



CENTRAL BANK OF
TRINIDAD & TOBAGO

2021

STABILITY



GROWTH



CONFIDENCE



FINANCIAL STABILITY **REPORT**

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Central Bank of Trinidad and Tobago

Financial Stability Report

2021

FOREWORD

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Trinidad and Tobago's financial system remained resilient over the course of 2021, despite the challenges posed by the COVID-19 pandemic and an uncertain global environment. Signs of improvement were seen in certain financial soundness indicators. Judicious application of regulatory forbearance and loan deferral programmes helped cushion the adverse effects of the pandemic, enabling households and businesses to adjust their debt-servicing schedules without unduly weakening the asset quality of financial institutions.

While the domestic financial sector weathered the pandemic reasonably well, there are clouds gathering on the horizon. Weaker than anticipated global economic conditions on account of rising inflation, due to energy and food price shocks, have resulted in a firming of the interest rate environment. Rising interest rates can affect the financial sector through various channels, such as credit and valuations. Increasing vigilance is required, especially since these shifting conditions are coinciding with recent and impending implementation of key financial regulatory and accounting standard reforms (for example, IFRS 9



and IFRS 17). Additionally, the increasing prevalence of cyber incursions may pose a significant systemic threat going forward.

Key risks in the regulated domestic financial sector include rising international interest rates, increasing cyber-attacks, and elevated sovereign concentrations in the banking and insurance sectors. The Central Bank's Monetary Policy Committee will continue to determine the most appropriate policy response to minimise the impact of rising international interest rates, while the Financial Institutions Supervision Department will intensify its focus on ensuring that regulated institutions adhere to robust cybersecurity and risk management procedures.

A handwritten signature in dark ink, reading "Patrick Solomon".

Mr. Patrick Solomon
Inspector of Financial Institutions

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LIST OF ABBREVIATIONS

ABBREVIATION

NAME

ACH	Automated Clearing House
AE	Advanced Economy
AFSI	Aggregate Financial Stability Index
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
AUM	Assets Under Management
BIS	Bank for International Settlements
BPSP	Bill Payment Service Provider
BSI	Banking Stability Index
CAR	Capital Adequacy Ratio
CBDC	Central Bank Digital Currency
CDM	Concentration and Distribution Measure
Central Bank	Central Bank of Trinidad and Tobago
CET 1	Common equity Tier 1
CIS	Collective Investment Scheme
CLICO	Colonial Life Insurance Company (Trinidad) Limited
CPF	Counter Proliferation Financing
D-SIB	Domestic Systemically Important Bank
EMDE	Emerging Market and Developing Economy
EMI	Electronic Money Issuers
ESG	Environmental, Social, and Governance
EU	European Union
FATF	Financial Action Task Force
FCI	Financial Conditions Index
FCR	Financial Conditions Report
FIUTT	Financial Intelligence Unit of Trinidad and Tobago
FSB	Financial Stability Board
FSI	Financial Soundness Indicators
FSR	Financial Stability Report
FTSE	Financial Times Stock Exchange
FY	Fiscal Year
GDP	Gross Domestic Product

LIST OF ABBREVIATIONS

ABBREVIATION	NAME
GFSR	Global Financial Stability Report
GORTT	Government of the Republic of Trinidad and Tobago
HCU	Hindu Credit Union
HHI	Herfindahl-Hirschman Index
HSF	Heritage and Stabilisation Fund
IA 2018	Insurance Act, 2018
IAIS	International Association of Insurance Supervisors
ICAAP	Internal Capital Adequacy Assessment Process
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOPS	International Organisation of Pension Supervisors
IRRBB	Interest Rate Risk in the Banking Book
JFSC	Joint Fintech Steering Committee
LAC	Latin America and the Caribbean
MOU	Memorandum of Understanding
NAV	Net Asset Value
NDC	Nationally Determined Contributions
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
NRA	National Risk Assessment
NPL	Non-Performing Loan
OTC	Over-the-Counter
POS	Point of Sale
PSP	Payment Service Provider
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement System
RWA	Risk-Weighted Assets
SRAI	Systemic Risk Accumulation Index
SME	Small and Medium-Sized Enterprise
TTSEC	Trinidad and Tobago Securities and Exchange Commission

PREFACE

Financial stability refers to the smooth functioning of financial intermediation, financial markets, and payments and settlement systems, even in the face of adverse shocks. Efficient financial intermediation promotes sustainable economic growth and advances the socio-economic welfare of citizens. Accordingly, the Central Bank of Trinidad and Tobago (the Central Bank) plays a vital role in fostering stability and soundness and maintaining confidence in the domestic financial system (Financial Institutions Act, 2008 Part II 5[2] and Insurance Act, 2018 Part II 7[2]).

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 insights into the recent developments and vulnerabilities of the financial system and risks to its stability from domestic, regional, and international factors. Financial system vulnerabilities can increase a country's susceptibility to adverse 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 facilitate 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>.

OVERVIEW¹

Global financial stability concerns eased as the risks related to the COVID-19 pandemic receded over 2021.

The gradual rollback of pandemic-related restrictions on account of widespread vaccinations supported recovery worldwide. The International Monetary Fund (IMF) in its July 2022 *World Economic Outlook Update* estimated that global output grew by 6.1 per cent in 2021, compared to a contraction of 3.1 per cent in 2020. However, in 2022, financial stability risks have heightened due to the side effects of unprecedented monetary and fiscal policy support (such as elevated debt and historically high asset prices) and the subsequent tightening of global financial conditions. Additionally, the Russia-Ukraine conflict has weighed heavily on commodity, trade, and financial markets, resulting in surging food and energy prices, and a downward revision to the IMF's growth projections for 2022 (3.2 per cent). While rising inflation, increasing geopolitical tensions, and vaccine-resistant variants are at the forefront of global financial stability concerns, cyber and climate-related risks have grown in importance and thus, require heightened attention.

Policymakers have been delicately balancing the trade-off between managing price levels, and safeguarding economic recovery and financial stability. Inflation accelerated in 2021 on account of global supply chain challenges amidst increasing

consumer demand. Some emerging market and developing economies (EMDEs) raised domestic interest rates to address inflationary pressures and to limit capital flight in anticipation of rate hikes in advanced economies (AEs). The Russia-Ukraine conflict, which flared in February 2022, exacerbated supply chain disruptions and placed upward pressure on international commodity prices. In AEs, policy rate adjustments to effectively contain inflation have accompanied the unwinding of high excess liquidity positions, through the rollback and eventual cessation of asset purchase programmes. However, volatility in global lending rates and financial markets may ensue, with the potential to trigger disorderly capital outflows and amplify exchange rate pressures in EMDEs. Existing vulnerabilities compound the challenges in a rising interest rate environment. Countries already saddled with elevated public debt pre-pandemic, including Latin American and Caribbean economies, face heightened sovereign risk as higher rates could hinder debt-servicing capacities and delay economic recovery.

Domestic economic indicators strengthened over 2021 on account of improved vaccination coverage, which led to the phased reopening of the economy.

Data from the Central Statistical Office showed that real Gross Domestic Product (GDP) compiled at producer prices increased by 3.1 per cent (year-on-year) in the second half of 2021, after declining by 4.1 per cent in the first half of the year. Retrenchments fell over the last year.

¹ This Report includes economic developments predominantly up to May 2022, while financial industry data are as at December 2021.

However, labour demand remained suppressed due to economic activity that is yet to fully recover. While proactive policy action has supported favourable domestic financial conditions since the onset of the pandemic, private sector credit² growth has been muted. Subdued expansion in business lending, inclusive of real estate mortgages, was accompanied by near-flat movement in consumer loans. Together with the improvement in GDP, this resulted in the containment of household debt-to-GDP and corporate sector credit-to-GDP ratios. Moreover, the Government's financial position improved – the fiscal deficit narrowed from 11.2 per cent of GDP in fiscal year (FY) 2020 to 8.1 per cent of GDP in FY2021. The surge in energy prices in the first quarter of 2022, coupled with ongoing recovery in the non-energy sector, boosted Government finances and resulted in a budget surplus for the period October 2021 to April 2022.

Financial stability risks in Trinidad and Tobago are tempered as the effects of the pandemic appeared to subside over 2021 and early 2022, but international developments heighten concerns. The 2020 *Financial Stability Report (FSR)* highlighted four risks to the domestic financial sector related to sovereign concentrations; the health of consumer loan portfolios; loss of confidence in digital transformation; and spillovers due to interconnections in the financial services industry. Two of the risks from the previous Report remain relevant – increasing cyber-attacks and sovereign concentrations in the

banking and insurance sectors. While credit risk stabilised in 2021 due in large measure to regulatory forbearance and government assistance, private sector debt loads remain a key source of concern given the unwinding of policy support measures and lurking inflationary pressures. Monetary policy tightening to counter unanchored inflation domestically could present a near-term threat to financial stability and may be triggered by a new risk – rising international interest rates.

The three risks to the health of the domestic financial sector are presented in the Summary Heat Map and are described below.

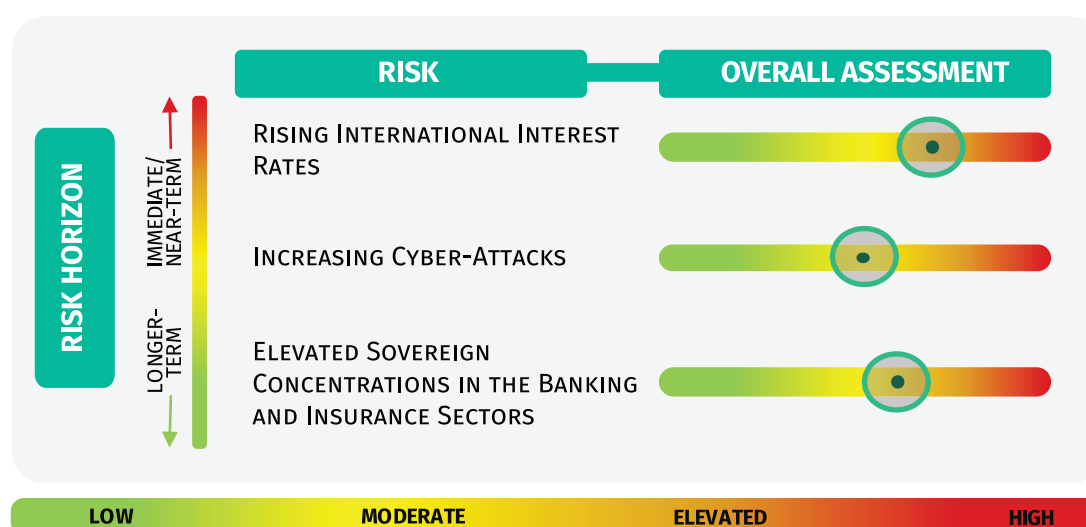
Rising International Interest Rates: Increasing global interest rates could have an adverse impact on the financial sector via institutions' investment portfolios due to asset revaluations, though the impact on pension sector asset returns may be net positive. Moreover, the possibility of an increase in domestic interest rates to quell inflation could improve bank profitability due to higher loan rates. However, negative implications for households and corporates include higher borrowing costs, reduced disposable income, and delayed recovery in credit growth.

Increasing Cyber-Attacks: The continued push for digitalisation to improve access to financial services has also expanded the attack surface for cyber threats in the short term. A rise in cyber incidents domestically and regionally

2 The private sector refers to consumers (households) and businesses (corporates). Credit is inclusive of loans and short-term funding.

GRAPHIC 1: SUMMARY HEAT MAP

RISKS TO FINANCIAL STABILITY IN TRINIDAD AND TOBAGO



Source: Central Bank of Trinidad and Tobago

was noted over 2021. Further, recent cyber-attacks on regional conglomerates draw attention to the potential for systemic liquidity risk arising from interconnections within mixed conglomerates and among domestic financial institutions.

Sovereign Concentrations in the Banking and Insurance Sectors: Domestic sovereign concentrations in the major financial industries intensified in 2021 as a result of lower fiscal revenue, budget financing needs, and debt repayment. With the reopening of the economy and improvements in the outlook for domestic activity, the need for direct fiscal support for the pandemic has abated. While recent credit rating actions and tempered budget financing activity reduce near-term

risks, sizable sovereign exposures on financial institutions' balance sheets remain a source of vulnerability.

It should be noted that climate change does not pose an immediate systemic threat to domestic financial stability. However, as natural disasters intensify and the policy environment to facilitate the transition to a greener economy accelerates, macro-financial challenges could arise in the medium to long term. **Box 1** provides an update on climate change mitigation efforts in Trinidad and Tobago, including initiatives led by the Government and the Central Bank.

The individual segments of the domestic financial sector are well-positioned to withstand macro-financial shocks in the

short term. The banking, insurance, and pension sectors were in relatively healthy positions at the end of 2021, bolstered by a gradual economic recovery. In the banking sector, credit, market, and liquidity risks appear contained and commercial banks and non-bank financial institutions (non-banks) continued to be well-capitalised and profitable. Though the insurance sector was challenged by effects of the pandemic, the outlook for the sector is positive as COVID-19 mortalities have decreased and businesses have reopened. Nevertheless, profits in both sectors are subject to the volatility of the international debt and equity markets. Similarly, private occupational pension plans are subject to fluctuating market risk. At the onset of the pandemic, there was a decrease in the value of the pension plans' equity holdings due to the decline in equity markets globally, but markets subsequently recovered and the equity holdings have returned to pre-pandemic levels of just over 30 per cent of total occupational pension plan assets. On the payments front, there has been increasing preference for electronic payments and online money transfers, warranting close supervision to ensure that payments system operators and payments service providers strengthen cyber risk management and operational resilience.

The Central Bank has undertaken several initiatives to promote financial stability and safeguard the financial system based on its ongoing assessment of sectoral risk. Activities in 2021 and early 2022 were related to continued implementation

of the Insurance Act, 2018 and Basel II/III requirements; development of a framework for the identification of a domestic systemically important bank and higher loss absorbency requirements; development of risk management guidelines for credit, market, and outsourcing risks; and thematic reviews related to corporate governance and cyber risk. In addition, there was enhanced engagement with all banks and non-banks on their key risks and risk management practices. Legislative and regulatory advances in strengthening the AML/CFT framework were also achieved. Notably, the Central Bank has advanced work on a comprehensive payments system legislation that would, inter alia, improve the safety and performance of the national payments system and allow a wider range of fintech solutions to be accommodated safely in the domestic space.



CHAPTER 1

The Macro-Financial Context



THE MACRO-FINANCIAL CONTEXT

Global and domestic economic recovery is underway. However, gains made over 2021 could be derailed as global financial conditions have tightened following countries' exit from COVID-19 support programmes and the commencement of monetary tightening to combat high and rising inflation. Resilience of the global financial system may be further tested as commodity markets have worsened amidst rising geopolitical tensions and the imposition of sanctions on a key exporter. Factors which may have domestic financial stability implications include increasing interest rates, the rise in cyber events, and heightened sovereign exposures.

GLOBAL MACRO-FINANCIAL STABILITY

In 2021, the world continued to navigate the macroeconomic and financial impacts of the novel coronavirus (COVID-19). The piloting of economies through this uncertain period involved timely fiscal, monetary, and macroprudential policy interventions, as well as global cooperation on the development and distribution of vaccines to combat the virus. With the onset of mass vaccination drives as early as December 2020, countries began to progressively roll back some pandemic-induced restrictions. The gradual reopening of economies worldwide buoyed growth prospects as the International Monetary Fund (IMF) in its July 2022 *World Economic Outlook Update*³ estimated that the global economy grew by 6.1 per cent in 2021. However, ongoing supply constraints coupled with commodity, trade,

and financial market spillovers from the Russia-Ukraine conflict have clouded the outlook – the IMF projected that global growth could slow to 3.2 per cent in 2022. Worsening geopolitical tensions and the possibility of more infectious strains of COVID-19 present downside risks to the forecast.

Global financial stability risks related to the pandemic were relatively contained in 2021, but new threats have emerged that may exacerbate existing vulnerabilities.

Extraordinary fiscal and monetary policy actions led to very accommodative financial conditions in 2021, but contributed to a marked increase in public and private debt loads and likely inflated financial asset prices. The IMF in its April 2022 *Global Financial Stability Report (GFSR)* cautioned that the latter may present a significant challenge to financial stability when these assets are eventually repriced to reflect

3 IMF. *World Economic Outlook July 2022: Gloomy and more uncertain*. July 2022. Accessed July 26, 2022. <https://www.imf.org/en/Publications/WEQ/Issues/2022/07/26/world-economic-outlook-update-july-2022>.

normal market conditions. This possibility has increased in 2022 as major central banks have embarked on programmes of monetary policy normalisation to tame rising inflation. A review of the financial stability reports (FSRs) of selected countries has raised similar concerns: high and rising inflation; increasing geopolitical tensions; vaccine-resistant variants; fintech and cyber threats; and climate action failure (**Figure 1**). Additional threats to financial stability within country-blocks include fading fiscal support; rising incidents of civil disobedience; acceleration of cryptoisation⁴; and housing market imbalances.

Several global developments have implications for domestic financial stability.

These include rising interest rates and the growing incidence and severity of cyber events (**Chapter 2**). As a small twin-island developing state, Trinidad and Tobago has an acute vulnerability to natural disasters and the failure of the largest carbon emitters to address the climate crisis would have adverse long-term implications.

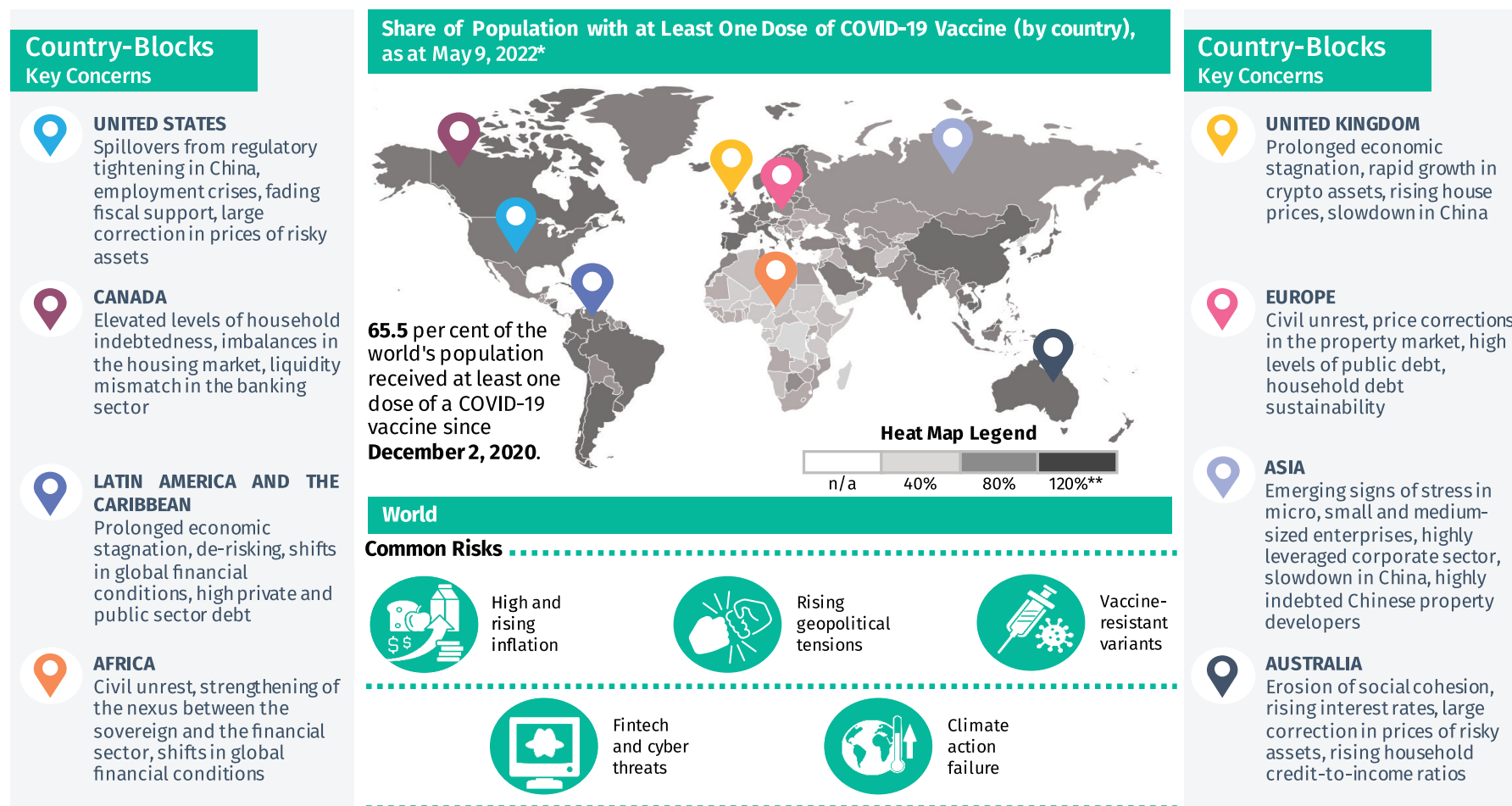
International financial and regulatory bodies, as well as other central banking groups, continued to support efforts to mitigate global risks, strengthen financial sector resilience, and build risk management capacities over the last year (Figure 2**).** Initiatives included the expansion of data collection systems; provision of technical assistance and training; publication

of pertinent research; and development of several policy recommendations. Multilateral organisations such as the IMF and the World Bank provided increased financial assistance to countries to assist in lessening the impact of the pandemic and minimise spillovers to the financial sector. Some organisations also ventured into new, potentially far-reaching areas by building strategic partnerships. As an example, the Bank for International Settlements (BIS) and the Network of Central Banks and Supervisors for Greening the Financial System collaborated with international stakeholders to advance competencies in nascent areas of climate-related financial risk research. On the domestic front, the Central Bank of Trinidad and Tobago (the Central Bank) engaged with the various bodies to improve systemic risk analysis and risk-based supervision, as well as receive guidance in implementing global standards and best practices (**Chapter 4**). Central Bank representatives attended numerous workshops hosted by the organisations concerning, inter alia, stress testing, operational risk management, cyber risk, and anti-money laundering (AML).

⁴ "Cryptoisation" describes the growing use of crypto assets for payments and settlements.

FIGURE 1

SUMMARY OF GLOBAL FINANCIAL STABILITY RISKS IN 2021 AND EARLY 2022



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

Note: *The most recent available data point was used for countries with no vaccination data up to May 9, 2022.

**Cases that exceeded 100 per cent of the population were due to non-resident vaccinations.

FIGURE 2

KEY DEVELOPMENTS AND PERSPECTIVES AT MAJOR MULTILATERAL ORGANISATIONS IN 2021 AND EARLY 2022

**BANK FOR INTERNATIONAL SETTLEMENTS (BIS)**

- The Basel Committee on Banking Supervision finalised its review of the assessment methodology for Global Systemically Important Banks (G-SIBs). It has also been developing a suite of potential measures to address climate-related financial risks to the global banking system.
- The **Committee on Payments and Market Infrastructures** noted that correspondent banking relationships declined by 4 per cent over 2020, taking their total contraction to about 25 per cent between 2011 and 2020.

**INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS (IAIS)**

- IAIS and Access to Insurance Initiative (A2ii) signed an agreement to cooperate on improving access to insurance.
- The IAIS 2021 *Global Insurance Market Report* highlighted the low yield environment, high credit risk and heightened cyber risk as the key challenges facing the insurance sector.
- The IAIS conducted a gap analysis to determine if changes are needed to take account of growing climate risk, or whether further supervisory guidance in this area is needed.

**NETWORK FOR GREENING THE FINANCIAL SYSTEM (NGFS)**

- The NGFS updated their climate scenarios to provide a common starting point for analysing the risk that climate change poses to economies and financial systems.
- The NGFS published a report that provided an update on existing practices in relation to green/non-green classification frameworks and the methodologies used by financial institutions, credit rating agencies, and supervisors to assess and quantify financial risk differentials.

**FINANCIAL STABILITY BOARD (FSB)**

- The FSB published papers on practices for funding in resolution, and internal financial and operational interconnectedness. These papers are intended to facilitate effective resolution planning for insurers.
- The FSB published a report that sets out practices that have helped crisis management groups to enhance preparedness for the management and resolution of a cross-border financial crisis.
- FSB Regional Consultative Group for the Americas continued its work on mapping global financial system vulnerabilities, inclusive of policy responses to the pandemic and climate change.

**INTERNATIONAL ORGANISATION OF PENSION SUPERVISORS (IOPS)**

- The IOPS released for public consultation, *Good practices for designing, presenting and supervising pension projections*.
- IOPS representatives participated in high-level roundtables on global standard-setting for sustainability-related financial disclosure. Notably, participants provided an update on their activities and progress towards consistent, standardised climate risk disclosure.

**INTERNATIONAL MONETARY FUND (IMF)**

- The IMF lent US\$98 billion to 54 countries for the financial year ended April 2021. Of this, US\$17 billion was provided to 39 countries as emergency lending facilities.
- The IMF conducted 36 Article IV consultations in FY2021 (less than half the usual number of consultations held annually) and 8 Financial System Stability Assessments under the Financial Sector Assessment Program.

Sources: Various reports of international regulatory and supervisory bodies, central banking groups, and other multilateral organisations

REGIONAL DEVELOPMENTS

Asset holdings of central banks in advanced economies (AEs) grew exponentially to provide the liquidity needed to support these economies through the pandemic.

This was particularly the case in the United States (US), a key trading partner of Trinidad and Tobago, where central bank balance sheet assets as a per cent of Gross Domestic Product (GDP) grew (at an average monthly rate) by 208.4 per cent. As excess liquidity weakens the monetary policy transmission mechanism, central banks with large asset holdings may have to accelerate the unwinding of inflated balance sheet positions if policy rate adjustments are to have the intended effect of containing rising inflation rates. However, this stance may heighten global financial market volatility as funding costs increase and investors reprice risk trades. For instance, financial market concerns caused the Financial Times Stock Exchange (FTSE) All-World barometer of global equities to drop by 3 per cent on May 9, 2022 – its sharpest fall since June 2020. Despite fluctuations in the external investment market, Trinidad and Tobago's Heritage and Stabilisation Fund (HSF) investment portfolio returned 11.8 per cent for the financial year ended September 2021.

Commercial banks in emerging markets and developing economies (EMDEs) increased their sovereign exposure during the pandemic.

Holdings of local government debt to banking sector assets increased from 14.2 per cent in 2019 to 17.2 per cent by 2021.⁵ This occurred as institutions helped meet governments' liquidity needs required for COVID-19 support programmes. Prior to the pandemic, sovereign debt exposures in EMDEs were already significant as local currency sovereign bond holdings in countries such as Brazil, Colombia, and South Africa were almost twice the value of commercial banks' common equity Tier 1 capital. As a sizable share of sovereign debt holdings follow mark-to-market accounting, EMDEs confronting inflation risks or elevated debt vulnerabilities face significant downside risks from monetary policy tightening in AEs. Further, several FSRs raised concerns about the possibility of a prolonged slowdown in China given liquidity problems in property development firms (real estate and related investments contribute significantly to China's GDP) and very restrictive measures taken to achieve zero-COVID status amidst an ongoing outbreak of the virus. The risks from a prolonged slowdown in China and aggravation of supply chain issues may also be felt domestically as China was the third-largest market provider

5 IMF, "Global Financial Stability Report: Shockwaves from the War in Ukraine Test the Financial System's Resilience." International Monetary Fund, April 2022. <https://www.imf.org/en/Publications/GFSR/Issues/2022/04/19/global-financial-stability-report-april-2022>.

of foreign goods to Trinidad and Tobago in 2021 (US\$605.8 million). China has also been a key source of funding for Trinidad and Tobago – in recent years, several projects have been financed through Chinese loans/grants⁶.

In Latin America and the Caribbean (LAC), rising interest rates in AEs, heightened inflationary pressures, and other macroeconomic challenges may have spillover effects on financial stability.

The need for fiscal consolidation and monetary tightening to tackle rising inflation and debt overhang may weigh down growth prospects in LAC. Meanwhile, monetary policy normalisation in AEs may increase capital outflows and add to foreign exchange pressures in LAC as global investors reassess emerging market risks. These issues may exacerbate underlying structural vulnerabilities within the region. Between 2019 and 2020, the average public debt-to-GDP ratio in the Caribbean increased from 72.1 per cent to 95.2 per cent.⁷

Alongside inherent risks from rising prices, the Caribbean region faces several unique challenges to financial stability. The loss of correspondent banking relationships (de-risking) has re-emerged on the region's political agenda.⁸ De-risking remains a significant

concern as it increases the number of unbanked persons, disrupts the flow of remittances, and encourages greater use of unofficial payment channels thereby increasing risk to financial integrity. In other developments on the payments front, a few Caribbean countries advanced initiatives to diversify access to financial services. In the second quarter of 2022, Saint Vincent and the Grenadines passed legislation that, inter alia, would allow for the registration of virtual asset businesses. Meanwhile, the Bank of Jamaica minted Jamaica's first batch of central bank digital currency (CBDC) in August 2021. While fintech solutions have the potential to improve financial inclusion, the onboarding has not been without challenges. For instance, latest reports place the number of active users of the Sand Dollar (The Bahamas' CBDC) in 2021 at around 20,000 – approximately 5 per cent of the total population.⁹ Efforts are ongoing to increase the merchant base in The Bahamas in a bid to improve circulation and uptake. Meanwhile, in Jamaica, full scale introduction of Jam-Dex (the country's CBDC) was delayed in part to low enrolment of wallet providers – latest reports place National Commercial Bank as the sole provider of Jam-Dex wallets.¹⁰ Additionally, DCash (the CBDC issued by the Eastern Caribbean Central Bank) was offline for two months in 2022 due to a technical glitch.

6 These include the La Brea Dry Dock facility, Phoenix Park, update of strategic public fleet vehicles, and the Sinopharm vaccine distribution drive.

7 Data provided by the Caribbean Economic Research Team.

8 A high-level advocacy discussion was held between members of CARICOM and a US Congressional Delegation on April 20, 2022.

9 Soderberg, et al. "Behind the Scenes of Central Bank Digital Currency: Emerging Trends, Insights, and Policy Lessons." International Monetary Fund, Fintech Note, 2022/004. February 2022. <https://www.imf.org/en/Publications/fintech-notes/Issues/2022/02/07/Behind-the-Scenes-of-Central-Bank-Digital-Currency-512174>.

10 Bank of Jamaica. "JAM-DEX Phased Rollout Underway." Bank of Jamaica. May 2022. <https://boj.org.jm/jam-dex-phased-rollout-underway/>.

THE DOMESTIC SETTING

In Trinidad and Tobago, though domestic economic activity was subdued in 2021, there were early signs of recovery. Data from the Central Statistical Office (CSO) showed that real GDP (compiled at producer prices) grew by 3.1 per cent (year-on-year) in the second half of 2021, after declining by 4.1 per cent in the first half. Further, supplementary data from the Ministry of Labour revealed that the number of persons retrenched declined from 2,775 in 2020 to 1,462 in 2021. Additionally, average daily job advertisements (in print media), an indicator of labour demand, fell by 17.2 per cent in 2021. Meanwhile, headline inflation averaged 2.1 per cent in 2021, compared with 0.6 per cent a year earlier. The rise in inflation during the second half of 2021 was moderate, but the surge in international energy and food prices suggests upside risks for inflation in the short term – headline inflation averaged 4.4 per cent over the first five months of 2022.

The financial position of the Government of the Republic of Trinidad and Tobago (GORTT) improved over the course of fiscal year (FY) 2020/21 (Figure 3). Buoyed by proceeds generated by the Tax Amnesty, Central Government's overall deficit narrowed from \$16.7 billion (11.2 per cent of GDP) in FY2020 to \$13.7 billion (8.1 per cent of

GDP) in FY2021. The deficit was financed by external and domestic borrowings, as well as withdrawals from the HSF. General Government debt outstanding (excluding debt issued for sterilisation purposes) totalled \$126.6 billion at the end of FY2021, up from \$118.4 billion in FY2020. Notwithstanding external borrowings, HSF withdrawals, and an extraordinary Special Drawing Rights allocation of US\$644 million from the IMF, gross official reserves fell by 1.1 per cent from US\$6,953.8 million in 2020 to US\$6,879.6 million at the end of 2021 (Figure 4).

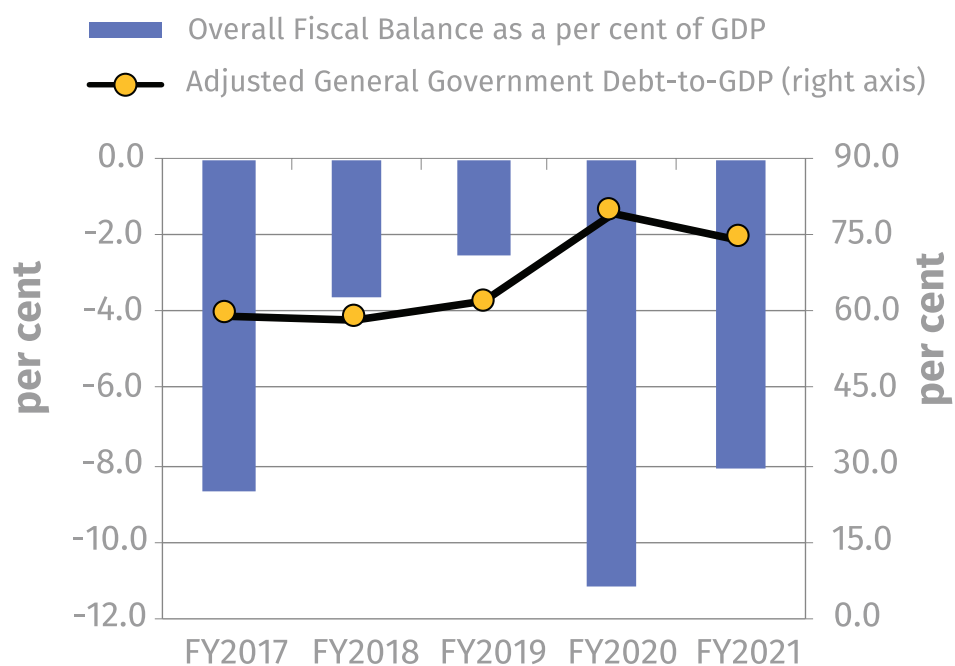
Policy efforts were geared towards maintaining macro-financial stability in Trinidad and Tobago. Although domestic inflationary pressures intensified in the latter half of 2021, the Central Bank kept its Repo rate at 3.50 per cent throughout the year. This action helped to support economic recovery efforts by maintaining favourable financial conditions. In 2021, the prime lending rate remained at 7.50 per cent while the 91-day Treasury bill rate rose from 0.2 per cent to 0.3 per cent. However, given signals of continued monetary policy tightening in the US, the TT-US 91-day interest rate differential may fall further into negative territory in 2022 – at the end of May 2022, the TT-US 91-day interest rate differential stood at -73 basis points. Private sector credit growth¹¹ was somewhat subdued as consumer borrowing declined and business loans (including mortgages) were relatively weak (Figure 5), though loans to businesses

¹¹ Extensions of credit (loans and short-term funding) provided to households and businesses for the purpose of financing the purchase or development of an asset/operation.

showed signs of improvement towards the end of 2021. Given the resurgence of economic activity in the latter half of 2021, estimated household debt-to-GDP and corporate sector credit-to-GDP ratios¹² fell to 35.1 per cent and 46.5 per cent, respectively (**Figure 6**). This represented decreases of 5.7 per cent and 7.6 per cent, respectively, over 2021. Nonetheless, credit risks appear contained as the commercial banking sector's consumer and corporate non-performing loan (NPL) ratios remained low and stable. However, debt-servicing challenges may have been alleviated by loan payment moratoria, loan restructuring, and government support measures.

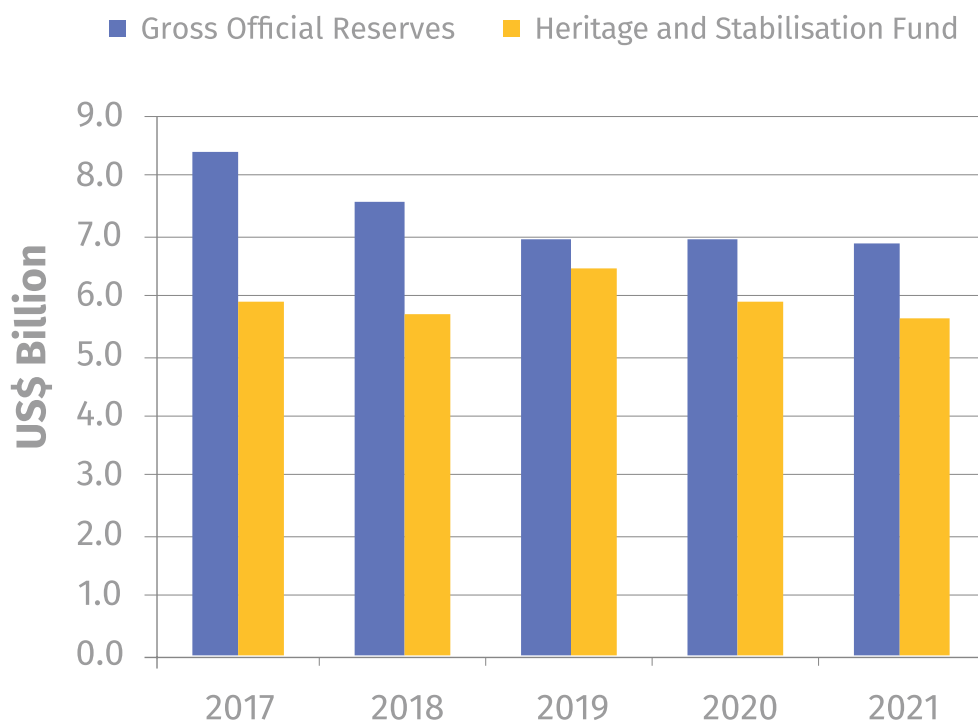
Other legacies of the pandemic may present problems that can challenge financial stability. For instance, the IMF's April 2022 *GFSR* noted that decentralised systems are more at risk of cyber-attacks and in April 2022, the Ministry of National Security reported a sharp increase in malicious cyber activity on the domestic and regional fronts. Meanwhile, meeting climate financing commitments by the global community could be undermined as funding may be prioritised for post-pandemic recovery. While steady progress is being made in advancing climate action in Trinidad and Tobago (**Box 1**), the availability of quality data continues to be a challenge.

¹² Household debt comprises credit extended to households from commercial banks; non-bank financial institutions; insurance companies; credit unions; the Home Mortgage Bank; the Trinidad and Tobago Mortgage Finance Company; and other retail merchants. Meanwhile, corporate sector credit includes loans extended to private non-financial institutions by licensed financial institutions, plus borrowings from abroad by the surveyed companies for the purpose of compiling external sector statistics.

FIGURE 3**FISCAL OPERATIONS, FY2017 – FY2021**

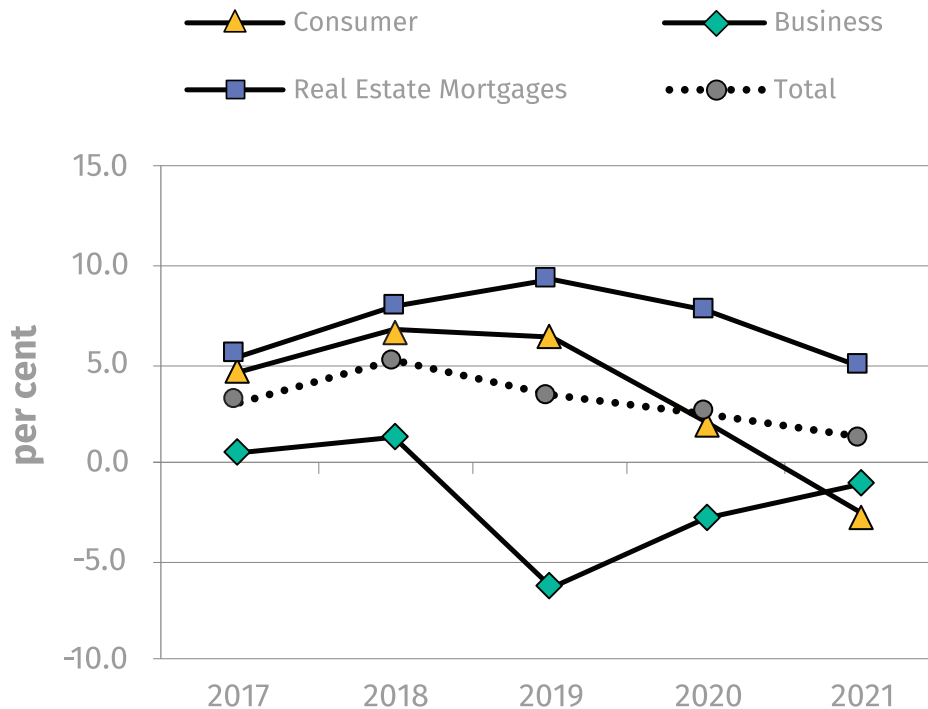
Source: Ministry of Finance

Note: GDP data used for ratios prior to FY2021 was sourced from the CSO. GDP data for FY2021 was estimated by the Central Bank.

FIGURE 4**OFFICIAL FOREIGN ASSETS, 2017 – 2021**

Source: Central Bank of Trinidad and Tobago

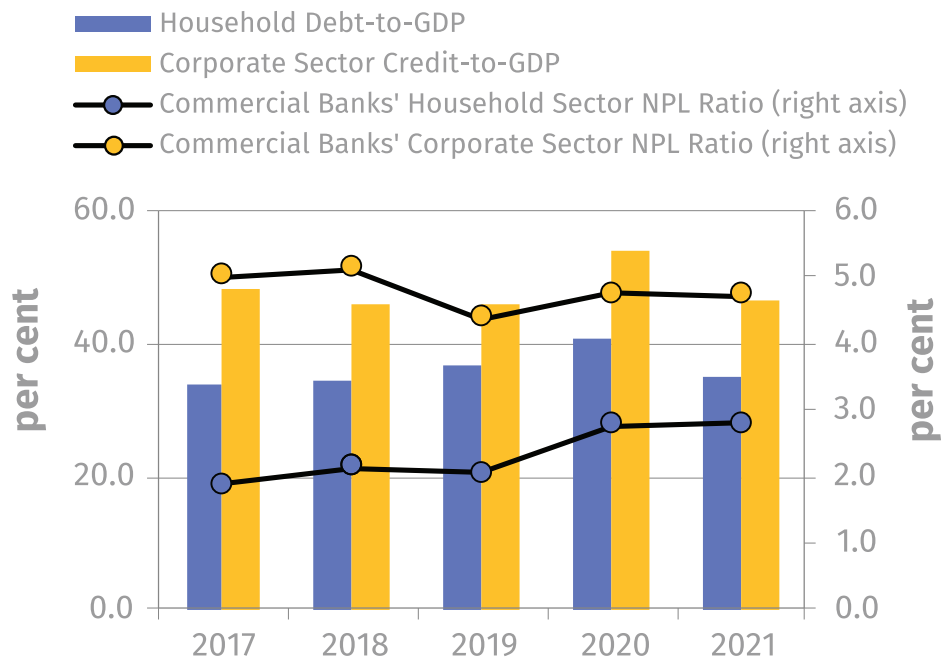
FIGURE 5

PRIVATE SECTOR CREDIT GRANTED BY THE
CONSOLIDATED FINANCIAL SYSTEM – AVERAGE, 2017 – 2021

Source: Central Bank of Trinidad and Tobago

FIGURE 6

HOUSEHOLD AND CORPORATE SECTOR CREDIT RATIOS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

Note: GDP data used for ratios prior to 2021 was sourced from the CSO. GDP data for 2021 was estimated by the Central Bank.



CHAPTER 2

Financial Stability Risks in Trinidad and Tobago



FINANCIAL STABILITY RISKS IN TRINIDAD AND TOBAGO

Trinidad and Tobago's financial sector weathered the impact of the COVID-19 pandemic relatively well and the financial stability outlook is expected to improve in 2022. Early warning indicators suggest that macro-financial imbalances are receding, but downside risks remain. Macroeconomic downside risks can trigger uncertainty which can weigh on the ongoing economic recovery and spill over to the financial sector. Although an energy-led upturn is projected for the short term, financial stability risks include higher international interest rates, more frequent cyber-attacks, and elevated sovereign concentrations. Overall financial stability risks are assessed as 'moderate', with the presence of both upside and downside factors.

Chapter 2 identifies and evaluates relevant financial stability risks and assesses the resilience of the domestic financial system to potential shocks.

Previous FSRs adopted a modular risk assessment framework, which discussed the transition from vulnerabilities to risks in the macro-financial system. The strength of the risk rating would be conditional on the likelihood of a 'trigger' event, which would in turn influence the crystallisation of the risk and intensity of the fallout. Vulnerabilities are influenced by the structure of the domestic financial system and do not change rapidly from one period to the next. Given that domestic vulnerabilities have been well-defined in previous FSRs, the 2021 financial stability assessment placed greater emphasis on risk analysis. The approach encapsulates risk identification, risk assessment, and risk mitigation in the determination of an overall risk rating. The approach also acknowledges

the interdependencies that exist among macro-financial risks, as well as their non-linearity.

The 2020 FSR identified four prominent vulnerabilities and associated risks to the domestic financial system.

The vulnerabilities were related to financial institutions' high sovereign and household exposures, increased digitalisation activity, as well as interconnectedness within the financial services industry. The intensity of the pandemic shock exacerbated structural vulnerabilities and resulted in a high risk of balance sheet revaluations due to sovereign concentrations; an elevated risk of consumer loan portfolio deterioration; an elevated risk of consumer distrust of digital transformation due to cyber-attacks; and a moderate risk of spillovers within the financial sector. Overall financial stability risk was assessed as 'elevated'.

During 2021 and early 2022, the deployment of large-scale vaccination programmes and the eventual easing of pandemic restrictions bolstered economic conditions and buttressed financial sector resilience. A review of the domestic macroprudential early warning indicators suggests that financial stability conditions have improved and highlights possible areas where financial resilience may be threatened. The improved outlook for the corporate and household sectors alleviated some of the risks related to financial system exposures. Despite the more positive economic sentiment, two of the four risks from the 2020 Report – sovereign risk and cyber risk – remain relevant and are the nucleus of the medium-term risk outlook. A new risk has emerged as the multi-speed global economic recovery and eruption of geopolitical tensions have growing and widespread impacts on countries' financial conditions. Surging inflation in AEs has resulted in the tightening of policy rates and has the potential to increase market and credit risks in the trading and banking books of domestic financial institutions.

MACROPRUDENTIAL EARLY WARNING INDICES

The Macprudential Early Warning Indices¹³ as at December 2021 imply that macro-financial conditions are in the nascent stages of recovery, but downside risks still persist (Figure 7). This was best reflected in the Aggregate Financial Stability Index (AFSI), which suggested that

the pandemic's effects on the financial sector have moderated. The Financial Conditions Index (FCI) noted that the moderation occurred during a period of accommodative borrowing conditions, amidst continued government and regulatory support. However, as extraordinary policy support came to an end in 2021, supervisors should be vigilant to ensure that the withdrawal of relief measures do not challenge future financial conditions. The Systemic Risk Accumulation Index (SRAI) pinpointed large credit exposures to the private sector, high intra-group financial exposures, and rising inflation as potential areas of vulnerability. Although the Banking Stability Index (BSI) declined in December 2021 due to higher market risk, lower capital adequacy and liquidity ratios, conditions are still stable and indicators are above international averages. The indices are part of a broader financial stability surveillance framework (**Appendix A**) which also reinforces the conclusion that overall conditions are improving. They should not be viewed in isolation but complemented with evaluations from stress tests, financial soundness indicators (FSIs), network maps, and other useful risk measurement tools.

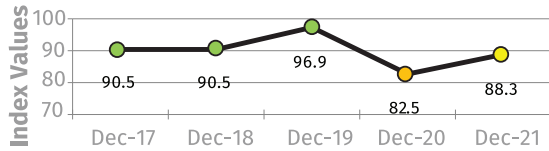
¹³ For a review of the methodology, please refer to Appendix C of the 2017 FSR: https://www.central-bank.org.tt/sites/default/files/reports/FSR_2017_Final.pdf.

FIGURE 7

DOMESTIC MACROPRUDENTIAL EARLY WARNING INDICES, 2017 – 2021

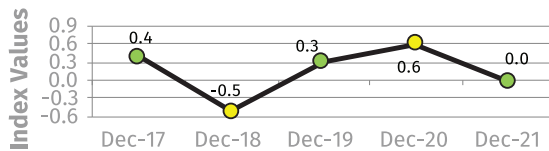
● Aggregate Financial Stability Index (AFSI)

The AFSI monitors macro-financial variables related to stability. Increases (decreases) in the value indicate improvements (deterioration) in financial stability.



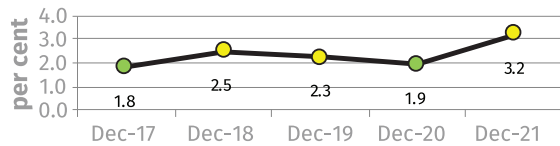
● Financial Conditions Index (FCI)

The FCI estimates stress in domestic funding conditions. Negative values signal loose funding conditions while positive values imply tightening financial conditions.



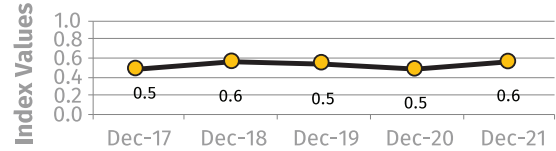
● Credit-to-GDP Gap (Gap)

The Gap is the difference between private sector credit-to-GDP and its long-term trend. When it is greater than 2 per cent, consumption credit is growing faster than GDP.



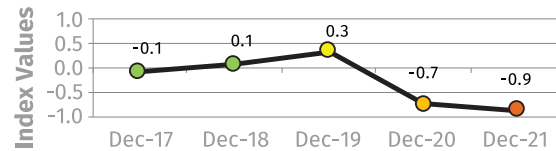
● Systemic Risk Accumulation Index (SRAI)

The SRAI determines the degree of systemic risk build-up in the financial system. Increases (decreases) indicate accelerated (decelerated) systemic risk accumulation.



● Banking Stability Index (BSI)

The BSI is a consolidated measure of the financial soundness of commercial banks and non-banks. Significantly positive (negative) values signal overheating (higher vulnerability).



Benchmarks*

	AFSI	SRAI	FCI	BSI	Gap
Low	90 – 100	0 – 0.2	0 – 0.4	0 – 0.3	0 – 2.0
Moderate	85 – 90	0.2 – 0.4	0.4 – 0.8	0.3 – 0.5	2.0 – 4.0
Elevated	80 – 85	0.4 – 0.6	0.8 – 1.0	0.5 – 0.8	4.0 – 6.0
High	75 – 80	0.6 – 0.8	1.0 – 1.5	0.8 – 1.0	6.0 – 8.0
Very High	≤ 75	0.8 – 1.0	> 1.5	> 1.0	> 8.0

Source: Central Bank of Trinidad and Tobago

Note: *These thresholds are intended only as a general guide and are not unconditional statements on the risk levels. Also, in 2021, the SRAI was rebased to range between 0 and 1 to improve interpretability.

RISKS IN THE REGULATED DOMESTIC FINANCIAL SECTOR

In addition to quantitative surveillance, the Central Bank also reviews external and domestic conditions for imminent macro-financial risks. While the early warning indicators suggested a favourable outlook for domestic financial stability as at the end of 2021, rapidly evolving events in the international macro-financial environment in the first half of 2022 have altered the risk outlook, and have given rise to additional threats to financial stability. The spectrum of key risks includes:

1. Rising international interest rates;
2. Increasing cyber-attacks; and
3. Elevated sovereign concentrations in the banking and insurance sectors.

The following analysis considers the timing and evolution of the above risks to provide an overall assessment and outlook for domestic financial stability.

● RISING INTERNATIONAL INTEREST RATES

The Russia-Ukraine conflict has exacerbated the global supply chain crisis in the wake of the COVID-19 pandemic, triggering price shocks and escalating inflation. In response, several monetary authorities have tightened policy rates at the end of 2021 and in the first half of 2022¹⁴. Rises in global interest rates, if transmitted domestically, can have adverse

consequences for credit growth and long-duration asset allocations, as well as knock-on effects on the economic outlook.

A number of EMDE and a few AE central banks raised their policy rates in 2021 amidst concerns that soaring inflation could hamper economic growth and amplify debt vulnerabilities. Inflation accelerated in several economies as pandemic-related restrictions were unwound, causing a release of pent-up demand which exceeded available supplies. Approximately 86 per cent of BIS-reporting jurisdictions experienced higher inflation in 2021, with almost 8 per cent reporting price increases over 500 basis points (Figure 8, Panel A). In addition to higher inflation concerns, EMDEs also raised policy rates to limit capital outflows. Forty-two per cent of sampled central banks tightened monetary policy during 2021, especially in the fourth quarter, with the EMDEs tightening more severely (Figure 8, Panel B). The domestic Repo rate has remained unchanged since March 2020. However, as policy rates continue to increase in AEs, the TT-US 91-day Treasury bill interest rate differential slipped into negative territory in early 2022. Further policy rate hikes are expected in AEs and EMDEs as inflation is projected to remain above target levels for much of 2022 (Figure 9). Additionally, despite remaining relatively anchored over 2021, domestic prices have edged upwards in 2022 and price pressures are expected to continue during the year.

¹⁴ On May 4, 2022 the US Federal Reserve increased its Fed funds rate by 50 basis points to the range of 0.75 per cent to 1 per cent, the biggest jump in 22 years. European Central Bank officials also announced on May 24, 2022 that they strongly expect that the eight-year period of negative policy rates will end in the third quarter of 2022.

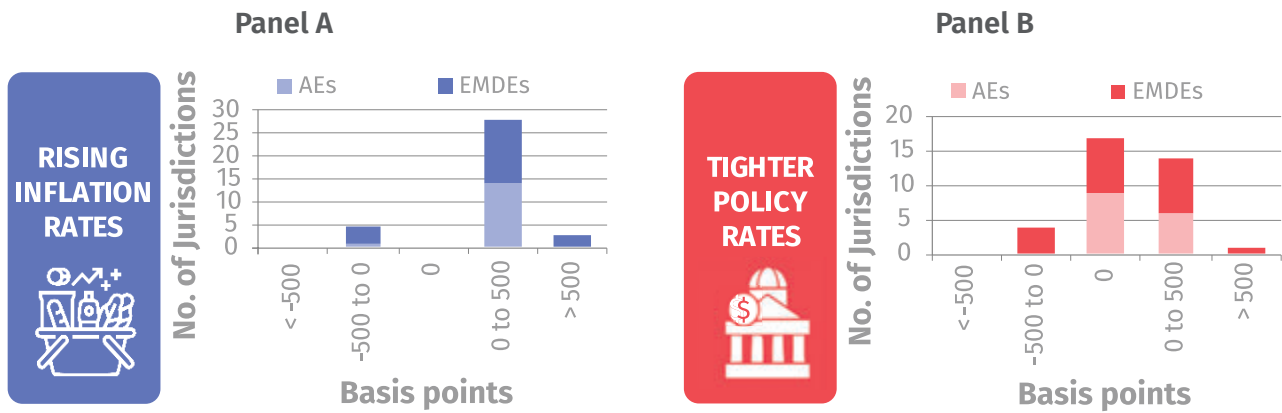
With global interest rate risks elevated, sharp interest rate increases can have wide-ranging effects on domestic financial institutions' asset portfolios. Rising global interest rates and a weaker global economic outlook could lead to higher market volatility that could adversely impact financial institutions' investment portfolios.¹⁵ While higher domestic interest rates could improve bank profitability through higher spreads, tightening monetary policy rates too fast too soon could undermine the recovery with unfavourable implications for credit growth and asset quality. Although business credit experienced a turnaround at the end of 2021, consumer borrowing remained weak and growth in real estate mortgage lending tempered. On the latter, approximately 96 per cent of consumer mortgages in commercial banks are variable rate, which means that mortgage debt repayments would likely increase should interest rates adjust upward.

Any increase in interest rates in the short term will depend on the assessment of the Central Bank's Monetary Policy Committee. While domestic inflation edged higher in the second half of 2021 and into 2022, the increases were primarily supply-side driven. As such, a monetary policy response under these circumstances may not be as efficacious in containing inflationary pressures. At the same time, if domestic interest rates do not adjust, negative interest rate differentials could arise between Trinidad and Tobago and countries with significant trade and financial linkages. This could trigger higher portfolio outflows. Persistent and disorderly portfolio outflows could contribute to greater pressure on the exchange rate. Additionally, rising interest rates could have implications for sovereign risk. Elevated domestic sovereign debt levels could imply higher debt-servicing costs, potentially derailing both current fiscal year and medium-term programmed fiscal objectives.¹⁶

15 Fears of aggressive policy action in AEs and a weaker growth outlook triggered severe sell-offs in global stock markets during May 2022.

16 This is discussed further in Chapter 2, "Elevated Sovereign Concentrations in the Banking and Insurance Sectors".

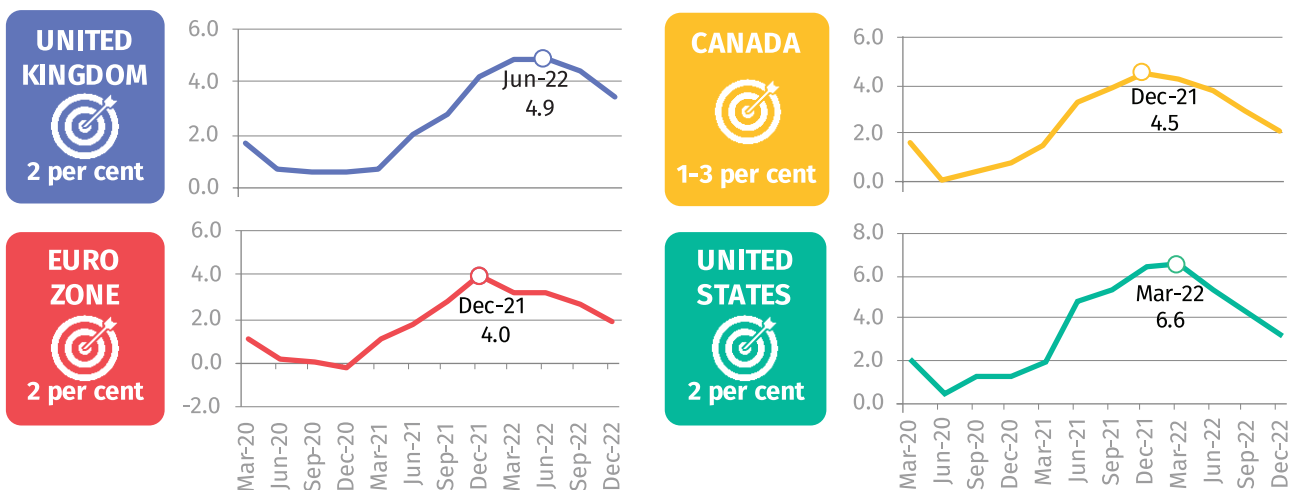
FIGURE 8

CHANGE IN GLOBAL INFLATION AND
MONETARY POLICY RATES IN 2021

Source: BIS Statistics

Note: The data consists of a balanced sample of 36 BIS-reporting jurisdictions across the world that had inflation and policy rate data available as at December 2020 and December 2021. The inflation sample consisted of 59 countries, while the policy rate data had 36 reporting countries. Inflation is measured as the annual change in the consumer price index, with no seasonal adjustments.

FIGURE 9

ADVANCED ECONOMIES INFLATION TRENDS
AND PROJECTIONS, 2020 – 2022

Source: Compiled from the Organisation for Economic Cooperation and Development

Note: The Euro zone refers to the EA-17 list of countries, according to the source metadata.

The domestic financial system is largely robust to interest rate shocks, but some vulnerabilities are evident. Stress testing results for December 2021 indicated that the commercial banking sector is mostly resilient to a moderate shock to domestic rates¹⁷ (**Figure 10**). The sector is sufficiently capitalised against a shock of at least 200 basis points. At a more extreme shock of 400 to 500 basis points, 50 per cent of institutions are expected to fall below the minimum regulatory capital ratio of 10 per cent. However, overall the sector's post-shock capital adequacy ratio (CAR) remained above regulatory requirements. Credit quality stress tests indicated that the sector's loan portfolio is also robust to moderate deteriorations in mortgage asset quality that may arise if debtors are unable to afford any increase in interest payments. In a September 2021 circular (CB-OIF-2273/2021), the Central Bank implemented forbearance measures that permit banks to (i) restructure mortgages more frequently without a downgrade in their asset classification to non-performing status; and (ii) suspend the calculation of the mortgage market reference rate and allow greater flexibility in lowering adjustable mortgage rates. Other risk management measures include a November 2020 guideline on the Internal Capital Adequacy Assessment Process (ICAAP)¹⁸. The guideline requires banks to identify and manage material risks related to

interest rate risk in the banking book (IRRBB). IRRBB is associated with Pillar 2 of the Basel II/III capital framework (Supervisory Review Process) and monitors banks' exposures to adverse interest rate movements according to gap risk, basis risk, and option risk.¹⁹

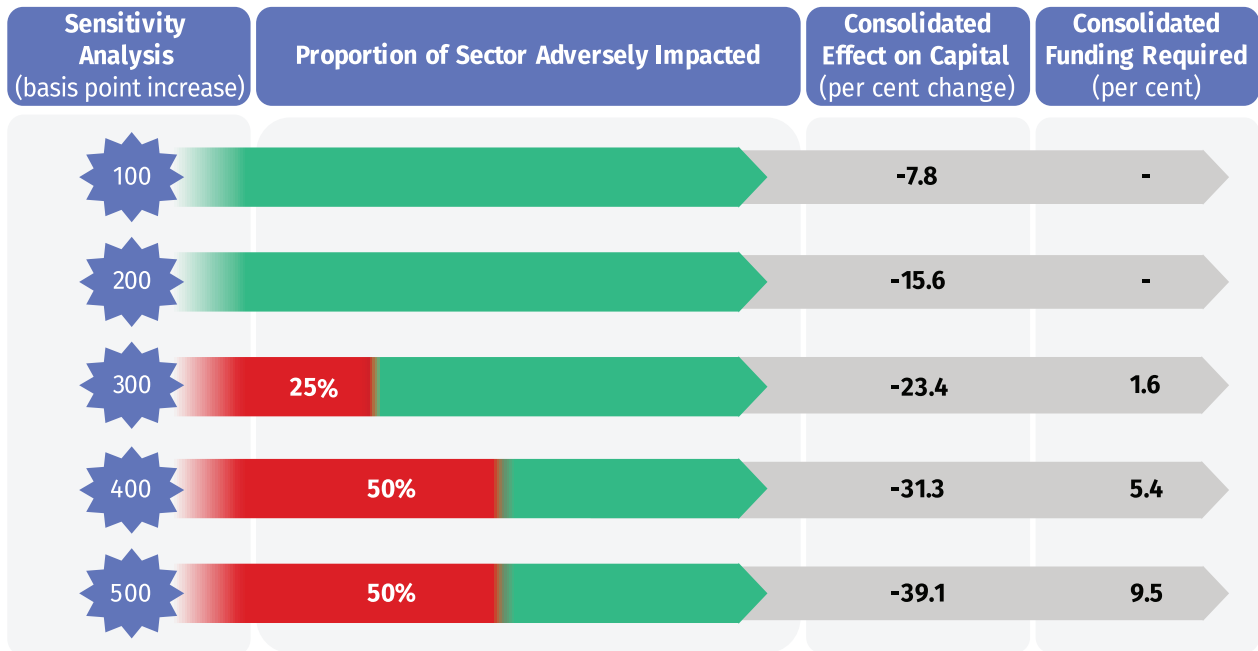
Interest rate movements are more likely to affect insurance and pension sectors via changes in portfolio valuations. The long-term insurance industry, for the most part, is sufficiently robust to a modest increase in interest rates based on institutions' capital adequacy reporting. However, active asset-liability management will support improved management of interest rate risks. Actuarial reports and financial statements for 2021 indicate that, generally, the occupational pension sector stands to benefit from an increase in interest rates. Overall, while the global economy has shifted to an increasing interest rate environment and there is greater uncertainty about global macroeconomic conditions, the domestic spillover appears to be somewhat lagging. However, should interest rate increases spill over into the domestic landscape, the impact on financial institutions could be material. Thus, the risk to domestic financial stability from rising international interest rates is characterised as '**moderate-to-elevated**'.

17 The interest rate risk test assesses the impact of a parallel shift in rates on an institution's market value of equity, that is, the change in the economic value of its interest rate-sensitive assets and liabilities, based on the average duration of the portfolio. Therefore, greater mismatch of its interest rate-sensitive assets and liabilities in the longer term increases interest rate risk. The test does not assess the impact of a change in interest rates on profitability (net interest income impact).

18 The submission of ICAAPs was delayed to January 2022 due to the pandemic. The ICAAP submissions are currently under review by the Central Bank.

19 The Basel Framework defines three main sub-types of IRRBB. Gap risk arises from the term structure of financial instruments on the bank's balance sheet. Basis risk refers to the price differences in financial instruments with similar maturities, but are priced using different interest rate benchmarks. Lastly, option risk arises from the changes in the value of financial derivative positions due to increases in interest rates.

FIGURE 10
IMPACT OF INCREASING INTEREST RATES ON THE
COMMERCIAL BANKING SECTOR, DECEMBER 2021



Source: Central Bank of Trinidad and Tobago

Note: 'Proportion of Sector Adversely Impacted' refers to the number of institutions that would have to source funding to meet regulatory capital requirements due to asset revaluation. 'Consolidated Effect on Capital' and 'Consolidated Funding Required' refer to the additive effect of a shock on individual institutions – as opposed to a shock to the sector's assets – as a per cent of total capital. This approach is distinct from the standard stress test for interest rates (Chapter 3).

● INCREASING CYBER-ATTACKS

Cyber-attacks have been escalating globally as the COVID-19 pandemic and resultant containment measures intensified the digitalisation of financial services in 2021. Consequently, financial institutions may be susceptible to a higher risk of cybercrimes through data breaches, security and phishing incidents, and privacy violations. Although financial institutions are committed to mitigating cybersecurity threats, a widespread attack could result in systemic challenges.

The acceleration in digitalisation has created a global financial ecosystem that is increasingly susceptible to cyber-attacks.

This development was significantly propelled by the COVID-19 pandemic via the need for digital technologies and innovations to access remote services and conduct financial transactions. Moreover, with the increasing number of fintech entrants, the economy has greater susceptibility to cybercrimes. Private sector research indicated that for the LAC region, including Trinidad and Tobago, cyber-attacks amplified by 600 per cent during the peak of the crisis in 2021.²⁰ There are also mounting concerns regarding cyber-attacks stemming from the Russia-Ukraine conflict that threaten cybersecurity globally.

Domestically, official data on cyber-attacks is limited, but there have been notable incidents in the public domain. Available data compiled by the Trinidad and Tobago Cyber Security Incident Response Team

indicated that there were 8 reported cases of ransomware activities, 42 phishing incidents, and 31 data breaches from 2017 to May 1, 2022.²¹ Just under 68 per cent of total incidents were reported by the private sector. The low number of incidents may be due in part to the reluctance of institutions to report events. Though they may not have been reported through official channels, there are known cybersecurity threats over the last two years that have had direct implications for Trinidad and Tobago. In October 2020, a ransomware attack on a regional conglomerate, originating in its automotive division in Barbados, led to operational disruptions at a domestic insurance subsidiary. In April 2022, a cyber-attack on another regional conglomerate resulted in technical difficulties in point of sale (POS) systems and operational disruptions due to business closures. Also in April 2022, there was a breach at a courier company which resulted in blocks being placed on customers' credit cards at financial institutions in LAC to avoid any fraudulent transactions.

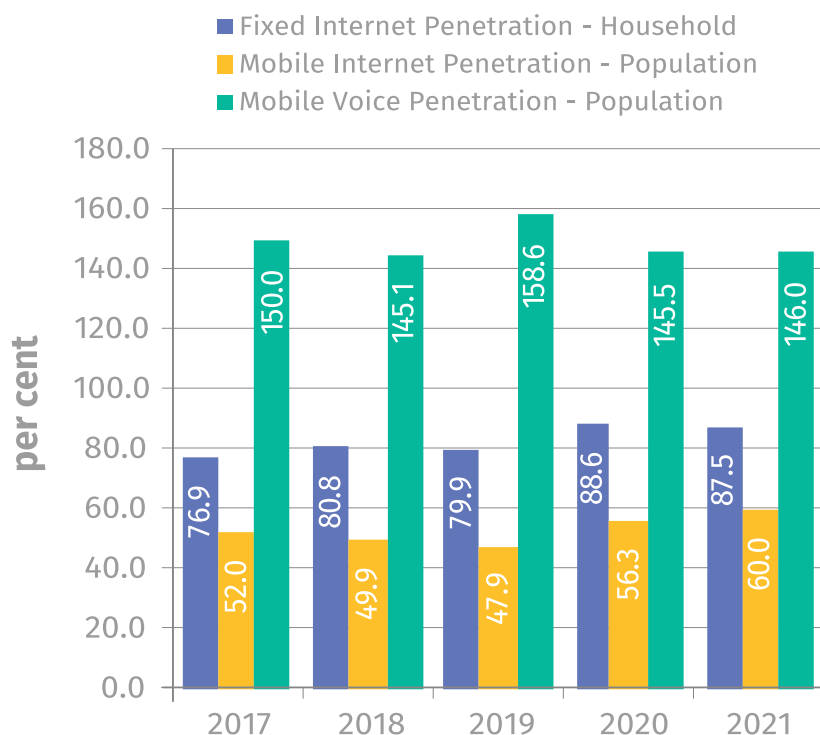
Cyber-attacks could result in financial instabilities if institutions' cybersecurity safeguards are compromised, resulting in the inability to recover quickly enough to avoid destabilising effects. Cyber events could give rise to the loss of confidential data or funds, creating reputational damage and liquidity risk to institutions. Systemic liquidity concerns could also arise via the interconnections within mixed conglomerates and among domestic financial institutions.

20 Perez-Sobers, Andrea. "Fighting cybercrime crucial for business success." Trinidad Express Newspapers. March 29, 2022. https://trinidadexpress.com/business/local/fighting-cybercrime-crucial-for-business-success/article_2ee1f7e4-afca-11ec-bb26-fb474e48470a.html.

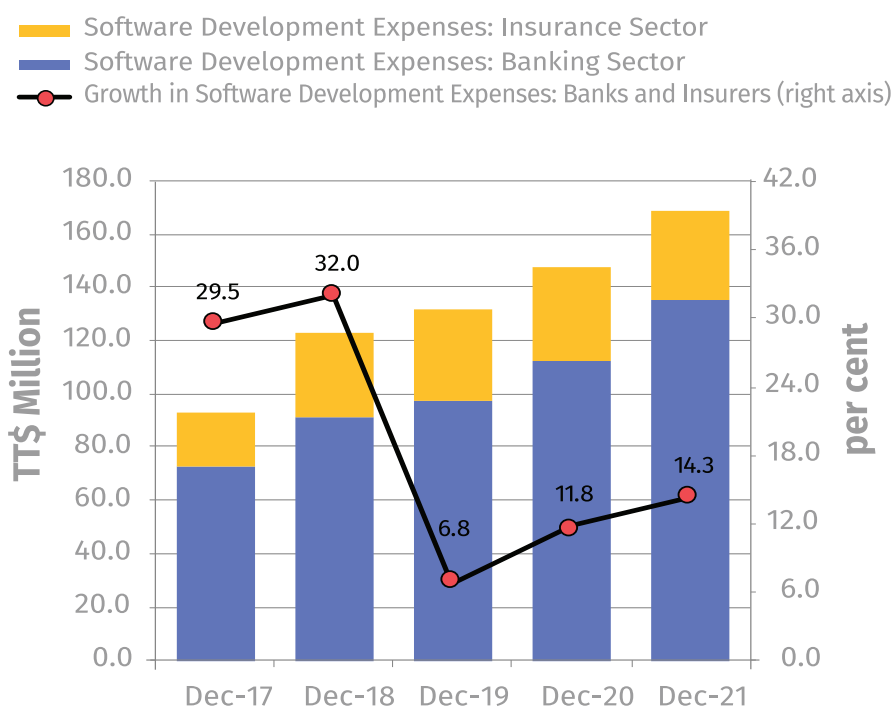
21 Renne, Denyse. "Held to ransom by cyber-attacks." Trinidad Express Newspapers. May 1, 2022. https://trinidadexpress.com/news/local/held-to-ransom-by-cyber-attacks/article_625204e6-c8f4-11ec-a2c2-735c29515c62.html.

Moreover, attacks on payment, clearing, and settlement services can result in settlement risks affecting the smooth functioning of the domestic financial system and the overall economy. Domestic data suggests that the uptake of information and communications technology has been increasing and financial institutions are expanding their digital footprint, thereby increasing their susceptibility to an attack. Mobile internet and voice penetration grew by 6.6 per cent and 0.3 per cent, respectively, while there was a marginal decline in fixed internet penetration by 1.2 per cent in 2021 **(Figure 11)**. Further, growth in software development expenses expanded by 14.3 per cent for banks and insurers in 2021, largely attributed to the banking sector **(Figure 12)**.

While cybercrime has not severely disrupted the domestic financial system, the increasing incidence of cyber-attacks domestically is on the radar of the relevant authorities. According to annual reports issued over the last year, cybersecurity management has been deemed important by local financial institutions. The Central Bank is in the final stages of its review of cyber risk in the banking sector **(Chapter 4)**. The overall risk to domestic financial stability is characterised as **‘moderate’**.

FIGURE 11**INTERNET AND VOICE PENETRATION RATES, 2017 – 2021**

Source: Telecommunications Authority of Trinidad and Tobago

FIGURE 12**FINANCIAL SECTOR SOFTWARE DEVELOPMENT EXPENSES, DECEMBER 2017 - DECEMBER 2021**

Source: Central Bank of Trinidad and Tobago

● ELEVATED SOVEREIGN CONCENTRATIONS IN THE BANKING AND INSURANCE SECTORS

Adverse macro-fiscal shocks from the COVID-19 pandemic have exacerbated legacy issues related to the domestic financial sector-sovereign nexus. Financing the pandemic has been costly. To safeguard lives, livelihoods, and the economy, a relief package valued at over \$5 billion was deployed. Due to the Government's deep ties with the financial sector, fiscal risk has a direct impact on financial entities' balance sheets. Given the role and importance of these two sectors, sovereign exposure risks could have far-reaching implications for the economy. Though the need for direct fiscal support for the pandemic has abated and the economic outlook is favourable, issues such as international commodity volatility and high inflation can undermine fiscal fundamentals.

The sovereign debt load climbed further over 2021, and despite an upturn in GDP growth, public sector financing needs remained high. Low revenue, budget financing and debt repayment led to increases in sovereign debt, albeit at a slower pace (**Figure 13, Panel A**) – the stock rose by \$8.2 billion in FY2021, compared to an increase of \$18.4 billion in FY2020. Domestic creditors, particularly in the financial sector, have been the main source of domestic financing (**Figure 13, Panel B**). Financial institutions' debt holdings are fixed-interest-rate instruments mainly, and maturity levels average over seven years²².

On the sovereign side of the nexus, though the fiscal deficit has been narrowing and economic conditions are broadly more favourable, several factors add uncertainty to the outlook. These factors include public financing pressures should a hawkish monetary stance be taken to combat inflation and a possible resurgence in COVID-19 cases leading to further financing required to support healthcare and broaden the social safety net.

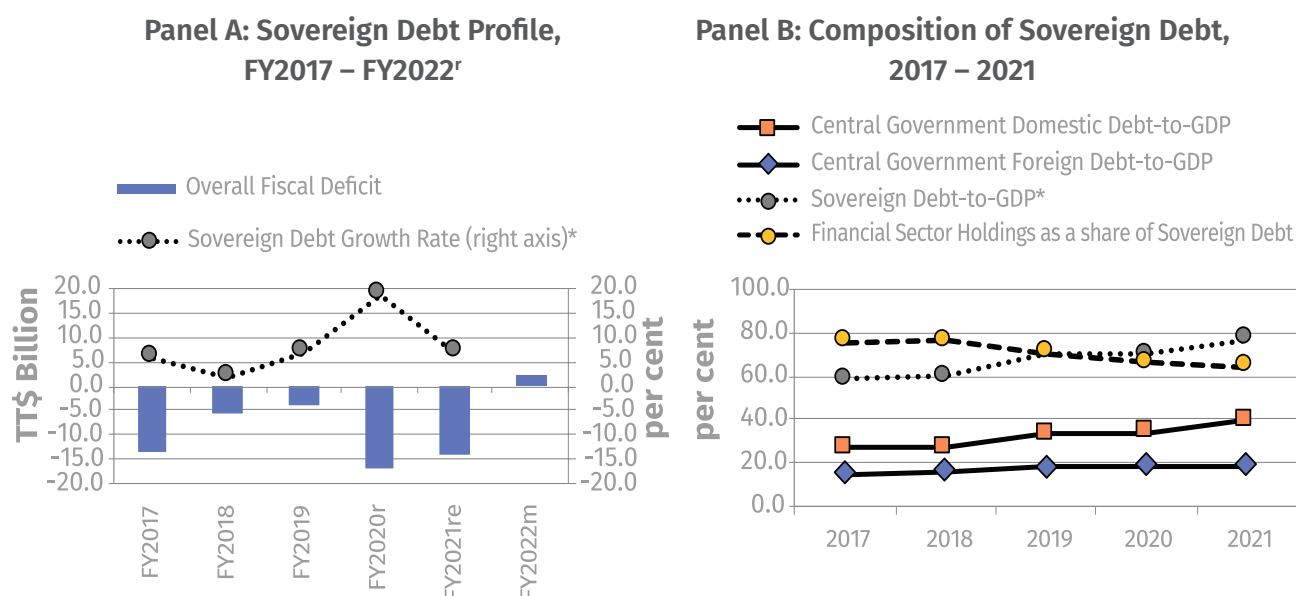
The financial sector is sensitive to sovereign refinancing and default risks due to high sovereign concentrations. As of 2021, sovereign exposures accounted for just over 30 per cent of total banking, insurance and pension sectors' assets (up from 29.2 per cent in 2020) – the majority is attributable to domestic holdings (**Figure 14, Panel A**). The banking sector is driving these exposures, constituting, on average, 53.4 per cent of the sectors' exposures over the last five years. Sovereign holdings across commercial banks, insurance companies and pension funds are mainly longer-term (**Figure 14, Panel B**) and are used to hedge risk. Given the magnitude of these exposures, shocks to the sovereign could substantially impact the quality of financial sector portfolios, affecting funding costs and potentially creating knock-on effects such as disorderly asset sales, a liquidity crunch or wind-ups.

Commercial bank stress testing results also highlight the sector's susceptibility to credit risk stemming from reported exposures²³ to

22 Ministry of Finance of the Republic of Trinidad and Tobago. Review of the Economy. Port-of-Spain: Ministry of Finance. October 2021. Accessed May 16, 2022. <https://www.finance.gov.tt/wp-content/uploads/2020/10/Review-of-the-Economy-2020.pdf>.

FIGURE 13

SOVEREIGN DEBT DYNAMICS



Sources: Ministry of Finance, Central Statistical Office and Central Bank of Trinidad and Tobago

Note: GDP data used for ratios prior to 2021 (and FY2021) was sourced from the CSO. GDP data for 2021 (and FY2021) was estimated by the Central Bank.

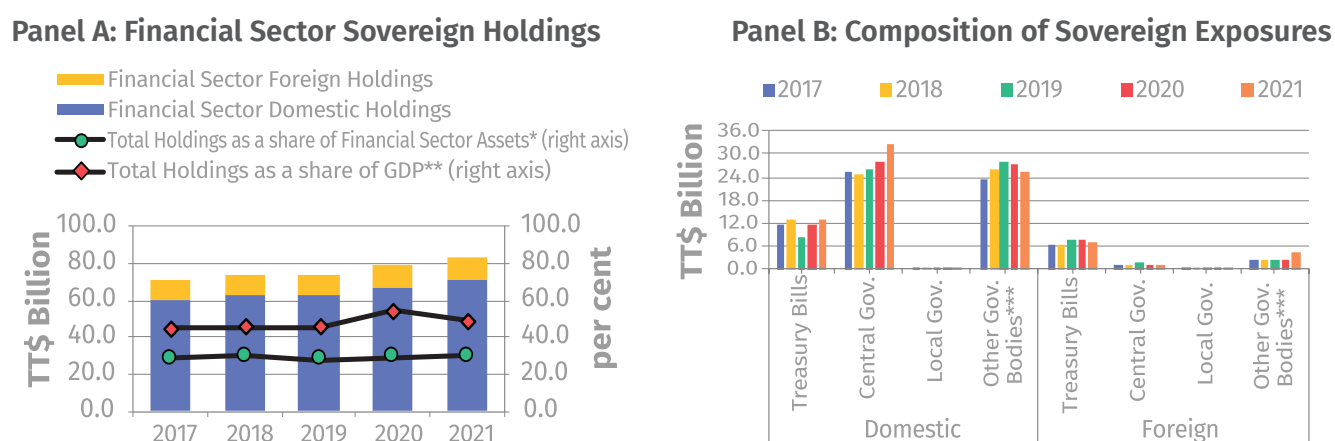
*Adjusted General Government Debt (represents outstanding balances at the end of the fiscal year and excludes all securities issued for Open Market Operations).

^r (Revised Overall Fiscal Deficit figures), ^{re} (Revised Estimates for Overall Fiscal Deficit figures) and ^m (Overall Fiscal Deficit figure based on 2022 Mid-Year Review, May 2022).

Central Government domestic and foreign debt exclude sterilised debt.

FIGURE 14

FINANCIAL SECTOR SOVEREIGN EXPOSURE, 2017 – 2021



Sources: Ministry of Finance and Central Bank of Trinidad and Tobago

Note: Holdings refers to Treasury bills and securities and loans from the Central Government, local government and other state-owned financial and non-financial entities of banks, insurers and pension funds.

* Financial sector refers to the banking, insurance, and pension sectors.

** GDP data used for ratios prior to 2021 was sourced from CSO. GDP data for 2021 was estimated by the Central Bank.

*** Exposures from state-owned non-financial institutions, public utilities, statutory boards, and state-owned other financial institutions.

the Government and Government-related entities. These exposures accounted for 65.7 per cent of total commercial banking sector exposures reported as at December 2021. Test results showed that the commercial banking sector CAR suffered the largest loss, a 12.8 percentage point decline, when exposures to the Government and Government-related entities were shocked²⁴. This resulted in a post-shock CAR of 3.9 per cent, well below the regulatory minimum CAR of 10 per cent. Exposures to the Government and Government-related entities accounted for 77.9 per cent of reported exposures in the largest sectoral exposure, the Other Services sector. As a result, the credit shock to the Other Services sector also had a notable impact on the post-shock CAR – the ratio fell by 8.6 percentage points to 8.1 per cent.

Economic headwinds present a two-sided spectrum of risks. Though supply chain disruptions and geopolitical tensions have

increased inflationary pressures, they have also contributed to rising energy prices. Higher revenue receipts, buttressed by an upward trajectory in energy prices²⁵ and non-oil gains due to a reopened economy, have reduced the need for additional borrowing and have helped to finance outstanding debt-service obligations **(Figure 15)**.²⁶

Though the conditions that could trigger materialisation of sovereign risk are receding²⁷, high global financial and commodity market volatility and economic uncertainty, as well as the move towards more egalitarian accounting standards (Environmental, Social, and Governance principles), suggest that sovereign risks cannot be discounted and need to be closely monitored. Against this backdrop, sovereign concentrations in the financial sector pose **‘moderate’** risk to financial stability.

23 These include all exposures reported under Section 79(1) of the Financial Institutions Act, 2008, that is, credit exposures to persons, borrower groups or related groups amounting to 10 per cent or more of the commercial bank's capital base.

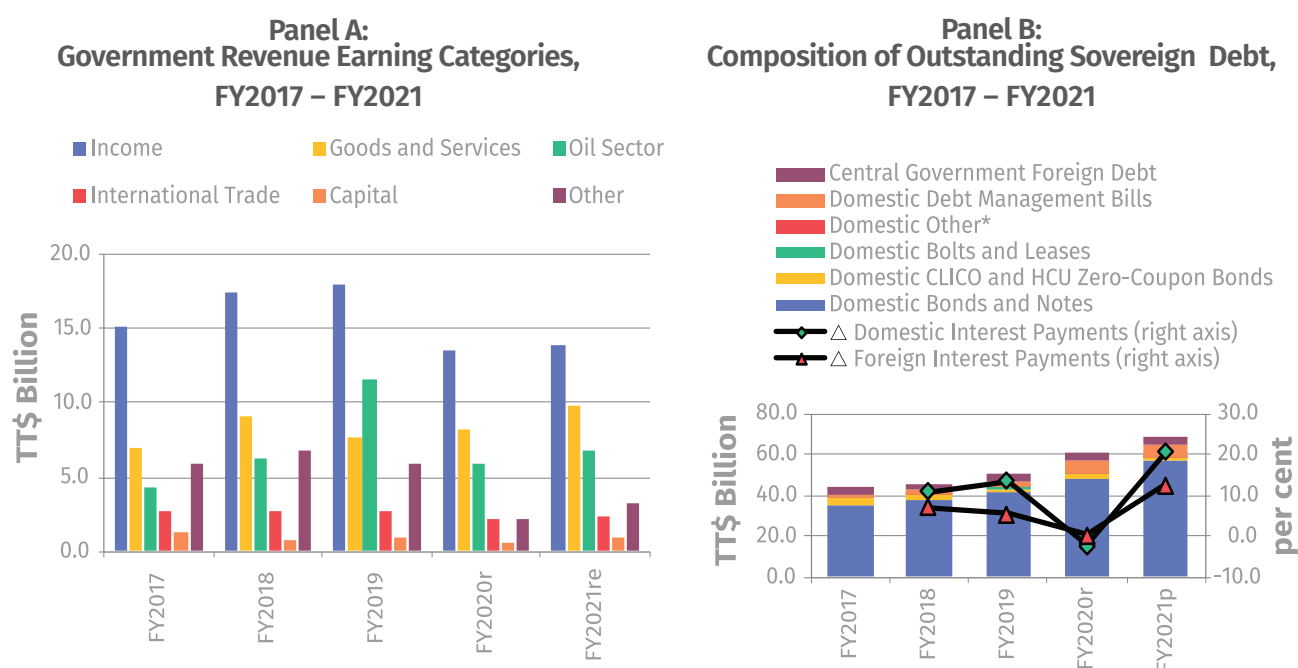
24 The test assumes that 50 per cent of the loan exposures become impaired at the same time that the security exposures suffer a 50 per cent loss in market value.

25 US Energy Information Administration.

26 Ministry of Finance of the Republic of Trinidad and Tobago. Supplementary Appropriation and Budget Mid-Year Review 2022. 16 May 2022. Accessed May 18, 2022. <https://www.finance.gov.tt/2022/05/16/supplementary-appropriation-and-budget-mid-year-review-statement-2022/>.

27 In July 2022, S&P Global Ratings confirmed Trinidad and Tobago's local currency long-term credit ratings as BBB-, and revised the outlook from negative to stable.

FIGURE 15
SOVEREIGN RISK PARAMETERS



Sources: Ministry of Finance and Central Bank of Trinidad and Tobago

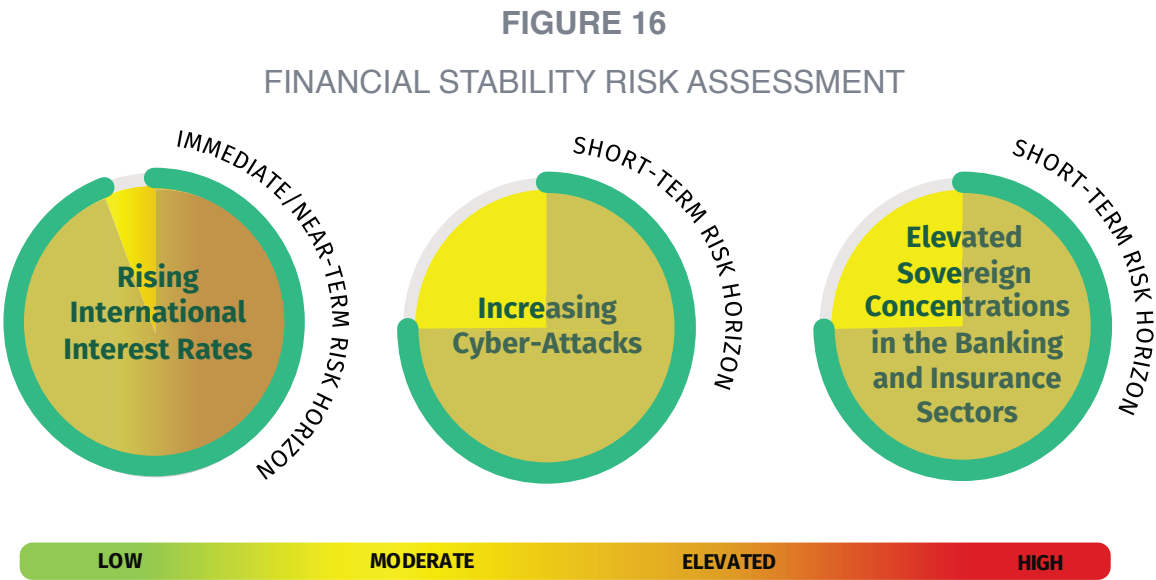
Note: *Comprises tax-free saving bonds, Central Bank fixed interest rate bonds and public sector emolument bonds.

r (Revised), re (Revised Estimates) and p (Provisional). Δ (change), CLICO (Colonial Life Insurance Company (Trinidad) Ltd) and HCU (Hindu Credit Union).

RISK ASSESSMENT

Figure 16 summarises key financial stability risks in the Trinidad and Tobago financial sector. The overall risk assessment considers

the length of the risk horizon based on ongoing developments in the global and domestic macro-financial system.



Source: Central Bank of Trinidad and Tobago

BOX 1: CLIMATE RISK UPDATE FOR TRINIDAD AND TOBAGO

A sense of urgency to tackle the effects of climate change is at the forefront globally as rising temperatures are increasing the likelihood of breaching the targets set out by the Paris Agreement¹. Trinidad and Tobago is an energy-dependent economy and, although it emits less than 1 per cent of greenhouse gases annually, the Government recognises the need to do its part to support the global climate change agenda while ensuring economic sustainability and financial stability. On this front, the country is engaged in a number of initiatives and has developed a number of guidance frameworks to achieve its Nationally Determined Contributions (NDCs), the climate actions required to achieve long-term goals.² To this end, a National Climate Change Policy and a Carbon Reduction Strategy have been produced. Strides are being made by the Government to increase the availability and use of energy from renewable sources, as well as promote policies to transition to a greener economy via deferred customs duties and tax payments on some carbon-friendly products, reductions in the fuel subsidy, and tax credit incentives for carbon capture and storage.

Appropriate financing to support the transition to a lower-carbon-emitting economy is required. Substantial expenditure – estimated at approximately US\$2 billion or 9 per cent of Gross Domestic Product³ – is required for the Government to achieve its emissions reduction target by 2030. A green bond is a financial instrument that can help countries attain their climate goals by raising funds from investors for environmental and sustainability projects related to their NDCs. Given the underdeveloped nature of domestic capital markets, the issuance of green bonds in Trinidad and Tobago may be challenging. Further, while domestic economic conditions have been improving, high sovereign debt ratios could create additional hurdles to issuance. Financial institutions, particularly banks, play a critical role in climate-related financing and investment, and are committed to ensuring a sustainable environment. Notably, a locally-owned financial conglomerate became a signatory to the Global Principles for Responsible Banking and a Founding Member of the Net-Zero Banking Alliance. Signatory banks to the Net-Zero Banking Alliance aim to align their lending and investment portfolios with net-zero emissions by 2050. As part of its climate finance objective, the conglomerate seeks to finance, invest, and arrange US\$200 million to help mitigate climate change impacts within its territories through, inter alia, increasing accessibility to loans for carbon-friendly products. The group has also included an Office of Sustainability in its organisational structure, which aims to incorporate Environmental, Social, and Governance (ESG) principles into its operations. This could potentially encourage financing to customers that follow ESG criteria.

Measuring the impact of climate change is fundamental to help curb devastating impacts on the macro-financial system. Trinidad and Tobago's reliance on the energy sector accounted for 23.2 per cent of total revenue and grants in fiscal year 2020. Though direct financial system credit exposures to carbon-intensive sectors are limited, the real sector can be affected via lower revenues, lower investments, and unemployment in the non-renewable sectors. This can translate to lower incomes to firms and households, resulting in financial market losses and credit risks for the financial system. Data remains a key challenge.

1 The Paris Agreement is an international treaty on climate change which aims to mitigate the threat of climate change by limiting global warming to well below 2°C above pre-industrial levels (1850 to 1900), preferably to 1.5°C. See [United Nations 2022](#) for additional details. The World Meteorological Organisation warned that the probability of surpassing the 1.5°C threshold has increased to approximately 50 per cent from 2022 to 2026. See [World Meteorological Organisation 2022](#) for additional details.

2 Under the Paris Agreement, the Government of the Republic of Trinidad and Tobago has committed to reducing its carbon footprint by 15 per cent by 2030 in carbon-intensive sectors (that is, industry, power generation and transportation).

3 International Monetary Fund. *Trinidad and Tobago Article IV Consultation*. IMF Country Report No 22/73. 10 March 2022.

BOX 1: CLIMATE RISK UPDATE FOR TRINIDAD AND TOBAGO (CONTINUED)

However, efforts by the Environmental Management Authority to gather high-quality emissions data for Trinidad and Tobago (via the Knowledge Management System of Trinidad and Tobago's National Climate Mitigation Monitoring, Reporting and Verification System) can provide policymakers with critical data points that can be used to conduct insightful macro-financial analysis.

Globally, a number of supervisory and regulatory approaches have been developed by standard-setting and international bodies⁴ to guide the integration of climate-related risk management practices in financial institutions. Summarily, these approaches suggest that supervisors need to establish a strategy and build capacity within the organisation to understand climate-related risk, utilise risk analytical tools such as scenario analysis and stress testing, set disclosure requirements, and indicate what is expected from financial institutions to identify and manage climate-related risks. A 2021 progress report by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) on integrating climate risks into supervision⁵ revealed that 78 per cent of supervisors⁶ have incorporated climate-related risk in their supervisory activities and have been engaging with financial institutions to understand their climate-related risk exposures. The progress report also highlighted a number of challenges to both the supervisor and supervised entities such as data gaps, lack of harmonised methodologies and risk metrics, and additional workload faced by financial institutions that will require increased resources and technical training.

On the domestic front, the Central Bank of Trinidad and Tobago (the Central Bank) is committed to doing its part in assessing climate-related risks and opportunities for the macro-financial sector. Consistent with international guidance, adapting governance frameworks and supporting strategies that identify and assess climate risks are well within the present mandate of promoting monetary and financial stability. One of the Central Bank's major strategic projects over the period 2021/22 to 2025/26 is to integrate environmental issues and climate change into policy considerations. The project will entail the Central Bank playing an active role in the NGFS; collaborating with local financial institutions and other agencies on assessing environmental and climate change developments and relevant financial measures; and estimating the Central Bank's carbon footprint and determining appropriate changes. This project will assist the Central Bank in evaluating the impact of climate change on the domestic economy and establishing a framework for appropriate policy responses.

4 Including the Basel Committee on Banking Supervision (BCBS), IAIS, International Organization of Securities Commissions (IOSCO), FSB, Financial Stability Institute (FSI) and the NGFS.

5 The 2021 NGFS progress report can be accessed at:
https://www.ngfs.net/sites/default/files/progress_report_on_the_guide_for_supervisors_0.pdf.

6 50 supervisors who are members of the NGFS responded to the survey.



CHAPTER 3

Performance and Resilience of the
Financial System



PERFORMANCE AND RESILIENCE OF THE FINANCIAL SYSTEM

The financial sector remained resilient in 2021, notwithstanding unprecedented challenges caused by the combined effects of the COVID-19 pandemic, low energy production, and commodity price shocks. Rollbacks in COVID-19 restrictions and rebounds in global equity markets translated to gains on institutions' balance sheets. Lingering pandemic effects and growing market risks in light of rising interest rates may present challenges in the short term. Nevertheless, the individual sectors are well-placed to withstand further shocks, supported by ample capital and liquidity positions, and healthy profits.

FINANCIAL SECTOR INTERLINKAGES

Direct and indirect linkages in the domestic financial sector have broadened and intensified in recent years as institutions expanded their operations. Mergers and acquisitions, a new market entrant and the reshaping of the regulatory landscape drove growing connections among market participants over the period. One financial holding company also extended its cross-sector network exposure by introducing insurance services to largely banking operations. Limited investment opportunities, an inherent feature of the bank-based domestic financial sector, amplify interconnectedness concerns as they can give rise to common portfolio exposures.

Banks²⁸, pension funds, and insurers continued to be the dominant players in the financial sector network. In 2021, total

financial sector assets were \$362.5 billion (up from \$350.0 billion in 2020) – the three major sectors accounted for 76.8 per cent of the total (163.4 per cent of GDP) (**Figure 17**). Total financial sector assets averaged over 200 per cent of GDP during the five-year period under review. The importance of the major sectors also extends to the capital markets – banking entities and groups are key players in the equity, mutual funds and debt market segments, and more than 60 per cent of registrants are associated with, or dependent on, banking entities.²⁹

Concentrations within the major financial industries are mixed and large common exposures exist. Sectoral concentrations, measured using the Herfindahl-Hirschman Index (HHI), suggested that the pension industry is structurally conducive to competition as indicated by low market concentration

²⁸ Commercial banks and non-bank financial institutions (non-banks).

²⁹ Trinidad and Tobago Securities and Exchange Commission. "Securities Market Bulletin #7". November 2021. Accessed 16 April, 2022. <https://www.ttsec.org.tt/wp-content/uploads/Securities-Market-Bulletin-7.pdf>

values (using assets) (Figure 18, Panel A). This suggests a high degree of substitutability within the sector. In the banking sector, market concentration (using deposits) was moderate and a few dominant entities were observed – this corroborates results of the Central Bank’s local financial interconnectedness project.³⁰ For insurers, market concentration (using gross premiums) was high and, similar to banks, a few central entities exist. Figure 18, Panel B depicts the likely asset mix of the financial system using the three major sectors as a proxy for the total system. With low-risk financing sources mostly contained to sovereign instruments, this has resulted in high concentrations in common assets. Across the network, investments, loans and liquid funds are key exposures. In the investment portfolio, local currency securities accounted for the majority of investments over

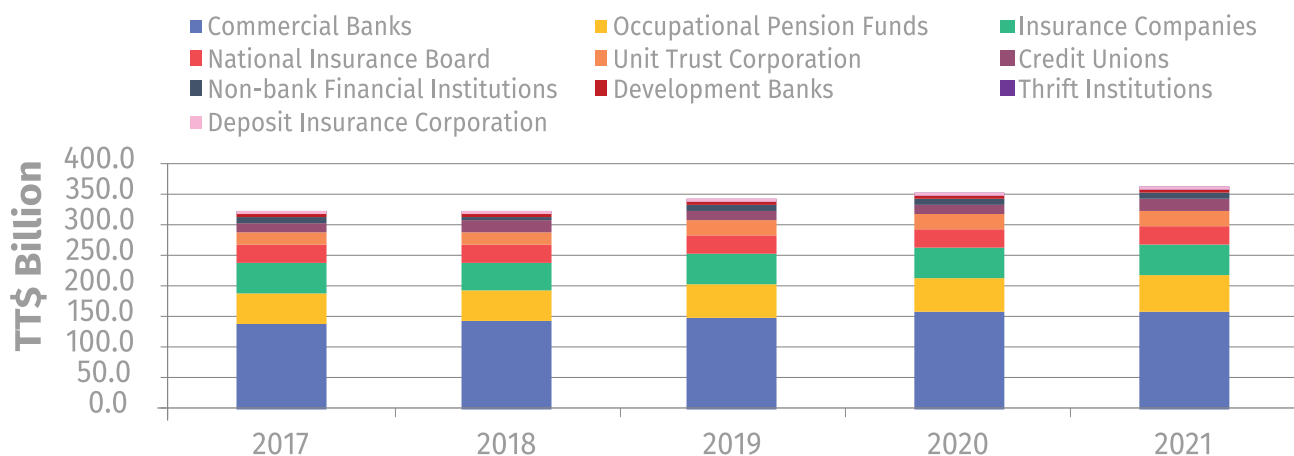
the period. Local currency exposures also tend to dominate the loans and liquid funds asset classes. From the cross-border perspective, common portfolio exposures to North America and Europe also exist.

Deep concentrations within the individual financial segments, and growing interconnections among financial market players increase the likelihood of shock transmission throughout the financial sector, giving rise to systemic risk. However, in spite of the combined shock of the COVID-19 pandemic, global equity market volatility and commodity market strains, the financial sector remained resilient in 2021.

The following sections summarise the recent performance of the individual financial segments.

FIGURE 17

DOMESTIC FINANCIAL SECTOR ASSETS, 2017 – 2021



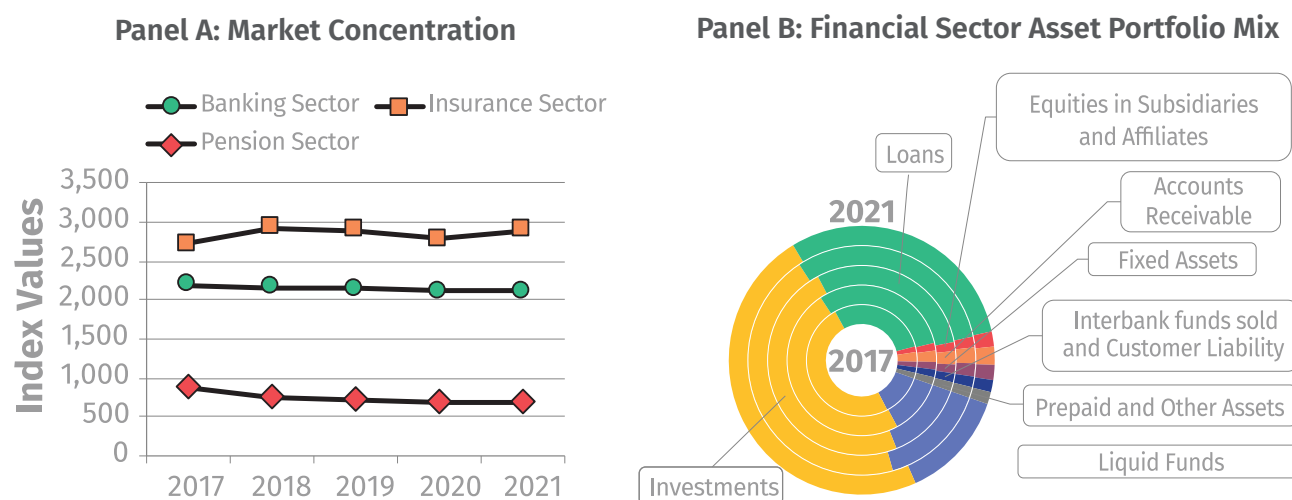
Source: Central Bank of Trinidad and Tobago

Note: The data for Credit Unions are estimated.

³⁰ According to the 2019 FSR, the domestic banking network was sparse (limited but close connections exist), with a few central nodes. Additional details can be accessed at: https://www.central-bank.org.tt/sites/default/files/reports/2019-financial-stability-report_1.pdf

FIGURE 18

FINANCIAL SECTOR CONNECTIONS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

Note: ♦ HHI < 1,500 (low concentration), ● HHI between 1,500 and 2,500 (moderate concentration) and ■ HHI > 2,500 (highly concentrated).

FINANCIAL SOUNDNESS INDICATORS

BANKING SECTOR (COMMERCIAL BANKS AND NON-BANKS)

Challenges within the domestic macroeconomic environment did not translate into any material decline in key banking sector financial soundness indicators (FSIs) in 2021 (Table 1). Credit, market, and liquidity risks appear contained and the banking sector continued to be well-capitalised and profitable. Concentration and distribution analysis of FSIs (Box 2) supports the assessment.

LONG-TERM INSURANCE INDUSTRY

The performance of the long-term insurance industry for 2021 remained stable and the FSIs remained resilient (Table 2). The industry profited from the improved performance of the local and international equity markets which contributed to the return to positive growth in

capital and a steady investment yield. Although insurers continued to benefit slightly from the reductions in management expenses in 2021, expense ratios increased as a result of lower premium income.

GENERAL INSURANCE INDUSTRY

There were no major catastrophic events or claim activities affecting the general insurance industry during the last year. However, insurance claims were on the rise in part due to increased mobility on the roads and the uptick in business activity during 2021. This contributed to the elevated net loss ratio for the sector in comparison to the previous year (Table 3). The sector remained profitable owing to investment gains, primarily from net fair value gains on investments in international debt and equity markets, which rebounded in 2021. Meanwhile, risk retention ratios dropped as insurers sought increased reinsurance protection to mitigate potential climate change risks.

TABLE 1
BANKING SECTOR: FINANCIAL SOUNDNESS INDICATORS, 2017 – 2021
 / Per cent /

	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Capital Adequacy*					
Regulatory capital-to-risk-weighted assets	23.4	23.3	23.6	18.8	19.3
Common equity tier 1 capital-to-risk-weighted assets	-	-	-	18.3	18.9
Regulatory tier 1 capital-to-risk-weighted assets	23.1	23.5	22.4	18.3	18.9
Regulatory capital-to-total assets	12.9	12.7	13.0	12.6	13.3
Net open position in foreign exchange-to-capital	16.9	14.4	11.2	14.8	21.4
Loan Composition					
Sectoral distribution of selected loans-to-total loans					
Household sector	46.7	47.2	47.4	48.4	47.9
Public sector	13.5	13.1	13.6	13.1	12.6
Financial sector	15.6	16.0	16.1	16.1	16.2
Oil and gas sector	3.1	4.9	4.8	4.2	4.4
Construction sector	4.8	4.4	2.8	3.8	3.8
Transport and communication sector	2.8	3.1	2.2	1.9	1.8
Non-resident loans-to-total loans	3.4	5.1	7.0	6.9	7.1
Foreign currency loans-to-total loans	16.0	17.0	18.1	16.3	15.6
Asset Quality					
Non-performing loans-to-gross loans	3.0	3.1	3.1	3.4	3.4
Non-performing loans (net of provisions)-to-capital	5.9	5.1	5.4	3.3	3.5
Total provisions-to-impaired loans	65.6	68.6	61.6	88.0	87.2
Specific provisions-to-impaired loans	37.8	53.4	48.8	71.2	67.6
General provisions-to-gross loans**	0.8	0.5	0.4	0.6	0.7
Specific provisions-to-gross loans	1.1	1.7	1.5	2.4	2.3
Earnings and Profitability					
Return on assets	2.9	3.0	3.6	1.8	2.2
Return on equity	19.0	20.2	24.3	12.4	15.3
Interest margin-to-gross income	64.7	64.5	61.7	67.1	63.2
Non-interest income-to-gross income	35.3	35.5	38.3	32.9	36.8
Non-interest expenses-to-gross income	58.1	58.4	54.8	70.9	63.7
Liquidity					
Liquid assets-to-total assets	19.7	19.0	21.6	22.5	19.4
Liquid assets-to-total short-term liabilities	25.3	24.4	28.0	28.9	25.2
Customer deposits-to-total (non-interbank) loans	154.7	153.2	150.3	164.4	165.2
Foreign currency liabilities-to-total liabilities	26.4	26.4	25.8	24.5	25.4

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>

**This ratio is not a typically used measure of financial soundness, but is included for comparison purposes.

TABLE 2
LONG-TERM INSURANCE INDUSTRY:
FINANCIAL SOUNDNESS INDICATORS, 2017 – 2021
 / Per cent /

	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Capital Adequacy					
Capital-to-total assets	21.5	20.9	23.2	21.2	23.6
Capital-to-technical reserves	29.8	29.0	33.2	30.4	33.5
Asset Quality					
(Real estate + unquoted equities + debtors)-to-total assets	8.6	8.8	8.4	9.5	9.3
Earnings and Profitability					
Expense ratio = expense (incl. commissions)-to-gross premium	28.4	28.2	27.2	25.4	26.8
Investment yield = investment income-to-investment assets	4.7	4.7	5.0	4.9	4.8
Return on equity = pre-tax profits-to-shareholders' funds	13.8	13.1	16.7	11.4	12.4
Liquidity					
Liquid assets-to-current liabilities	25.0	22.1	24.0	25.2	25.4

Source: Central Bank of Trinidad and Tobago

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

TABLE 3

GENERAL INSURANCE INDUSTRY:
FINANCIAL SOUNDNESS INDICATORS, 2017 – 2021

/ Per cent /

	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Asset Quality					
(Real estate + unquoted equities + accounts receivables)-to-total assets	18.0	18.3	17.4	16.7	15.7
Debtors-to-(gross premiums + reinsurance recoveries)	11.0	14.6	13.4	14.6	12.5
Reinsurance and Actuarial Issues					
Risk retention ratio = net premiums written-to-total gross premiums	45.2	46.0	46.9	43.7	39.7
Net technical reserves-to-average of net claims paid in the last three years	146.3	139.7	130.9	133.1	134.2
Earnings and Profitability					
Combined Ratio	110.4	106.2	100.1	97.3	106.2
Expense ratio = expense (incl. commissions)-to-net premiums	56.8	56.8	54.9	56.6	60.8
Loss ratio = net claims-to-net earned premiums	53.6	49.4	45.2	40.7	45.4
Investment income-to-net premium	6.6	7.4	6.7	6.6	7.6
Return on equity = pre-tax profits-to-shareholders' funds	4.5	7.3	11.2	12.0	12.1
Return on assets	2.0	3.1	4.9	5.9	5.9
Liquidity					
Liquid assets-to-current liabilities	49.8	47.2	54.3	58.8	57.6

Source: Central Bank of Trinidad and Tobago

BOX 2: FINANCIAL SOUNDNESS INDICATOR DISPERSION MEASURES

In 2019, the IMF updated its **Financial Soundness Indicators (FSIs) Compilation Guide** to improve the **quality and coverage of the indicators**. Concentration and distribution measures (CDMs) were introduced in the Guide to provide more comprehensive analysis of financial stability conditions. Sectoral indicators can convey an illusory sense of stability, while glossing over the clustering or size features of institutional FSIs. A few extremely large companies with stable ratios can skew sectoral indicators upwards, at the expense of missing vulnerabilities in several smaller institutions. CDMs thus support more robust FSI examination and, by extension, improve financial stability surveillance.

CDMs use weighted quartile measures to assess the distribution of individual institutions¹. Weighted quartiles imply that the marginal impact of the individual FSI increases in proportion to the weight assigned. Weights are assigned based on the institution's size proportional to the sector and then mapped to the respective FSI. The proportional size can be estimated by the assets, loans or capital depending on the denominator of the specific FSI. Once the FSIs are ordered and weighted, the quartiles can be estimated. The interpretation of the dispersion measures is heavily dependent on the type of FSI. For instance, for IMF dispersion measures such as Tier 1 capital-to-risk-weighted assets (RWA), provisions-to-non-performing loans (NPLs), return on assets (ROA), and return on equity (ROE), a large lower quartile highlights that there is a greater proportion of institutions with relatively higher vulnerabilities. Conversely, in the case of NPLs-to-gross loans or NPLs net of provisions-to-capital, a sizeable upper quartile indicates that more institutions have asset quality weaknesses.

CDMs for Trinidad and Tobago indicate that aggregate solvency levels have been mostly stable from 2017 to 2021 (Figure 1). While asset quality, profitability and leverage vulnerabilities have weathered the impact of the pandemic shock relatively well, banking sector solvency experienced marginally higher pressures. Although system indicators have moved very little across the five-year period, larger lower quartiles for Tier 1 capital-to-RWA in 2020 and 2021 suggest that the conditions during the pandemic period increased the solvency vulnerabilities in the sector. Overall, marginally smaller upper quartiles for the NPL ratio indicated that asset quality vulnerabilities were lower in the post-pandemic period. This improvement was likely due to the regulatory moratoriums during the period. Provisions-to-capital vulnerabilities have also improved compared to 2019, based on the higher overall ranges, suggesting higher provisioning activity across the sector. Profitability risks have also cooled as indicated by smaller dispersion in ROA and ROE, when compared to 2019. Stable upper quartiles for Tier 1 capital-to-total assets indicate that there has been no significant increase in leverage risks.

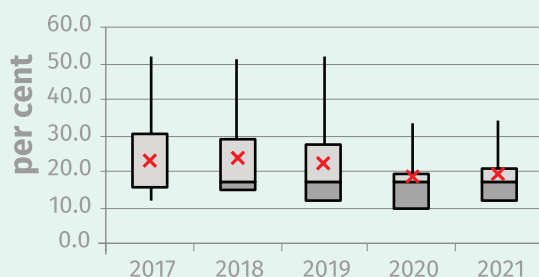
¹ The complete methodology for the weighted median measures can be found in the *IMF 2019 Financial Soundness Indicators Compilation Guide*.

BOX 2: FIGURE 1

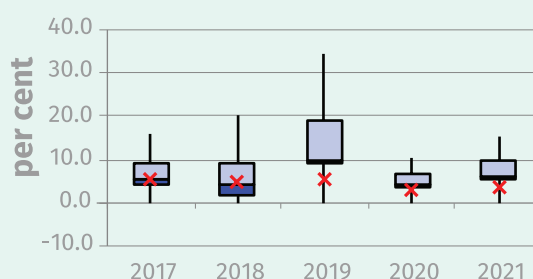
DISPERSION MEASURES FOR SELECTED FSIs, 2017 – 2021

SOLVENCY

Tier 1 Capital to Risk-Weighted Assets

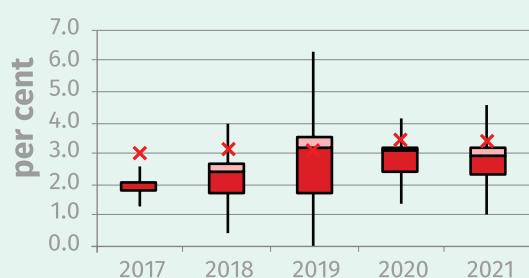


NPLs (Net of Specific Provisions)-to-Capital

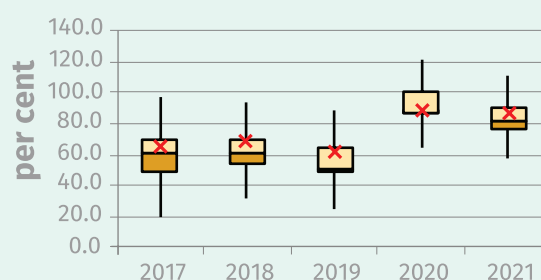


ASSET QUALITY

NPLs-to-Total Gross Loans

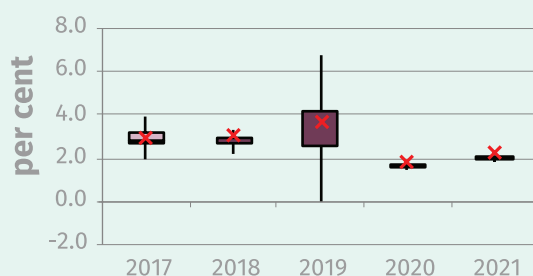


Provisions-to-NPLs (Impaired Loans)

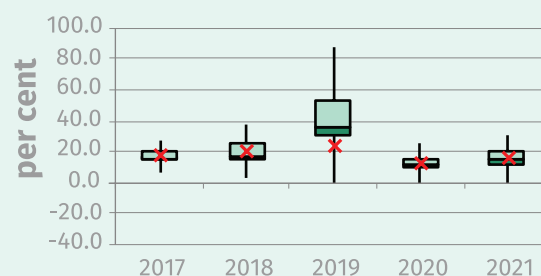


PROFITABILITY

Return on Assets

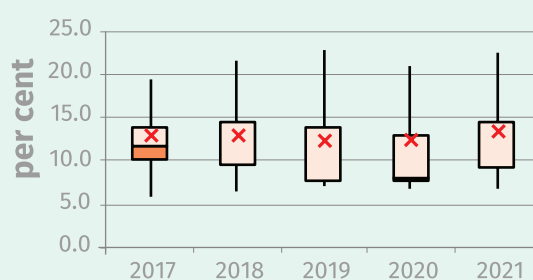


Return on Equity



LEVERAGE

Tier 1 Capital-to-Total Assets



Source: Central Bank of Trinidad and Tobago

Note: The box plots above highlight the dispersion of selected FSIs for all banking sector institutions from December 2017 to December 2021. The top and bottom whiskers highlight the maximum and minimum points, respectively. Upper quartiles (medians to third quartiles) are shaded in lighter colours, while lower quartiles (first quartiles to medians) are represented by darker colours. The red cross indicates the banking sector FSI.

BANKING SECTOR (COMMERCIAL BANKS AND NON-BANKS) PERFORMANCE

ASSETS

The combined balance sheet of the banking sector showed little growth in 2021. Gross assets increased marginally over the year by \$2.6 billion (1.5 per cent) to \$171.9 billion as at December 2021 (**Figure 19**). An expansion in the deposit base of commercial banks funded growth, mainly in sovereign investments (both local and foreign), as credit demand remained sluggish despite the reopening of the economy.

Assets continued to comprise mostly loans, investments, and liquid funds, with loans accounting for the largest share (46.6 per cent). There was, however, some shift in preference from liquid funds to investments over the period. As at December 2021, liquid funds comprised 18.0 per cent of total assets compared to 21.1 per cent in 2020, while investments³¹ amounted to 25.7 per cent of total assets compared to 22.7 per cent in 2020. During the year, loan growth remained tepid with an expansion of 1.0 per cent (\$811.0 million), buoyed by lending to the business sector. This was partially offset by a reduction in government loans. Consumer lending remained flat.

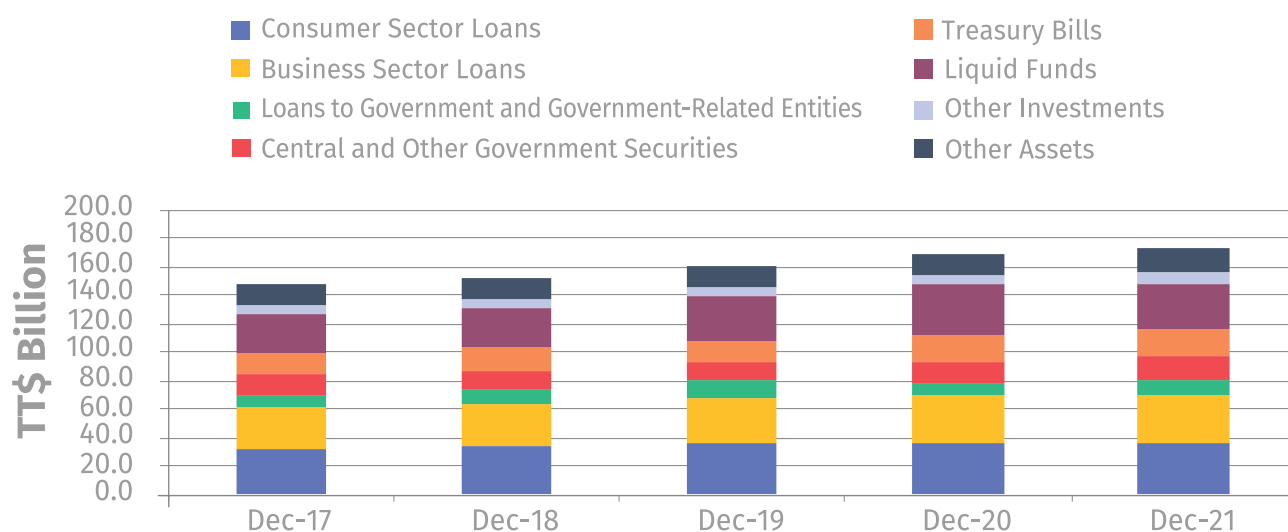
Consumer Sector Loans

Softer macroeconomic conditions and general uncertainty influenced the spending patterns of households. Persons remained reluctant to take on new debt in spite of a slight decrease in interest rates. This was reflected by the flat movement in total loans to consumers during 2021 (**Table 4**). Strong year-on-year growth for debt refinancing was observed, on account of strategies by banks to alleviate the hardships faced by individuals during the pandemic. There was also moderate growth in real estate-related loans³². However, the overall expansion in the consumer loan portfolio was tempered by a slowdown in loans for motor vehicles and other purposes such as credit cards. Consumer loans totalled \$37.3 billion (46.5 per cent of gross loans) as at December 2021 (**Figure 20**).

31 Gross investments inclusive of time deposits.

32 Real estate-related loans comprise loans for bridging finance, land and real estate, home improvement and renovations, and residential mortgages.

FIGURE 19
ASSET COMPOSITION, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

TABLE 4
GROWTH IN CONSUMER LOANS BY PURPOSE³³, 2017 – 2021
/ Year-on-Year Per cent Change /

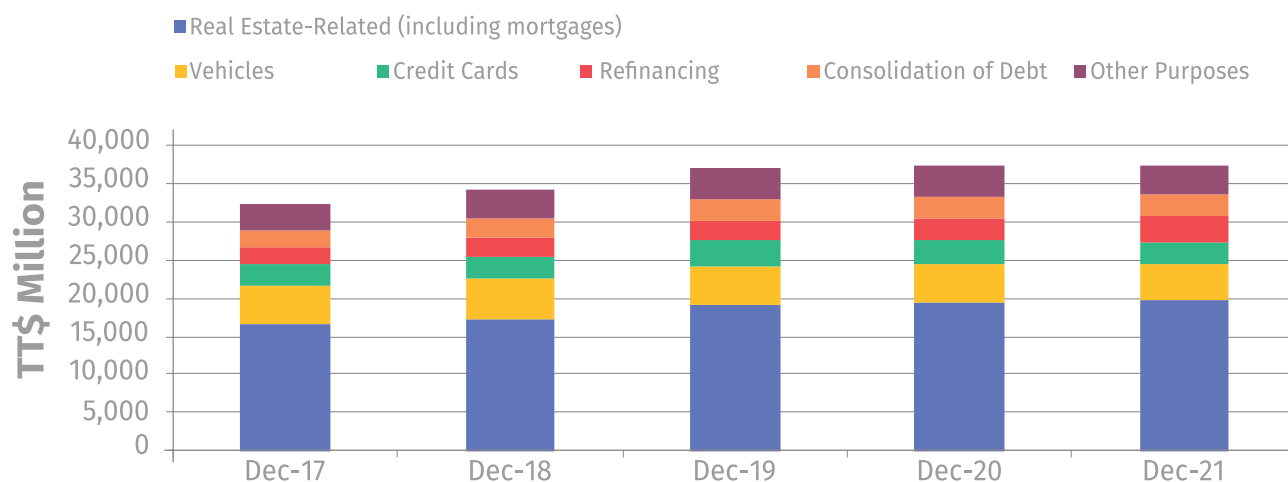
CATEGORIES	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Real Estate-Related (including mortgages)	5.5	4.1	9.8	1.7	2.3
Vehicles	3.0	0.6	2.5	-0.6	-9.7
Credit Cards	6.1	7.6	3.8	-2.5	-7.6
Refinancing	10.4	11.4	9.1	6.7	17.8
Consolidation of Debt	16.0	18.4	13.6	2.9	-3.2
Other Purposes	3.2	6.4	9.9	-7.3	-2.4
TOTAL GROWTH IN CONSUMER LOANS	5.8	5.5	8.4	0.4	0.0

Source: Central Bank of Trinidad and Tobago

³³ Absolute values are available in **Appendix B**.

FIGURE 20

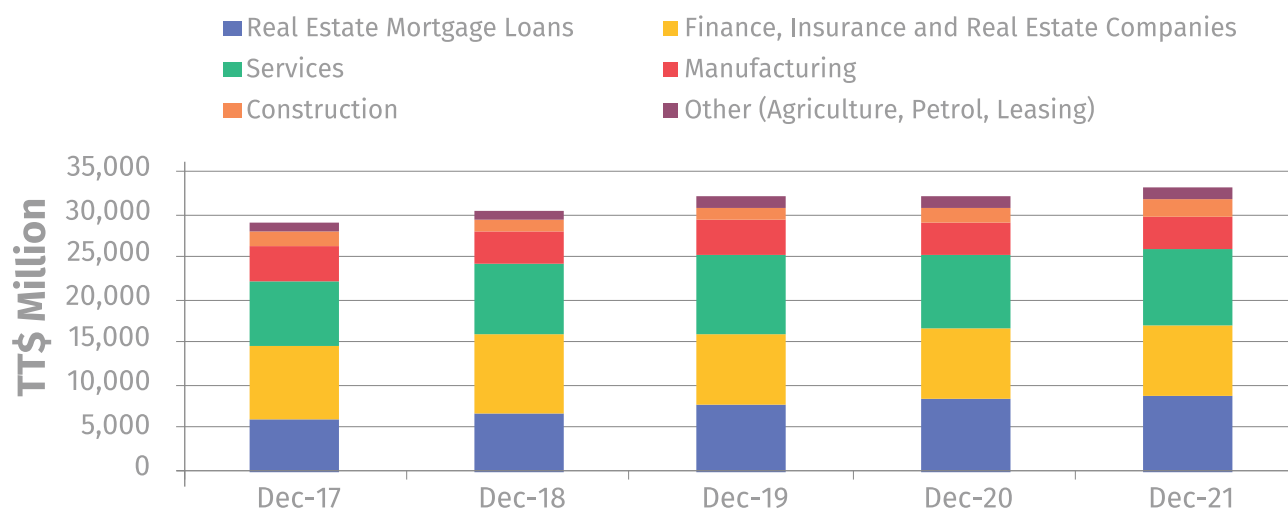
CONSUMER LOANS BY PURPOSE, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

FIGURE 21

BUSINESS LOANS BY ACTIVITY, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

Business Sector Loans

The continued rollback of COVID-19 restrictions during the latter half of 2021 boosted business operations and facilitated an increase in the demand for bank financing. Credit to businesses expanded by \$1.0 billion (3.3 per cent) over the year, totalling \$33.0 billion as at December 2021 (**Figure 21**). Lending was particularly strong in the Services and Construction sectors, which increased by \$455.4 million (5.4 per cent) and \$156 million (9.3 per cent), respectively. Moreover, the loosening of pandemic-related restrictions globally resulted in increased activity in major economies and greater demand for crude oil. The increase in crude oil prices in 2021 benefitted corporate energy companies, which sought financing to expand operations. Petroleum loans issued by the banking sector increased by \$280.0 million (39.7 per cent) over the year ended December 2021.

Asset Quality

Despite a slight rise in NPL volumes, the ratio of NPLs to total loans (the NPL ratio) remained stable over the year. Commercial bank NPLs increased by \$52.4 million (2.2 per cent), but this was tempered by a reduction in non-bank NPLs of \$28.9 million (10.9 per cent), as well as a marginal increase in gross loans. Likely due to regulatory forbearance and government support, the volume of expected credit losses did not materialise and as such,

banks were able to reduce overall provisioning in 2021, which was previously ramped up in 2020 due to the pandemic (**Figure 22 and Table 5**).

Consumer NPLs for the commercial banking sector³⁴ rose primarily on account of an increase in refinancing NPLs of \$76.4 million (86.2 per cent). Loans for refinancing, debt consolidation and other purposes typically had the highest share of consumer NPLs. NPL ratios in these categories increased from an average of 3 per cent in 2017 to over 5 per cent in 2021. Higher loan balances for refinancing signal the potential for deterioration in asset quality. Notwithstanding, banks continued to closely monitor their vulnerable accounts to flag any emerging issues and prudently manage associated risks. Where appropriate, and in accordance with the guidance issued by the Central Bank³⁵, facilities were rescheduled or restructured³⁶ to avert delinquencies. Following the conclusion of the loan deferral and rate reduction programme – which was reintroduced for the period May to September 2021 – the banking sector continued to offer restructured loan facilities to selected customers without a downgrade in their asset classification to non-performing status. Two large retail banks facilitated the majority of restructuring in the sector, with consumer loans accounting for the largest category.

34 Only commercial banks' NPLs are disaggregated by sector. See **Figure 23** for commercial bank sectoral NPLs to gross loans.

35 See Central Bank Circular Letter CB-OIFI-2273/2021 dated September 22, 2021.

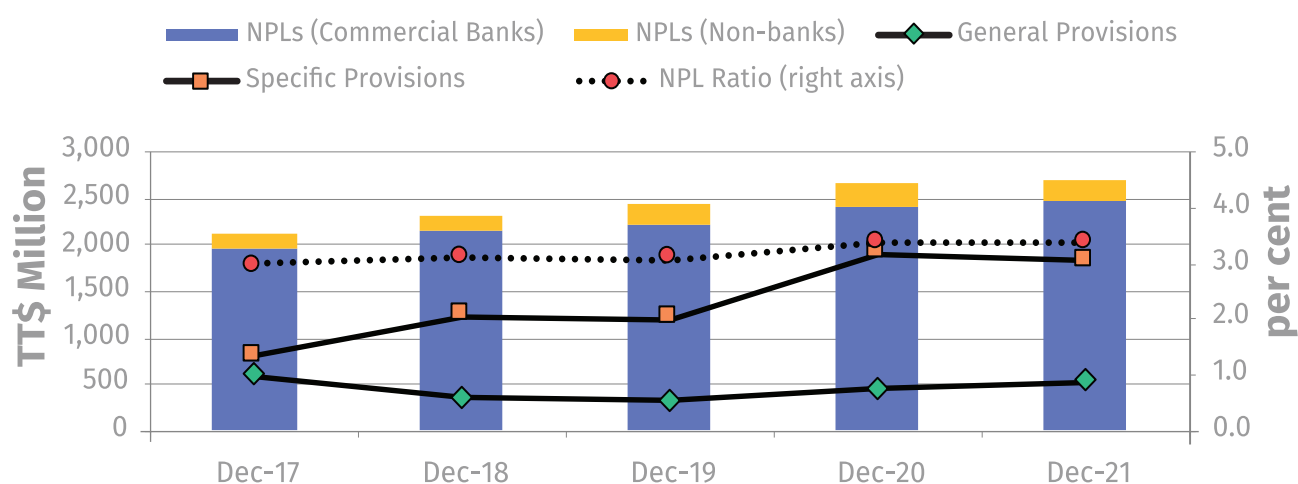
36 Rescheduled loans are extensions of credit which have been rescheduled or otherwise modified at favourable terms and conditions for the borrower because of weaknesses in the borrower's financial condition and/or ability to repay.

There were notable reductions in a few key categories of consumer NPLs, suggesting that household borrowers were able to bring their loans up to date. These include Residential Mortgages (\$22.7 million or 10.0 per cent), Other Purpose loans (\$20.3 million or 6.5 per cent), and Motor Vehicle loans (\$12.0 million or 13.3 per cent). The increase in total consumer NPLs, combined with near-zero movement in the consumer loan portfolio, led to a minimal deterioration in overall asset quality – the consumer NPL ratio hovered around 2.8 per cent at the end of 2021.

Meanwhile, the business sector NPL ratio improved marginally to 4.7 per cent over the year, as the expansion in the business sector loan portfolio was greater than the uptick in the NPL stock. Business NPLs grew by \$38.7 million (2.7 per cent) in 2021. The main categories contributing to the increased NPL stock were All Other Services (\$64.1 million or 19.3 per cent), Distribution (\$26.1 million or 15.5 per cent), and Construction (\$23.1 million or 23.3 per cent). These increases were offset by a reduction in Real Estate NPLs (\$76.0 million or 17.7 per cent).

FIGURE 22

BANKING SECTOR NPLS, 2017 – 2021



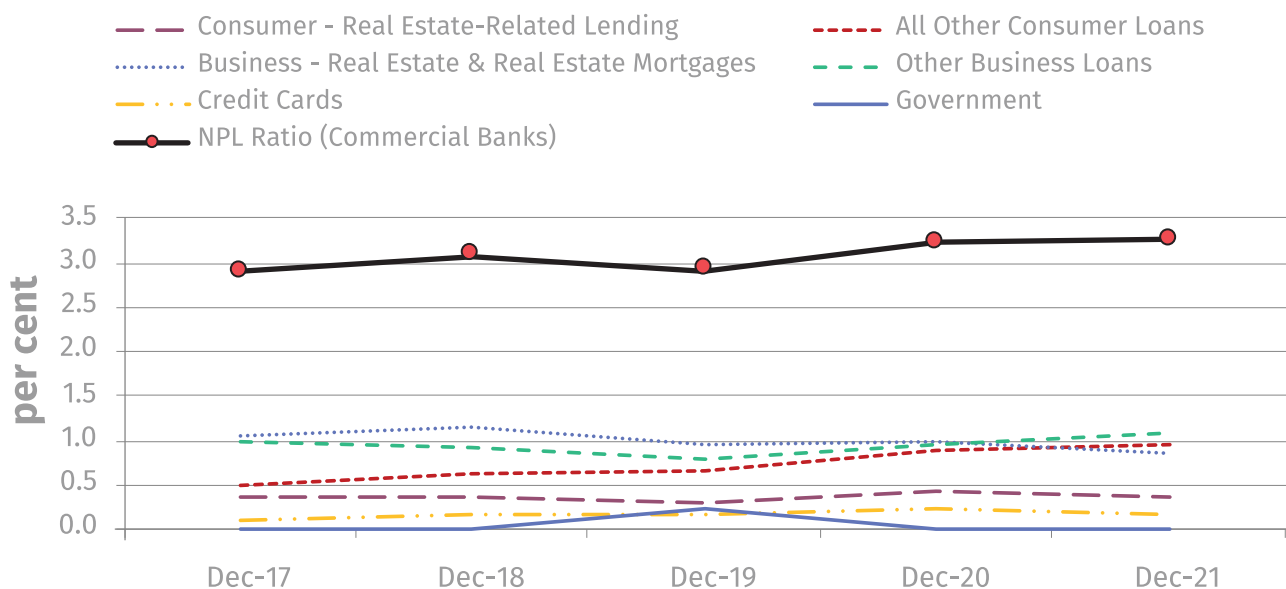
Source: Central Bank of Trinidad and Tobago

TABLE 5
NPLS BY SECTOR, 2020 – 2021
 / TT\$ Thousand /

	Dec-20	Dec-21	Change	Change (per cent)	NPL Ratio (per cent) Dec-20	Dec-21
Consumer NPLs	978,733	992,433	13,700	1.4	2.8	2.8
Business NPLs	1,440,234	1,478,977	38,744	2.7	4.8	4.7
Government NPLs	1,153	1,153	0	0.0	0.0	0.0
NPLs – Commercial Banks	2,420,185	2,472,566	52,381	2.2	3.2	3.3
NPLs – Non-banks	265,274	236,364	-28,910	-10.9	6.5	5.5
Total NPLs – SYSTEM	2,685,459	2,708,930	23,471	0.9	3.4	3.4
Loan Loss Provisions	2,364,165	2,362,672	-1,493	-0.1	-	-

Source: Central Bank of Trinidad and Tobago

FIGURE 23
COMMERCIAL BANKS' SECTORAL NPLS TO GROSS LOANS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

Sovereign Exposure

Limited opportunities for expansion of the loan portfolio led to an increase in the level of sovereign exposure, as banks sought to direct available funds to interest-earning investments. Liquid funds were transformed into increased purchases of TT-dollar Treasury bills and Central Government debt securities in the amount of \$951.8 million (5.2 per cent) and \$2.2 billion (27.2 per cent), respectively, as the Government sought budgetary support over 2021. In addition, one merchant bank and the commercial banking sector invested \$1.2 billion in US-dollar, state-owned (other) financial institution securities. Exposures comprised mainly debt from multilateral development banks in Latin America and Europe. As a consequence, sovereign investments comprised 21.0 per cent of total assets in December 2021, compared to 19.0 per cent in December 2020.

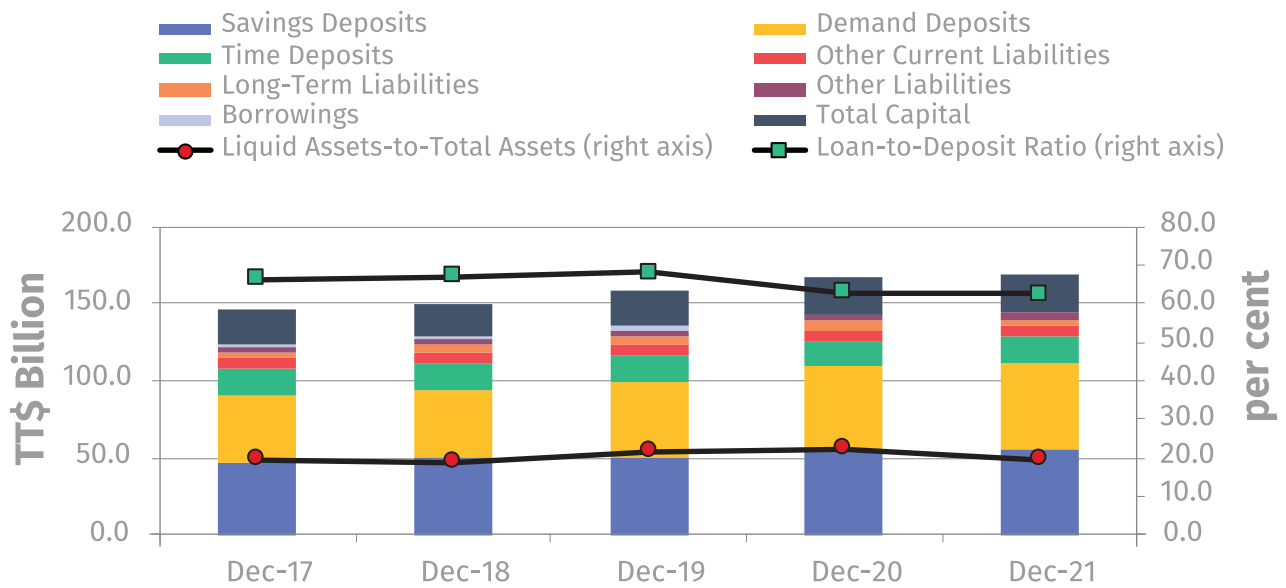
Loans to the Government and Government-related entities contracted significantly over the last quarter of 2021 (\$853.0 million or 8.0 per cent). This led to an overall decline of \$243.1 million (2.4 per cent) as the Government sought to repay borrowings and finance spending via issuance of debt securities. The contraction in government borrowing was broad-based and occurred across all economic subsectors. Sovereign loan exposure declined mainly due to reduced borrowing from other government bodies of \$477.7 million (5.3 per cent).

LIABILITY PROFILE AND FUNDING

Low-cost savings and demand deposits continued to be the primary funding source in the banking sector, accounting for 76.9 per cent of total liabilities. Total deposits stood at \$128.2 billion (88.9 per cent of total liabilities) at the end of December 2021 (**Figure 24**). This represented a growth of \$2.1 billion (1.7 per cent), mainly on account of an increase in consumer deposits. The loan-to-deposit ratio narrowed to 62.5 per cent over the last year and 62.9 per cent a year prior, from a peak of 68.0 per cent in 2019. However, despite increased excess liquidity and capacity to extend credit in the banking sector, borrowers remained cautious amidst the sluggish economy, rising inflation, and a weak labour market. As the banking sector used excess reserves at the Central Bank to purchase sovereign investments, liquid funds declined by \$4.8 billion (13.5 per cent) which led to a reduction in the liquid assets-to-total assets ratio to 19.4 per cent in December 2021, from 22.5 per cent in December 2020.

FIGURE 24

DEPOSITS, OTHER LIABILITIES AND CAPITAL, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

SOURCES OF EARNINGS AND PROFITABILITY

Profitability improved strongly, notwithstanding a decline in core interest income. Profit before taxes for the banking sector grew by 27.5 per cent (\$800.4 million) to \$3.7 billion at the end of 2021, compared to \$2.9 billion in 2020. This performance was a result of a combination of:

- a decline in operating expenses as commercial banks made significant write-backs on provisioning for bad debt; and
- an increase in non-interest income from foreign exchange profits and fees related to a higher volume of credit card transactions.

Notably, one dividend payment received by a long-term insurance subsidiary of a commercial bank further boosted banking sector profits over the year. Overall, return on equity improved from 12.4 per cent to 15.3 per cent, while return on assets rose from 1.8 per cent to 2.2 per cent.

Operating Income

Banking sector operating income declined by \$187.6 million (2.0 per cent) over the year (Figures 25 and 26). It is noteworthy that the banking sector's spread income (income from core activities) has experienced a declining trend since 2019. Operating income levels were boosted by non-core income. Commercial banks registered higher fee income over the year (\$103.9 million or 6.8 per cent) from credit card transactions as spending increased,

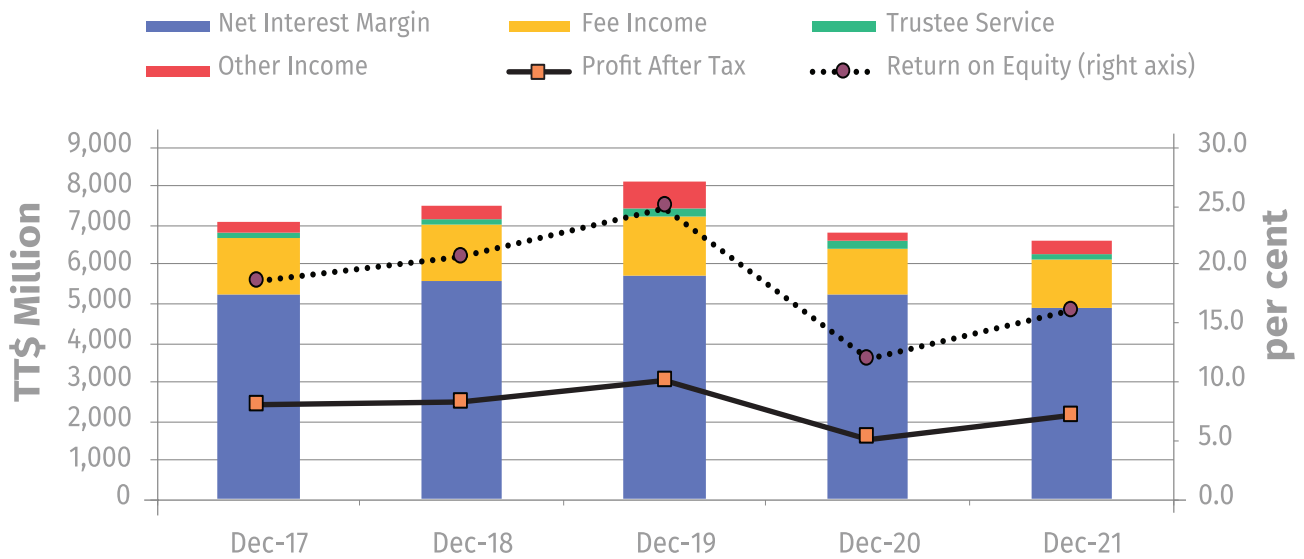
while foreign exchange gains from sales were registered (\$172.3 million or 22.6 per cent). On the other hand, low credit demand resulted in weak interest income which declined by \$513.9 million (7.8 per cent). Additionally, the pressures on income continued as lower interest rates resulted in a decline in the commercial banks' weighted average lending rate to 7.0 per cent in December 2021, from 7.3 per cent in December 2020.

Operating Expenses

Operating expenses decreased by \$796.1 million (11.5 per cent) due primarily to reversals in specific provisioning for loan losses of \$704.2 million (73.0 per cent). The sector reported that the impact of the pandemic on the loan portfolios was not as severe as expected due to containment measures and Central Bank's regulatory forbearance on loans that entered into soft delinquency. In addition, interest expenses declined by \$152.1 million or 19.3 per cent over the year mainly owing to reduced expenses on deposit accounts, specifically Time Deposits (\$81.2 million) and Savings Deposits (\$14.9 million), as a result of the low interest rate environment and reduced holdings of time deposits.

FIGURE 25

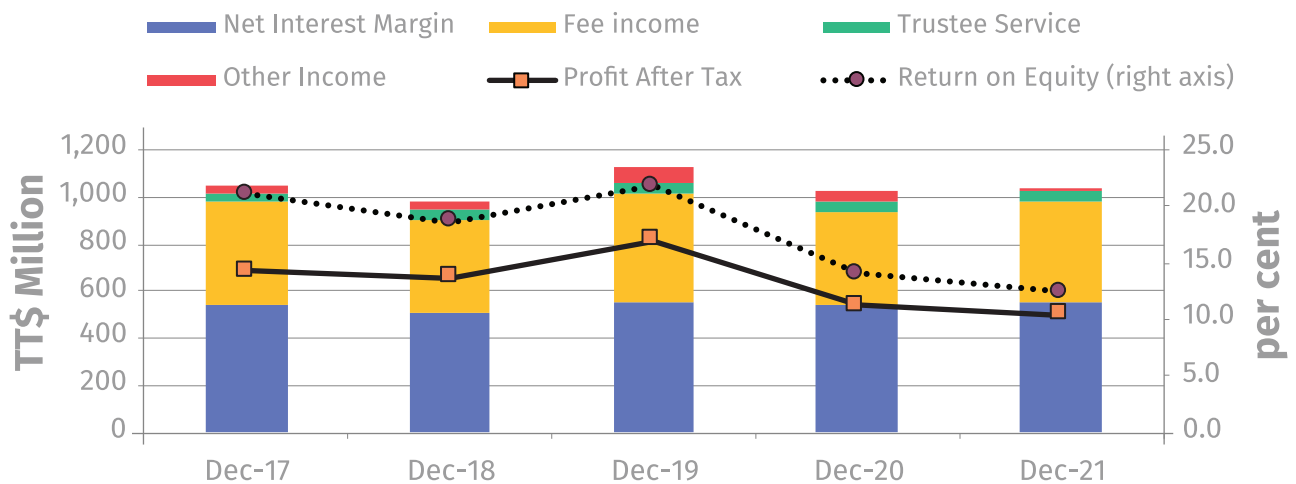
COMMERCIAL BANKS' CONTRIBUTION TO PROFIT BY SOURCE, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

FIGURE 26

NON-BANKS' CONTRIBUTION TO PROFIT BY SOURCE, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

CAPITAL ADEQUACY

The banking sector continued to demonstrate resilience with the capital adequacy, Tier 1, and common equity Tier 1 (CET1) ratios all exceeding the minimum requirement as at December 2021 (Table 6). There was a 6.8 per cent (\$1.4 billion) increase in regulatory capital for the year ending December 2021. This was induced primarily by an increase in retained earnings reported by large commercial banks during the period. Total risk-weighted assets (RWA) for the banking sector increased by 4.3 per cent (\$4.9 billion) over the period. RWA for credit risk contributed \$3.0 billion to this increase as a result of heightened exposure to corporates and, to a lesser extent, banks and securities firms. RWA for market risk accounted for the remaining \$1.9 billion increase and was due largely to growth in foreign currency risk and, more specifically, the uptick in foreign currency liquid funds, investments and loans.

Stress Testing the Commercial Banking Sector

Stress testing is a critical tool in macroprudential analysis that involves simulation exercises to determine the resilience of the financial system to extreme, but plausible, shocks. The tool evaluates whether banks have adequate capital and liquidity to manage stressful situations, which are key to safeguarding financial stability. The Central Bank has been conducting its own stress testing exercise for the commercial banking sector since 2010, with adjustments made to the framework in 2020 in response to the evolving macro-financial landscape.

The latest results highlight that the commercial banking sector is capable of withstanding most of the single factor shocks applied, owing to robust capital buffers and adequate provisioning levels (Table 7). As at December 2021, the CAR and the adjusted CAR using provisioning guidelines for non-performing credits stood at 17.1 per cent and 16.7 per cent, respectively. The sector's response to a 40 per cent depreciation of the TT dollar was favourable due to the net open long position of the aggregate foreign exchange balance sheet. The liquidity shock also resulted in satisfactory results, as the sector was able to remain liquid over 30 days in response to a run on deposits, only declining slightly to 23 days when reserves were excluded from liquid funds available.

While the commercial banking sector was resilient to the downward interest rate shock, the sector was particularly vulnerable to an increase in interest rates. Under this shock, the post-shock CAR averaged around the 10 per cent minimum capital requirement over the period. The decline was largely due to mismatches between the stock of assets and liabilities due to mature or be repriced within the medium to long term.³⁷ As many central banks globally move towards increasing interest rates to cope with rising inflation, closer monitoring of this risk is warranted as this risk has been assessed to pose an elevated risk to domestic financial stability (Chapter 2). The value of banks' assets and liabilities could change asymmetrically due to their different maturities.

37 This test uses a duration methodology, which is the weighted average of assets held in a portfolio to maturity. As such, the further away the asset is from maturing, the higher interest rate risk it will incur.

TABLE 6

**CAPITAL RATIOS AND RISK-WEIGHTED ASSETS (RWA)
AS AT DECEMBER 2021**
/ Per cent /

Capital Ratio	Minimum Requirement	Banking Sector Ratio
Regulatory capital-to-risk-weighted assets	10.0	19.3
Regulatory tier 1 capital-to-risk-weighted assets	6.0	18.9
Common equity tier 1 capital-to-risk-weighted assets	4.5	18.9
Risk-Weighted Assets (RWA)	as a per cent of RWA	TT\$ Billion
Total RWA	100.0	118.5
RWA Credit Risk	77.4	91.7
RWA Operational Risk	12.1	14.3
RWA Market Risk	10.6	12.5

Source: Central Bank of Trinidad and Tobago

TABLE 7

**COMMERCIAL BANKING SECTOR STRESS TEST RESULTS,
DECEMBER 2020 – DECEMBER 2021**
/ Per cent /

		Dec-20	Jun-21	Dec-21	
Pre-Shock CAR		16.4	16.7	17.1	
Pre-Shock CAR Adjusted for Provisions		16.1	16.3	16.7	
SINGLE FACTOR TESTS				Post-Shock CAR	Change from Pre-Shock Adjusted CAR
Interest Rate Risk	Upward shock of 500 bps	9.9	10.2	10.0	(6.7)
	Downward shock of 100 bps	17.2	17.5	18.0	1.3
Foreign Exchange Risk	TT Dollar depreciates 40 per cent	17.1	17.4	18.2	1.5
Credit Risk	General increase in non-performing loans	11.2	11.5	12.0	(4.7)
DAYS UNTIL ILLIQUID					
Liquidity Risk (including reserves as liquid funds)	Bank Run	37 days	36 days	34 days	
Liquidity Risk (excluding reserves as liquid funds)	Bank Run	21 days	22 days	23 days	

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. In particular, the liquidity, interest rate and credit risk stress tests have been adjusted. A second liquidity test is now conducted, which excludes reserves and applies different daily run-off rates based on the type of deposit (time deposits at 1 per cent and savings and demand deposits at 2 per cent). The upward shock to interest rates has been reduced to 500 basis points, compared to 700 basis points. Moreover, a 6 per cent provisioning rate is now applied to current loans and loans past due 1 to 3 months, compared to 1 per cent previously. The property price test has been removed but can be carried out on an ad-hoc basis. This exercise is now being conducted semi-annually as opposed to quarterly.

In response to a credit risk shock, the commercial banking sector was able to maintain capital levels above the regulatory minimum. While Central Bank forbearance alleviated the stress on NPLs over the last two years, there are concerns that measures such as deferrals and restructuring could mask true asset quality. Nevertheless, deferral programmes have ended and, as at December 2021, data indicated that less than 1 per cent of the total banking sector loan portfolio was restructured. Stress tests revealed that if these restructured loans are treated as written-off, the pre-shock adjusted CAR is marginally affected (0.1 per cent lower than without the adjustment for restructured loans). Consequently, the general credit shock to the portfolio under this scenario results in a post-shock CAR of 11.9 per cent. Though the domestic outlook has been improving, higher inflation could restrict disposable incomes and translate into increased credit risks for banks.

INSURANCE SECTOR

The year 2021 was a transformative year for the insurance sector, marked by the proclamation of the Insurance Act, 2018 (IA 2018) which became effective on January 1, 2021. Insurers continued to adapt to changes in the legislative requirements and new regulatory reporting standards. In addition, several financial groups and foreign insurers have been undertaking major restructuring activities in accordance with the new legislation – all occurring against the backdrop of a pandemic.

The pandemic impacted both the long-term and general insurers and its effects are still unfolding. A number of sales challenges were presented, which pushed several insurers to place greater focus on digitisation of their products and services. Meanwhile, the impact on the long-term industry's death claims was noticeable in the latter half of the year and corresponded with the exponential rise in reported COVID-19 deaths.³⁸ Some companies also experienced increases in surrenders and lapses during the lockdown period. It is expected that these outflows would eventually decline as the number of deaths has since decreased, and business activity returned to some level of normalcy in early 2022. Notwithstanding the rise in payouts, the sector's profits were not shaken – profits rose over the last year in line with the improved performance of the local and international equity markets. Additionally, local insurers benefitted from slightly lower expenses as a result of the lockdown period.

The insurance sector faces three main risks in the short-to-medium term – regulatory risk, operational risk and market risk. Regulatory risk is high and increasing as the legislative landscape evolves and reporting requirements intensify. Further, preparation for the implementation of International Financial Reporting Standard 17 Insurance Contracts (IFRS 17) has begun (**Box 3**). These developments require new systems and adjustments to human resources in a timely manner to keep pace with demands. Moreover, while efficiency gains from the shift to digitised operations are high, exposure and vulnerability to cyber-attacks can

38 Although not every reported national death represents an insured person, above-average levels of insured death claims reported by insurers rose in sync with the country's COVID-19 death toll.

increase. Operational risk is therefore stable, but increasing. Lastly, profits in both sectors are subject to volatility in the international debt and equity markets which are facing bouts of volatility in 2022. By nature of their business profile, insurers are susceptible to market risk as evidenced over the last five years. The threat is moderate and increasing due to sizeable holdings of government securities, and local and foreign equities on insurers' balance sheets.

LONG-TERM INSURANCE INDUSTRY PERFORMANCE

ASSETS

As at December 2021, the assets of the long-term insurance³⁹ industry totalled \$31.5 billion. There are two systemically important regional market players, which together account for 64 per cent of the sector's assets and 69 per cent of premium income. Total assets grew over the last five years at an average annual rate of 5.9 per cent. However, growth rates in the years 2019 and 2020 were enhanced by the acquisitions of pension plans in wind-up. Apart from the asset growth by way of these acquisitions, the industry experienced steady organic growth in 2021 of 4.0 per cent, despite the otherwise slowed economic environment.

Long-term insurers have exhibited a fairly consistent asset composition over the last five years (Figure 27). The majority of the sector's assets were debt securities, which accounted for just over half of the asset base. This is the preferred asset class due to its longer-term duration, which facilitates appropriate matching

to long-term liabilities. Approximately 88 per cent of the long-term industry's debt securities were government securities due to their low-risk nature. Over the last three years, several bonds were issued by the Government – such as the NIF⁴⁰ bonds in late 2018, a 20-year bond in March 2020, and a 25-year bond in December 2020 – all of which provided the long-term duration in investments desired in the sector, combined with the lower risk profile for sovereign debt. Although the asset composition as at December 2021 remained consistent with prior periods, there was an increase in the allocation towards equities from 11.8 per cent to 15.0 per cent.

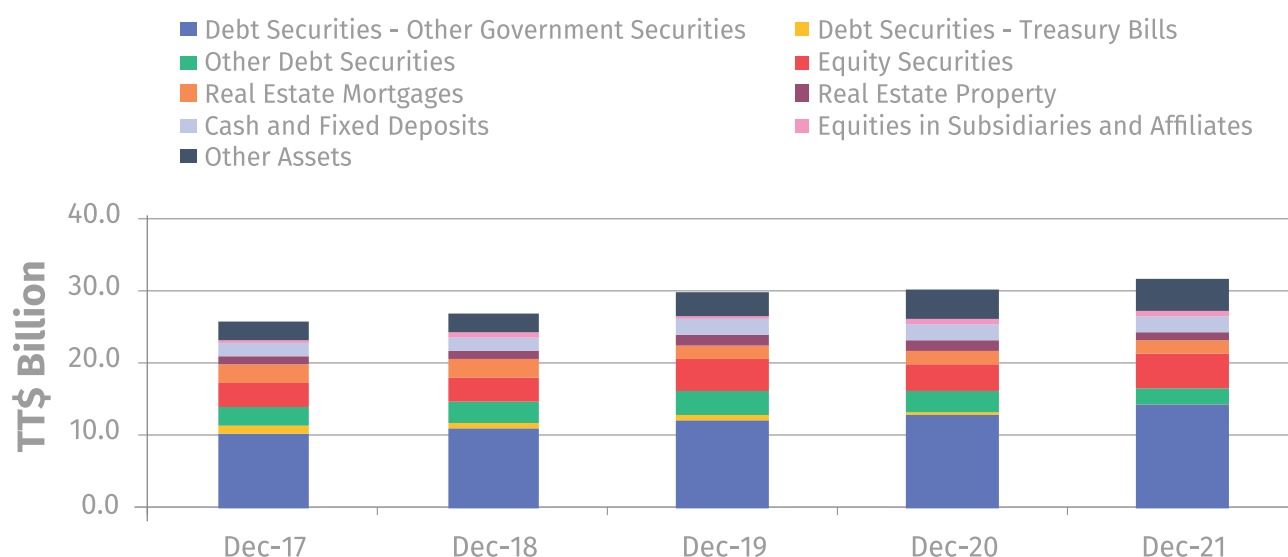
LINES OF BUSINESS

Over the last five years, growth in annualised gross premium income from \$4.5 billion in 2017 to \$5.4 billion in 2020 was driven by the acquisitions of pension plan annuities by several insurers. However, in 2021 the sector reported a contraction of 5.4 per cent. The volume of premium income levelled off following the acquisitions in 2019 and 2020, therefore the fall in premium income was not necessarily an indicator of reduced levels of business.

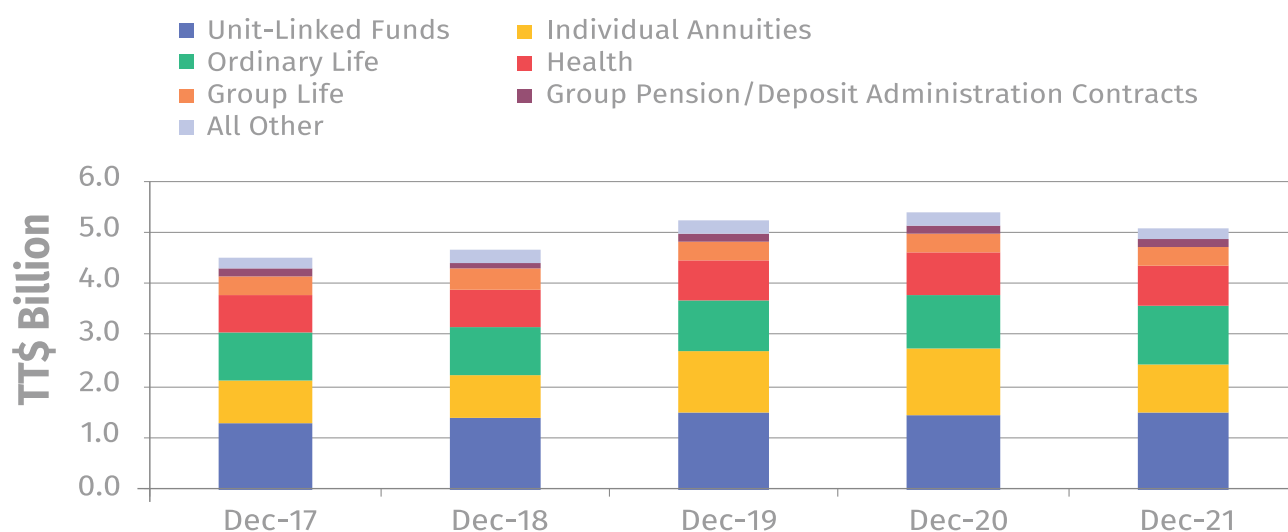
Unit-linked products, which are primarily offered by the largest insurer in the sector, continued to dominate the market in terms of premium income (Figure 28). This line of business experienced 4.6 per cent growth in gross premium income for the year 2021, after contracting in 2020 as a result of restricted mobility and reduced sales activity, as well as elevated levels of withdrawals and surrenders due to the pandemic.

³⁹ Figures exclude data from CLICO and BA.

⁴⁰ National Investment Fund Company Limited.

FIGURE 27
ASSET MIX – LONG-TERM INSURANCE INDUSTRY, 2017 – 2021


Source: Central Bank of Trinidad and Tobago

FIGURE 28
**ANNUALISED GROSS PREMIUM INCOME –
LONG-TERM INSURERS, 2017 – 2021**


Source: Central Bank of Trinidad and Tobago

REPORTED PROFITS

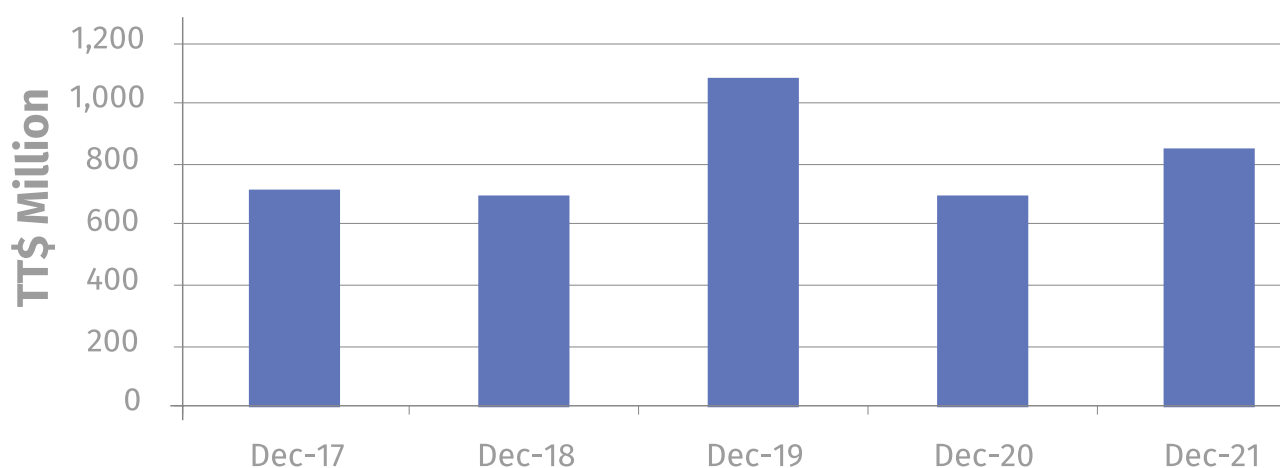
Annualised profits before taxes have fluctuated over the last three years (**Figure 29**). This was mainly due to the impact of realised and unrealised gains/losses as a result of volatility in the US and local stock markets, as well as the international bond markets. The US stock market recovered in 2019 after slumping in 2018, and was volatile throughout 2020 largely due to the impact of the pandemic. Improved performance of the local and international equity markets resulted in increases in both net realised gains, as well as net fair value gains, which boosted industry profits for 2021.

EXPENSES

Insurers continued to benefit from the reductions in management expenses in 2021, which was a consequence of work-from-home operations implemented during the pandemic. Although the expense ratios increased (**Figure 30**), this was due to lower premium income compared with the previous year.

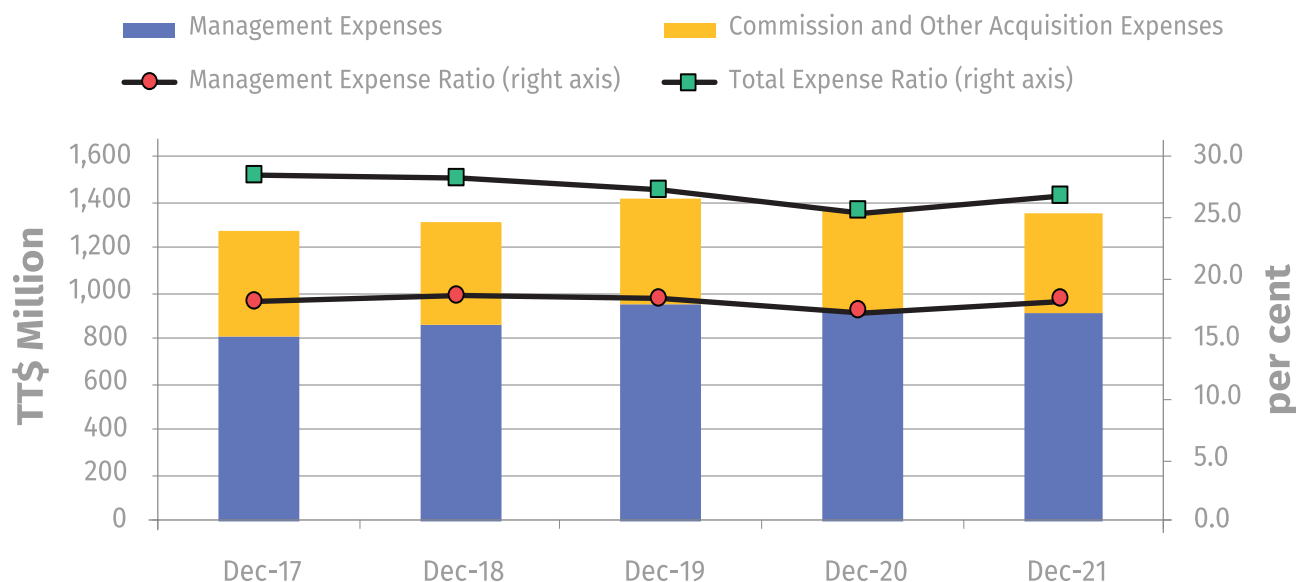
FIGURE 29

ANNUALISED PROFITS BEFORE TAXES –
LONG-TERM INSURERS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

FIGURE 30

ANNUALISED EXPENSES AND EXPENSE RATIO –
LONG-TERM INSURERS, 2017 – 2021

Source: Central Bank of Trinidad and Tobago

GENERAL INSURANCE INDUSTRY
PERFORMANCE

ASSETS

Total assets in the general insurance industry increased from \$6.2 billion as at December 2017 to \$6.4 billion as at December 2021, at an average annual rate of 2.1 per cent. The general insurance industry has a more diversified asset composition when compared to the long-term industry, with notable concentrations in government bonds (25.2 per cent) and cash (15.1 per cent) (Figure 31). Due to the shorter-term nature of the sector's insurance liabilities, companies maintain a higher allocation in cash and short-term investments. There were increased levels of cash held in 2020 (15.8 per cent) and 2021 (15.1 per cent) compared to prior years

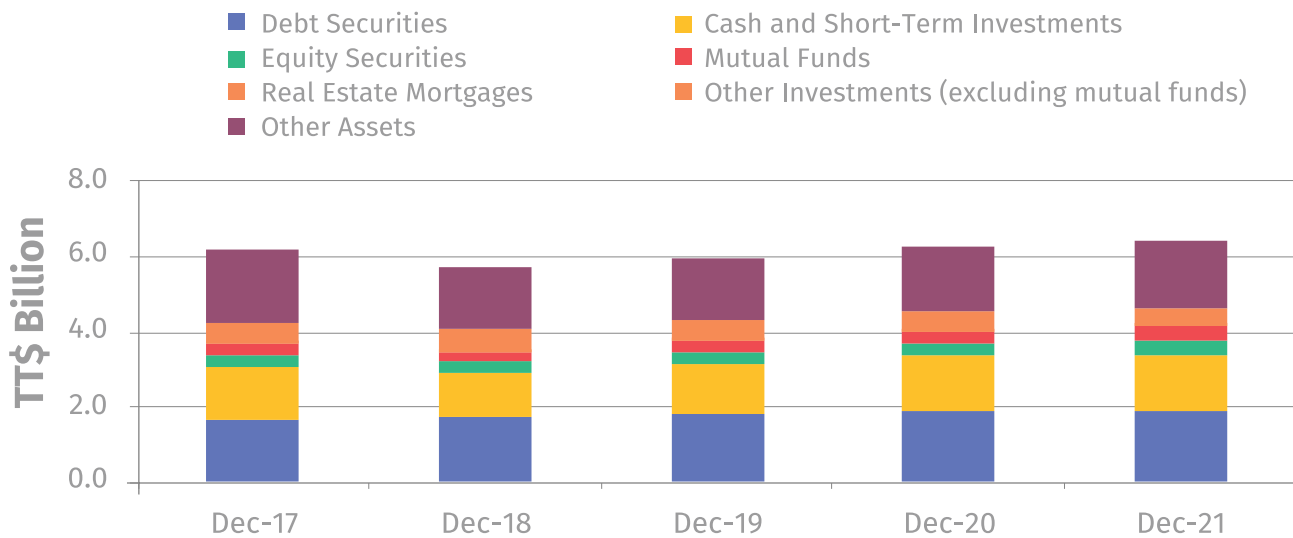
(average of 11.9 per cent). In 2020, these were on account of funds advanced from the reinsurers to the local market in light of claims stemming from the hurricanes in the region in prior years; these claims were fully settled. In 2021, liquid funds were held in anticipation of purchasing investments that were to be issued on the market.

LINES OF BUSINESS

With respect to the two major lines of business, the property line has been growing steadily for the last five years while growth in motor business fluctuated. Following the adverse natural events (hurricane, heavy rainfall and earthquake) in 2017 and 2018, as well as the threats of adverse weather from climate change, the market has seen increased demand for insurance coverage

FIGURE 31

ASSET MIX – GENERAL INSURANCE INDUSTRY, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

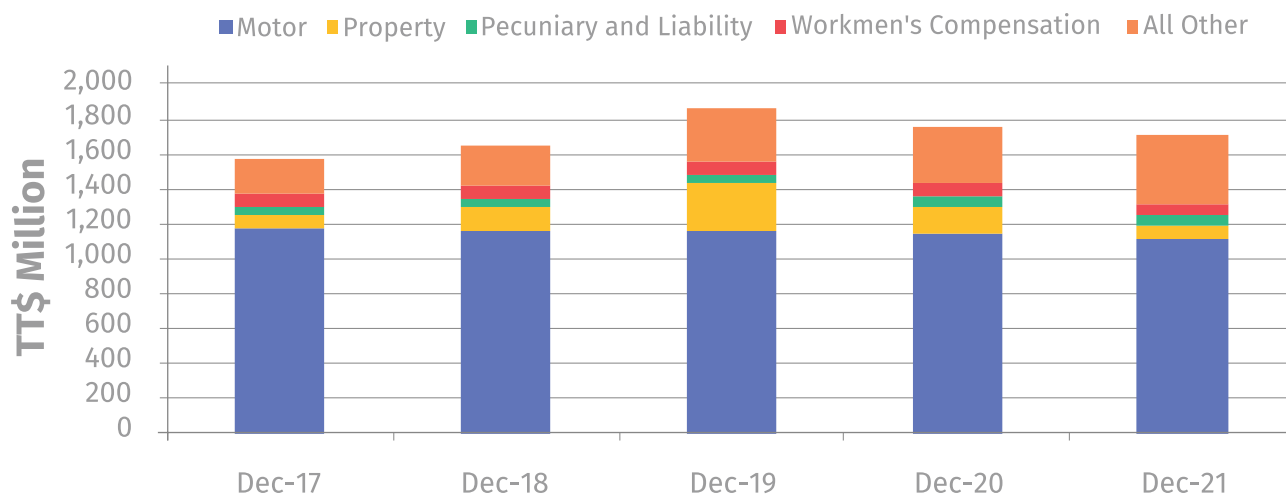
and rising rates. The property line of business continued to be heavily reinsured. It should be noted that all companies renewed their treaties in 2021 without delay and continued to do business with high-rated reinsurers. On the other hand, the motor line of business saw decreased activity (in both new business and renewals) as a result of the lockdown periods in 2020 and 2021. With the increased levels of activity, motor premiums have since recovered, although not yet comparable to pre-pandemic levels.

Annualised gross written premiums for the motor and property lines accounted for 30.3 per cent and 50.4 per cent of total gross premiums written, respectively, for the period ended December 2021. However, on a net premium basis (Figure 32), the distribution shifts to 65.4 per cent for motor and 4.0 per cent for property. This disparity reflects that a large proportion of the property line is reinsured whereas for motor business, most of

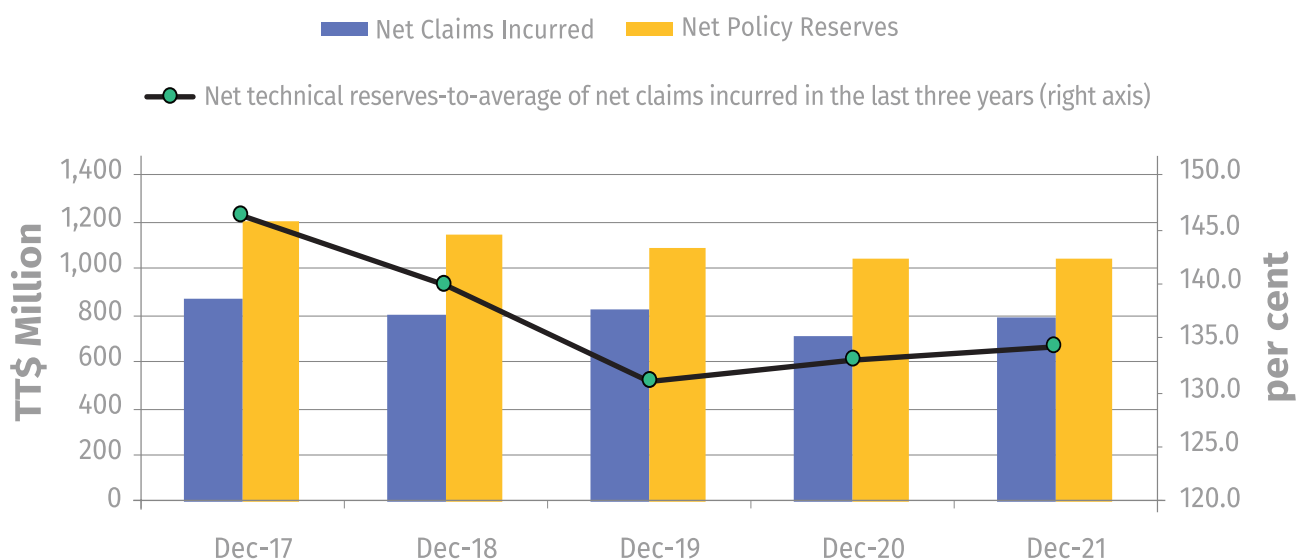
the premiums are retained by the local insurers. Despite the growth in gross written premiums, net retained premiums contracted by 3.0 per cent over the last year as a result of a higher volume of premiums ceded to reinsurers on property lines.

CLAIMS ADEQUACY

As activity resumed following the rollback of restrictions in the latter half of 2021, net claims incurred increased by 10.2 per cent, though lower than pre-pandemic levels (Figure 33). With the reopening of schools, amendments to work-from-home arrangements and removal of most domestic restrictions, claims are anticipated to revert to pre-pandemic levels. The claim reserves contracted since 2017 as greater focus was placed on the claims management process, including a more efficient settlement of claims. As a result, the ratio of net technical reserves to the three-year average of net claims incurred increased marginally in 2021.

FIGURE 32
**ANNUALISED NET RETAINED ANNUAL PREMIUM INCOME –
GENERAL INSURERS, 2017 – 2021**


Source: Central Bank of Trinidad and Tobago

FIGURE 33
**NET TECHNICAL RESERVES⁴¹ /
THREE-YEAR AVERAGE OF NET CLAIMS INCURRED –
GENERAL INSURERS, 2017 – 2021**


Source: Central Bank of Trinidad and Tobago

⁴¹ Technical Reserves = Claims Reserves + any Other Transfers from Funds.

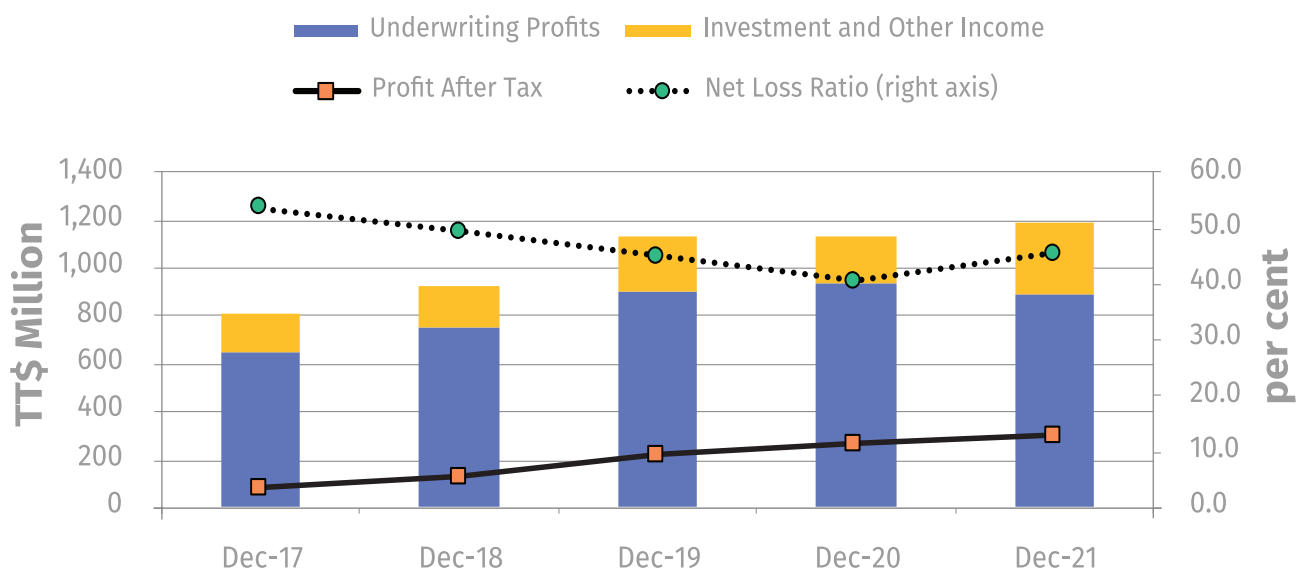
EARNINGS AND PROFITABILITY

The net loss ratio increased from 40.7 per cent to 45.4 per cent over the year ended December 2021 (Figure 34) due to the heightened claims activity. As a result, underwriting profits over the period declined by

4.0 per cent. Despite the decline in underwriting profits, profit after taxes increased by 13.4 per cent owing to investment gains, primarily from net fair value gains on investments in the international debt and equity markets, which rebounded in 2021.

FIGURE 34

CONTRIBUTION TO PROFIT AND EXPENSE (ANNUALISED) –
GENERAL INSURERS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

BOX 3: IFRS 17 INSURANCE CONTRACTS

International Financial Reporting Standard 17 Insurance Contracts (IFRS 17) is a standard issued by the International Accounting Standards Board in May 2017, to replace the current IFRS 4 Standard. IFRS 17 is due for implementation by insurers for accounting reporting periods on or after January 1, 2023, with earlier application permitted as long as IFRS 9 is also applied. In Trinidad and Tobago, insurers must comply with Section 144(1) of the Insurance Act, 2018, as well as the definition of financial reporting standards in Section 4(1), which require the use of the IFRS Standards.

Insurance contracts combine features of both a financial instrument and a service contract. Many contracts also generate cash flows with substantial variability over a long period. The IFRS 17 Standard combines current measurement of the future cash flows with the recognition of profit over the period that services are provided under the contract. Moreover, it presents insurance service results (including presentation of insurance revenue) separately from insurance finance income or expenses. IFRS 17 also requires an entity to make an accounting policy choice of whether to recognise all insurance finance income or expenses in profit or loss, or to recognise some of that income or expenses in other comprehensive income.

IFRS 17 will cause a significant change to insurers' reported profit and equity. Increased balance sheet volatility is expected as the valuations of assets and liabilities will be based on market value, rather than historical or book value. There may also be a risk of lower profits as IFRS 17 requires insurers to determine the projected profits of their legacy portfolios. This forces insurers to make a trade-off between post-implementation profitability and balance sheet strength as higher future expected profitability will reduce IFRS 17 shareholders' equity.

For regulators, there will also be disruption in reporting and supervisory practices. Regulators will be required to revise the methods to value policyholder liabilities as they may not align with IFRS 17; edit reporting forms to accommodate the delineation in the policyholder liabilities; and revise the capital adequacy calculation to ensure that insurers are not unduly adversely affected by the new Standard. In preparation for the adoption of IFRS 17, the Central Bank of Trinidad and Tobago (the Central Bank) has:

- i. issued questionnaires to the industry to allow the Central Bank to keep abreast of their progress;
- ii. established a project plan for the Central Bank's internal changes;
- iii. established a committee that comprises representatives from the industry and relevant professional bodies to discuss and resolve issues that have arisen because of IFRS 17; and
- iv. participated in training offered by the Caribbean Regional Technical Assistance Centre and other providers.

All insurers have commenced their preparation for implementation. The Central Bank will continue its internal preparation which entails:

- i. conducting quantitative impact studies to determine the effects on the financial circumstance and capital adequacy of the insurers;
- ii. revising reporting forms to accommodate IFRS 17;
- iii. continuing to monitor the progress of the insurers via the questionnaires;
- iv. amending the legislation as required; and
- v. liaising with regional partners to ensure consistency in the application of the Standard.

OCCUPATIONAL PENSION PLANS

ASSETS

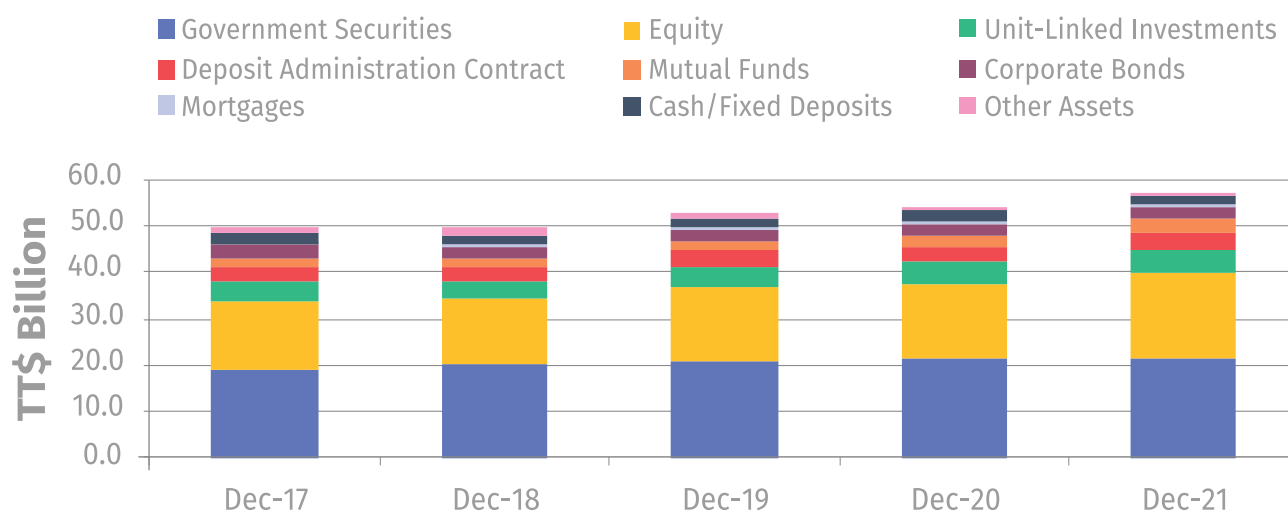
Total assets held by private occupational pension plan assets grew to \$58.1 billion as at December 2021, up from \$53.8 billion a year earlier. No significant change to the asset mix was observed over the period under review (**Figure 35**). Core assets, comprised mainly of GORTT securities and shares in local and foreign companies, continued to account for the lion's share of fund assets in 2021 (69.5 per cent). In the first half of 2020, global equity market declines weighed on the value of pension plans' equity holdings. Markets subsequently recovered, returning the plans' holdings to pre-pandemic levels. In 2021, with the proclamation of the IA 2018, it facilitated an increase in the permitted foreign investment threshold from 20 per cent to 30 per cent of the total fund. However, the sector's major corporate trustees and investment managers indicated that constraints in obtaining foreign currency hamper their ability to take advantage of the increased threshold.

FUNDING AND WIND-UPS

Although pension assets have increased over the past year, the funding position of most plans has not improved. Due to the temporary closure of businesses at the height of the pandemic, some employers were unable to fund their plans. As lockdowns have eased and businesses have reopened, this funding problem, in most cases, should be alleviated. In 2021, 65 pension plans reported funding deficits on an ongoing basis, representing 36.7 per cent of all active plans (up from 33.5 per cent in 2020) (**Figure 36**). Moreover, five plans were wound up over the year. The main reasons cited for the wind-ups were that sponsors could no longer afford to continue the pension plans. Annuities are being purchased to secure the benefits accrued by the affected plan members. Additionally, some employers are exploring strategies to reduce their costs, such as restructuring the pension benefits provided or transferring the liability for current pensioners to insurance companies.

FIGURE 35

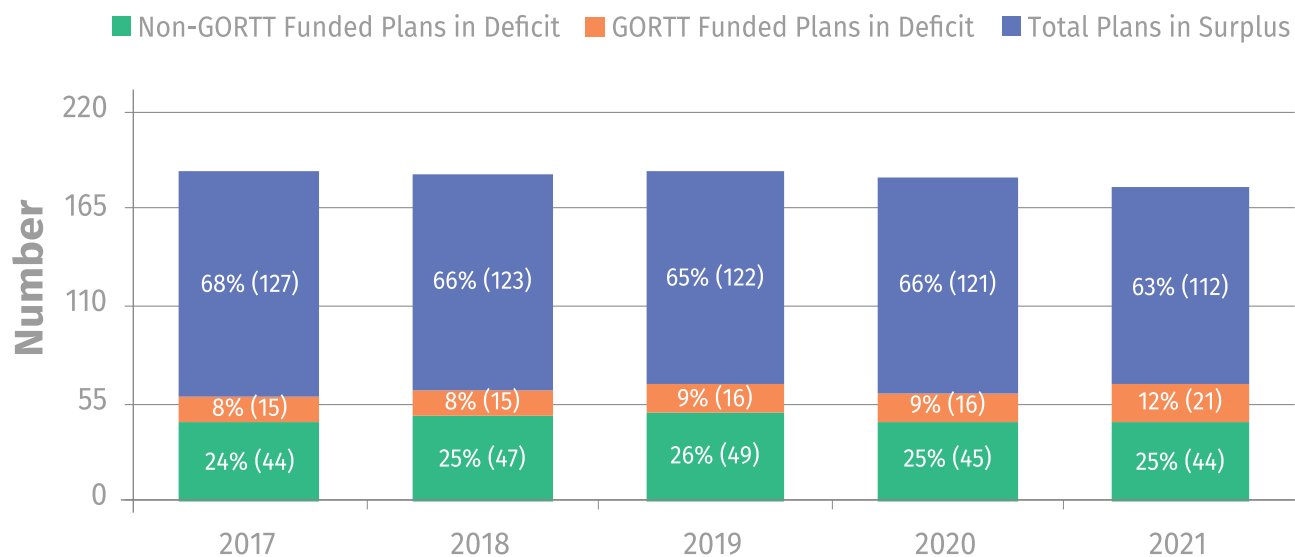
OCCUPATIONAL PENSION PLANS ASSETS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

FIGURE 36

FUNDING POSITION OF ACTIVE PENSION PLANS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

Another contributing factor to funding deficits was sponsors' inability or unwillingness to adjust contributions as recommended by the plans' actuaries. Overall, total contributions remitted to pension plans have been trending downwards over the past five years (**Figure 37, Panel A**), which is leading to a greater reliance on investment earnings to pay pension benefits. Regarding pension expenses over the last five-year period (**Figure 37, Panel B**), the increase in retirement lump sum payments in 2018 was due to the closure of a large employer.

working arrangements, shorter-term employment, a growing informal sector and higher job mobility limit funding opportunities. Employers are exploring strategies to modify plans and reduce their costs to address this. Restructuring pension benefits or transferring liabilities to insurers could help. The industry also faces concentration risks from limited investment opportunities. Overall, given the risks presented, portfolio diversification and more versatile marketing strategies are needed to mitigate these emerging threats.

EMERGING RISKS

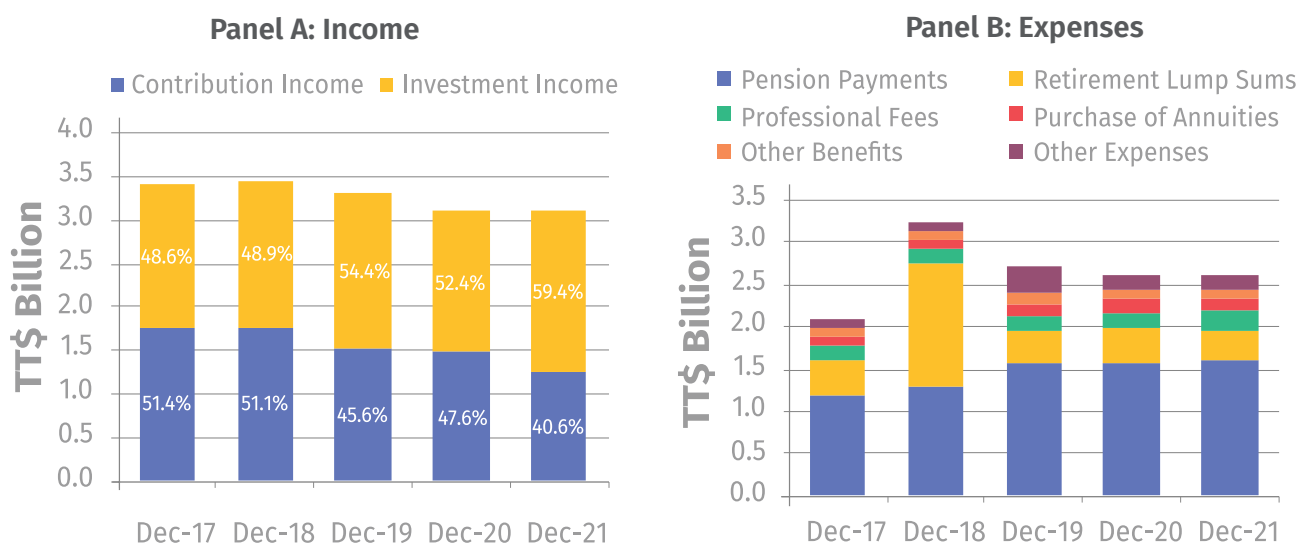
Risks affecting the stability and sustainability of the occupational pension plan industry include the uncertain macro-financial climate, low interest rate environment, increased longevity, and changing employment patterns. For cash flows, if investment income continues to outpace contribution income, pension plans could face revenue uncertainty due to the macro-financial climate. Currently, pension plan funding has been affected by the prolonged low interest rate environment. However, the upward trajectory in international interest rates would bode well for pension plan funding in these jurisdictions – increased rates allow for reduced liabilities and higher investment returns. Meanwhile, protracted payment periods due to longer life expectancy⁴² also pose funding risks. Different approaches are being explored to combat longevity risk, including extending retirement ages, adjusting pension benefits and purchasing annuities to transfer risk to insurers. Changing employment patterns may also directly impact funding sources. New hybrid

⁴² According to the World Bank, Trinidad and Tobago's average life expectancy of male and female adults has increased from 69 years in 2000 to 73.5 years and 72 years to 76 years in 2019, respectively. <https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=TT>.

⁴³ Developments such as global supply-chain disruptions, rising commodity prices and inflation, and lingering effects of past COVID-19 lockdowns were net positive for all sub-indices with the exception of the Manufacturing I sub-index. Ending 2021, the main market movers in the equity market were banking and insurance holding companies, conglomerates, suppliers (energy and cement) and a distributor.

FIGURE 37

PENSION SECTOR CASH FLOWS, 2017 – 2021



Source: Central Bank of Trinidad and Tobago

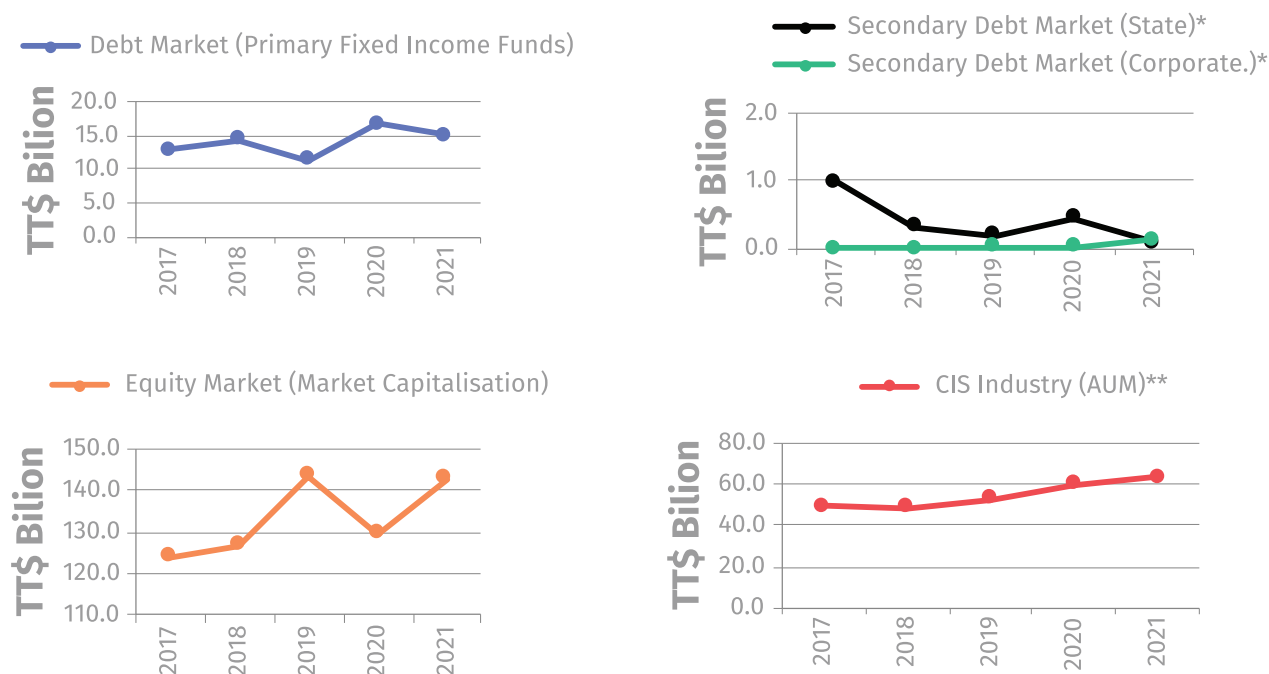
CAPITAL MARKETS DEVELOPMENTS

Local capital market performance was mixed in 2021 (Figure 38). Based on provisional data, primary debt market activity declined by 11.1 per cent, compared to an almost 50 per cent uptick in 2020. Total issuances amounted to \$15.0 billion (20 issues) at the end of 2021, approximately \$2.0 billion (5 issues) lower than in 2020. Despite this decline, Central Government borrowing activity on the primary debt market increased by roughly 7.0 per cent, driven by deficit financing needs. For equities and collective investment schemes (CISs), upside risks from economic developments led to a 10.3 per cent recovery in equities⁴³ and 6.0 per cent growth in CISs. Also notable was the growth in the secondary corporate bond market. In 2021, corporate bond trading climbed exponentially (nine times the value traded in 2020 and almost double the number of trades), surpassing government debt trading (which observed an 82.3 per cent decline in face value traded and 9.1 per cent fewer trades). Market reversals in the equity and fixed income markets are possible if policymakers adopt a more hawkish stance to combat inflationary pressures.

FIGURE 38

CAPITAL MARKET GROWTH, 2017 – 2021

/ TT\$ Billion /



Sources: Central Bank of Trinidad and Tobago, Trinidad and Tobago Stock Exchange, and Trinidad and Tobago Securities and Exchange Commission

Note: AUM (Assets Under Management).

*Based on the Face Value traded.

**Based on TTSEC data (Total CIS industry).

Though the capital market is growing, it remains shallow. Capital market shallowness has cultivated various pockets of concentration via asset class and via market participant. In terms of the composition of market participants, shallowness has limited the potential for financing alternatives outside of the traditional financial system, further adding to growing concentrations in a few segments of the macro-financial system **(Figure 39)**. In the equity market, trading activity remains highly concentrated in at least four segments due to their size. In other segments, the Government dominates.⁴⁴ Consequently, with few entities driving activity, shocks to these segments could have systemic implications for the stability of the entire market.

Regarding concentrations among security types, high concentrations of fixed net asset value (NAV) funds dominate the CIS industry.

The domestic share, which according to the Trinidad and Tobago Securities and Exchange Commission (TTSEC) mainly consists of medium-term government securities, is closely linked to General Government financing operations. Further, as most funds are open-ended, sharp increases in redemptions also present liquidity risks. Other shortcomings of the market's shallowness are low stock market turnover ratios (less than 1 per cent annual average turnover for 2021), which limits efficient asset pricing and can potentially lead to large swings in asset prices during volatile periods.

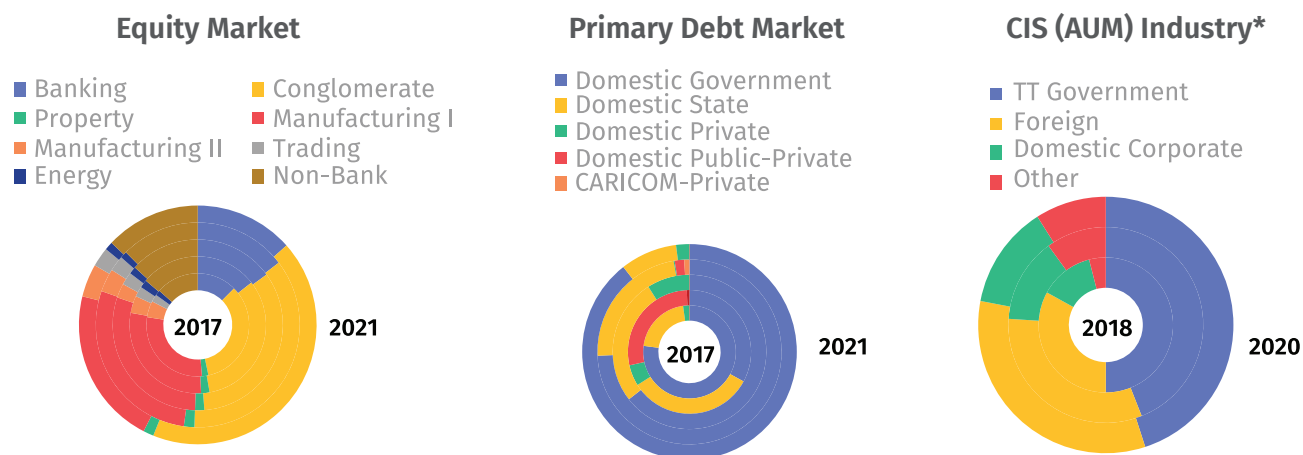
Tapping the full potential of the capital market is pertinent to reducing risks. For large institutional investors such as insurers and public and private pension funds, capital market deepening could help address asset-liability mismatches, broaden the range of securities offered, and allow for risk-sharing among a larger pool of entities to minimise the accumulation of systemic risk. For smaller entities, this also offers alternative financing opportunities. The SME Market Mentorship Programme is the most recent initiative by the Trinidad and Tobago Stock Exchange, in collaboration with the Central Bank and the Ministry of Finance, which could broaden the ownership base and encourage activity, especially in the Junior Stock Market where activity is low.

⁴⁴ For CISs, according to TTSEC market bulletins, fixed income securities are mainly domestic government securities (45 per cent) and the remainder are foreign government securities (33 per cent), corporates securities (13 per cent) and 'other' (9 per cent).

FIGURE 39

CAPITAL MARKET MOVERS, 2017 – 2021

/ TT\$ Billion /



Sources: Central Bank of Trinidad and Tobago, Trinidad and Tobago Stock Exchange and Trinidad and Tobago Securities and Exchange Commission

Note: * Latest available information.

PAYMENTS SYSTEM (LOCAL CURRENCY PAYMENTS)

Overall the total value of electronic payments (large-value and retail payments) increased in 2021, following the decline in 2020 brought on by the COVID-19 pandemic and ensuing containment measures. This turnaround was reflected in each of the electronic payments systems as the volume and value of electronic payments made via the Real Time Gross Settlement System (RTGS), the Automated Clearing House (ACH), and by cards, grew. Conversely, payments by cheques continued its downward trajectory, with the largest reduction in the value of large-value⁴⁵ cheque payments (over a five-year period) occurring in 2021. In addition, the volume and value of consumer

cash withdrawals remained relatively constant over the year, while there was an increase in the number of in-store debit and credit card Point of Sale (POS) purchases. Consumers also made use of online banking platforms to make routine payments such as bill payments. With the growth in online payments, the Central Bank remains vigilant in ensuring that payments system operators and payments service providers adhere to robust cybersecurity and risk management procedures.

WHOLESALE (LARGE-VALUE) PAYMENTS TRANSACTION VOLUME AND VALUE

In 2021, the volume of large-value payments processed over the RTGS grew by 6.9 per cent while the value fell by 11.3 per cent, when compared to 2020. Similar to 2020, the volume of customer

⁴⁵ Large-value payments are payments of \$500,000 and over.

payments in 2021 continued to grow leading to an overall increase in the volume of RTGS transactions. However, as the value of customer RTGS transactions are smaller than interbank payments, the overall value of RTGS was lower in 2021.

The growth in the volume of customer payments via the RTGS may also be reflective of the switch to electronic payments in preference to cheques. Cheque

transactions have been decreasing over the last several years and this trend persisted in 2021 as the volume and value of transactions for large-value cheques declined by 11.3 per cent and 7.9 per cent, respectively, when compared to one year earlier (Figure 40). Additionally, the use of the RTGS instead of cheques reduces settlement risk associated with cheque clearings as RTGS transactions are settled instantaneously.

RETAIL PAYMENTS TRANSACTION VOLUME AND VALUE

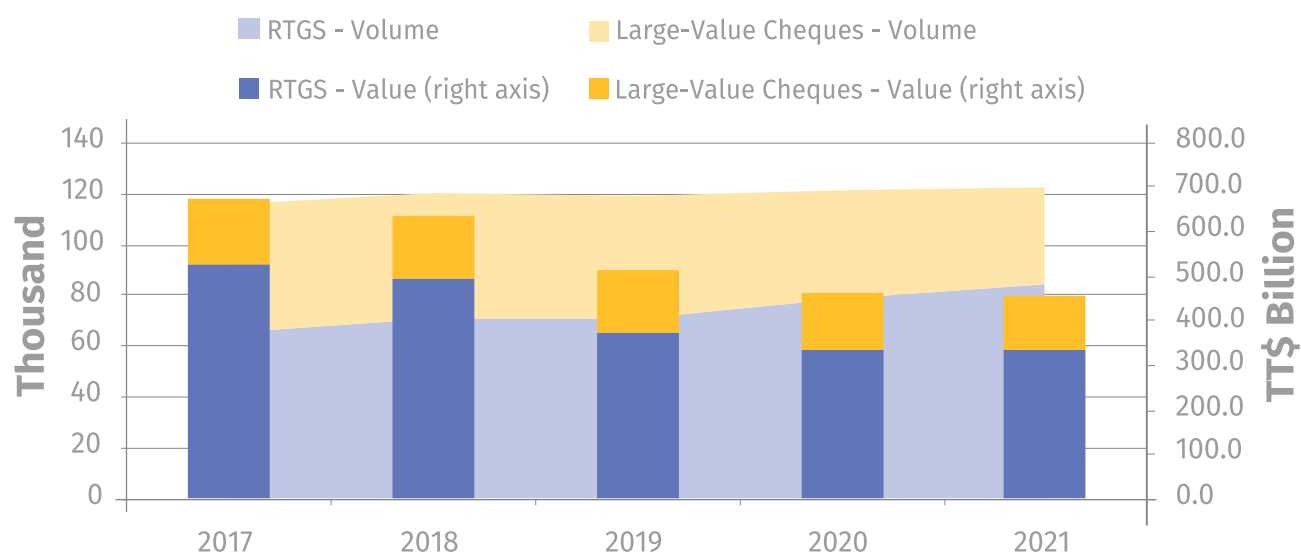
The volume and value of all retail payments⁴⁶ expanded by 4.4 per cent and 7.1 per cent, respectively, in 2021. This was propelled by the escalation in ACH payments due to greater use of online and mobile banking channels to execute routine payments, for example, bill payments and other interbank transfers. During the year, the ACH processed a total volume of 15.3 million transactions valued at \$132.3 billion, an increase of 15.4 per cent and 28.3 per cent, respectively, when compared to 2020. Of note, both the volume

and value of ACH credit and debit transfers rose in 2021, with credit transfers exceeding that of debit transfers. Following the large falloff in the volume and value of retail cheques processed in 2020, the trend continued downward, albeit more modestly. At the end of 2021, the volume and value of retail cheques amounted to 7.2 million and \$78.5 billion, respectively. This represented a fall of 13.6 per cent and 15.6 per cent, respectively, from 2020 (Figure 41).

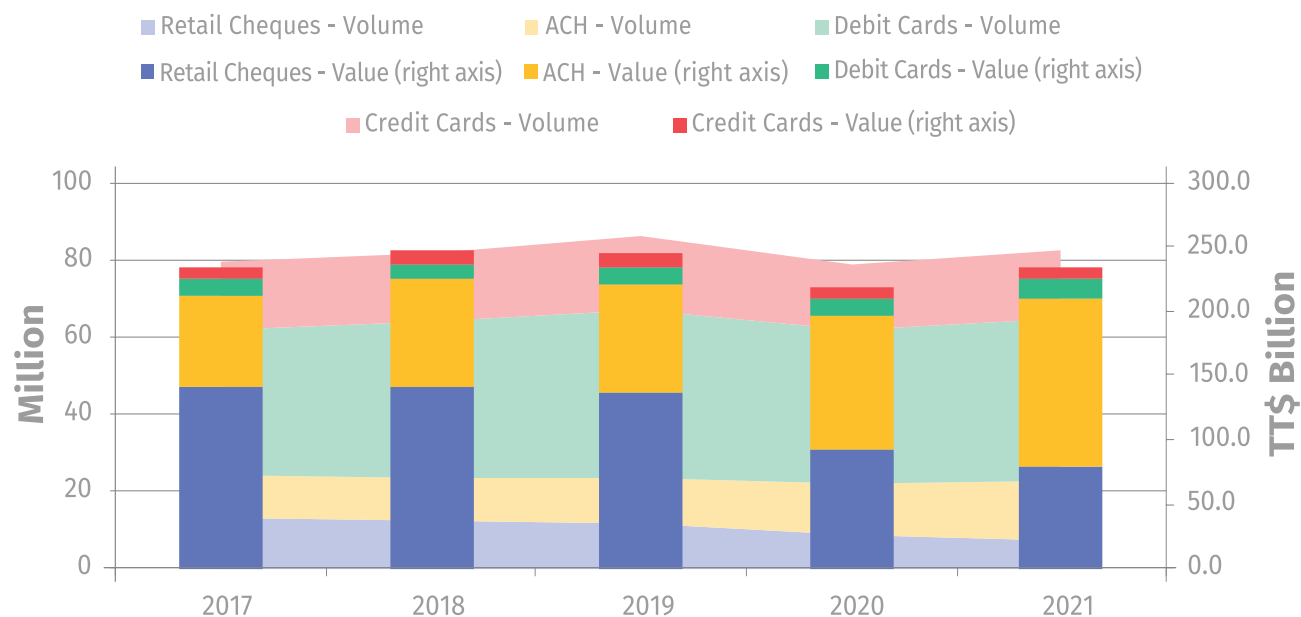
With the ease in COVID-19 restrictions in 2021 and the reopening of businesses, there was an uptick in the number of card payments using in-store POS machines.

Debit and credit card payments accounted for 51.6 per cent and 21.3 per cent, respectively, of all retail payments in 2021. ACH transaction volumes accounted for 18.4 per cent, while retail cheques volumes accounted for 8.7 per cent. In terms of value, ACH transactions accounted for the largest share of retail payments at 56.2 per cent, followed by retail cheques at 33.4 per cent. This marked an important market development as for the second year, the value of ACH payments superseded that of retail cheque values and accounted for the largest share of the value of all retail payments. In 2020, the value of ACH transactions accounted for 47.0 of the share of retail payments followed by retail cheques at 42.4 per cent. Debit card and credit card payments accounted for 6.0 per cent and 4.0 per cent of the value of retail payments, respectively, in 2021.

⁴⁶ Refers to retail electronic and cheque transactions.

FIGURE 40
SHARE OF WHOLESALE PAYMENTS – VOLUMES AND VALUES, 2017 – 2021


Source: Central Bank of Trinidad and Tobago

FIGURE 41
SHARE OF RETAIL PAYMENTS – VOLUMES AND VALUES, 2017 – 2021


Source: Central Bank of Trinidad and Tobago

PAYMENTS INFRASTRUCTURE

At the end of 2021, the number of Automated Teller Machines (ATMs) in Trinidad and Tobago stood at 496, an increase of 5 from the previous year. The number of POS machines also rose to 22,784 machines from 21,846 machines recorded in 2020. 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 while 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.

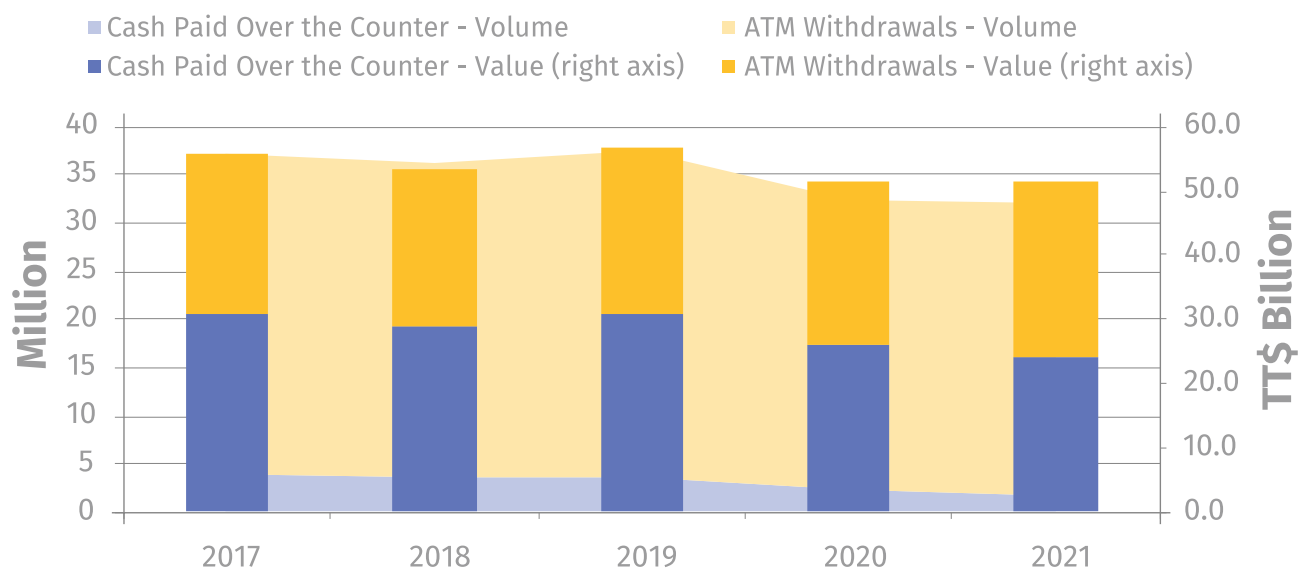
CASH WITHDRAWALS

Businesses and consumers continued to withdraw less cash in 2021 as the volume of cash withdrawals decreased by 1.0 per cent. However, there was a slight increase in the value of cash withdrawals by less than 1 per cent, when compared to a year earlier. While the number of OTC cash withdrawals at commercial banks fell by 24.8 per cent, ATM cash withdrawals grew marginally by 0.9 per cent. The value of cash paid OTC decreased from \$26.1 billion in 2020 to \$24.0 billion in 2021, while ATM withdrawals increased from \$25.2 billion in 2020 to \$27.7 billion in 2021 (Figure 42). Cash in active circulation increased by 2.5 per cent, from \$7.3 billion in 2020 to \$7.5 billion in 2021.

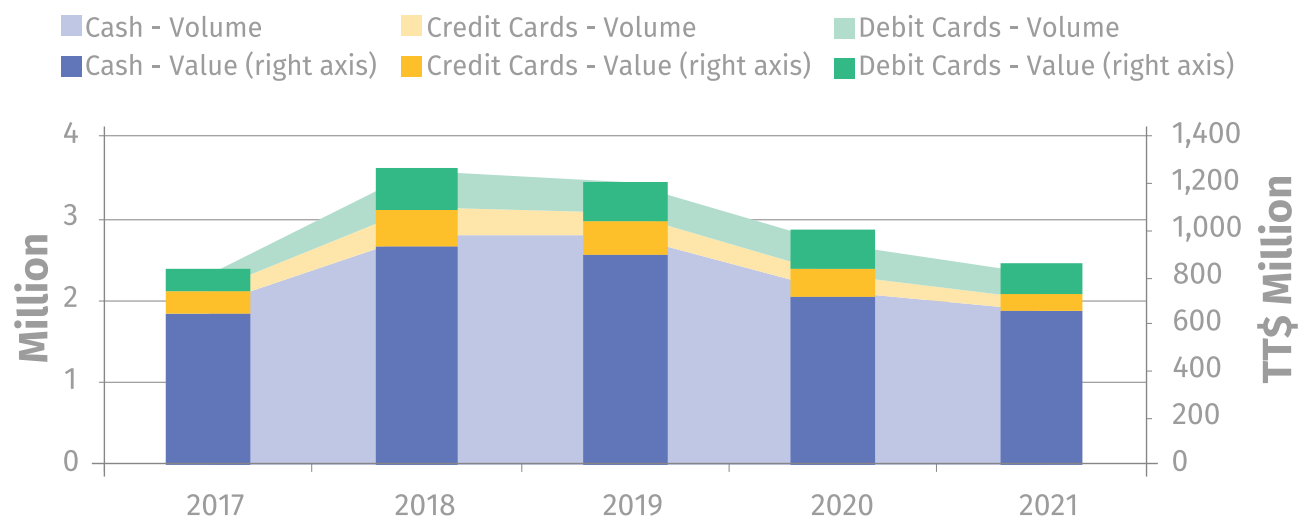
BILL PAYMENT SERVICE PROVIDERS (BPSPs)

In 2021, the three registered BPSPs processed a total of 2.3 million transactions valued at \$0.87 billion, compared with 2.7 million transactions valued at \$1.0 billion in 2020. Cash remained the most popular means of making payments at BPSPs, accounting for over 75 per cent in both the volume and value of all payments made (Figure 43). Meanwhile, both the volume and value of payments by debit cards and credit cards declined in 2021 when compared to the previous year for BPSPs. The fall in the volume and value of BPSP payments was ascribed to the COVID-19 restrictions and the migration of consumers to online bill payments via commercial banking applications and on utility company websites. Further, two BPSPs were required to close outlets for part of the year as a result of the COVID-19 restrictions.

On the other hand, there was a significant expansion in both the volume and value of utility payments processed by commercial banks of 24.6 per cent and 20.0 per cent, respectively, in 2021. This was attributed to a significant rise in utility payments made via the internet on commercial banks' websites as consumers chose this method of bill payment rather than going to utility or BPSP offices (Figure 44).

FIGURE 42
CASH WITHDRAWALS – VOLUMES AND VALUES, 2017 – 2021


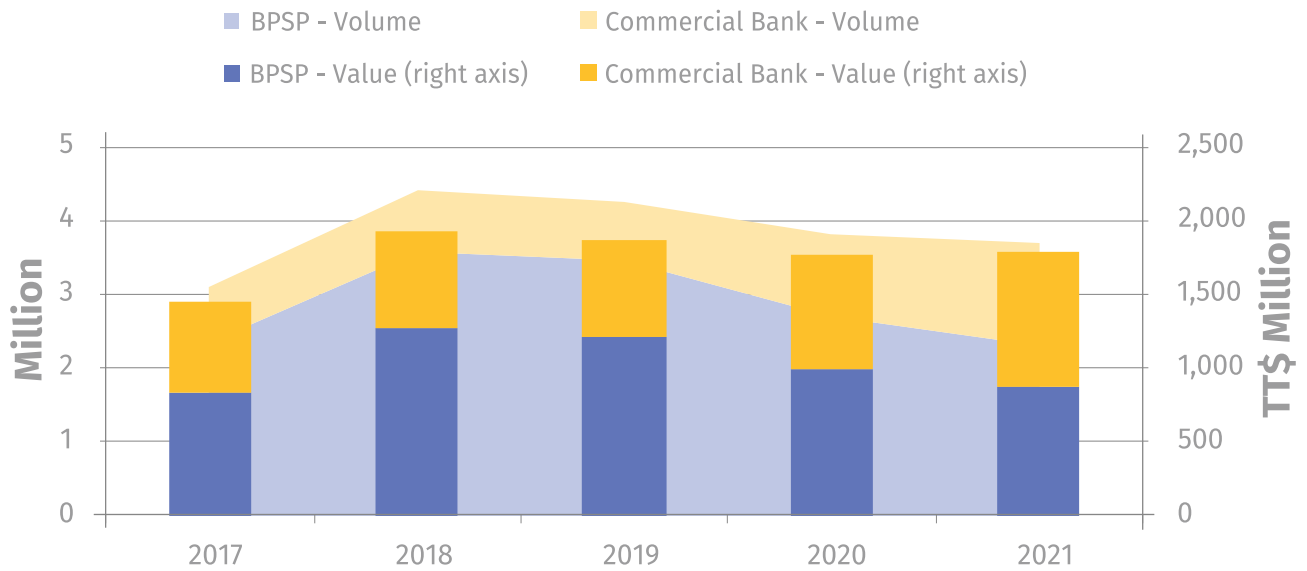
Source: Central Bank of Trinidad and Tobago

FIGURE 43
TRENDS IN DOMESTIC RETAIL PAYMENTS – BILL PAYMENTS, 2017 – 2021


Source: Central Bank of Trinidad and Tobago

FIGURE 44

**TRENDS IN DOMESTIC RETAIL PAYMENTS –
BILL PAYMENTS AND COMMERCIAL BANKS, 2017 – 2021**



Source: Central Bank of Trinidad and Tobago

Note: Does not include payments made directly to utility companies either via online portals or in office.

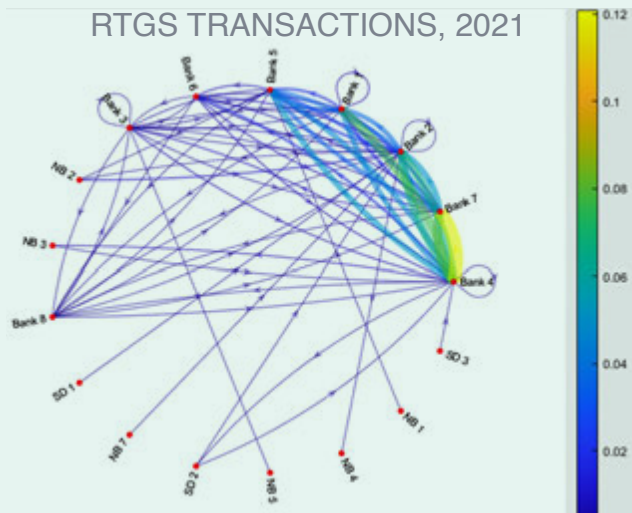
BOX 4: NETWORK MAP OF THE RTGS

The domestic Real Time Gross Settlement System (RTGS) has been classified as systemically important due to its processing of large-value and time-critical payments between participants. While settlement risk is minimised due to the finality of payments and the speed of processing on an individual transaction basis, additional concerns such as operational risk, liquidity risk or credit risk may stem directly from a participant’s inability to submit payments to the RTGS. Cyber-attacks and natural disasters are two risk factors, relevant to the current macro-financial environment, which can trigger such a disruption. Depending on the structure of the payments network, these factors may have systemic implications if a major participant is impacted, or if a group of participants is affected simultaneously.

The network map of RTGS transactions over 2021 – exclusively between commercial banks, non-banks and securities dealers¹ – illustrates that a few commercial banks are critical to the network (Figure 1). Moreover, statistical analysis over a five-year period (Table 1) suggests that the overall connectivity in the network (density) has generally increased, though the highest connectivity levels were observed in 2019 (pre-pandemic). Distance ratios indicated that there were close links between the entities in the system – on average, there were around 1.8 connections between any two nodes. This suggests that the speed of transmission or flow of contagion throughout the network is relatively quick. Furthermore, shock transmission requires between three and four connections before the entire network is affected (diameter). The network structure also exhibited high reciprocity implying that many two-way linkages existed between counterparties, increasing the likelihood of second-round effects. Altogether, the analysis underscores the systemic importance of a few central nodes as distress within these institutions can transmit quickly to the network due to deep connections.

BOX 4: FIGURE 1

NETWORK MAP OF RTGS TRANSACTIONS, 2021



Source: Central Bank of Trinidad and Tobago

Note: Each institution is represented by a node on the map (●) and each link or exposure between nodes is represented by a line. The network map is weighted and directed. That is, the colour and width of the line indicate the relative magnitude of the exposure within the network, while the direction of the arrow indicates the flow of funds.

BOX 4: TABLE 1

MAJOR STATISTICAL PROPERTIES OF THE RTGS NETWORK, 2017 – 2021

Measure	2017	2018	2019	2020	2021
Density (per cent)	20.8	18.8	25.6	22.4	25.3
Diameter	3	4	3	4	3
Distance	1.75	1.85	1.68	1.85	1.73
Reciprocity (per cent)	86.7	84.0	83.8	80.3	87.7

Source: Central Bank of Trinidad and Tobago

1 These players accounted for around 20 per cent of total RTGS transactions over the five-year period. The remaining 80 per cent is attributable to transactions involving the Central Bank operators and all other domestic (retail) payments systems.

CHAPTER 4

Safeguarding the Financial System



SAFEGUARDING THE FINANCIAL SYSTEM

The Central Bank continues to promote financial stability and safeguard the financial system via several initiatives progressed in 2021 and early 2022. These include ongoing activities related to legislative reforms, such as new reporting requirements for licensees; development of risk management guidelines; thematic reviews related to corporate governance and cyber risk; and legislative and regulatory advances in strengthening the AML/CFT framework. Notably, legislation to ensure an efficient payments system is ongoing.

LEGISLATIVE REFORM

PENSION PLAN REFORM

Factors such as growing longevity, a legacy of low long-term interest rates, a changing macroeconomic environment, and dynamic employment patterns mean that traditional structures of securing retirement income need to evolve to support the current and future needs of the population. The Central Bank is therefore embarking on pension plan reform to address these issues. Reform will begin with a review of current practices locally, regionally, and internationally. Measures will entail possible legislative changes, coordination among regulators, enforcement of existing frameworks, enhancement of operations at the Central Bank, and education and communication to plan members. The project is ongoing.

INSURANCE ACT AND REGULATIONS

The IA 2018, save and except for Sections 184 and 185⁴⁷, as well as nine Regulations were proclaimed and became effective on January 1, 2021. As part of its implementation, there are a number of activities that are ongoing, including the following:

- Reorganisation of foreign insurers pursuant to Section 281 of the IA 2018;
- Reorganisation activity for mixed conglomerates to establish financial groups, where necessary;
- Assessment of the regulatory returns received from insurers (including reports on capital adequacy, credit exposures, and shareholding and ownership interests), as well as amendment of the quarterly and annual returns;

⁴⁷ Sections 184 and 185, as well as Schedule 12 of the Act, proposed to amend the Married Persons Act, Chapter 45:50. Those provisions will not be proclaimed until Parliament has had an opportunity to interrogate more comprehensively the effect of the proposed changes to the law as it relates to married persons and insurance.

- Gap analysis on measures being undertaken by insurers to become compliant with the IA 2018, including matters such as capital requirements and credit exposure limitations;
- Online forum to address matters of interest to the industry for key aspects of the IA 2018; and
- Ongoing collaboration with the industry to provide clarification where necessary.

STRENGTHENING FINANCIAL STABILITY

FRAMEWORK FOR DOMESTIC SYSTEMICALLY IMPORTANT BANKS

Given the potential impact that the distress or failure of banks can have on the domestic economy, the Central Bank included the Basel III higher loss absorbency requirement for domestic systemically important banks (D-SIBs) in its Basel II/III project implementation plan. The draft *Framework for Determining a Domestic Systemically Important Bank and Higher Loss Absorbency Requirement* was issued to the industry in August 2021 outlining the methodology to be used to determine whether a local bank is systemically important, as well as derive the corresponding additional capital charge to be applied. Full implementation of the D-SIB capital add-on is subject to a Notice being published in the Gazette by the Minister of Finance, which the Central Bank anticipates is to be completed by the end of 2023. The draft framework can be accessed at: <https://www.central-bank.org.tt/sites/default/files/page-file-uploads/CBTT-D-SIB-policy-consultation.pdf>.

GUIDELINE FOR THE MANAGEMENT OF MARKET RISK

The Central Bank developed draft guidance for regulated institutions in its *Guideline on the Management of Market Risk*, setting out minimum standards for the management of market risk and encouraging improved market risk management practices. The draft Guideline can be accessed at: <https://www.central-bank.org.tt/sites/default/files/page-file-uploads/guideline-for-the-management-of-market-risk-may2021.pdf>. The final Guideline will be issued to the industry in July 2022.

CREDIT RISK MANAGEMENT GUIDELINE

The Credit Risk Management Guideline, issued by the Central Bank on November 29, 2021, reflects best practices on credit risk management as espoused by the Basel Committee on Banking Supervision and the International Association of Insurance Supervisors. These standards pertain to, inter alia, strengthening a financial institution's credit risk governance framework and establishing the financial institution's risk appetite and strategies, in a manner that is proportionate to its size, complexity, and risks. The Guideline can be accessed at: <https://www.central-bank.org.tt/sites/default/files/page-file-uploads/credit-risk-management-guideline-20211201.pdf>.

GUIDELINE FOR THE MANAGEMENT OF OUTSOURCING RISKS

The *Guideline for the Management of Outsourcing Risks* was issued by the Central Bank on February 22, 2022. The Guideline establishes minimum standards for the

management of outsourcing risks by regulated institutions and sets out the expectations of the Central Bank for the management of risks arising from the outsourcing of material activities, functions, and services. The Guideline can be accessed at: <https://www.central-bank.org.tt/sites/default/files/page-file-uploads/guideline-for-management-of-outsourcing-risks-february2022-20220803.pdf>.

FINANCIAL CONDITION REPORT

The IA 2018 and the Insurance (Financial Condition Report [FCR]) Regulations, 2020 require the appointed actuary of an insurer to annually investigate the financial condition of the insurer and prepare a written FCR. This report will be required by all insurers annually, from its first financial year-end after December 31, 2021, and is due within 60 business days of the financial year-end. In February 2022, the Inspector of Financial Institutions specified the format of the FCR, which outlined the minimum requirements of this report for all insurers. The format of the FCR can be accessed at: <https://www.central-bank.org.tt/sites/default/files/page-file-uploads/format-of-fcr-20220702.pdf>.

MEMORANDUM OF UNDERSTANDING WITH THE BANK OF GHANA

The Central Bank entered into a Memorandum of Understanding (MOU) with the Bank of Ghana on December 22, 2021, to facilitate cooperation and information sharing between the regulators. The MOU relates specifically

to Republic Bank Ghana Limited, which is a subsidiary of Republic Financial Holdings Limited, a financial group domiciled in Trinidad and Tobago. The MOU also provides a framework for both regulators to exchange information and cooperate with each other regarding the supervision and regulation of any other financial institutions and groups under their authority.

THEMATIC RISK REVIEWS

CORPORATE GOVERNANCE THEMATIC REVIEW

Following the issuance of a new *Corporate Governance Guideline* in March 2021, the Central Bank progressed its thematic review of corporate governance in the banking sector. All banking institutions responded to a survey that was issued in September 2021 and these responses are being reviewed. A final thematic report will also be prepared to outline key findings and recommendations for implementation by the banking sector, and individual findings will be shared with each bank.

CYBER RISK THEMATIC REVIEW

The Central Bank is in the final stages of completing its review of cyber risk in the banking sector. Several reports have already been issued to individual banks. Upon completion and issuance of the remaining reports to other entities, an industry report will be generated.

STRENGTHENING THE AML/CFT REGULATORY FRAMEWORK

LEGISLATIVE AND REGULATORY CHANGES

Miscellaneous Provisions (Proceeds of Crime, Securities, Insurance and Miscellaneous Provisions [FATF Compliance]) Act, 2021

In December 2021, the Miscellaneous Provisions (Proceeds of Crime, Securities, Insurance and Miscellaneous Provisions [FATF Compliance]) Act, 2021 was enacted. The Act includes, inter alia, provisions to amend the Proceeds of Crime Act, Chapter 11:27 to grant the Minister the power to make Regulations for administrative fines for breaches of Anti-Money Laundering, Combatting the Financing of Terrorism and Counter Proliferation Financing (AML/CFT/CPF) requirements. It also grants the supervisory authorities the power to allow reporting entities the opportunity to discharge the criminal liability for breaches of the Regulations, by remedying or discontinuing the breach and paying the administrative fine. The Act further outlines the procedure for the levying of administrative monetary fines in respect of breaches of AML requirements. Similar provisions were made to the Anti-Terrorism Act, Chapter 12:07.

Commensurate with enactment of the Miscellaneous Provisions Act in December 2021, the Central Bank, the Financial Intelligence Unit of Trinidad and Tobago (FIUTT) and the TTSEC issued a policy regarding the proposed regulatory framework

for the introduction of administrative monetary fines and the draft Schedule of breaches and fines for consultation with the private sector. The feedback from the consultative process is being reviewed by the three supervisory authorities to inform amendments to the draft Regulations of administrative fines.

National Risk Assessment

The Central Bank is completing the analysis of data collected from the National Risk Assessment (NRA) survey and other regulatory data to finalise the sector reports for the commercial banks, non-banks, insurance and other financial sector assessments. The sector assessment reports will be submitted to the NRA Coordinator tentatively by July 2022.

KYC Guideline for Electronic Money Issuers

The Central Bank and the FIUTT collaborated to develop guidance on AML/CFT/CPF requirements for Electronic Money Issuers (EMIs), which was published in January 2022. The Guideline outlines the regulatory expectations regarding the implementation of risk-based compliance programmes, including the risk-based onboarding policies with simplified measures for lower-risk EMI clients (small-value wallets) and enhanced due diligence for higher risk clients.

Trinidad and Tobago's Compliance with International Standards

The European Union (EU) continues to maintain Trinidad and Tobago on its AML list, noting that its review for compliance is ongoing, particularly with respect to the

country's compliance with the Financial Action Task Force's (FATF's) requirements for transparency of beneficial ownership, as well as compliance with FATF Recommendation 35 (Implementation of an Administrative Fine Regime).

Trinidad and Tobago also remains listed for non-compliance with international standards for tax transparency and information sharing on the EU list of non-cooperative jurisdictions for tax purposes, and the Global Forum's Standards for tax transparency and sharing of information. The Central Bank is not the competent authority in respect of the tax transparency issues. However, as a member of the National AML Committee and a high-level committee established by the Ministry of Finance to address compliance with the tax standards, the Central Bank continues to support government initiatives to comply with, and seek removal from, the EU and Global Forum tax transparency lists.

IMPROVING RISK-BASED SUPERVISION

IMPLEMENTATION OF BASEL II/III

Internal Capital Adequacy Assessment Process (ICAAP)

In keeping with Regulation 6 of the Financial Institutions (Capital Adequacy) Regulations, 2020, licensees and financial holding companies were required to submit their documented ICAAP to the Central Bank by

the end of January 2022. In preparation for the supervisory review of the ICAAP, the Caribbean Regional Technical Assistance Centre provided training to supervisors and other staff of the Central Bank in October 2021. Internal guidance for the conduct of the supervisory reviews of ICAAP submissions has been developed.

Leverage Ratio Requirement

The Central Bank issued its draft *Leverage Ratio Guideline, Reporting Framework and Instructions* to the Basel II/III Technical Working Group for preliminary review in December 2021. The leverage ratio is a Basel III non-risk-based backstop measure aimed at improving financial sector resilience by limiting excess leverage in the system. The documents were issued for wider industry consultation in March 2022. Comments on the draft *Leverage Ratio Guideline and Reporting Framework* were due by June 30, 2022.

REVIEW OF RECENT DEVELOPMENTS IN PAYMENTS SYSTEMS

REGULATORY INNOVATION HUB AND SANDBOX

In 2021, the Joint Fintech Steering Committee (JFSC)⁴⁸ continued to meet on fintech matters coming through the Joint Regulatory Innovation Hub. To date, the Hub has been actively used by entities that are primarily seeking guidance on the regulatory requirements necessary to launch their respective products and operate

⁴⁸ The JFSC was established as a collaborative effort among the Central Bank, the TTSEC, and the FIUTT, to ensure the adequate regulation of fintech activities spanning the remit of all three agencies and to prevent regulatory arbitrage.

in the space. In 2021, the regulators received 28 queries and submissions, of which:

- Three were applications for registration as an EMI;
- Nine were queries related to E-Money Issuance and the requirements for registration as an EMI;
- Ten were queries pertaining to virtual assets and virtual asset services; and
- Six were queries related to payment service providers (PSPs), the operation of the Regulatory Sandbox and requests for information on the local fintech market.

Furthermore, the Central Bank reviewed six applications for registration as a PSP and EMI via the Hub as of December 31, 2021. Over the period, five EMI applications were progressed with the Central Bank actively engaging these entities, both formally and via informal meetings.

The Regulatory Sandbox complements the Hub. EMIs will likely be the first entities to enter the sandbox environment since the E-Money Issuer Order⁴⁹ permits provisional registration for an EMI to operate in a sandbox environment. Further, organisations proposing to engage in crypto asset/virtual asset services will have the ability to test their initiatives in a sandbox environment at a later date, when supporting amendments to each of the JFSC regulators' legislative frameworks have been completed.

DEVELOPMENTS IN THE RETAIL PAYMENTS SECTOR

In April 2021, the debit card switch operator, Infolink Services Limited acquired the Trinidad and Tobago Interbank Payments System, the then operator of the ACH system. The ACH system reached its End-of-Life⁵⁰ and the operators upgraded the system to facilitate the clearing of Electronic Funds Transfers transactions. The Electronic Cheque Clearings System project consisted of (a) the ACH upgrade, which was completed in 2021, with (b) provisions for electronic cheque transfers system. It is estimated that the project will be completed and the system fully launched by the second half of 2022.

PAYMENTS SYSTEM LEGISLATION

The Central Bank received feedback on the draft Policy Proposal Document from the financial institutions, regulators, PSPs, payments system operators, and fintechs. Following the completion of stakeholder consultations, the Central Bank commenced drafting the Bill.

49 The E-money Issuer Order was effected in 2020 and allows for persons other than financial institutions licensed under the Financial Institutions Act, 2008, Chapter 79:09 to issue e-money.

50 An end-of-life product is a product at the end of the product lifecycle which prevents users from receiving updates.

APPENDIX A

DOMESTIC FINANCIAL STABILITY MONITOR HEAT MAP, 2017 – 2021

SUMMARY HEAT MAP	December 2017	December 2018	December 2019	December 2020	December 2021		
Aggregate Indicators ¹							
Financial Markets							
Banks							
Other Financial Institutions ²						Legend	
Non-financial Sectors						Low	
Household						Moderate	
Corporate						Elevated	
Sovereign						High	
OVERALL RISK SUMMARY						Very High	

Source: Central Bank of Trinidad and Tobago

Note: A 'heat map' is a data visualisation tool, which takes the form of a matrix. They condense a large amount of data into a more user-friendly form. The Central Bank's Domestic Financial Stability Monitor summarises 51 macroeconomic and financial data series, as well as 4 composite risk indices, over a five-year period. Each indicator is assigned a risk rating of 1 (low) to 5 (very high) based on a specific benchmark. The overall and sub-sector risk ratings are estimated by using the equal-weighted average of the associated indicators. The result is rounded to the nearest whole number and the respective colour rating is subsequently applied. With this approach, it is possible for the overall risk rating to change as a result of aggregate changes in the underlying indicators, without sufficient magnitude to trigger sectoral rating adjustments.

1. Aggregate Indicators consist of indicators which evaluate macroeconomic, macro-financial or composite risk.

2. 'Other Financial Institutions' consist of Insurance (Long-Term and General) and Occupational Pension Funds sectors.

APPENDIX B

BANKING SECTOR LOANS BY SECTOR, 2016 – 2021

	TT\$ Million (Absolute Values)						TT\$ Million (Change)					Percentage Change (per cent)				
PUBLIC SECTOR LOANS	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-20 Dec-21	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-20 Dec-21
Petroleum	1,545.4	1,553.4	2,995.4	3,155.4	2,534.3	2,427.1	8.0	1,441.9	160.0	(621.0)	(107.3)	0.5	92.8	5.3	(19.7)	(4.2)
Construction	1,894.0	1,652.4	1,714.2	645.4	1,226.4	1,135.5	(241.6)	61.8	(1,068.8)	581.0	(91.0)	(12.8)	3.7	(62.4)	90.0	(7.4)
Transport, Storage and Communication	1,120.5	1,177.6	1,244.0	640.2	525.6	412.4	57.1	66.5	(603.8)	(114.6)	(113.3)	5.1	5.6	(48.5)	(17.9)	(21.5)
Finance, Insurance and Real Estate	2,254.3	2,350.8	2,371.9	4,369.8	4,007.5	4,330.8	96.6	21.1	1,997.9	(362.2)	323.2	4.3	0.9	84.2	(8.3)	8.1
Electricity and Water	2,555.2	2,638.5	1,045.0	1,067.8	1,030.5	651.3	83.3	(1,593.5)	22.8	(37.3)	(379.2)	3.3	(60.4)	2.2	(3.5)	(36.8)
Other	92.8	25.1	139.2	757.4	719.8	844.2	(67.7)	114.1	618.2	(37.7)	124.4	(72.9)	454.2	443.9	(5.0)	17.3
TOTAL	9,462.3	9,397.9	9,509.8	10,636.0	10,044.2	9,801.2	(64.4)	111.9	1,126.2	(591.8)	(243.1)	(0.7)	1.2	11.8	(5.6)	(2.4)
BUSINESS LOANS	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-20 Dec-21	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-20 Dec-21
Real Estate Mortgage Loans	5,551.9	6,161.4	6,841.3	7,856.5	8,347.8	8,810.2	609.5	679.9	1,015.2	491.3	462.4	11.0	11.0	14.8	6.3	5.5
Finance, Insurance and Real Estate Companies	7,073.7	8,514.9	9,206.3	8,240.5	8,358.2	8,228.9	1,441.2	691.4	(965.7)	117.6	(129.2)	20.4	8.1	(10.5)	1.4	(1.5)
Services	6,937.6	7,447.0	8,148.3	9,270.8	8,464.5	8,919.9	509.3	701.3	1,122.5	(806.3)	455.4	7.3	9.4	13.8	(8.7)	5.4
Manufacturing	4,328.2	4,044.3	3,601.9	3,933.8	3,949.0	3,829.6	(283.9)	(442.5)	332.0	15.1	(119.4)	(6.6)	(10.9)	9.2	0.4	(3.0)
Construction	2,475.3	1,715.4	1,449.9	1,566.2	1,684.5	1,840.4	(760.0)	(265.4)	116.3	118.3	156.0	(30.7)	(15.5)	8.0	7.5	9.3
Other (Agriculture, Petroleum, Leasing)	1,431.3	1,186.0	1,155.6	1,137.7	1,168.8	1,391.9	(245.3)	(30.4)	(17.9)	31.0	223.1	(17.1)	(2.6)	(1.5)	2.7	19.1
TOTAL	27,798.0	29,069.0	30,403.2	32,005.6	31,972.6	33,021.0	1,270.9	1,334.3	1,602.4	(33.0)	1,048.4	4.6	4.6	5.3	(0.1)	3.3
CONSUMER LOANS BY PURPOSE	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-20 Dec-21	Dec-16 Dec-17	Dec-17 Dec-18	Dec-18 Dec-19	Dec-19 Dec-20	Dec-20 Dec-21
Real Estate including Mortgages	15,777.9	16,642.3	17,321.5	19,016.7	19,336.4	19,779.6	864.4	679.1	1,695.2	319.7	443.2	5.5	4.1	9.8	1.7	2.3
Vehicles	4,914.7	5,062.6	5,092.4	5,219.4	5,187.9	4,683.7	147.9	29.8	126.9	(31.5)	(504.2)	3.0	0.6	2.5	-0.6	-9.7
Credit Cards	2,720.2	2,886.1	3,105.3	3,224.8	3,143.2	2,903.6	165.9	219.2	119.5	(81.6)	(239.6)	6.1	7.6	3.8	-2.5	-7.6
Refinancing	1,937.8	2,140.3	2,384.0	2,601.6	2,776.2	3,270.5	202.4	243.8	217.6	174.6	494.3	10.4	11.4	9.1	6.7	17.8
Consolidation of Debt	1,844.2	2,139.1	2,532.4	2,877.7	2,961.6	2,865.9	295.0	393.2	345.3	83.9	(95.7)	16.0	18.4	13.6	2.9	-3.2
Other Purposes	3,442.0	3,551.3	3,777.8	4,152.3	3,850.2	3,758.0	109.3	226.6	374.5	(302.1)	(92.2)	3.2	6.4	9.9	-7.3	-2.4
TOTAL	30,636.8	32,421.7	34,213.5	37,092.5	37,255.5	37,261.2	1,784.9	1,791.7	2,879.1	163.0	5.7	5.8	5.5	8.4	0.4	0.0

Source: Central Bank of Trinidad and Tobago

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



CENTRAL BANK OF
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