINANCIAL STABILITY

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The Central Bank’s (2016/17 – 2020/21) Strategic Plan identifies a number of key initiatives aimed at promoting financial stability. This Chapter summarises the main strides made in 2020 and in early 2021 with respect to strategic initiatives. In addition, developmental and operational initiatives that have contributed to financial stability are highlighted (Figure 47).

Figure 47
Advances in Operational Resilience and Financial Sector Developments



Source: Central Bank of Trinidad and Tobago

IMPROVING RISK-BASED SUPERVISION AND GOVERNANCE IN FINANCIAL INSTITUTIONS

Implementation of Basel II/III

The Central Bank moved closer to aligning banking sector regulatory capital requirements to their risk exposures with the promulgation of the Financial Institutions

(Capital Adequacy) Regulations, 2020 on May 14 2020. This significant development provides a more accurate view of how well capitalised banking institutions are to withstand any adverse shocks. The new Regulations gave legal effect to the more robust and risk sensitive Basel II/III capital adequacy framework set out under Phase 1 of the Bank’s Basel II/III implementation plan. Phase 1 introduces

the minimum capital requirements for credit, market and operational risks as set out under Pillar 1 of the Basel II/III framework and as such the banking sector was required to cease parallel reporting on Basel I rules effective August 1 2020. Key differences under the Phase 1 of Basel II/III implementation plan were the introduction of a capital charge for operational risk; the increase in the overall minimum CAR to 10 per cent from 8 per cent; the increase in the minimum tier 1 CAR to 6 per cent from 4 per cent; and the introduction of a minimum common equity tier 1 ratio (CET 1) of 4.5 per cent.

In addition, the Central Bank's plan to introduce additional buffers for capital and liquidity under Phase 2 of its Basel II/III implementation plan commencing June 2021 had to be delayed due to the onset of the pandemic. These buffers included Pillar 2 (Supervisory Review and Evaluation), Pillar 3 – market disclosures, capital conservation buffer, leverage ratio and liquidity coverage ratio. Notwithstanding, the Central Bank issued an Internal Capital Adequacy Assessment Process (ICAAP) Guideline in November 2020 to assist licensees with the implementation of Pillar 2. This Guideline seeks to introduce a more holistic approach to capital planning and management under Pillar 2 of Basel II. In particular, the ICAAP requires banking institutions to have a system in place which ensures that they adequately identify all their material risks in addition to Pillar 1 risks and set aside sufficient capital for these risks. These include, inter alia, concentration risks, interest rate risk in the banking book and country risk. The Central Bank has also developed and issued new or updated guidelines to assist financial institutions with improving their governance and risk management practices, including guidelines for credit, market, liquidity, outsourcing, and corporate governance. The Central Bank continues to receive technical assistance in the form of training and guidance from the Caribbean Regional Technical Assistance Centre (CARTAC) of the IMF in rolling out its Basel II/III implementation plan.

Strengthening Communication with Pension Plan Members

In its ongoing effort to sensitise the operators of pension plans to best practices, and after consultation with industry stakeholders, the Central Bank issued a Guideline on Communication with Pension Plan Members in October 2020.

The Insurance Act, 2018 (IA 2018) provides that every person having any rights in a registered pension plan should receive, upon request, a copy of the pension plan's Rules, the latest accounts and reports prepared in accordance with the Act. This is a statutory requirement to which the operators of all pension plans must adhere. However, the Central Bank is of the view that, in addition to this statutory requirement, both trustees and employers have an inherent responsibility to provide further information to persons having an interest in a pension plan, in a clear, accurate and timely manner, to assist these persons in making appropriate financial decisions. The Guideline itemises such further information which the Central Bank considers to be relevant. Ultimately, the purpose of the Guideline is to encourage transparency in the operations of pension plans and increase the members' knowledge and understanding of their benefit entitlements.

Insurance Act and Regulations

The new IA 2018, with the exception of sections 184 and 185, has been proclaimed and became effective January 1 2021. Accompanying the IA 2018 are the nine Regulations which came into effect on the same date, made by the Minister of Finance, which includes rules governing capital adequacy, accounting, registrations, pension funds and intermediaries. The IA 2018 facilitates a new effective framework for the regulation and risk-based supervision of the insurance industry and it encompasses, inter alia, capital adequacy, enhanced corporate governance requirements and monitoring of risk exposures, consolidated supervision of financial groups and requirements for improved conduct of intermediaries and market practices. There are transition periods included in the new legislation for insurers to become compliant with the new requirements in respect of capital adequacy and restructuring for financial groups and for foreign insurers operating via branch operations.

ENSURING COMPLIANCE WITH INTERNATIONAL STANDARDS FOR AML/CFT AND TAX TRANSPARENCY

Compliance with International Standards

Trinidad and Tobago remains rated as ‘non-compliant’ with the Global Forum’s Standards for tax transparency and sharing of information; and on the EU’s lists of ‘non-cooperative tax jurisdictions’ and ‘high-risk third countries’ for having certain deficiencies in its AML/CFT regime. The Government has undertaken legislative reform to address the deficiencies and is in discussions with the respective EU representatives on removal from the lists.

Risk-Based AML Supervision

In November 2020, the Central Bank published its AML Risk-Based Supervisory Framework (Framework). The Framework explains, inter alia, the Central Bank’s process for conducting risk-based AML supervision of its regulated entities, inclusive of how the AML risk assessment for a regulated entity is derived. The meaning of the risk rating and the nature of supervisory engagement based on the AML risk rating are also explained.

Administrative Monetary Penalties Framework

The Miscellaneous Provisions (Financial Action Task Force Compliance) Act was assented to in December 2020. The Act, inter alia, imposes administrative penalties for breaches of AML/CFT requirements and grants the regulators the power to impose administrative monetary penalties on supervised entities for breaches of AML/CFT requirements. The policy paper developed by the three regulators⁴⁶ regarding the implementation of the Administrative Monetary Fines framework was finalised and submitted to the Chief Parliamentary Council for review after which, it will be issued to regulated entities for consultation.

Basic Banking For Unbanked/Underserved Persons

A policy is being developed in consultation with the Ministry of Finance and the Bankers’ Association of Trinidad and Tobago to address simplified due diligence measures for basic banking accounts for vulnerable persons.

National Risk Assessment

Trinidad and Tobago is receiving technical assistance from the World Bank to conduct a National AML/CFT Risk Assessment (NRA). The NRA commenced in March 2021 and is expected to be completed over a 12–18-month period. The NRA seeks to identify, inter alia, the vulnerabilities in the country’s legal and institutional systems which could be exploited by criminals to launder illicit funds or facilitate the financing of terrorism. In this regard, the Central Bank is the module lead for the assessments of the banking and insurance sectors, other financial institutions, and virtual asset service providers. The NRA is being coordinated by the National AML/CFT Committee.

STRENGTHENING TECHNICAL AND ANALYTICAL CAPABILITY IN SUPERVISION AND RESOLUTION

National Crisis Management Plan

The first meeting of the reconstituted Financial Stability Committee (FSC) took place in February 2021. Senior executives from the Central Bank, the TTSEC and the Deposit Insurance Corporation were in attendance. Several issues related to the financial sector were discussed, as well as the approach to treating with the recommendations of the Financial Sector Assessment Program (FSAP) on crisis management. The FSC will serve as a forum for policy coordination on systemic and non-systemic risks within regulated financial institutions which have the potential to disrupt the stability of the financial system.

⁴⁶ The June 2016 Caribbean Financial Action Task Force Fourth Round Mutual Evaluation Report identifies the three regulators as Central Bank, Trinidad and Tobago Securities and Exchange Commission (TTSEC) and the Financial Intelligence Unit of Trinidad and Tobago (FIUTT) <https://www.fatf-gafi.org/media/fatf/documents/reports/mer-fsrb/cfatf-4mer-trinidad-tobago.pdf>.

Stress Testing

During the first quarter of 2021, meetings with all eight commercial banks were held to discuss their stress test results. These meetings were conducted as part of the Central Bank's commitment to engage with the banks following the roll-out of the revised Stress Test Framework. Important discussions regarding the methodology utilised by the Central Bank as well as the plausibility of shocks employed in both top-down and bottom-up stress tests were undertaken. This may inform amendments to both the Central Bank Stress Testing Framework as well as those employed by commercial banks.

Mergers and Acquisitions

Given the wave of merger and acquisition activity taking place in the banking and insurance sector the Central Bank developed and issued the Mergers and Acquisitions Guideline to improve transparency and guide the complex and detailed application process. In addition, the Central Bank held a public webinar in April 2021 to apprise the public of the regulatory criteria and considerations that the Central Bank would take into account when reviewing such applications (**Box 8**).

REVIEW OF RECENT DEVELOPMENTS IN PAYMENTS SYSTEMS

E-Money Issuer Order

In an effort to develop the payments system and facilitate greater financial inclusion, an E-Money Issuer (EMI) Order was approved by the Minister of Finance on July 31 2020 and published by legal notice on August 4 2020. The Order allow persons, other than licensed financial institutions under the FIA, to issue e-money subject to meeting certain defined terms and criteria.

Regulatory Innovation Hub and Sandbox

Fintech innovations in Trinidad and Tobago continue to be overseen by the Joint Fintech Steering Committee (JFSC) comprising the Central Bank, TTSEC and the FIUTT. The JFSC was established as a collaborative effort among these three Supervisory Authorities to ensure the adequate regulation of fintech activities spanning the remit of all

three agencies and to prevent regulatory arbitrage. The JFSC launched the Regulatory Innovation Hub (Hub) in October 2020 which serves as a central point of contact for all three Supervisory Authorities for entities seeking regulatory guidance on their fintech products and services. As at March 22 2021, the Hub received twenty queries/requests for information, of which nine pertained to e-money issuance activities, five to crypto-currency initiatives, two concerned payment services and four on the operation of the Regulatory Sandbox. Of the nine entities interested in e-money issuance activities, four have submitted EMI applications which are currently under review by the Central Bank.

There was one cease and desist letter issued in January 2021 to an entity, that submitted a crypto currency request for information via the Hub. The cease and desist letter was the result of two false and misleading posts on the company's website about its engagement with the regulators via the Hub. The entity has since removed the posts and published a retraction statement.

The Fintech Steering Committee is finalising the Sandbox to complement the Hub which is being implemented in two phases. Phase 1 of the Sandbox is operational but is only available for EMI applicants. The EMI order has provisions that allow for provisional registration to be granted to an EMI to operate in a sandbox environment. Phase 2 entails the broader fintech initiatives that span all three regulators including those proposing to engage in crypto-asset/virtual asset services. Legislative amendments are required to each of regulators' legislative framework to allow for the granting of provisional licence/registration for those wider fintech entities.

Developing Comprehensive Payments System Legislation

The payments space is rapidly evolving and this has received an added impetus with the onset of the COVID-19 pandemic. Although, the Central Bank is the regulator of the payments system, the current legislative framework is fragmented under different laws and inadequate to treat with the rapid developments in the payments system. This includes addressing the emergence of virtual asset service providers or VASPs. Accordingly, the Central Bank, with technical assistance provided by the IMF, developed

a draft Policy Proposal Document (PPD) to inform the development of a comprehensive payments system law. The PPD was issued in May 2020 for consultation with public and private sector stakeholders in the payments space. A public webinar was held on June 22 2021 to apprise the public of Central Bank's initiatives to improve the payments system, including cross-border settlement.

The Central Bank is seeking to address the following issues in the payments system with the new comprehensive payments law:

- Streamlining of the oversight of payments systems and the regulation and supervision of PSPs under a single comprehensive legislative framework for all payments systems (interbank and non-interbank) and a wider range of activity-based PSPs;
- Promotion of the safety and efficiency of payments systems and enhancement of financial system stability;
- Giving legal certainty to, and protecting users of payments, clearing and settlement systems;
- Implementing a modular and risk-based regulatory regime that is calibrated to the risks posed by different types of activities; and
- Facilitating e-commerce, cashless payments and financial inclusion.

BOX 8: MERGERS AND ACQUISITIONS

Over the last few years, there has been an increase in the number of regional financial institutions seeking opportunities to either rationalise their operations or grow their business within the region. This has resulted in an increase in applications related to acquisitions of licensees, insurers and financial holding companies (FHCs) as well as acquisitions of financial entities by licensees, insurers and FHCs. Pursuant to the Financial Institutions Act, 2008 and the Insurance Act, 2018, regulatory approval is required for these types of transactions, as well as:

- mergers or amalgamations of a licensee, insurer or FHC with another financial entity; and
- transactions that involve the sale or transfer of the business of a licensee or insurer, or of a subsidiary of the licensee or insurer, or of an entity in which the licensee or insurer has a significant or controlling interest

Financial institutions have pursued mergers and acquisitions (M&As) because of the potential benefits which may accrue. Firstly, they may add value by increasing market share or access to new markets and a wider customer base. This leads to the ability to diversify the offering of products and services and contribute to growth and diversification in assets and income. In addition, they are a medium to obtain quality staff or additional skills or a brand to grow the business that may be otherwise difficult to attract. M&As are also a means to reducing the cost of operations through consolidation and economies of scale.

Notwithstanding the forgoing, they also present certain risks. While reduced competition may bring some cost efficiency due to economies of scale, it may result in monopolistic behaviour, and the increased market share may present systemic risk and financial stability concerns. Additionally, consumers of financial products and services may be impacted by monopolistic pricing. M&As may also result in the acquirer or controller becoming overleveraged, given the need for significant funding to finance the transaction. Further, the expected benefits of the M&A may not occur with the desired speed or size expected or may never materialise. Reputational risk may also increase where things do not go to plan and the strength of the brand may be damaged. In addition, there may be differences in corporate culture that are not easy to consolidate. This may result in a gap in communication and affect the success of the transaction. It may create anxiety among employees of the organisation as mergers and acquisitions may lead to job redundancies. In some transactions, a company may opt to eliminate the underperforming assets of the other company, with the attendant possibility of job losses. The Central Bank recognises that consolidation or expansion can help build synergies and increase operational efficiency and overall profitability, while sale or transfer can help an entity to restructure in line with business strategies. The Central Bank also recognises that these transactions may present risks to financial stability arising from interconnectedness, market concentration, size and complexity. Given its duty to, inter alia, maintain confidence in, and promote the soundness and stability of, the financial system in Trinidad and Tobago and ensure the promotion of efficient and fair banking and insurance markets, and in recognition of the need to enhance disclosure and transparency around the application process for mergers, acquisitions, transfers and amalgamations, the Central Bank has developed a Mergers and Acquisitions Guideline (“Guideline”).

BOX 8: Continued

The Guideline primarily addresses the information that is required by the Central Bank when submitting an application and the matters taken into account by the Central Bank when reviewing the application. These matters include, but are not limited to:

- financial soundness of the applicant, as well as its condition following the completion of the transaction
- the institution's ability to maintain/implement appropriate corporate governance and internal controls
- fitness and propriety of individuals and companies including, where applicable, acquirers, controlling shareholders, significant shareholders, directors, officers and actuaries
- transparency of ownership
- feasibility of strategic and business plans
- plans for integration/management of information technology systems
- risk profile and risk management strategies
- impact of the proposed transaction on market share, system liquidity and risk concentration
- whether the new structure allows for group-wide consolidated supervision
- impact of the restructuring on employees

The Guideline may be accessed via <https://www.central-bank.org.tt/core-functions/supervision> under the "Drafts and Consultation Papers" section for the Banking and Insurance sectors, respectively.

CHAPTER 5
THE IMPACT OF FINANCIAL REGULATION
ON SMALL ENTERPRISE FUNDING

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THE IMPACT OF FINANCIAL REGULATION ON SMALL ENTERPRISE FUNDING

International financial regulatory agencies and national supervisory authorities have made significant strides in strengthening the global financial regulatory architecture over the past decade. Despite the broad acceptance of these reforms, countries are currently in various phases of implementation. As a result, the cumulative impact of more demanding financial regulations on business is becoming increasingly evident. In some cases, higher regulatory requirements have driven financial institutions to tighten requirements for credit or account applications. Smaller businesses, with less resources, often find it more difficult to meet these demands, leading to further barriers in accessing finance. The COVID-19 pandemic has amplified fragility concerns for the sector due to widespread loss of income and higher external financing needs. With this in mind, this Chapter explores the impact of changes in financial regulation on small enterprise financing in Trinidad and Tobago and evaluates policies which can improve access to funding.

Countries have committed to global development objectives which include support for small business financing.⁴⁷ Without adequate supportive measures, some financial regulatory reforms risk incongruence with these development objectives. In fact, intergovernmental financial and development agencies⁴⁸ have proposed guiding frameworks and workplans designed to reduce regulatory barriers which affect business financing. National authorities have also been evaluating domestic credit infrastructure and financial regulation to ensure that risks are mitigated without unduly restricting credit allocation.

There is no universal definition for small business and quite often countries align categories to calibrate policy support effectively. Domestic small business classification is based on the number of employees and annual revenues.⁴⁹ However, employee size and sales do not always provide a complete picture since there are satellite offices with large, transnational parent companies which meet the small enterprise criteria. More importantly, several policy papers have focused on the features of small enterprises such as the high degree of informality, small-scale operations and those that cater primarily to the local demand (Wenner and Chalmers 2001). Additionally, other research has highlighted that small business are ‘natural person’ enterprises, which include family businesses and commercial households (Jin and Zhang 2019). Therefore, for purposes of this study, small businesses refer to entities which are unincorporated with an informal structure.

THEORETICAL AND EMPIRICAL LITERATURE

Research on credit infrastructure and related transmission mechanisms has aided supervisors in understanding how financial regulation interacts with small business funding. The Stiglitz-Weiss theory of credit rationing⁵⁰, provides one perspective for examining businesses’ access to finance through non-price restrictions on credit. These can either be either due to informational asymmetry or regulatory directives. Policies⁵¹ introduced to limit risk and ease rationing, such as tighter collateral requirements may actually exacerbate adverse selection. This happens because banks may prefer larger borrowers to stable borrowers with

⁴⁷ The 2030 Agenda for Sustainable Development was adopted in 2015 by all United Nations (UN) member states, inclusive of Trinidad and Tobago. These goals provide a communal strategy for countries to improve development through a shared global partnership. The Sustainable Development Goals include the strengthening of credit markets to promote the growth of the Small and Medium-sized Enterprise (SME) sector (United Nations 2019). Small business development has been foundational to countries’ efforts for financial inclusion and poverty alleviation.

⁴⁸ In addition to the UN, these agencies have included the World Bank, the IMF, the BIS and the Group of Twenty, through the FSB.

⁴⁹ The National Micro and Small Enterprise Policy outlined the parameters of the SME sector as follows: Mini-micro have one employee including owner/manager and sales turnover per annum of TT\$250,000; Micro enterprises have 1 to 5 employees and turnover of up to TT\$1,000,000 and Small enterprises have 6-25 employees and turnover of up to TT\$8,000,000 (Ministry of Labour and Small Enterprise Development 2014).

⁵⁰ Credit rationing refers to market imperfections that, even in equilibrium conditions, causes lenders to restrict which borrowers receive funding (Stiglitz and Weiss 1981).

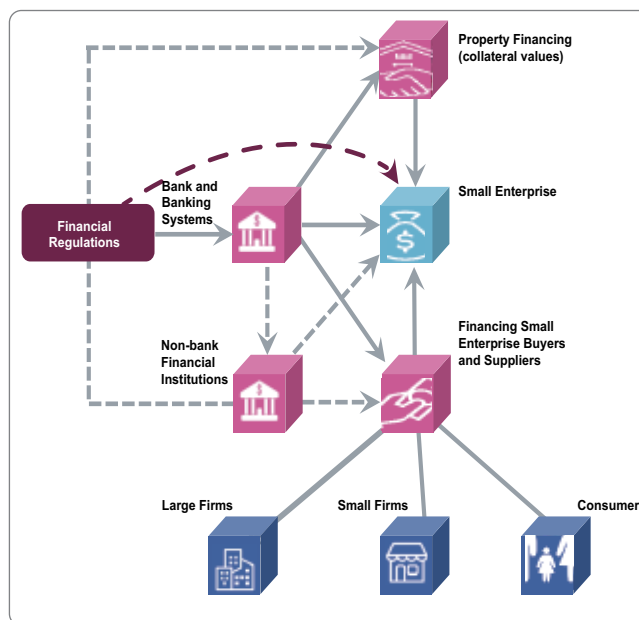
⁵¹ Comprehensive supervisory and regulatory financial sector reforms in the post-GFC period included, inter alia, higher capital and liquidity reserves, leverage limits, and more detailed taxation and AML/CFT reporting requirements.

lower equity levels, even though they may be a higher risk. Subsequent studies concluded that policies must balance the costs of credit rationing with financial stability by finding optimal capital requirement levels (Agur 2011, Conti, Nobili and Signoretti 2018).

Another mainstream theory is the lending channel paradigm⁵², introduced by Takata and Udell (2007) and then updated to incorporate the impact of Basel standards (Udell 2015). The lending channel theory suggests that borrower features often results in heterogeneous changes in lending in response to a shock. In fact, ‘transparent’ enterprises with easily understood business models were more likely to benefit from cheaper, financial statement-based lending than ‘opaque’ SMEs under Basel III. Furthermore, Udell (2015) opined that government-guaranteed securitisation programmes inefficiently close funding gaps because financial markets are relying on subsidisation of business risk. Instead, regulators should consider developing domestic credit infrastructure to improve business funding amidst financial market reform.

Financial regulation can impinge upon small business financing channels both directly and indirectly (Figure 48). The most direct effects occur via financial institutions since amplified prudential and reporting requirements increase their need for additional buffers and raise compliance costs. In turn, this can increase both the cost and availability of small enterprise funding. Additionally, increased regulation can also affect trade credit and real estate collateral values, which can indirectly set back small enterprise funding even further. Finally, there also exists an ‘expectations channel’ which refers to the lower likelihood that financial institutions will support small businesses if they anticipate closer supervisory scrutiny.

Figure 48
Conceptual Framework for Transmission of Financial Regulation to Small Enterprise Funding



Source: Adapted from Fissera, Horváth and Melecky (2019)
Note: The solid grey arrow represents direct interactions, the dashed grey arrow represents indirect interactions and the dashed maroon arrow denotes an expectations channel.

Domestic small enterprise financing studies can be traced back to the 1980s, as policy makers sought to reduce barriers to business growth to enhance economic development. Notably, the studies (Farrell, Najjar and Marcelle 1986; Clarke, Stoddard and Shield 1995; Finch and Stoddard 2003) found that Trinidad and Tobago’s private sector consisted primarily of small enterprises⁵³ and that they relied more on commercial bank funding than larger firms. Later research (Dhanessar, Ramlogan and Rahaman 2014) evaluated the impact of capital rules on banks’ business lending. The study focused on commercial bank loans and did not specifically consider small enterprises. Nevertheless, the results indicated that tighter capital regulation did have an adverse impact on aggregate credit supply, with commercial bank business credit experiencing a greater and more sustained effect than either consumer or mortgage credit.

⁵² The authors defined the lending channel as a “two-dimensional conduit through which SMEs obtain financing... (particularly one that) consists of a specific lending technology provided by a specific type of institution” (Takata and Udell 2007).

⁵³ In Finch and Stoddard (2003), SMEs comprised 96.1 per cent of the sample and was the highest proportion in all of the National Sample Survey on Corporate Financing studies.

A BAROMETER⁵⁴ OF SMALL ENTERPRISE ACCESS TO EXTERNAL FINANCE

To date, successive policy measures have focused on removing barriers to small enterprise funding access through public and private sector channels. However, the support programmes have been split across multiple government agencies and ministries. The Ministry of Labour⁵⁵, the Ministry of Trade and Industry and the Ministry of Finance have been the primary portals for governmental interventions in the sector. The National Entrepreneurship Company NEDCO and exporTT have also provided entrepreneurship support services. Most recently, the GORTT established a \$300 million loan guarantee facility to assist businesses, particularly SMEs. Private initiatives comprised the small enterprise ratings provided by the regional credit rating agency, Caribbean Information and Credit Rating Services, and SME listing initiatives offered by the Trinidad and Tobago Stock Exchange. However, the terms for micro, small and medium have been used interchangeably across the industry which has compounded difficulty for these entities to access resources.

Financial sector supervisors can evaluate a country's relative performance by using financial access indicators to identify and address financing gaps.

According to World Bank Access to Finance statistics for Caribbean Community (CARICOM)⁵⁶, businesses in Trinidad and Tobago face funding constraints which are slightly above the regional average. Twenty-nine per cent of firms indicated funding was a major constraint. Businesses also appeared to be mainly dependent on internal financing (65.9 per cent) and had a relatively low dependence on banks for capital investments. Although, collateral requirements are somewhat accommodative when compared to CARICOM, levels are still considerable at 1.4 times the loan value on average and applied across 87.9 per cent of the loan portfolio. Business preference for internal funding, low reliance on banks and collateralisation requirements can hint at higher barriers to finance for small enterprises.

FINANCIAL REGULATION AND ITS IMPACT ON SMALL ENTERPRISE BANK CREDIT

Both the Government and the Central Bank have a role to play in banking sector regulation. The Ministry of Finance and the Parliament are responsible for the enactment of legislation, while the Central Bank is responsible for the development and recommendation of the regulatory framework as well as supervisory oversight of banking institutions. As the international financial environment and corresponding regulatory guidance evolves, the domestic legislative framework has had to adapt accordingly. Table 7 highlights the significant legislative changes since Basel I regulations which have contributed to strengthened regulatory conditions for the banking sector. These amendments assisted in the modernisation and fortification of the financial system. However, supervisory policies should also ensure that risk assessment mechanisms do not unjustly penalise smaller businesses from accessing finance. As an example, the Basel II/III framework implemented in 2020 lowered risk weights for small business credit exposures to 75 per cent, effectively reducing the amount of capital required (Central Bank of Trinidad and Tobago 2018).

⁵⁴ Barometers refer to data which highlight market trends or sentiment in the market or the general economy. For example, stock market indices or the KOF Swiss Economic Institute Economic Barometer. For reference <https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-economic-barometer.html>.

⁵⁵ Oversight of NEDCO was ceded to the Ministry of Youth Development and National Service, effective September 2020. Trinidad and Tobago, Gazette (Extraordinary), No. 158, 9 September 2020, 1413. Prior to that, the Ministry of Labour was responsible for the sector.

⁵⁶ The World Bank enterprise survey data was taken at 2010 to maintain comparability among countries in the region.

Table 7
Trinidad and Tobago's Banking Sector Regulation Highlights, 1994 – 2020

DATE ASSENTED IMPLEMENTED	REGULATION/ GUIDELINE TITLE	SUMMARY OF MAIN FEATURES
JULY 1994	Financial Institutions (Prudential Criteria) Regulations 1994	Introduction of the Basel I framework and corresponding prudential criteria.
DECEMBER 2008	The Financial Institutions Act, 2008	This Act repealed the Financial Institutions Act 1993. It primarily amends the powers of the Central Bank to conduct consolidated supervision of banking groups and apply prudential limits at the group level.
JANUARY 2010	Financial Obligations Regulation, 2010 (Amendment)	Subsidiary legislation to the Proceeds of Crime Act, 2009 addresses AML/CFT measures.
MARCH 2017	Tax Information Exchange Agreements 2017 (United States of America) Act	This formalised the tax information exchange agreement between Trinidad and Tobago and the US. It requires financial institutions to report to the Board of Inland Revenue using the US Foreign Account Tax Compliance Act framework.
JANUARY 2018	IFRS 9 Expected Credit Loss (ECL) Framework	The IFRS 9 framework became effective January 1 2018. IFRS 9 introduced the ECL to provision for potential losses earlier.
MAY 2020	Financial Institutions (Capital Adequacy Regulations) 2020	The noteworthy features of these regulations include: 1. Basel II - Pillars 2 and 3. 2. Capital Conservation Buffer 3. Leverage ratio 4. Higher minimum CAR for domestic systemically important banks

Sources: Central Bank of Trinidad and Tobago and Ministry of Legal Affairs

Note: Legislative amendments are only noted if there are material changes in the Act. There were several minor amendments to the Financial Obligations Regulations between 2009 and 2020.

Despite specific dates of enactment, regulations have a cumulative effect and a broad impact on multiple financial indicators (Elliott, Salloy and Oliveira Santos 2012). Regulatory reform can affect banks through direct intervention, by targeting higher capital reserves or more liquid assets, according to their risk profile. However, it is important for supervisors to consider implicit costs of regulation, which are the operational expenses that accompany regulatory compliance, inclusive of administrative burdens and substantive costs (OECD 2014). Substantive costs include implementation costs, new technology, training and materials required to be compliant with the law. Administrative burdens are the costs of meeting disclosure requirements. This can refer to staff and consultancy costs to ensure that reporting obligations are met. These costs are often referred to as the 'regulatory burden' of reform and increase the operational expenses of the bank, potentially weighing on profits and limiting resources.

When faced with a regulatory shock, banks may explore a number of balance sheet adjustments. Van Roy (2008) outlined that there were three main actions which banks could take to raise the CAR ratio. They could increase capital levels, de-risk their portfolio or sell off their assets. He extended this theory to illustrate that CAR growth rate could be decomposed into a capital growth rate, a total asset growth rate and a credit growth rate. In Table 8, the growth in the CAR ratio in Trinidad and Tobago was driven more by changes in capital than de-risking. The Basel I Framework⁵⁷ suggests that the introduction of capital rules did have an impact on banks' balance sheets. However, the results are less clear cut when it comes to liquidity ratios or the regulatory burden. These ratios highlighted that in the absence of direct regulatory tightening, the period marked by the Global Financial Crisis (GFC) and ensuing CL Financial failure had the greatest impact on these variables. Notably, the 2016-2020 period showed elevated loan loss provisions

⁵⁷ The Basel I framework was enacted via Legal Notice No. 139 on July 28 1994 and cited as the Financial Institutions (Prudential Criteria) Regulations, 1994.

which implies that ECL requirements may indeed have had an impact on commercial banks.

Table 8
Commercial Bank Financial Indicators, 1995 – 2020
/Average Annual Per cent Change/

	1995 - 2000	2001-2005	2006-2010	2011-2015	2016-2020
CHANGE IN CAR	3.97	-0.82	2.06	-0.91	-1.81
Due to Change in Capital	7.77	4.74	5.21	1.31	1.31
Due to Change in Total Assets	4.07	4.92	4.89	2.30	1.23
Due to Change in Risk	-0.30	0.65	-1.74	-0.06	-0.07
CHANGE IN LIQUIDITY RATIO	-0.49	-0.83	1.98	-0.28	-0.40
Due to Change in Liquid Assets	2.50	4.25	7.38	2.59	0.69
Due to Change in Short-Term Liabilities	4.60	6.56	1.13	0.09	1.18
Change in Professional Expenses	5.09	1.85	-3.29	7.34	1.80
Change in Loan Loss Provisions	-1.16	1.65	8.92	1.84	4.95

Source: Central Bank of Trinidad and Tobago

Given these considerations, quarterly data on loans extended to unincorporated businesses by banks and non-banks (proxy for SME lending) was used to analyse the impact of financial regulation on small business funding. The data covered the period June 2011 to December 2020 and was extracted from Central Bank regulatory reports⁵⁸. Capital and liquidity conditions were examined using the banking sector's regulatory CAR and the liquid-assets-to-short-term liabilities ratios⁵⁹. Other implicit measures of financial regulation included professional expenses and provisions for loan losses. A few studies (Zheng, et al. 2017) opt for non-interest expenses to measure the impact of the regulatory burden. However, 'other operating expenses' had high in-sample correlation. Thus, professional expenses were used as one means of evaluating indirect regulatory costs due to high training and consultancy costs. The causal relationship is estimated by a dynamic panel model with a Generalised Methods of Moments (GMM) estimator (Arellano and Bond 1991, Arellano and Bover 1995)⁶⁰.

Higher capital levels induced by regulatory changes appears to adversely affect the supply of credit to small enterprises. Results of the models⁶¹ indicated that lagged capital levels had a negative and statistically significant effect on small enterprise lending. Both the direction and the value of the impact of CAR on credit is consistent with other studies on the effects of capital regulation on credit (Cosimano and Hakura 2011, Gavalas and Syriopoulos 2014). Liquidity, administrative expenses and provisioning showed statistically significant results but did not have an adverse effect on small enterprise financing. In fact, higher liquidity ratios had a positive impact on small enterprise financing.

⁵⁸ Summary statistics are available upon request.

⁵⁹ In May 2020, Phase 2 of the Central Bank's Basel II/III framework, outlined a Liquidity Risk Management framework along with a threshold for the liquidity coverage ratio. However, due to the recent implementation, there would not have been sufficient data and thus liquid assets-to-total short-term liabilities ratio was used.

⁶⁰ The GMM estimator was used to overcome the problem of short panels, as well as control for endogeneity. Model specification, adequacy checks and results are available upon request.

⁶¹ Due to the presence of high persistence in the autoregressive coefficient, Forward Orthogonal Deviation method (FOD-GMM) was used alongside the First Differenced (FD) method of GMM.

POLICY MEASURES FOR IMPROVED CREDIT INFRASTRUCTURE

Due to its economic importance, small enterprise development is a significant priority in EMDE national policies. However, less sophisticated institutional frameworks and shallow financial markets exacerbate small enterprise difficulties with funding and hamper financial inclusion. Small businesses or start-ups with less tangible collateral and limited credit history have reported greater barriers to finance and difficulty in expanding their operations. Domestically, the public sector has principally concentrated on direct policy measures through the use of government-funded resources and state enterprises. Although, there have been several attempts to develop private sector funding through equity financing, small enterprise external funding is still dominated by the commercial banks. Therefore, public sector policies which ease barriers to finance in the banking sector appear to be the most effective allocation of resources at this time, until capital market access could be further developed.

Two broad policy approaches (direct and indirect) can be considered to alleviate regulatory barriers to small enterprise financing. Direct support measures include regulatory amendments which incentivise small enterprise lending (credit supply measure) or simplification of compliance measures for small enterprise clients (credit demand measure). Although the requirements are simplified, it is crucial that they are not less conservative to limit regulatory arbitrage and mitigate systemic risk. Domestically, the Basel II/III small business enterprise risk-weight factor of 75 per cent is a good starting point. However, more private sector interventions are required to alleviate heavy recourse to public sector initiatives.

Other measures considered indirect are aimed at developing the broader financial infrastructure (FSB 2019). Enhanced credit information systems and access to collateral regime reform can reduce the transaction costs which financial institutions incur in extending small enterprise credit. A comprehensive credit infrastructure with appropriate legislative amendments and resources can facilitate a wider range of secured transactions. Thus,

improving small enterprises' access to finance while strengthening banks' risk management.

One such measure is the introduction of a centralised, online and notice-based credit registry⁶², which reduces financial risk by ensuring there is accurate evaluation of borrowers' repayment capacity. This is in contrast to privately owned and operated credit information companies, called credit bureaus or consumer reporting agencies. Credit registries, on the other hand, were generally developed to support supervisors in evaluating sectoral risks. Thus, they are valuable in supporting regulation and oversight of the banking industry. More importantly, credit registries help borrowers to build a credit history or "reputational collateral" which can be used to access credit. Studies based on the Middle East and North African region found that credit registries and information systems improved the quality of small enterprise lending by the private sector (Rocha, et al. 2011).

Another related but distinct facility is a collateral registry, which secures movable assets and eases small enterprises' access to financing by using non-traditional assets as security (World Bank Group 2019). Collateral registries can broaden access to credit, as well as reduce costs. Movable assets refer to working capital and trade assets, which include accounts receivable or bills of lading, as well as fixed assets such as machinery. On average, small businesses in the developing world have 78 per cent of assets invested in movable assets which puts them at a disadvantage in accessing bank lending (Love, Pería and Singh 2016). The credit registry is responsible for notifying creditors of the claim and establishing priority of claims over the asset so that it cannot be double pledged, which reduces collateral risk. A modern, secured transactions legislative framework is a fundamental prerequisite so the registry's authority and registered claims are recognised. This has been supported by recommendations from the Trinidad and Tobago's 2020 IMF/World Bank FSAP report.

⁶² Credit registries are public sector agencies which monitor loans made by regulated financial institutions.

CONCLUSION

While financial regulatory reform has contributed to a more resilient global financial system, preliminary evidence suggests certain reforms have the potential to limit small enterprise access to funding. This is especially true where international financial regulatory reforms influence banks to hold more capital without consideration for the jurisdictional idiosyncrasies, which can exacerbate negative externalities. There is significant room for co-ordination of financial system regulation and small enterprise policies in the domestic sphere. Ideally, financial sector policies should incorporate 'carve-outs' or support mechanisms which aid small business lending and mitigate credit risks. Remedying small enterprise funding challenges can contribute to realising the dual objectives of safeguarding financial stability and encouraging small enterprise growth. Allocating resources to strengthening transaction-based financing infrastructure can improve regulatory efficiency while reducing reliance on public sector financing.

These findings can offer timely and empirically-based recommendations to reduce welfare losses from financial regulation. As such, authorities should further develop the domestic credit infrastructure for small enterprises by using available tools without sacrificing the advancement of a modern regulatory framework. This finding is particularly critical to ensure that small enterprises can access adequate bank credit, in the wake of COVID-19 pandemic and support the long-term sustainability of the sector.

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APPENDIX

APPENDIX A

Banking Sector Loans by Sector, 2016 – 2020

	TT\$ Millions (Absolute Values)					TT\$ Millions (Change)					Percentage Change (per cent)				
	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-15 Dec-16	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-15 Dec-16	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20
PUBLIC SECTOR CREDIT ACTIVITIES															
Petroleum	1,545	1,553	2,995	3,155	2,534	885	8	1,442	160	(621)	134.1	0.5	92.8	5.3	(19.7)
Construction	1,894	1,652	1,714	645	1,226	(1,736)	(242)	62	(1,069)	581	(47.8)	(12.8)	3.7	(62.4)	90.0
Transport, Storage and Communication	1,120	1,178	1,244	640	526	(103)	57	66	(604)	(115)	(8.4)	5.1	5.6	(48.5)	(17.9)
Finance, Insurance and Real Estate	2,254	2,351	2,372	4,370	4,008	229	97	21	1,998	(362)	11.3	4.3	0.9	84.2	(8.3)
Electricity and Water	2,555	2,639	1,045	1,068	1,031	(514)	83	(1,594)	23	(37)	(16.7)	3.3	(60.4)	2.2	(3.5)
Other	93	25	139	757	720	(363)	(68)	114	618	(38)	(79.7)	(72.9)	454.2	443.9	(5.0)
TOTAL	9,462	9,398	9,510	10,636	10,044	(1,602)	(64)	112	1,126	(592)	-14.5	(0.7)	1.2	11.8	(5.6)
BUSINESS CREDIT ACTIVITIES															
Real Estate Mortgage Loans	5,552	6,161	6,841	7,856	8,348	262	610	680	1,015	491	4.9	11.0	11.0	14.8	6.3
Finance, Insurance and Real Estate Companies	7,074	8,515	9,206	8,241	8,358	452	1,441	691	(966)	118	6.8	20.4	8.1	(10.5)	1.4
Services	6,938	7,447	8,148	9,271	8,465	(44)	509	701	1,122	(806)	(0.6)	7.3	9.4	13.8	(8.7)
Manufacturing	4,328	4,044	3,602	3,934	3,949	460	(284)	(442)	332	15	11.9	(6.6)	(10.9)	9.2	0.4
Construction	2,475	1,715	1,450	1,566	1,684	(130)	(760)	(265)	116	118	(5.0)	(30.7)	(15.5)	8.0	7.5
Other (Agriculture, Petroleum, Leasing)	1,431	1,186	1,156	1,138	1,169	(298)	(245)	(30)	(18)	31	(17.2)	(17.1)	(2.6)	(1.5)	2.7
TOTAL	27,798	29,069	30,403	32,006	31,973	702	1,271	1,334	1,602	(33)	2.6	4.6	4.6	5.3	(0.1)
CONSUMER LOAN BY PURPOSE															
Real Estate including Mortgage	15,778	16,642	17,321	19,017	19,336	627	864	679	1,695	320	4.1	5.5	4.1	9.8	1.7
Vehicles	4,915	5,063	5,092	5,219	5,188	341	148	30	127	(31)	7.5	3.0	0.6	2.5	(0.6)
Credit Cards	2,720	2,886	3,105	3,225	3,143	328	166	219	120	(82)	13.7	6.1	7.6	3.8	(2.5)
Refinancing	1,938	2,140	2,384	2,602	2,776	96	202	244	218	175	5.2	10.4	11.4	9.1	6.7
Consolidation of Debt	1,844	2,139	2,532	2,878	2,962	169	295	393	345	84	10.1	16.0	18.4	13.6	2.9
Other Purposes	3,442	3,551	3,778	4,152	3,850	84	109	227	374	(302)	2.5	3.2	6.4	9.9	(7.3)
TOTAL	30,637	32,422	34,213	37,093	37,256	1,646	1,785	1,792	2,879	163	5.7	5.8	5.5	8.4	0.4

Source: Central Bank of Trinidad and Tobago

Note: Banking sector loans data are obtained from CB30 regulatory reports submitted to the Central Bank.

APPENDIX B Macprudential Surveillance Indicators Results and Heat Map, 2020

MACROPRUDENTIAL SURVEILLANCE INDICATOR	FIVE-YEAR ASSESSMENT					ASSESSMENT (2020)	INTERPRETATION
	2016	2017	2018	2019	2020		
Credit-to-GDP Gap						2.79	The Credit-to-GDP Gap is the difference between the total private sector Credit-to-GDP ratio and its long-term trend. When the Gap is greater than 2 per cent, consumption credit is growing faster than the country's productive capacity (GDP).
Systemic Risk Accumulation Index (SRAI)						0.08	The SRAI determines the magnitude and source of systemic risk build-up across the financial system and the real sector. Negative values denote systemic risk build-up and positive values denote accelerated systemic risk build-up.
Aggregate Financial Stability Index (AFSI)						84.99	The AFSI monitors economic and financial variables related to stability. Increases (decreases) in the value indicate improvements (deterioration) in financial stability. Extreme values on both ends can indicate fragility.
Financial Conditions Index (FCI)						0.72	The FCI estimates stress in domestic funding conditions which can precede a crisis. Negative values signal loose funding conditions while positive values imply tightening financial conditions.
Banking Stability Index (BSI)						-0.80	The BSI examines the aggregate resilience of commercial banks and non-banks. Significantly positive (negative) values signal overheating (financial distress).

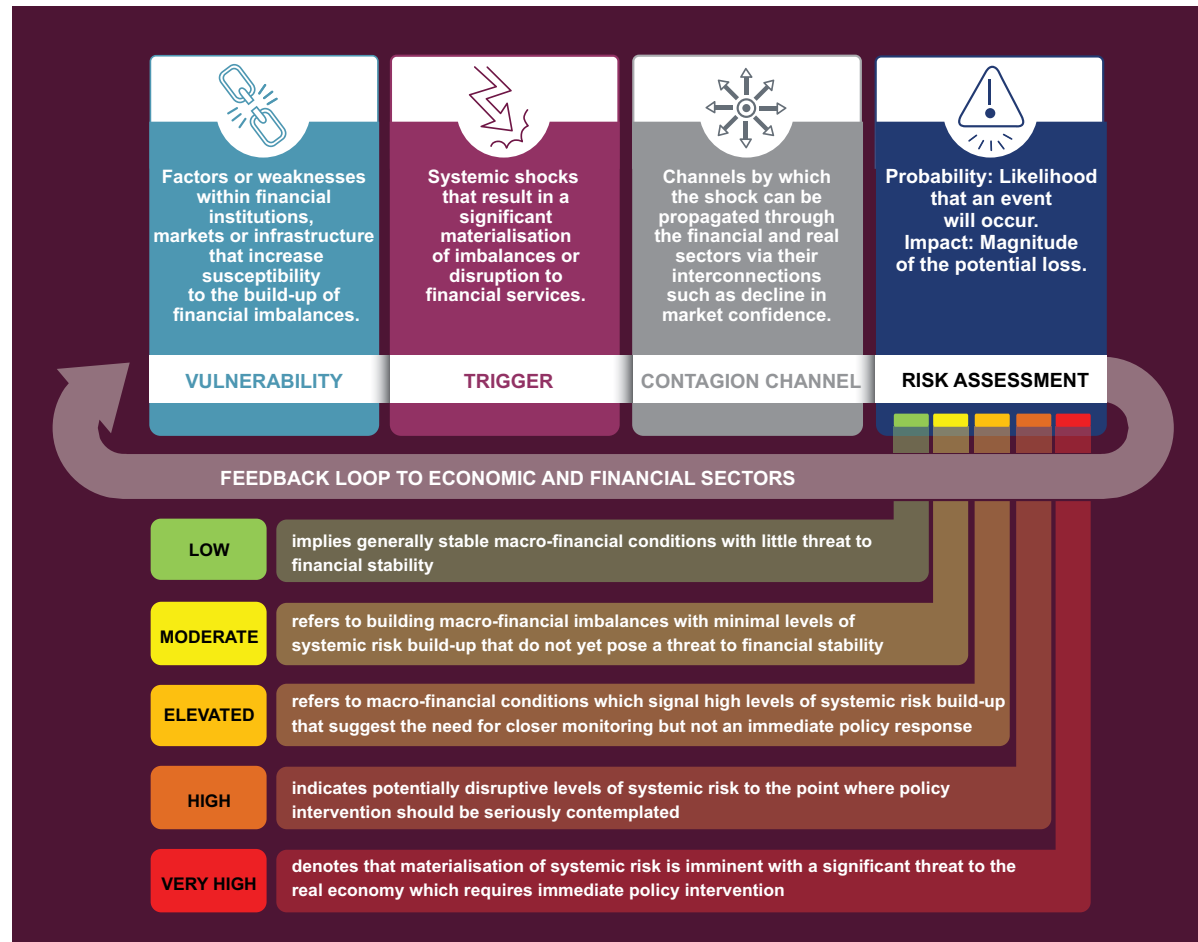


Source: Central Bank of Trinidad and Tobago

Note: Risk summaries for each index are based on end of period values. A negative Credit-to-GDP gap does not suggest evidence of systemic risks. Instead, it implies that there is room for additional borrowing. Also, during 2020, the AFSI's stable condition value was rebased from 0 to 100. This does not change the interpretation of the index but assists with data presentation.

APPENDIX C

Vulnerabilities, Risks Assessment and Overall Risk Rating Framework



Source: Central Bank of Trinidad and Tobago

APPENDIX D

Commercial Banking Sector Stress Testing Results, 2020

		Dec-20	
Pre-Shock CAR		17.0	
Pre-Shock CAR Adjusted for Provisions		16.7	
SINGLE FACTOR TESTS			
		Post-Shock CAR	Change from Pre-Shock Adjusted CAR
Interest Rate Risk	Upward shock of 500 bps	10.3	-6.3
	Downward shock of 100 bps	17.9	1.2
Foreign Exchange Risk	TT Dollar depreciates 40 per cent	17.7	1.0
Credit Risk	General increase in non-performing loans	11.7	-5.0
DAYS UNTIL ILLIQUID			
Liquidity Risk (including reserves as liquid funds)	Bank Run	37	
Liquidity Risk (excluding reserves as liquid funds)	Bank Run	21	

Source: Central Bank of Trinidad and Tobago

Note: Following a review of the stress testing framework for commercial banks, amendments were made to some of the single factor tests, in September 2020. Particularly the liquidity, interest rate and credit risk stress tests would be adjusted going forward. A second liquidity test is now conducted, which excludes reserves. Moreover, the liquidity risk test now applies different run-off rates based on the type of deposit (that is, time deposits at 1 per cent and savings and demand deposits at 2 per cent) and the upward shock to interest rates has been reduced to 500 basis points, compared to 700 basis points. A 6 per cent provisioning rate is now applied to the current and past due 1-3 months category, compared to 1 per cent previously. The property price test has been removed but can be carried out on an ad-hoc basis. In addition, effective September 2020, stress tests would be conducted on a semi-annual basis as opposed to quarterly.

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