



CENTRAL BANK OF
TRINIDAD & TOBAGO

Financial

STABILITY REPORT

2015

Central Bank of Trinidad and Tobago
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Republic of Trinidad and Tobago
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LIST OF ABBREVIATIONS

| Abbreviation | Name |
|--------------|---|
| AML/CFT | Anti-Money Laundering and Combatting the Financing of Terrorism |
| ATI | All Trinidad and Tobago Index |
| BIS | Bank for International Settlement |
| CAR | Capital Adequacy Ratio |
| CBRs | Correspondent Banking Relationships |
| CFATF | Caribbean Financial Action Task Force |
| CGBS | Caribbean Group of Banking Supervisors |
| CLI | Cross Listed Index |
| CLICO | Colonial Life Insurance Company (Trinidad) Limited |
| CPC | Chief Parliamentary Counsel |
| CPI | Composite Price Index |
| DIC | Deposit Insurance Corporation |
| DTI | Debt-to-Income |
| EMEs | Emerging Market Economies |
| FATCA | Foreign Account Tax Compliance Act |
| FATF | Financial Action Task Force |
| FCA | Financial Conduct Authority |
| FDI | Foreign Direct Investment |
| FIA | Financial Institutions Act |
| FIU | Financial Intelligence Unit |
| FSIs | Financial Stability Indicators |
| FSR | Financial Stability Report |
| FY | Fiscal Year |
| GDP | Gross Domestic Product |
| HSF | Heritage and Stabilization Fund |
| IA | Insurance Act |
| IGA | Intergovernmental Agreement |
| IMF | International Monetary Fund |
| IPO | Initial Public Offering |
| LTV | Loan-to-Value |
| MMRR | Mortgage Market Reference Rate |
| MOF | Ministry of Finance |
| MVAF | Motor Vehicle Accident Fund |
| NPLs | Non-performing Loans |
| NPS | National Payments System |
| PFMIs | Principles for Financial Market Infrastructures |
| PPD | Policy Proposal Document |
| ROA | Return on Assets |
| ROE | Return on Equity |
| SIFIs | Systemically Important Financial Institutions |
| SLC | Survey of Living Conditions |
| TTNGL | Trinidad and Tobago National Gas Limited |
| TTSEC | Trinidad and Tobago Securities and Exchange Commission |
| TWG | Technical Working Group |
| US | United States |
| VAT | Value Added Tax |
| WEO | World Economic Outlook |
| WTI | West Texas Intermediate |

PREFACE

The financial stability objective of the Central Bank of Trinidad and Tobago (Central Bank) is to maintain confidence in, and promote the safety and soundness of, the domestic financial system. Financial stability has been defined as the resilience of the financial system in the face of adverse shocks so as to enable the continued smooth functioning of the financial intermediation process. Effective financial intermediation, which involves the ability of households and businesses to channel savings into productive investments with confidence, is essential for sustained economic growth and the welfare of Trinidad & Tobago.

The Financial Stability Report (FSR) reviews the performance of the financial sector, examines latest developments and discusses stability issues on the domestic, regional and international front. The inaugural edition was published in September 2008 and the FSR is now produced annually.

Chapter 1 of the Report presents financial soundness indicators and reviews the performance and resilience of the domestic financial services industry.

Chapter 2 provides an overview of global, regional and domestic macro-financial conditions. It also provides insight into domestic financial system vulnerabilities and risks to the stability of the financial system.

Chapter 3 highlights the efforts of the Central Bank on legislative, regulatory and supervisory initiatives, including developments in AML/CFT and regional supervisory collaboration.

Appendix A summarizes preliminary work on household debt. This investigation utilises currently captured forms of household debt data to highlight the vulnerabilities in the domestic financial system. It also introduces the Central Bank's ongoing initiative to strengthen its understanding of risks posed by indebtedness of the household sector.

FINANCIAL STABILITY REPORT

2015

EXECUTIVE SUMMARY

Overview of Global, Regional and Domestic Macroeconomic Conditions

The legacy of the global financial crisis of 2008/9 remains starkly evident. While financial conditions improved in advanced economies in 2015, most notably in the United States, the recent April 2016 IMF Global Financial Stability Report points to deteriorating conditions in these economies because of growth disappointments and broader confidence issues. Relatedly, global financial risks are warming on account of deepening vulnerabilities in Emerging Market Economies (EMEs).

Financial stability conditions in the Caribbean have been improving, but challenges remain. According to the inaugural Caribbean Regional Financial Stability Report (2015)¹, financial stability risks have receded from the levels observed at the height of the global financial crisis. However, public sector debt continues to rise, regional financial interconnectedness is growing and recovery and bank resolution is still in progress in a few territories. Like most energy exporting economies, Trinidad and Tobago's weak economic performance in 2015 and early 2016 has stemmed from the precipitous decline in energy commodity prices coupled with lower production levels. Central government fiscal operations have been adversely affected, while the trade balance and the terms of trade have also worsened. Labour market conditions have deteriorated, but job losses to date have mostly been concentrated in energy and energy related industries².

Performance and Resilience of the Domestic Financial Services Industry

Thus far, challenges within the domestic macroeconomic environment stemming from the fall in energy prices have not translated into a material decline in any of the key financial soundness indicators (FSIs) of the banking and insurance sectors (**Tables 1 to 3**). Based on the banking

sector's FSIs (**Table 1**), credit, market and liquidity risks appear contained. The banking system continued to be well capitalized with a regulatory capital-to-risk weighted assets ratio of over 20 per cent, significantly above the 8 per cent statutory minimum. Profitability was healthy in 2015, with return on assets of 2.9 per cent and return on equity of 18.1 per cent, up from 2.1 per cent and 13.5 per cent, respectively, a year earlier.

Asset quality as measured by non-performing loans to gross loans steadily improved, having fallen from 6.2 per cent at the end of 2011 to 3.7 per cent at the end of 2015.

Upon application of stress tests for interest rate, foreign exchange, credit, property price and liquidity shocks, capital adequacy ratios (CARs) continued to be above the 8 per cent statutory benchmark (**Appendix B**). This is indicative of a resilient banking system which is capable of absorbing potential losses in the event of financial instability.

Going forward, the Central Bank will continue to refine the stress tests to ensure they are relevant, reliable and capture the plausible risks facing the banking sector. It should be noted that the banking system's direct exposure to the energy sector is minimal and does not pose a significant threat to financial stability at this time. This notwithstanding, it is expected that reverberations from the overall economic contraction may translate into a slowdown in credit expansion in the short run. Household indebtedness remains a key vulnerability and the impact of sustained low energy prices on household income warrants continued monitoring.

The FSIs (**Tables 2 and 3**) also point to the resilience of the life and non-life insurance sectors. In the life insurance sector, the ratio of capital to total assets has exceeded 20 per cent over the past five years. The low interest rate environment adversely impacted life insurers as actuarial liabilities increased. As a consequence, the return on

1 See http://www.ccmf-uwj.org/files/publications/crfsr/crfsr_2015.pdf.

2 See March 2016 Economic Bulletin and May 2016 Monetary Policy Report for fuller discourse on macroeconomic conditions and outlook.

equity for the life insurance sector fell from 15.1 per cent in 2013 to 10.6 per cent in 2014, although there was some uptick to 11.2 per cent in 2015.

Non-life insurers were similarly impacted by the low interest environment. Investment income as a percentage of net premium income declined from 8.8 per cent in 2011 to 5.8 per cent 2015. Profitability as measured by return on assets and return on equity has been volatile over the past five years. However this is not unexpected given the nature of short term general insurance business.

Consequently, although the insurance and pensions industries have been impacted by low investment returns, they generally appear to be stable.

Domestic Financial System Vulnerabilities and Risks to the Stability of the Financial System

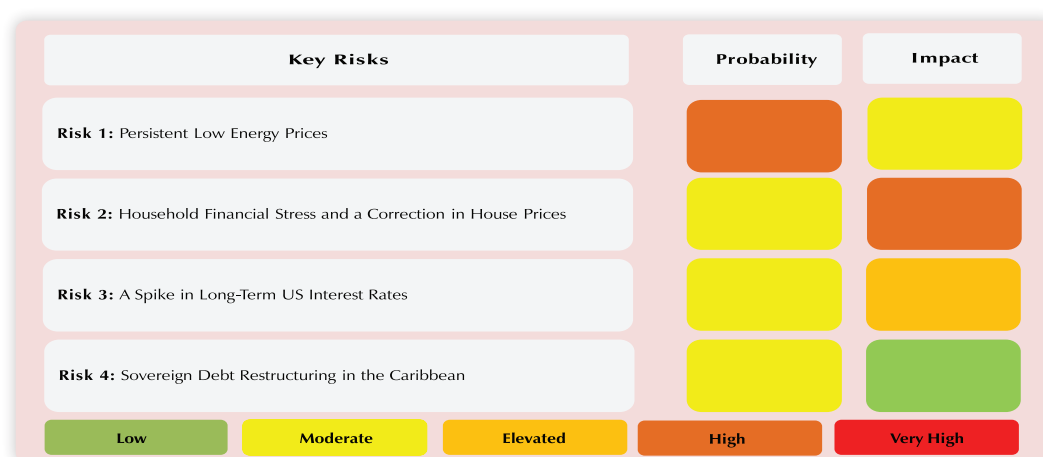
Vulnerabilities in the current economic environment include elevated consumer indebtedness, the potential for

rising interest rates and unemployment rates, sovereign concentrations and exposure to real estate. Potential triggers that could convert these vulnerabilities into risks to the stability of the financial system are (1) persistent low energy prices; (2) household financial stress that would reduce households' ability to service their mortgages; (3) an unexpected sharp rise in US interest rates that could impact foreign exchange demand and also spill over to the cost of domestic financing; and (4) sovereign debt restructuring in the Caribbean.

Certain of these vulnerabilities are edging higher. However vulnerabilities that may appear worrisome need to be assessed against the resilience of financial institutions and the financial system.

The Central Bank's current view of these risks to financial stability in Trinidad is summarized in the following Heat Map:

Figure 1
Heat Map



Source: Central Bank of Trinidad and Tobago.

Legislative, Regulatory and Supervisory Reform

In the aftermath of the crisis the G20 launched a comprehensive programme of international financial reforms to increase the resilience of the financial system, while preserving its open and integrated structure. Such reforms focused on four key areas pertaining to: (i) building

resilient financial institutions, (ii) ending “too big to fail,” (iii) making derivatives markets safer and (iv) transforming shadow banking into resilient market-based finance.

The Financial Stability Board (FSB)³ has advised that Emerging Market and Developing Economies (EMDEs) like Trinidad and Tobago should continue to make ap-

3 The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system. The FSB was established in April 2009 as the successor to the Financial Stability Forum (FSF). The FSF was founded in 1999 by G7 Finance Ministers and Central Bank Governors.

appropriate use of the existing flexibility within international standards to enable them to implement the agreed reforms in a way that is appropriate to their domestic circumstances and in line with their international commitments. This is the approach Trinidad and Tobago has taken, recognizing the need to improve the resilience of the financial sector and modernize the supervisory framework, even while maintaining the overall provision of credit to the economy and facilitating monetary policy.

Trinidad and Tobago is at various stages of progress in developing and implementing reforms to its financial sector regulation. The Central Bank continued its work on two important pieces of legislation pertaining to the Insurance and Credit Union sectors. However there have been some delays in these areas.

Insurance Bill

There is an urgent need to revise the legislation governing the Insurance sector since the current Insurance Act is fundamentally unchanged from the 1966 Act and does not provide an effective regulatory framework to treat with the risks posed by insurance business. For instance the existing Insurance Act does not inter alia:

- require insurance companies to hold capital commensurate with their risk profile;
- reflect corporate governance best practices;
- treat with consolidated supervision; or
- address oversight of financial groups.

The Insurance Bill is intended to improve regulatory oversight of insurance companies through the strengthening of prudential requirements, corporate governance practices and market conduct standards. Key provisions will significantly improve the safety, soundness and resilience of insurers by:

- increasing minimum capital requirements;
- introducing risk based capital;
- introducing a consistent, minimum basis for the valuation of liabilities;
- introducing a stress testing regime (Financial Condition Report); and
- introducing more prudent limits for credit exposures to connected parties.

The Bill has been included on the short term legislative agenda of the Government.

Foreign Account Tax Compliance Act (FATCA)

As of November 30, 2014 Trinidad and Tobago reached an agreement in substance with the IRS on a Model 1 Intergovernmental Agreement (IGA). The Ministry of Finance is identified in the IGA as the Competent Authority and the Board of Inland Revenue (BIR) is expected to carry out the implementation of FATCA requirements.

The signing of the IGA is dependent on the conclusion of negotiations on certain matters including amending certain laws such as the FIA and IA to facilitate, for example, the sharing and transfer of confidential consumer information from financial institutions to the IRS. September 30, 2016 is the deadline for the transmission of data by the BIR to the IRS.

Developments in AML/CFT

Recent efforts have been made to strengthen the financial sector's compliance with international standards for AML/CFT and Payment Systems. In this regard, the 2015 CFATF 4th Round Mutual Evaluation has acknowledged that Trinidad and Tobago has established a relatively sound legal framework for AML/CFT, although deficiencies remain with the effectiveness of the AML/CFT regime. On the payment systems front, new international principles for assessing risk management for financial market infrastructures were formally adopted by the Central Bank in 2014 and rolled out to all operators in 2015.

Other Regional Initiatives

Given the rising interconnectedness of regional financial entities, the Central Bank continued to collaborate with regional regulators to strengthen the supervisory framework governing regional cross-border financial groups. Three key ongoing initiatives are:

- (i) Consolidated Supervisory Framework for Cross-Border Financial Groups;
- (ii) Loan Classification and Provisioning Harmonisation Project; and
- (iii) Regional and National Financial Crisis Management Plans.

CHAPTER 1

REVIEW OF PERFORMANCE OF THE DOMESTIC FINANCIAL SYSTEM IN 2015

CHAPTER 1

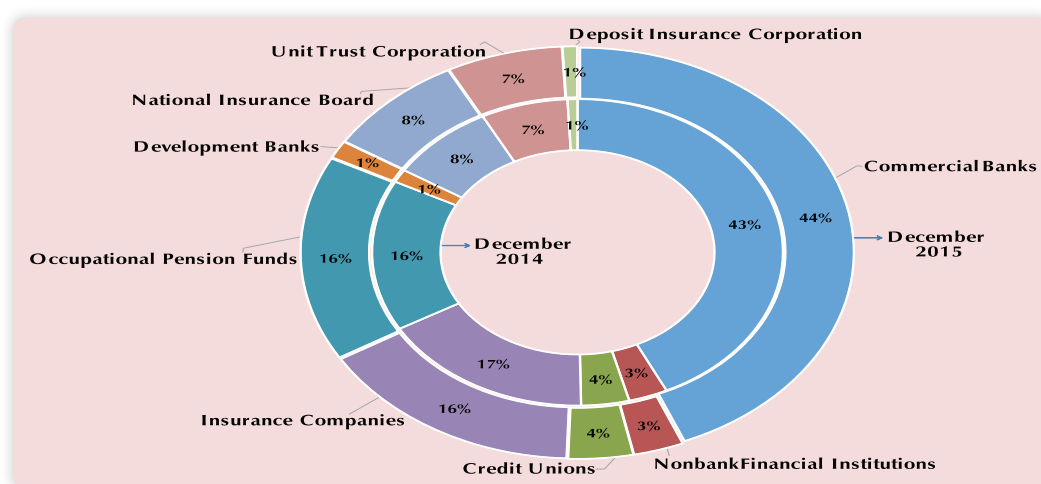
REVIEW OF PERFORMANCE OF THE DOMESTIC FINANCIAL SYSTEM IN 2015⁴

Structure

In 2015, Trinidad and Tobago's financial system contributed 13 per cent of GDP compared to 11 per cent in 2014. Commercial banks still dominate the financial

system, contributing 44 per cent of total financial system assets⁵ (Figure 2).

Figure 2
Composition of Assets in the Financial Sector
2014 – 2015



Source: Central Bank of Trinidad and Tobago.

Financial Soundness Indicators

Challenges within the domestic macroeconomic environment stemming from the fall in energy prices did not translate into any material decline in the key financial soundness indicators of the banking and insurance sectors (Tables 1 to 3).

Based on the banking system's⁶ FSIs (Table 1), credit, market and liquidity risks appear contained. The banking system continued to be well capitalized with a regulatory capital-to-risk weighted assets ratio of over 20 per cent,

significantly above the 8 per cent statutory minimum. Buoyed by strong profits in the banking sector in 2015, Tier I capital increased from 24.3 per cent at the end of 2014 to 25.1 per cent at the end of 2015. Asset quality, as measured by nonperforming loans to gross loans, steadily improved, having reduced from 6.2 per cent at the end of 2011 to 3.7 per cent at the end of 2015. Measures of prudent provisioning have also improved as the ratio of provisions to impaired loans grew from 36.7 per cent at the end of 2011 to 54.3 per cent at the end of 2015. Profitability was healthy in 2015, with return on assets of 2.9 per cent and return on equity of 18.1 per cent.

⁴ Primary data sources - Unaudited CB20 (Balance Sheet), CB30 (Loans by Sector) and CB40 (Income Statement) returns filed by Financial Institutions.

⁵ Excluding assets held by the Central Bank.

⁶ The banking system refers to commercial banks and non-bank financial institutions (NFIs) collectively.

Upon application of stress tests for interest rate, foreign exchange, credit, property price and liquidity shocks, CARs continued to be above the 8 per cent statutory benchmark (**Appendix B**). This is indicative of a resilient banking system which is capable of absorbing potential losses in the event of financial instability. Tier 1 capital, which is the core measure of the banking system's capitalization, also remained robust and in excess of the minimum requirement. Going forward, the Central Bank will continue to refine the stress tests to ensure they are relevant, reliable and capture the plausible risks facing the banking sector. It should be noted that the banking system's direct exposure to the energy sector is minimal and does not pose a significant threat to financial stability at this time. This notwithstanding, it is expected that reverberations from the overall economic contraction may translate into a slowdown in credit expansion in the short run. Household indebtedness remains a key vulnerability and the impact of sustained low energy prices on household income warrants continued monitoring.

The FSIs (**Tables 2 and 3**) also point to stability within the life and non-life insurance sectors. In the life insurance sector, the ratio of capital to total assets has exceeded 20 per cent over the past five years. The impact of the low interest rate environment on life insurers is recognized through balance sheet increases in actuarial liabilities. Such increases adversely impacted profitability in 2014; return on equity fell by one third from 15 percent in 2013 to 10 percent in 2014. However profitability improved in 2015, with return on equity increasing to 11.2 per cent from 10.6 per cent in 2014.

Non-life insurers were similarly impacted by the low interest environment. Investment income as a percentage of net premium reduced from 8.8 percent in 2011 to 5.8 percent 2015. Profitability as measured by return on assets and return on equity has been volatile over the past five years. However, this is not unexpected given the nature of short term general insurance business.

Table 1
Banking System: Financial Soundness Indicators, 2011 – 2015
(Per cent)

| | Dec-11 | Dec-12 | Dec-13 | Dec-14 | Dec-15 |
|---|--------|--------|--------|--------|--------|
| Capital adequacy | | | | | |
| Regulatory capital to risk-weighted assets | 26.0 | 25.7 | 25.0 | 24.6 | 24.1 |
| Regulatory Tier I capital to risk-weighted assets | 24.3 | 24.3 | 23.7 | 24.3 | 25.1 |
| Regulatory capital-to-total assets | 13.5 | 13.3 | 13.3 | 12.5 | 12.6 |
| Net Open position in foreign exchange-to-capital | 10.4 | 10.7 | 13.9 | 6.6 | 9.3 |
| Banking sector asset composition | | | | | |
| Sectoral distribution of loans-to-total loans | | | | | |
| Households | 41.5 | 43.1 | 45.0 | 44.2 | 44.0 |
| <i>Of which:</i> | | | | | |
| <i>Proportion secured as mortgage loans</i> | 38.5 | 41.0 | 41.0 | 41.5 | 41.5 |
| Financial sector | 17.3 | 16.1 | 13.5 | 15.1 | 13.1 |
| Oil and gas sector | 2.6 | 2.9 | 2.9 | 2.8 | 2.6 |
| Construction | 10.7 | 9.1 | 8.0 | 9.8 | 9.5 |
| Transport and communication | 2.2 | 3.3 | 4.1 | 2.9 | 3.2 |
| Non-residents | 5.3 | 5.4 | 4.4 | 4.0 | 2.6 |
| Foreign currency loans-to-total loans | 17.8 | 18.8 | 16.9 | 16.6 | 15.2 |
| Banking sector asset quality | | | | | |
| Non-performing loans-to-gross loans | 6.2 | 5.5 | 4.3 | 4.4 | 3.7 |
| Non-performing loans (net of provisions)-to-capital | 11.9 | 8.5 | 7.0 | 7.3 | 6.3 |
| Total provisions-to-impaired loans | 36.7 | 49.9 | 49.9 | 53.0 | 54.3 |
| Specific provisions-to-impaired loans | 29.5 | 39.9 | 37.4 | 42.3 | 42.1 |
| General provisions-to-gross loans | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 |
| Specific provisions-to-gross loans | 1.8 | 2.2 | 1.6 | 1.9 | 1.6 |
| Banking sector earnings and profitability | | | | | |
| Return on assets | 2.8 | 3.0 | 2.5 | 2.1 | 2.9 |
| Return on equity | 17.5 | 18.3 | 15.8 | 13.5 | 18.1 |
| Interest margin-to-gross income | 61.0 | 60.6 | 58.9 | 56.3 | 57.6 |
| Non-Interest income-to-gross income | 39.0 | 39.4 | 41.1 | 43.7 | 42.4 |
| Non-interest expenses-to-gross income | 58.0 | 61.4 | 62.3 | 67.3 | 61.9 |
| Banking sector liquidity | | | | | |
| Liquid assets-to-total assets | 26.7 | 24.7 | 26.8 | 25.0 | 23.1 |
| Liquid assets-to-total short-term liabilities | 37.3 | 33.1 | 35.7 | 32.5 | 30.6 |
| Customer deposits-to-total (non-interbank) loans | 163.8 | 176.9 | 178.3 | 174.3 | 159.8 |
| Foreign currency liabilities-to-total liabilities | 27.9 | 28.6 | 26.0 | 23.8 | 25.4 |

Source: Central Bank of Trinidad and Tobago.

Note: The banking system refers to commercial banks and non-bank financial institutions (NFIs) collectively. All figures are weighted by assets and relate to the end of period except for Banking Sector Earnings and Profitability.

Table 2
Life Insurance Companies: Financial Soundness Indicators, 2011 - 2015
(Per cent)

| | Dec-11 | Dec-12 | Dec-13 | Dec-14 | Dec-15 |
|--|--------|--------|--------|--------|--------|
| Capital Adequacy | | | | | |
| Capital to total assets | 22.1 | 22.0 | 21.2 | 21.3 | 20.7 |
| Capital / technical reserves | 30.5 | 30.1 | 28.6 | 29.5 | 28.5 |
| Asset Quality | | | | | |
| (Real estate + unquoted equities + debtors) / total assets | 13.5 | 9.3 | 10.5 | 7.4 | 7.8 |
| Earnings and Profitability | | | | | |
| Expense ratio = expense (incl. commissions) / net premium | 38.6 | 37.8 | 35.1 | 33.6 | 33.1 |
| Investment yield = Investment income to investment assets | 5.7 | 5.4 | 5.1 | 4.8 | 4.5 |
| Return on Equity (ROE) = Pre-tax profits to shareholders funds | 10.3 | 14.1 | 15.1 | 10.6 | 11.2 |
| Liquidity | | | | | |
| Liquid assets to current liabilities | 33.5 | 33.6 | 32.6 | 34.2 | 37.7 |

Source: Central Bank of Trinidad and Tobago.

Note: Figures exclude data from CLICO and British American Insurance Company (Trinidad) Limited.

Table 3
Non-Life Insurance Companies: Financial Soundness Indicators, 2011 – 2015
(Per cent)

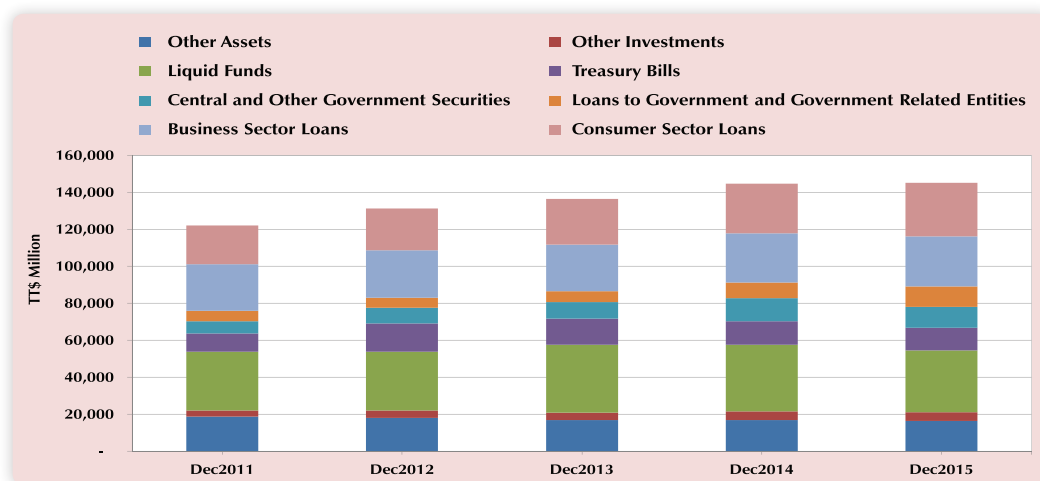
| | Dec-11 | Dec-12 | Dec-13 | Dec-14 | Dec-15 |
|---|--------|--------|--------|--------|--------|
| Asset Quality | | | | | |
| (Real estate + unquoted equities + accounts receivables) / total assets | 16.2 | 14.0 | 13.5 | 13.8 | 16.5 |
| Debtors / (gross premiums + reinsurance recoveries) | 11.6 | 11.2 | 11.2 | 11.0 | 14.1 |
| Reinsurance and Actuarial Issues | | | | | |
| Risk Retention Ratio = Net premiums written/ total gross premiums | 44.4 | 42.6 | 43.0 | 42.5 | 43.0 |
| Net technical reserves/average of net claims paid in the last three years | 154.8 | 164.1 | 168.3 | 171.1 | 176.3 |
| Earnings and Profitability | | | | | |
| Combined Ratio | 100.2 | 97.1 | 96.4 | 95.7 | 101.0 |
| Expense ratio = expense (incl. commissions) / net premiums | 49.8 | 49.5 | 51.1 | 51.4 | 52.3 |
| Loss ratio = net claims/net earned premiums | 50.3 | 47.6 | 45.3 | 44.3 | 48.7 |
| Investment income/net premium | 8.8 | 8.2 | 10.3 | 5.8 | 5.8 |
| Return on Equity (ROE) = Pre-tax profits to shareholders funds | 15.5 | 17.5 | 20.0 | 14.2 | 10.0 |
| Return on assets (ROA) | 6.4 | 7.6 | 8.9 | 6.4 | 4.7 |
| Liquidity | | | | | |
| Liquid assets to current liabilities | 42.9 | 56.5 | 60.5 | 61.2 | 58.8 |

Source: Central Bank of Trinidad and Tobago.

Note: Figures exclude data from CLICO and British American Insurance Company (Trinidad) Limited.

Banking Sector

Figure 3
Asset Composition
TT\$ Million



Source: Central Bank of Trinidad and Tobago.

Assets

The combined balance sheet of the banking sector showed little growth in 2015 (\$531.9 million or 0.4 per cent). Total assets of the sector at the end of 2015 amounted to \$145.3 billion (**Figure 3**).

There has been no significant shift in the overall asset composition since 2012 except loans to government and government related entities increased from 4.3 per cent of assets in 2012 to 7.6 per cent of assets at the end of 2015. Total loans to, and investments in government and government-related entities (including treasury bills) stood at \$34.5 billion or 23.7 per cent of commercial banks' balance sheets up from \$29.3 billion in 2012. Loans to consumers and business have remained at approximately 38 per cent of assets since 2012.

Loan to deposit ratios averaged 80 percent between 2000 and 2008 and 70 per cent between 2009 and 2011. There was a further decline between 2012 and 2015 with loan to deposit ratios averaging 60 per cent during that period. With expansion in loan portfolios, this trend has begun to reverse as the loans to deposit ratio (L/D ratio)

increased from 58.9 percent as at December 31, 2014 to 64.0 per cent as at December 31, 2015.

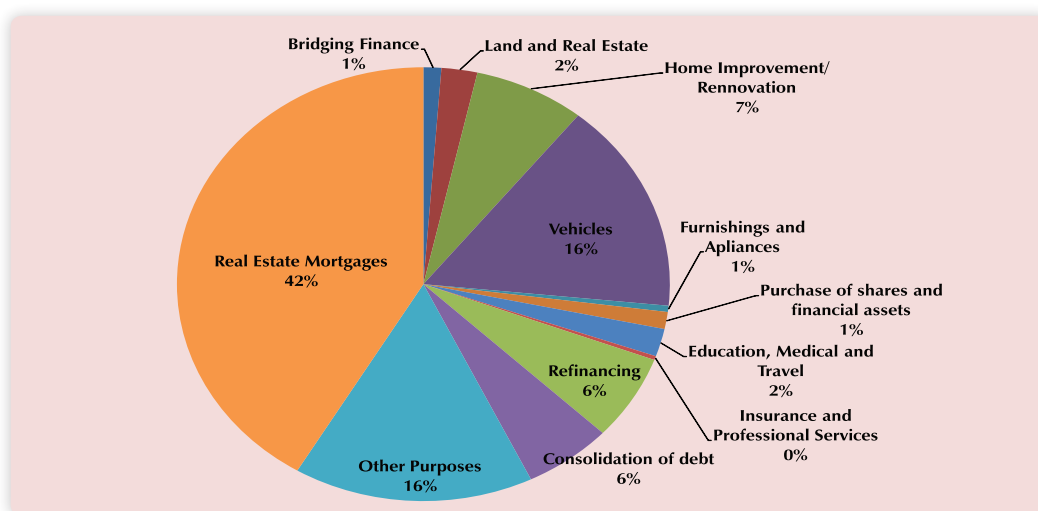
Consumer and Business Sector Loans

The results of the current Business Confidence Survey⁷, pointed to the perception of a worsening outlook. Not unsurprisingly therefore, the growth in business sector loans in 2015, at \$384.3 million (1.4 per cent) was markedly slower than growth in 2014 of \$1.5 billion (6.1 per cent). Moderate growth was recorded in loans to the petroleum, manufacturing and construction sectors and real estate mortgage loans to businesses continued to increase. However, these gains were offset by declines in loans to the services sector, particularly within the finance, insurance and real estate category.

Consumer loan growth, particularly for the purchase of motor vehicle and for real estate mortgages, remained strong. Overall, loan growth in the consumer sector averaged \$2.7 billion per year over the past three years. There are, however, some signs that the volume of loans extended for real estate mortgages has begun to slow.

⁷ The Business Confidence Report is produced from the Business Confidence Survey conducted by the Central Bank <http://www.central-bank.org.tt/content/quarterly-publications>.

Figure 4
Consumer Loans By Purpose: December 2015

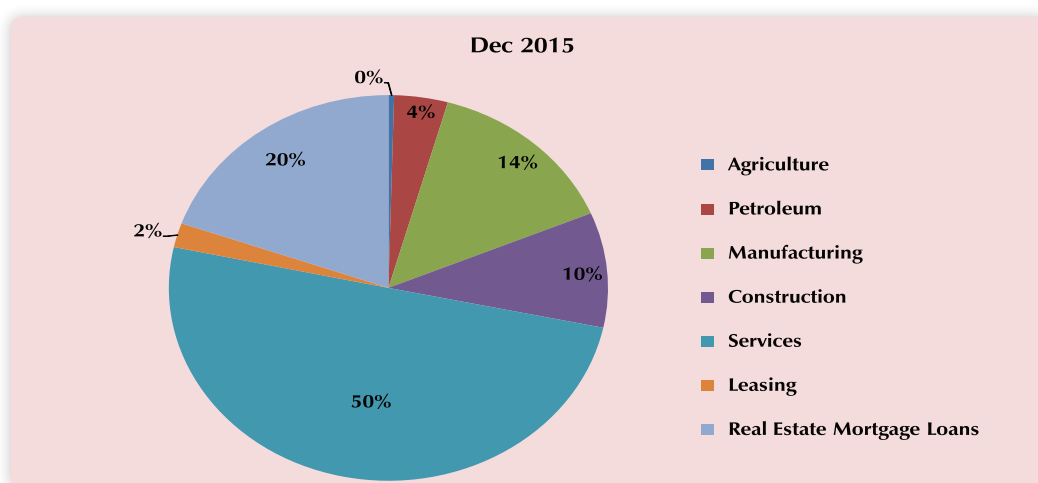


Source: Central Bank of Trinidad and Tobago.

Residential real estate mortgages continued to represent banks' largest exposure to the consumer sector and accounted for 18 per cent (\$12.0 billion) of gross loans, and 42 per cent of consumer loans (**Figure 4**).

Loans to entities in the 'services' sector and real estate mortgage loans continued to account for the majority of the business loans (**Figure 5**). Under the 'services' sector, distribution and finance, insurance and real estate companies made up approximately 77 per cent of the total.

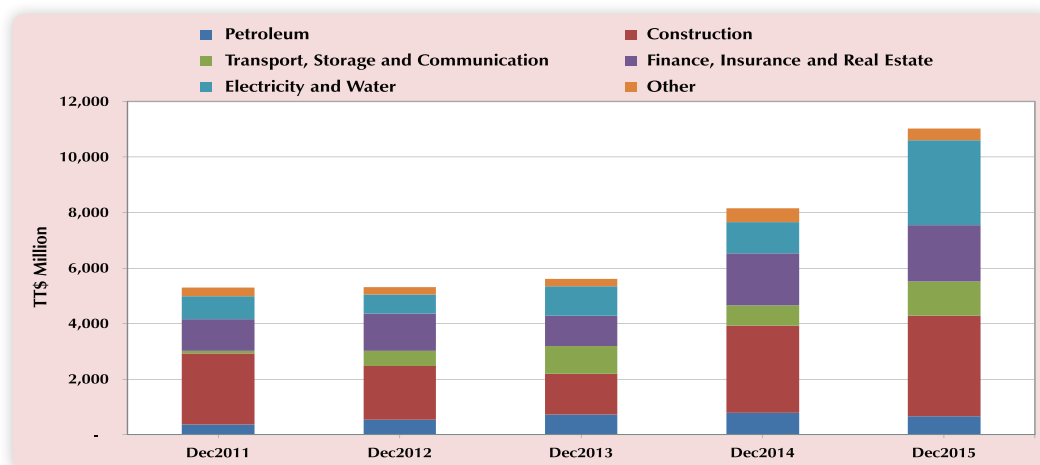
Figure 5
Business Loans By Activity: December 2015



Source: Central Bank of Trinidad and Tobago.

Loans to Government and Government Related Entities

Figure 6
Loans to Government and Government Related Entities By Activity
 TT\$ Million



Source: Central Bank of Trinidad and Tobago.

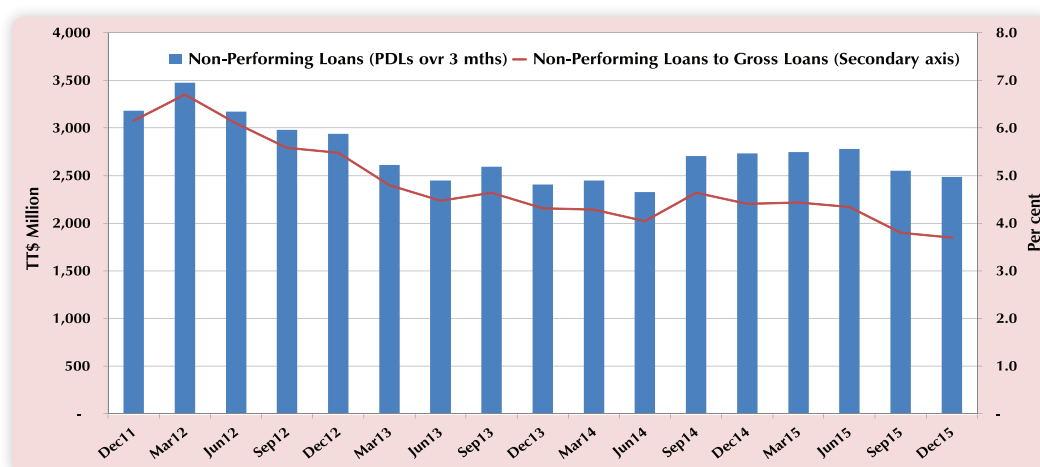
At the end of 2015, loans to government and government related entities accounted for 16.5 per cent of gross loans and were mainly in the areas of construction, electricity and water, and finance, insurance and real estate (**Figure 6**).

Asset Quality

The ratio of non-performing loans to gross loans totaled 3.7 per cent as at December 2015 (**Figure 7**). This ratio has shown steady improvement from a high of 7.2 per cent in September 2011.

The banks have reported no major spike in credit card delinquency over the past couple of months. Early delinquency is being monitored closely in order to determine whether there are any emerging issues. Banks are also monitoring what they consider to be their more vulnerable accounts, namely facilities extended to persons employed in the energy sector and related industries. The Central Bank is engaging with banks with a focus on monitoring and assessing the credit quality of loan portfolios.

Figure 7
Non-Performing Loans⁸ (NPLs)
 TT\$ Million

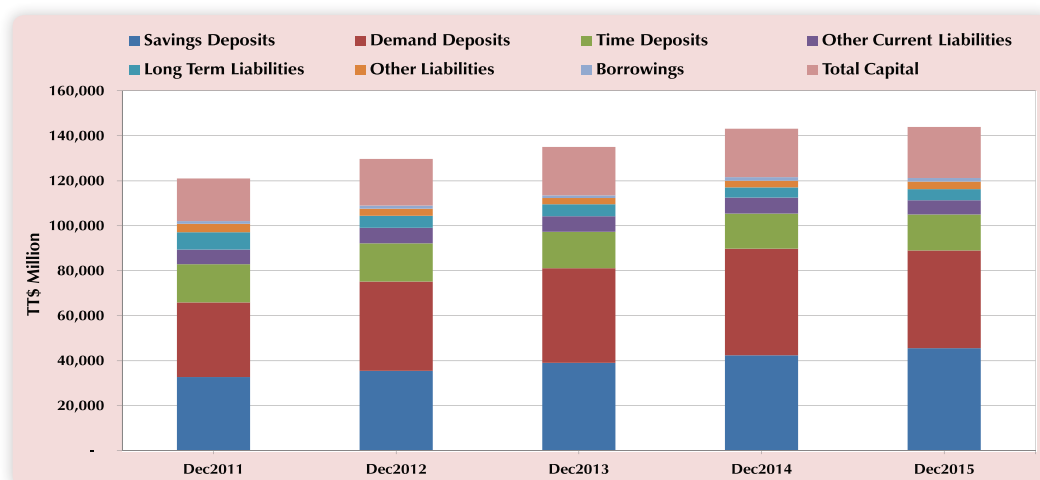


Source: Central Bank of Trinidad and Tobago.

⁸ Loans where payments are outstanding (PDL/past due loans) over three months.

Deposits

Figure 8
Deposit and Other Liabilities and Capital
TT\$ Million



Source: Central Bank of Trinidad and Tobago.

The banking sector's deposit base stood at \$105.0 billion as at December 31, 2015, marginally lower than the amount recorded in December 2014 (**Figure 8**).

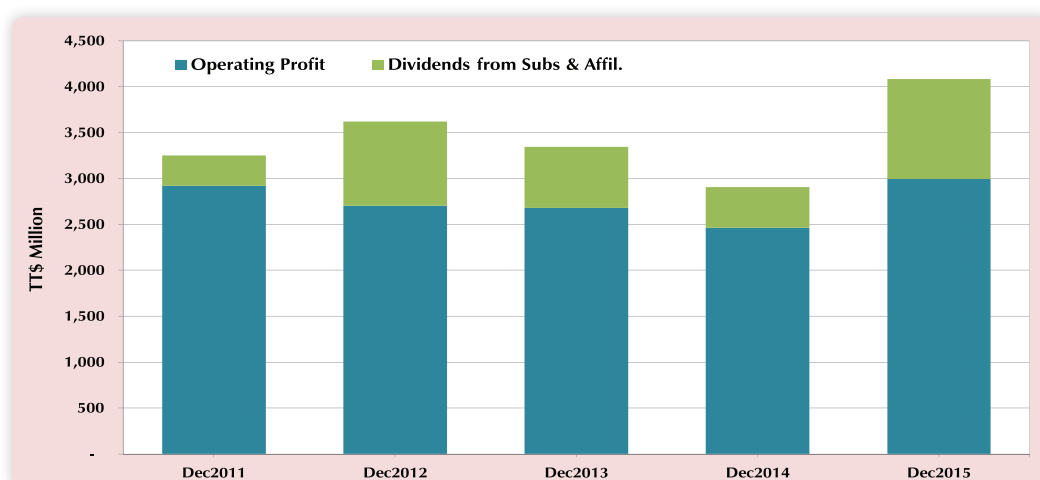
During the last quarter of 2015, there was a 1.3 per cent or \$1.3 billion expansion of the deposit portfolio, mainly from the government sector. Consumer deposits also increased, though marginally.

Foreign currency deposits as a percentage of total deposits continued to hover around 25 per cent.

The banking sector recorded profit before tax of \$4.1 billion for the four quarters ending December 31, 2015 (**Figure 9**). Return on equity (ROE) increased from 13.5 per cent in 2014 to 18.1 per cent in 2015. Return on assets (ROA) increased from 2.1 per cent to 2.9 per cent. The increase was driven by:

- increases in dividends received from subsidiaries and affiliates;
- an increase in foreign exchange profits;
- an increase in income from spreads;
- reduced operating expenses; and
- an increase in fee income.

Figure 9
Profits Before Taxes
TT\$ Million



Source: Central Bank of Trinidad and Tobago.

The commercial banks have diversified their sources of profit away from core income from spreads. Income from spreads (i.e. interest income less interest expense) is approximately 50 per cent of the total contribution to profit and expenses⁹ of the commercial banking sector (**Figure 10**). Income from spreads as a percentage of total deposits and other interest-bearing liabilities stands at 4.1 per cent.

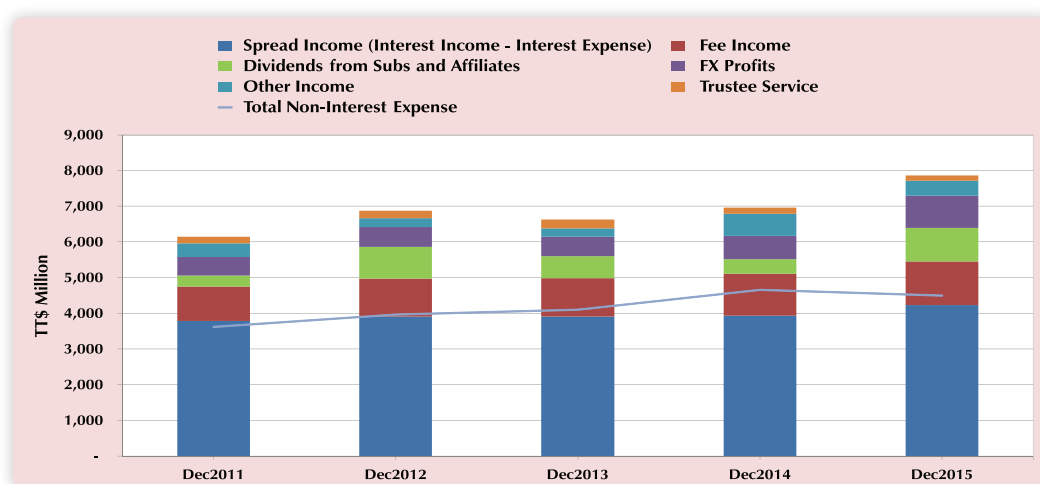
Fee income remained non-banks' main source of revenue and continued to exceed interest income in line with previous years (**Figure 11**). This is primarily due to the asset management activities of three non-banks.

The average deposit rate increased from 1.2 per cent in December 2014 to 1.8 per cent in December 2015.

For non-banks, overall expenses as a percentage of total contribution to profit and expenses have been low relative to the banking sector. This has translated into healthy profitability. It should be noted however, that many of these non-banks are subsidiaries of commercial banks and may not be allocated a proportionate share of corporate overhead expenses.

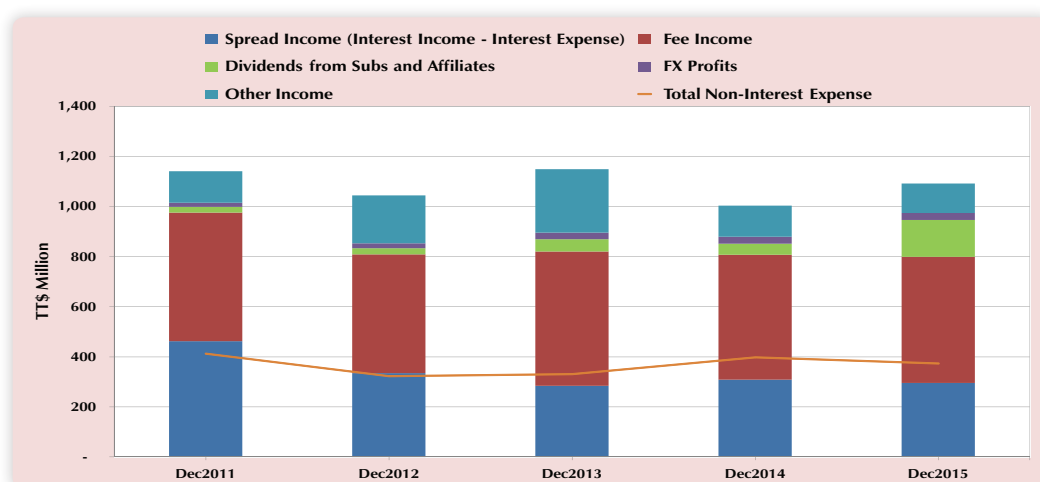
Return on assets and return on equity improved in the non-bank sector to 7.8 per cent and 17.7 per cent, respectively, relative to 6.5 per cent and 14.6 per cent last year.

Figure 10
Contribution to Profit and Expenses⁹ by Source: Commercial Banks



Source: Central Bank of Trinidad and Tobago.

Figure 11
Contribution to Profit and Expenses⁹ by Source: Non-Banks



Source: Central Bank of Trinidad and Tobago.

⁹ Contribution to profit and expenses = Before tax profits plus operating expenses minus interest expense.

Capital

All banks and non-banks reported capital adequacy ratios above the minimum of 8 per cent; most banks' capital ratios are in excess of 20 per cent. These ratios are computed based on the international Basel I standard¹⁰ which focuses on credit risk and market risk. An important project for the Central Bank is the roll-out of an updated risk-based Capital Adequacy Framework modelled on the Basel II standard, with some elements of Basel III. Under this Framework, the approach to credit risk has been refined and a bank will also be required to hold minimum capital for operational risk. The new framework improves the risk sensitivity of the banks' capital requirements - the higher the risk the more capital that will be required. This will therefore improve banks' capacity to withstand adverse events should risks crystallize. The Central Bank has launched a quantitative impact study to assess the adequacy of each bank's capital on the Basel II/III standard.

Life Insurers¹¹

The assets of life insurers totaled \$21.6 billion at the end of 2015. The sector is highly concentrated with two sys-

temically important regional market players accounting for a 58.9 per cent share of the sector's assets and a 66.3 per cent share of premium income.

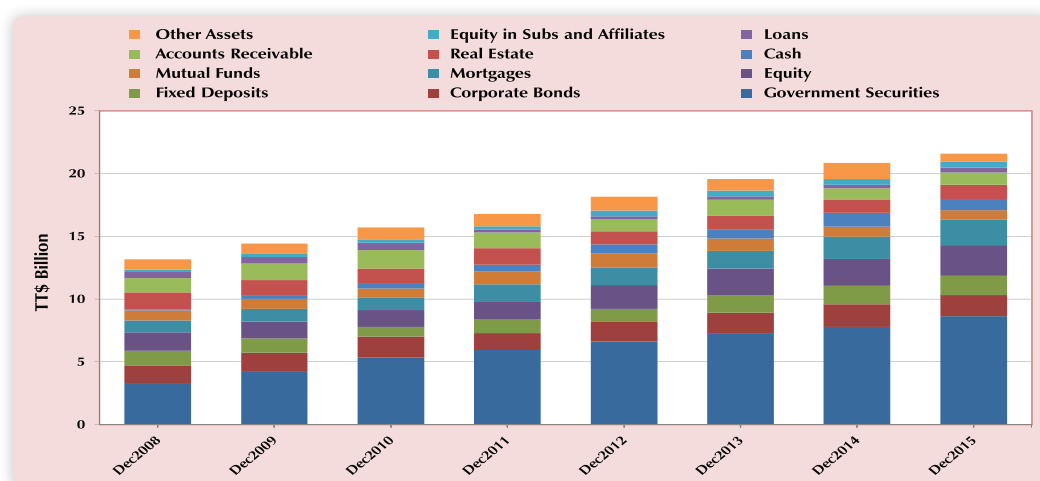
The three-year average annual growth rate in total assets is 5.9 per cent and in gross written premiums is 11.4 per cent.

Asset Composition

The asset mix has remained fairly unchanged over the last few years with a high concentration in debt securities, primarily government securities and corporate bonds (Figure 12).

Government securities continue to be the largest portion of assets, representing 40.0 per cent of total assets. The limited long term investment opportunities has resulted in increased holdings in cash and short-term fixed deposits, representing 16.7 per cent of total assets at December 2015, up from 14.6 per cent at December 2014. Insurers have continued to expand their mortgage portfolios, in some instances offering fixed rate options. Mortgages at \$2.0 billion are now the third largest asset class after government securities and equities (having surpassed corporate debt).

Figure 12
Assets: Life Insurers



Source: Central Bank of Trinidad and Tobago.

10 In 1988, the Basel Committee on Banking Supervision (BCBS) in Basel, Switzerland, published a set of recommended minimum capital requirements for banks. These were known as Basel I. One of the aims of the BCBS is to align global banking supervisory requirements.

11 Excluding CLICO and BAT.

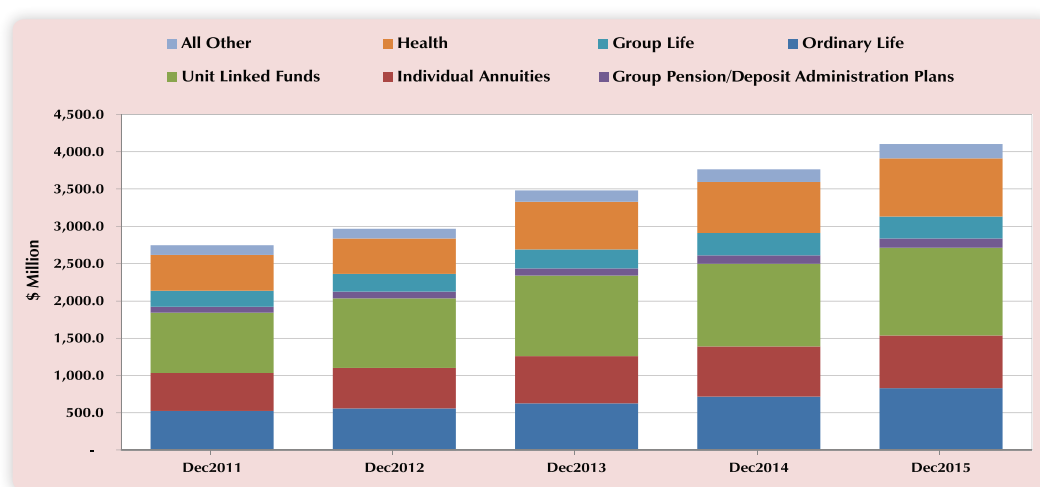
Lines of Business

The main lines of business are life insurance (ordinary, universal and unit linked types), annuity (interest sensitive, unit linked and payout types) and group insurance (health and life) (**Figure 13**). It is important to note that a large percentage (at least 50 per cent) of the unit linked funds is in respect of unit linked annuities (as distinct from unit linked life insurance).

Claims

While the level of claims has been increasing over the past three years, it is proportionate to the volume of business written. The ratio of claims to reserves continues to be at an average of 11.0 per cent, consistent with the preceding years. The level of surrenders remains at approximately 46.6 per cent of all claims incurred and accounts for the majority of claims over the last few years.

Figure 13
Gross Premium Income: Life Insurers



Source: Central Bank of Trinidad and Tobago.

Investment Yield

Average portfolio yield decreased by 30 basis points to 4.5 per cent at the end of December 2015, down from 4.8 per cent one year earlier. The impact from the increasing interest rates on the market prices of debt securities resulted in fair value losses of \$143.0 million for 2015.

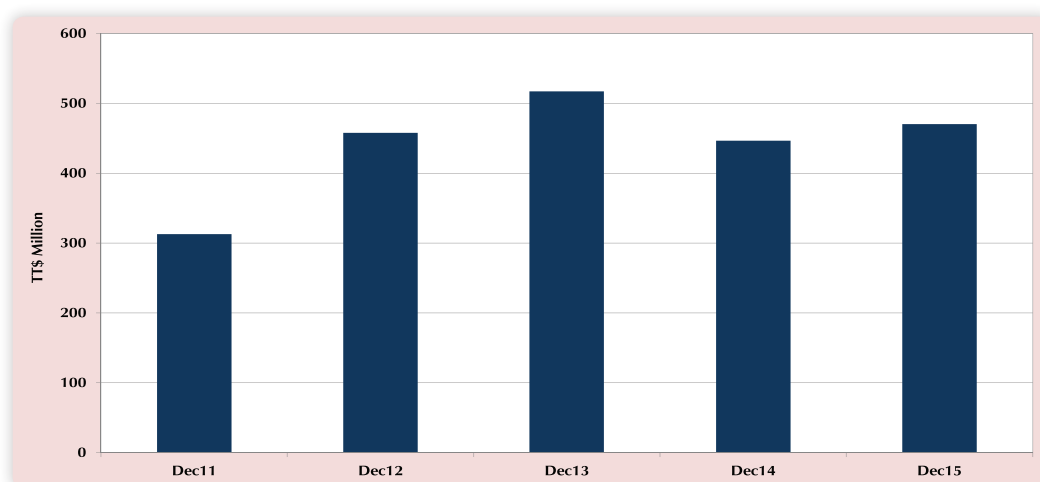
Reported Profits

Profit before taxes increased from \$446.3 million in 2014 to \$470.3 million in 2015 (**Figure 14**), despite significant fair value losses of \$143.0 million.

Expenses

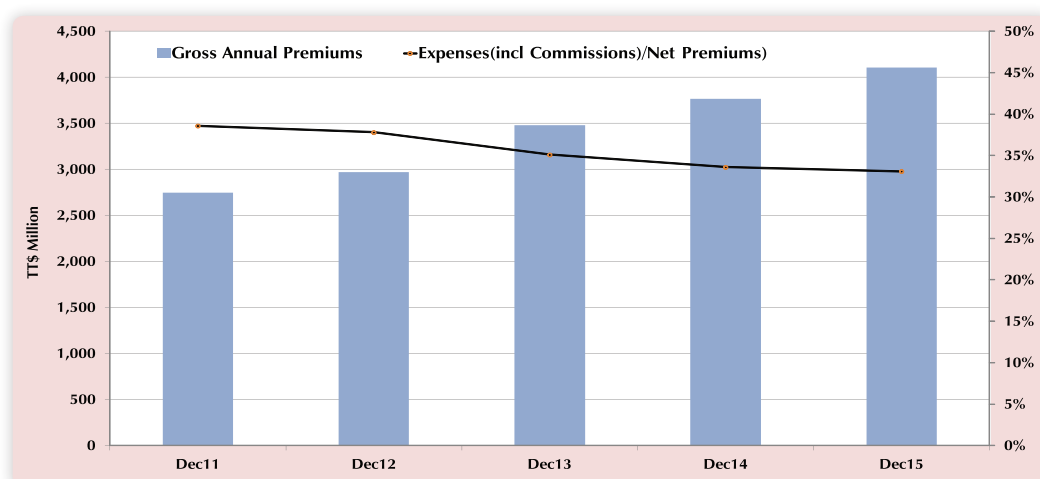
Overall expense ratios, at 33 per cent, remain higher than might be expected, given the significant proportion of annuity type products that attract lower expense charges (**Figure 15**).

Figure 14
Profits Before Taxes: Life Insurers



Source: Central Bank of Trinidad and Tobago.

Figure 15
Gross Annual Premiums and Expenses Ratios: Life Insurers



Source: Central Bank of Trinidad and Tobago.

General Insurers

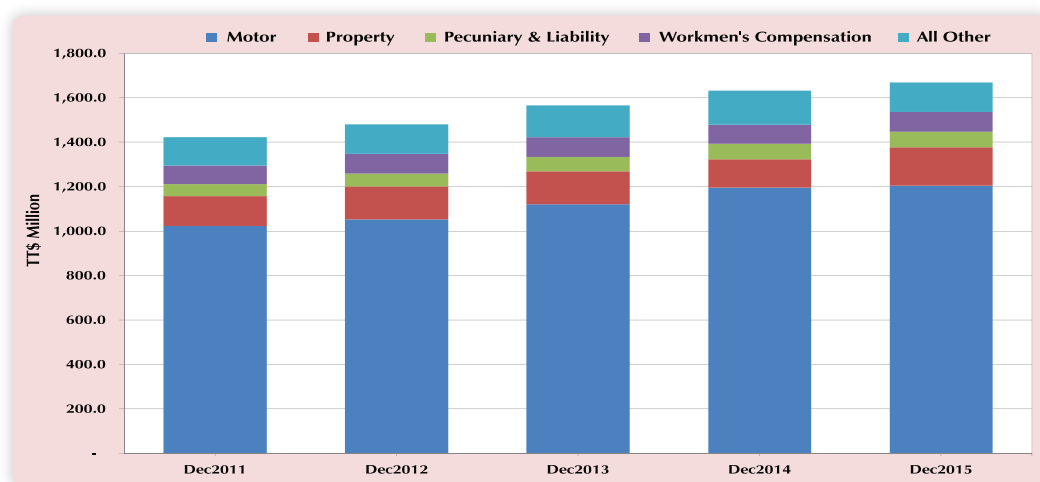
Like the life insurance sector, the general insurance sector is highly concentrated, with 54.8 per cent of the market share based on premium income controlled by three institutions.

The sector has been growing at an average annual rate of 4.2 per cent in assets and 3.5 per cent in premiums over the past three years.

Lines of Business

On a gross premium basis, the motor line accounts for 37.7 per cent and property line accounts for 45.7 per cent of general insurers' premium income. A large proportion of the property line is reinsured whereas most of the motor premium is retained by the local insurers. Therefore, on a net premium basis, motor insurance lines represent 72.2 per cent of total net premiums written, and property accounts for 10.3 per cent (**Figure 16**).

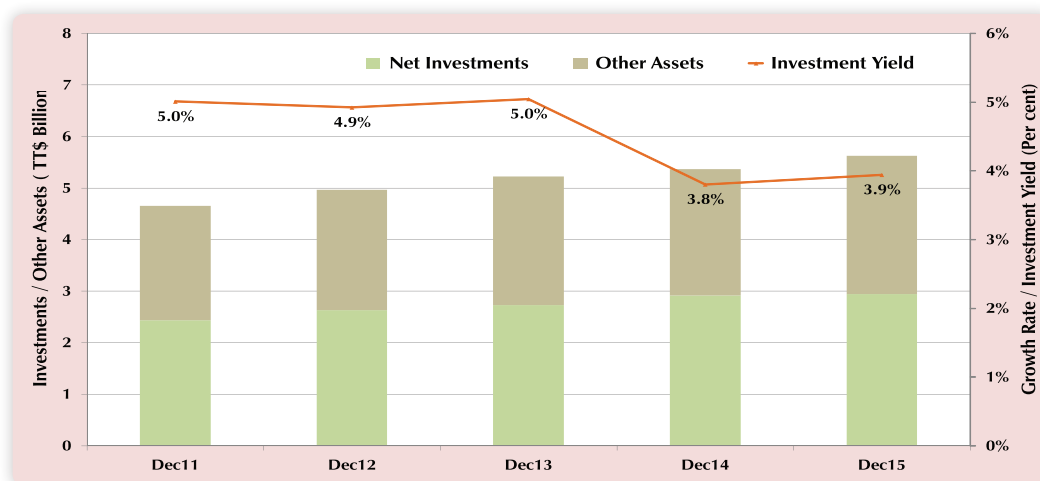
Figure 16
Net Retained Premiums Income: General Insurers



Source: Central Bank of Trinidad and Tobago.

Investments and Yields

Figure 17
Asset Growth and Investment Yield: General Insurers



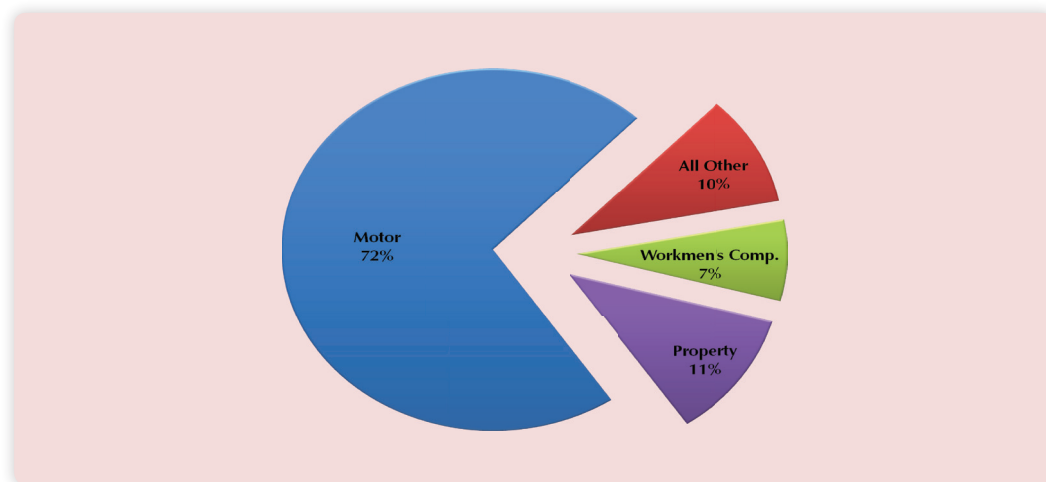
Source: Central Bank of Trinidad and Tobago.

Due to the short term nature of the sector's insurance liabilities, portfolios are generally fairly liquid. Cash and other short-term instruments made up 23.6 per cent of total assets as at December 31, 2015. Government securities at 47.9 per cent is the largest asset class.

Portfolio investment yields have increased from 3.8 per cent at the end of 2014 to 3.9 per cent at December 31, 2015 (**Figure 17**). Due to the short-term nature of the sector's investment portfolios, increases in market yields will have a more immediate impact on overall portfolio yields than in the life insurance sector.

Claims Adequacy

Figure 18
Claim Reserves by Line of Business: General Insurers
December 31, 2015



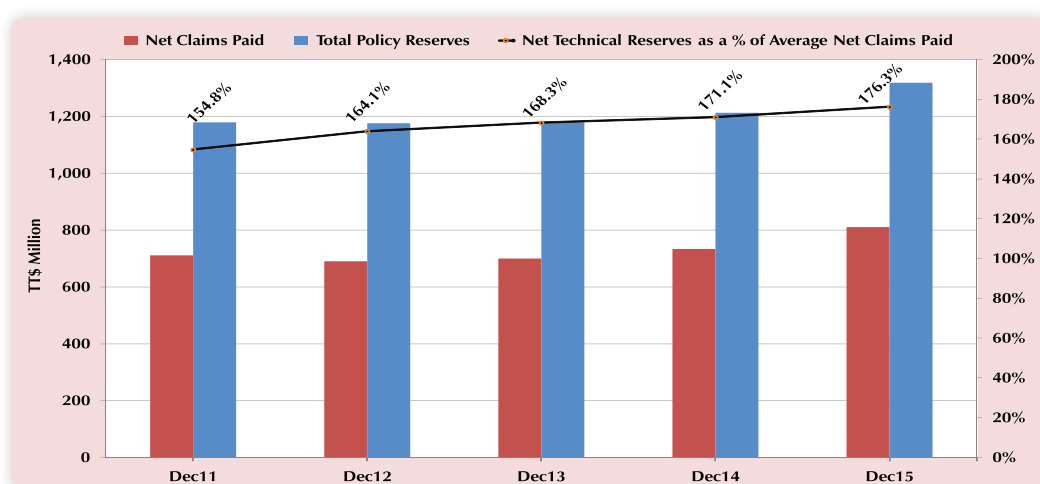
Source: Central Bank of Trinidad and Tobago.

The line of business mix of claim reserves is in line with the mix by net premium (**Figure 18**).

There has been an upward trend in the ratio of technical reserves to the last three years average of net claims.

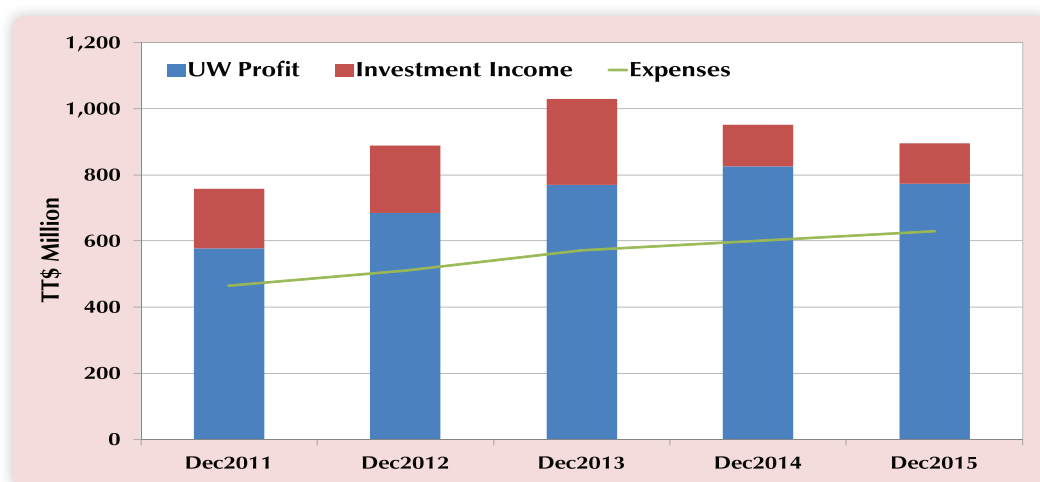
This is an indicator that claims adequacy has improved over the past few years, the consequence of regulatory focus on general insurers' claim reserving practices. The ratio is currently 176.3 per cent, up from 154.8 per cent in 2011 (**Figure 19**).

Figure 19
Technical Reserves / 3-Year Average Net Claims: General Insurers



Source: Central Bank of Trinidad and Tobago.

Figure 20
Contribution to Profit and Expenses¹²: General Insurers



Source: Central Bank of Trinidad and Tobago.

Earnings and Profitability

The overall ratio of claims to net earned premiums increased from 45.5 per cent in 2014 to 48.8 per cent in 2015 due to large property insurance and workmen's compensation claims. As a consequence, contribution to profits and expenses of general insurers fell from \$950 million to \$880 million and before-tax profits fell by 24.2 per cent, from \$341.2 million in 2014 to \$258.5 million in 2015 (**Figure 20**).

Private Occupational Pension Plans

There were 191 active registered occupational pension plans as at December 31, 2015. Total occupational pension plan assets remained relatively flat and stood at \$49.3 billion as at December 31, 2015. Corporate Trustees

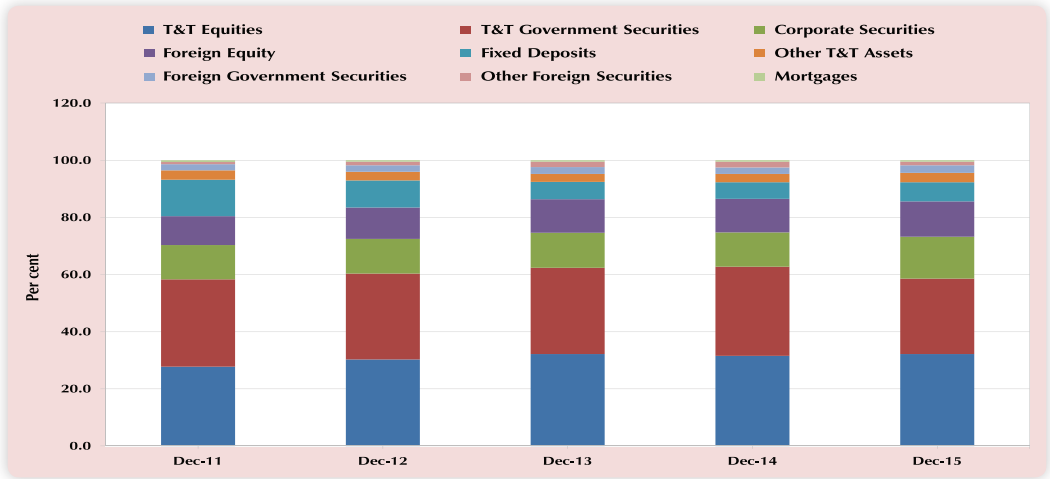
manage approximately 77 per cent of all pension plan assets (\$37.6 billion).

Sustained low interest rates and the deteriorating economic environment in 2015 impacted investment returns on bonds and equities in which the majority of pension plans' assets are invested (**Figure 21**). The persistence of depressed investment earnings has adversely affected the adequacy¹³ of contribution rates of certain private occupational pension plans. Actuarial reports for 54 plans included recommended contribution increases. In 2015, the Central Bank intensified its oversight of pension plans by actively engaging the trustees and employers to ensure implementation of actuarial recommendations so that plans are adequately funded.

¹² Contribution to Profit and Expenses = Net Profit plus Expenses.

¹³ Assessed using funding ratios.

Figure 21
Occupational Pension Plans: Investment Structure
December 2015



Source: Central Bank of Trinidad and Tobago.

BOX 1**Capital Market Developments in Trinidad and Tobago**

Securities markets play an important intermediation role, connecting borrowers and savers in the financial system. In the absence of efficient, fully functioning capital markets this responsibility usually falls on the banking sector or other entities in the shadow banking industry. While there is a stock exchange and a secondary bond market in Trinidad and Tobago, activity is limited. As such, the primary source of capital in the domestic financial system is via the banking sector.

Domestic capital markets consist primarily of equity markets, fixed income markets and mutual funds (**Figure 3a**). The equity market is relatively 'shallow' since there are a limited number of listings, volumes of stocks exchanged are generally low and large transactions have the ability to cause price volatility. The fixed income securities market is largely dependent on Treasury bills and government or government-guaranteed bonds. The secondary market for fixed income securities is also illiquid because there are a relatively small number of issues which rarely trade because bonds are usually held to maturity by institutional investors. Instead of approaching the capital markets, the private sector tends to rely on bank funding, which contributes to the scarcity of investment opportunities. Mutual funds are the preferred investment vehicle since they offer retail investors the ability to diversify at a relatively low cost.

Equity Markets

In the twelve months to December 2015, stock market performance was varied. The Composite Price Index (CPI) increased marginally by 1.0 per cent. Conversely, the All TT Index (ATI) dipped by 1.7 per cent. The Cross Listed Index (CLI), which accounts for regionally head-quartered firms, continued to be the driver of the domestic stock market, producing an increase of 18.7 per cent during the period. The CLI outturn was based on the positive performance of a few Jamaican companies. The manufacturing sector also provided some impetus for growth, with advancements attributable to the positive performance of Angostura Holdings Limited and Trinidad Cement Limited.

In 2015, market capitalization rose for the CPI, ATI and CLI by 3.4, 1.0 and 18.6 per cent, respectively. Again the performance of regionally headquartered stock, especially National Commercial Bank of Jamaica Limited and Grace Kennedy Limited, provided the impetus for exceptional CLI growth.

New issues included the Trinidad and Tobago Natural Gas Liquids Limited Initial Public Offering on October 19, 2015. The IPO was considered an historic event as it was the largest issue in the local stock exchange's history and was traded in a new sector titled the Energy Sector on the first tier market. TTNGL traded \$200 million worth of shares in the first week after its launch and was oversubscribed by 1.77 times.

Fixed Income Markets

In the twelve month period ending December 2015, there were eighteen issues on the primary bond market. Four of these were denominated in US dollars (US\$173 million), while the remainder (TT\$5.4 billion) was issued in local currency. There were ten issues placed by the government and state-owned enterprises. While the number of issues increased over the previous period, the actual size of funding requirements decreased by approximately 5.6 per cent (from \$6.8 billion to \$6.5 billion).

Mutual Funds and Alternative Investments

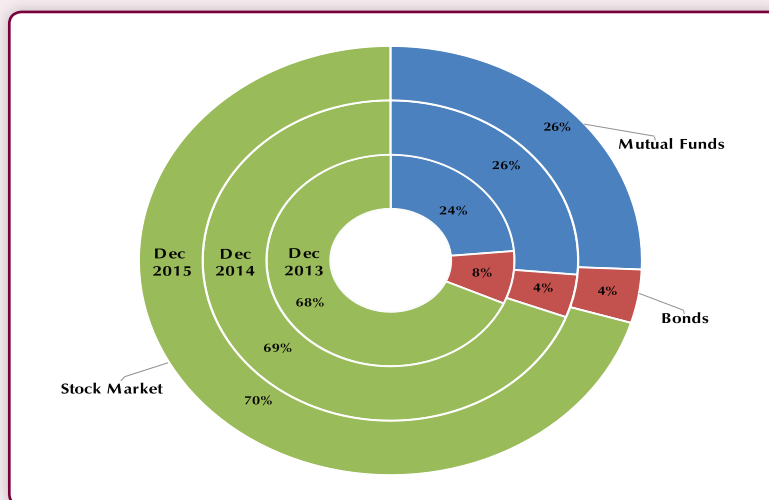
Total funds under management¹ as at December 2015 experienced an overall decline of 1.0 per cent to \$41.4 billion. This may have been as a result of the reallocation of funds in anticipation of the TTNGL IPO.

¹ Mutual Fund data covers approximately 90 per cent of the industry.

BOX 1 (CONT'D)

Capital Markets Developments in Trinidad and Tobago

Figure 1a
Capital Market Structure – Major Asset Classes
December 2013 - December 2015



Source: Central Bank of Trinidad and Tobago.

While money market and income and growth funds under management grew by 32.8 per cent, equity funds also grew by 4.4 per cent over the period.

A new addition to the suite of mutual funds was the Unit Trust Corporation's Calypso Macro Index Fund. The fund was launched in October 2015 and intends to offer participants the opportunity to invest in a mix of domestic companies and international energy companies.

Financial Stability Outlook

It is recognized that an efficient and developed² financial market plays a central role in the growth and development of a country and the local capital market is expected to deepen and widen, albeit at a moderate pace. Public-Private Partnerships are expected to increase investment opportunities and incentives for companies to list on the exchange³.

In this regard, the TTSEC, which is charged with regulation of the securities industry, has been taking initiatives to build its macro-prudential oversight capacity which would involve more frequent and detailed reporting by registrants as part of plans to monitor the securities industry from a systemic perspective. There is also a mechanism for collaboration between the Central Bank and the TTSEC as it pertains to the regulation of dual registrants.

² A developed financial market is defined as a "combination of depth (size and liquidity of markets), access (ability of individuals to access financial services), and efficiency (ability of institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets)". Ratna Sahay et al. Rethinking Financial Deepening: Stability and Growth in Emerging Markets (IMF, 2008).

³ The Government of Trinidad and Tobago Budget Statement 2016, Ministry of Finance.

CHAPTER 2

ASSESSMENT OF VULNERABILITIES AND RISKS TO THE DOMESTIC FINANCIAL SYSTEM

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ASSESSMENT OF VULNERABILITIES AND RISKS TO THE DOMESTIC FINANCIAL SYSTEM

The Global Macro-Financial Environment

Global financial stability remains uneven as key risks migrate to emerging market economies. Potential asset price disruptions and macroeconomic fragilities remain important downside risks to growth in advanced economies. According to the April 2016 IMF WEO, global growth for 2016 was revised downward to 3.2 per cent compared with a forecast of 3.4 per cent in the January 2016 WEO Update.

Economic activity remained resilient in the US, supported by the strengthening of the housing and labour markets. This encouraged the Federal Reserve (Fed) to raise its target policy rate band from 0 – 0.25 per cent to 0.25 – 0.5 per cent in December 2015. At the March 2016 Fed meeting, the target rate was maintained and indications suggest that future adjustments will be linked to employment outturns and the long-term inflation objective. Canada, however, faces an unfavourable growth outlook as the economy continues to struggle with the fall in energy prices. The two main vulnerabilities are the elevated level of household indebtedness and imbalances in the housing sector. In the Euro area, the effects of the Greek financial crisis have been contained, but a more substantive resolution remains under negotiation. Furthermore, geopolitical tensions, the migrant crisis and softer economic conditions, including the resurgence of deflation risks, have caused the European Central Bank to expand monetary policy support and consider even further assistance in early 2016.

Downside risks to the outlook for emerging market and developing economies have increased due to the slow-down in China's economy, falling commodity prices (especially oil), weakened capital inflows, and depreciating emerging market currencies. Of particular concern is the

susceptibility of these economies to capital outflows as the Fed contemplates further policy rate adjustments, albeit at a more moderate pace than initially envisaged. As such, refinancing risks have emerged among those sovereigns and corporates with high levels of exposure to foreign currency denominated debt. Any uncertainty surrounding China's exchange rate policy is also expected to pose a challenge for global financial stability if safe haven effects take hold. However, the inclusion of the renminbi in the IMF's Special Drawing Right basket of currencies could provide a welcome counterweight, boosting financial markets, as some central banks may move to diversify reserve holdings. Despite declining credit growth and rising NPLs, India's economic growth is forecast to remain strong as the country benefits from low energy prices and the implementation of structural reforms.

In Latin America and the Caribbean, financial stability conditions continue to be heavily influenced by macro-economic developments. Despite the implementation of policy measures in some Caribbean countries, public debt levels continue to trend upwards (even in the commodity exporters), increasing the risk of further sovereign debt restructuring. Low energy prices have been advantageous mainly to the tourism dependent economies in terms of relieving pressures on the external current account. However, financing conditions remain tight and attempts to improve the image of the financial industry in the region have encountered further setbacks with the naming of several jurisdictions as tax havens by the European Union and several states in the US. Within the Caribbean, concerns over the loss of correspondent banking relationships have been brought to the forefront as global banks place increased scrutiny on their arrangements as they adopt anti-money laundering and countering the financing of terrorism regulations (**Box 2**). **Figure 22** summarizes the key global financial stability risks.

BOX 2

Implications of De-risking for CARICOM

An unintended consequence of complying with the FATF's international standards for AML/CFT is the emerging phenomenon of "de-risking". De-risking refers to financial institutions exiting relationships with and closing the accounts of clients considered as "high risk". Globally, there is an observed trend of de-risking of money service businesses, nonprofit organizations and correspondent banking relationships. This note focusses on de-risking of regional financial institutions by correspondent banks and the potential impact on CARICOM states.

The FATF defines correspondent banking as "the provision of banking services by one bank ("correspondent bank") to another bank ("respondent bank")". Correspondent banking relationships (CBRs) facilitate the establishment of accounts, exchange methods of authentication of instructions (for example, exchanging SWIFT or telex test keys) and provide payment or other clearing related services. This provision of intermediary services by the correspondent (the international bank) allows the respondent (domestic bank) to provide its customers with cross-border products and services that they otherwise would not be able to access. However, the nature of these transactions often results in the correspondent having little or no direct contact with the counterparties of the transactions facilitated by the respondent. With such limited information regarding the underlying transaction, CBRs are especially vulnerable as it may be possible to facilitate illicit financial flows. This susceptibility has attracted concerns from the global financial community as international agencies (for example, FATF, BIS and FCA) have intensified requirements for AML/CFT compliance. The regulatory pressure is evidenced by an unprecedented increase in enforcement actions by developed countries (for example, in 2014 FCA increased AML/CFT-related fines by approximately 210 per cent).

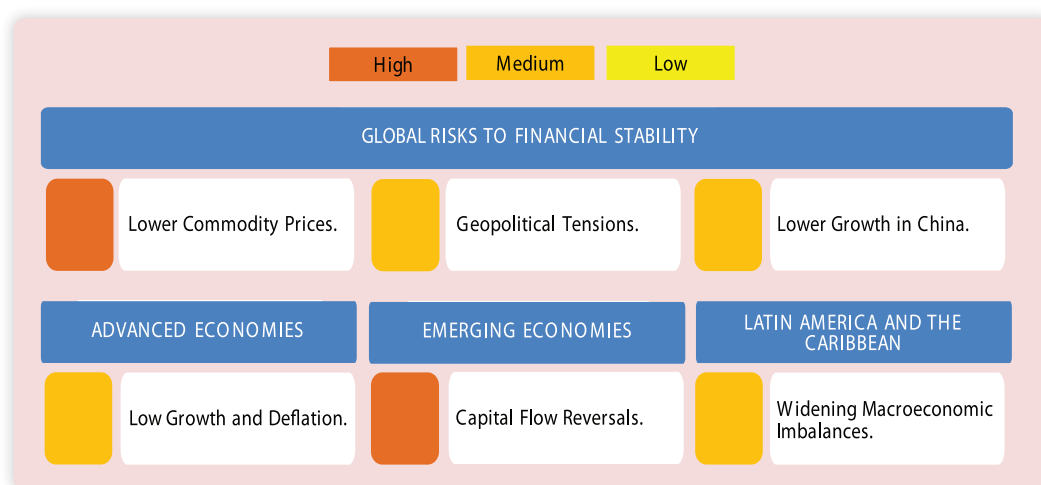
Heightened financial (regulatory fines) and reputational risk (potential brand damage caused by public perception of wrongdoing) have forced global banks to reevaluate CBRs and in some cases this has led to "de-risking" or the termination of correspondent banking relationships for some CARICOM states. De-risking affects economic activity by impeding financial intermediation for legitimate international transactions such as remittances, tourism, trade and foreign direct investment. A World Bank report¹ noted that the Caribbean was the region most affected by the decline in foreign CBRs. An increasing number of CARICOM states reported restrictions of varying degrees on wire transfers, money transfer services and CBRs. For example, the Bank of America cancelled its correspondent banking operations throughout the Caribbean and Barclays PLC cut ties with Jamaica in 2015.

CARICOM states as members of the Caribbean FATF (CFATF) have been attempting to improve respondent bank due diligence in line with the FATF standards, however, global banks continue to terminate CBRs. As a consequence, regional leaders have been expressing heightened concerns. In February 2016, CARICOM heads of government announced plans to establish a high level advocacy group to represent the region at the United Nations, the World Trade Organization and the United States Congress. In early April 2016, there was a meeting jointly chaired by the Bank of Jamaica and the US Department of Treasury in an effort to ascertain the impact of de-risking on CARICOM. Regional money laundering and tax haven allegations² could pose a distinct threat to the CBRs of local financial institutions.

¹ The World Bank, "Withdrawal from Correspondent Banking: Where, Why and What to do about it" November 2015.

² In 2015, Fourteen Caribbean countries were blacklisted by the EU as the world's worst tax havens. The ongoing 2016 Panama Papers Leak has renewed interest on these 'tax haven' jurisdictions. (April 2016).

Figure 22
Key Global Financial Stability Risks



Source: Central Bank of Trinidad and Tobago.

Trinidad and Tobago has experienced weaker economic activity following the precipitous decline in energy commodity prices coupled with lower production levels. Central government fiscal operations have been adversely affected, while the trade balance and the terms of trade have also worsened. Labour market conditions have deteriorated, but job losses to date have mostly been concentrated in energy and energy related industries. Certain vulnerabilities are edging higher. However vulnerabilities that may appear worrisome need to be assessed against the resilience of financial institutions and the financial system.

Key Vulnerabilities in the Financial System of Trinidad and Tobago

In the 2014 FSR, four key vulnerabilities were highlighted within the financial system:

Vulnerability 1: Heavy Dependence on the Energy Sector

Vulnerability 2: High Level of Household Indebtedness

Vulnerability 3: Historically Low Domestic Interest Rates

Vulnerability 4: Rising Financial Interconnectedness in the Caribbean

The Central Bank continues to monitor these vulnerabilities in the current economic environment.

Heavy Dependence on the Energy Sector

The heavy dependence on the energy sector continues to be a key vulnerability in Trinidad and Tobago. The prevailing low energy price environment has had a broadly negative impact on the domestic economy, a consequence of this deep-rooted dependency.

The lackluster performance of the energy sector has caused a downward adjustment of some of the key macroeconomic indicators for 2015 (**Figure 23**). Though energy revenue declined, total government revenue as a share of GDP remained relatively unchanged due to offsetting inflows from capital revenue and the non-energy sector.

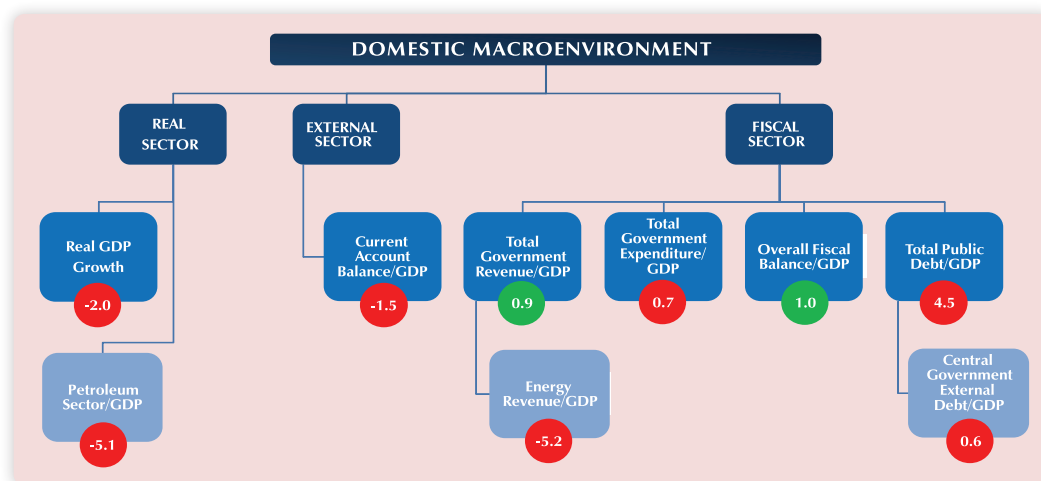
As at December 2015, energy exports accounted for roughly 78 per cent of total export earnings (with oil, natural gas and petrochemicals accounting for around 21 per cent, 30 per cent and 27 per cent of energy earnings, respectively). Further, with over 90 per cent of FDI attributable to the energy sector, and with a weakening current account balance, Trinidad and Tobago's external position is becoming increasingly vulnerable to future adverse shocks.

On the fiscal front, declining energy prices have caused a significant deterioration in the fiscal accounts. However, unlike previous periods of fiscal strain, the availability of public savings in the HSF, which was equivalent to 22.0 per cent of GDP as at December 2015, may provide a useful buffer. However, these funds can only provide support in the short-run.

From a broader macroeconomic perspective, the heavy reliance on the energy sector and uncertainty about energy prices continue to pose a challenge to economic stabilisation and recovery. Fiscal policy amendments, increasing unemployment and foreign exchange pressures can have adverse effects on households and firms. These challenges can negatively impact the financial system as banks may tighten lending standards, resulting in a slowdown or reversal in credit growth. Greater recourse to forbearance may also take place should debt servicing difficulties arise. Another manifestation of the

vulnerability relates to the knock-on effects of the terms of trade shock. This factor, combined with the decline in the volume of domestic output of petroleum and natural gas has led to further deterioration in foreign exchange earnings. This presents downside risk and the direct repercussions are already evident in Trinidad and Tobago's balance of payments and Government revenue. The drop in international energy prices affected Government revenue and the balance of payments directly, depressing both the growth of official international reserves held at the Central Bank (as less Government energy taxes were converted) and the foreign exchange conversions by energy companies in local financial institutions. In this setting, the Central Bank's perspective is to look at the longer-term horizon and react as if the shock were permanent. The extent to which fiscal, structural and monetary policy responses are coordinated and the overall effectiveness of these policies will determine the evolution of this vulnerability.

Figure 23
Major Macroeconomic Indicators, Percentage Change
FY2014 - FY2015



Source: Central Bank of Trinidad and Tobago.

Note: The Red circles represent a deterioration in the macroeconomic indicator from 2014 to 2015 while the Green circles represent an improvement. Real sector indicators represent annual figures.

High Level of Household Indebtedness

The financial system has become increasingly susceptible to the high level of household debt against the backdrop of credit growth, rising domestic interest rates and increasing joblessness.

In the context of rising interest rates, narrowing fiscal space to support the non-energy sector and labour shedding in energy and energy-related industries, the vulnerability posed by the level of household indebtedness has come more to the forefront. Although Trinidad and

Tobago's household debt burden seems moderate at an estimated 29 per cent of GDP, household debt continued to increase in 2015, with notable growth in debt related to the acquisition of new private motor vehicles. The Central Bank has increased its research focus on this issue and has included an analytical assessment of household debt in Trinidad and Tobago in an appendix of this Report.

Historically Low Domestic Interest Rates

This vulnerability has moderated significantly since the Central Bank began a cycle of policy rate increases in September 2014.

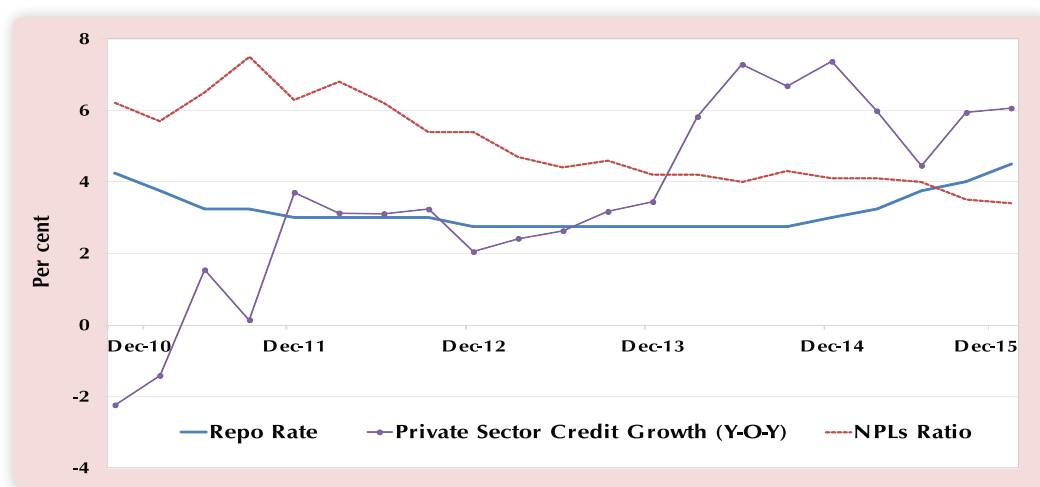
Between September 2014 and December 2015, the Central Bank signaled a less accommodative monetary policy stance. The Repo rate¹⁴ was raised eight consecutive times and stood at 4.75 per cent as at December 2015 and was maintained in the Central Bank's May 2016 Monetary Policy announcement. This was a reversal of a four year trend in which the Repo rate was held at an historical low of 2.75 per cent. Generally low interest rates provided access to affordable financing terms and were expected to spur economic activity through credit channels.

With interest rates so low, there was also heightened concern over portfolio outflows due to the narrowing

interest rate differentials between TT and US securities. The tightened policy rate led to an increase in the TT treasury yield compared with US treasuries. However, these increases have not filtered through to all domestic rates. The prime lending rate has risen almost in step with the Repo rate but muted, lagged responses have been observed in weighted average lending rates for commercial banks and non-bank financial institutions. On the deposit side, rates at non-bank financial institutions ticked upwards after March 2015 while commercial bank rates have been flat in comparison. Capital market activity has also not shown any significant improvement from the previous year (**Box 1**). Further, low yields and limited suitable long duration investment opportunities were persistent challenges for both the pensions and insurance industries.

The propensity to borrow is usually higher at lower rates. As interest rates begin to rise, higher interest payments coupled with deteriorating macroeconomic conditions can impact loan portfolios especially for highly leveraged households or corporations. Therefore, low interest rates can worsen the vulnerability to the household and corporate sectors. However, during the period of low interest rates domestically the overall buildup of credit has been moderate and NPL ratios have continued to decline (**Figure 24**).

Figure 24
Historical Trend of Repo Rate, Private Sector Credit Growth, NPL Ratio
2010 - 2015



Source: Central Bank of Trinidad and Tobago.

¹⁴ The Repo rate is the principal instrument used by the Central Bank to influence the structure of commercial banks' interest rates.

Rising Financial Interconnectedness in the Caribbean

The vulnerability posed by regional financial interconnectedness remains ubiquitous (**Box 3**). The footprint of domestic financial institutions continues to expand in the Caribbean region.

Although total country exposures¹⁵ of the commercial banking system are small relative to total assets, regional cross-border claims are almost one-third of these exposures and rising. These exposures lie primarily in equity, followed closely by loans where growth continues, albeit marginally. Domestic financial institutions are most heavily exposed to Barbados and St. Lucia. Equity exposures of the domestic commercial banking sector to the region mainly include investments in subsidiaries and affiliates, while the bulk of loan exposures are to the public, transport, storage and communication, real estate and tourism sectors. Should host economies experience adverse shocks, outstanding exposures may be subject to bouts of extreme or excessive volatility. Exposures to CARICOM sovereigns warrant on-going monitoring since the results of the financial interconnectedness exercise reported in the 2015 Caribbean Regional FSR showed that linkages between banks and sovereigns were the most significant.

Key Risks to the Financial System of Trinidad and Tobago

In the 2014 FSR, the key triggers that would turn vulnerabilities into risks to the stability of Trinidad & Tobago's financial system were identified to be: -

1. Sharp and Persistent fall in Energy Prices;
2. Household Financial Stress and correction in House Prices
3. A Spike in Long-Term US Interest Rates
4. Sovereign Debt Restructuring in the Caribbean.

All of these risks remain relevant and will be assessed. However, given the already sharp fall in energy prices, the risks have been characterized as follows: -

1. Persistent low energy prices
2. Household Financial Stress and Correction in House Prices
3. A Spike in Long-Term US Interest Rates
4. Sovereign Debt Restructuring in the Caribbean

These risks are not meant to be exhaustive but illustrate the potential consequences of the vulnerabilities we have identified. This section provides a financial stability outlook for Trinidad and Tobago. Each risk is assigned an overall rating based on the subjective probability of the risk materialising and the expected impact on the domestic financial system (**Figure 25**).

Persistent Low Energy Prices

The overall risk assessment could be characterised as "high" (probability of this risk materializing is high, and its impact on the financial system would be moderate).

The precipitous collapse in prices in 2014 considerably dampened growth in the domestic economy casting a shadow on the energy sector outlook as prices continued their downward trend.

Against a backdrop of high uncertainty in the global oil market, WTI crude oil prices averaged just below US\$40 per barrel in December 2015, failing to surpass the US\$60 per barrel previously projected by international agencies¹⁶. Tamer price forecasts broadly reflect lackluster emerging market growth, elevated global inventories and supply growth particularly from increased crude oil volumes from Iran.

On the domestic front, the results of the Consumer Confidence Survey¹⁷ were less than optimistic with the stability of the energy sector being a top concern. In light of this, the government's Mid-Year Budget Review for fiscal year 2015/16 identified measures to raise revenue and contain expenditure by inter alia, amendments to the fuel subsidy, as well as improving tax compliance.

¹⁵ Consists of loans, equity and investments.

¹⁶ US Energy Information Administration, January 2016.

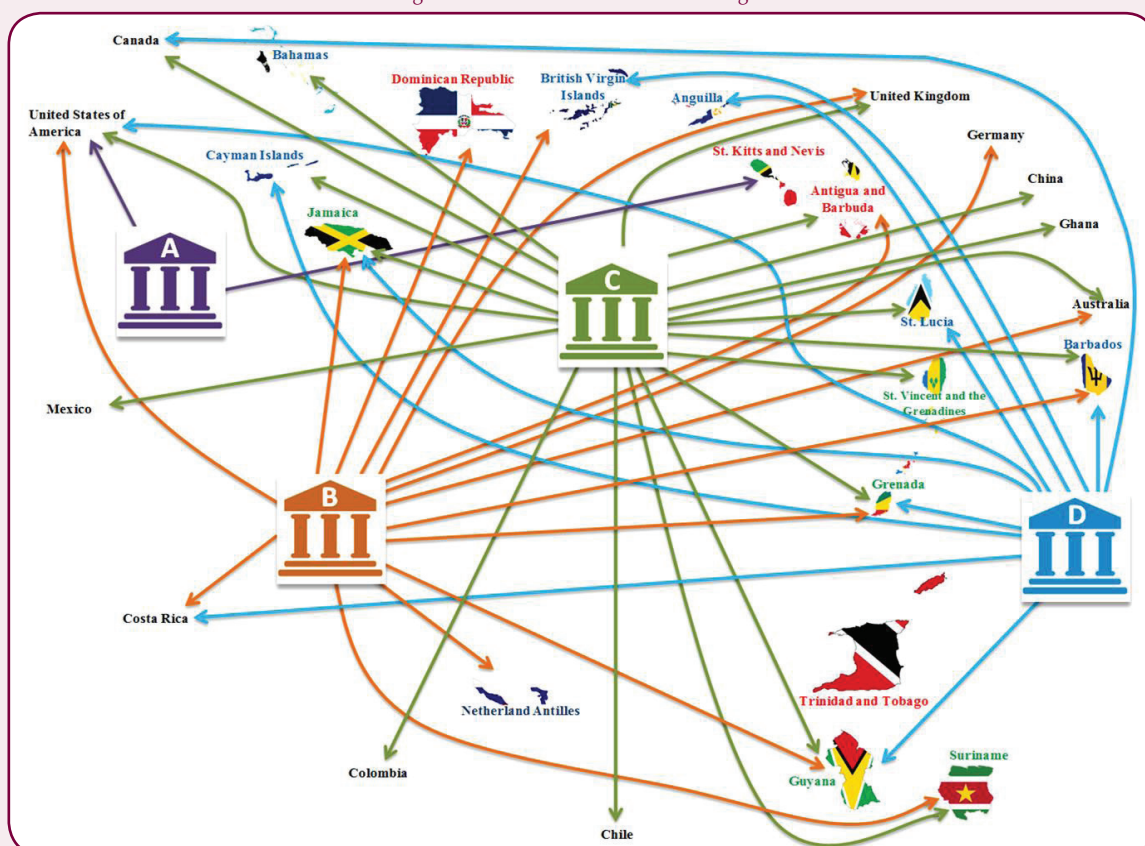
¹⁷ The Consumer Confidence Report is produced from the Consumer Confidence Survey conducted by the Central Bank <http://www.central-bank.org.tt/content/quarterly-publications>.

BOX 3

Trinidad and Tobago: Major Financial and Non-Financial Cross-Border Linkages

Given the dynamics of the domestic financial system, attention is placed on the commercial banking sector and conglomerate groups. Firstly, with the dominance of commercial banking SIFIs, rising degrees of financial interconnectedness (**Figure 3a**) can increase the vulnerability of the system to shocks from specific territories. However, the diversification can also help to reduce vulnerabilities to specific territories.

Figure 3a
Cross Border Financial Linkages of Domestic Commercial Banking SIFIs as at December 2015



Source: Central Bank of Trinidad and Tobago.

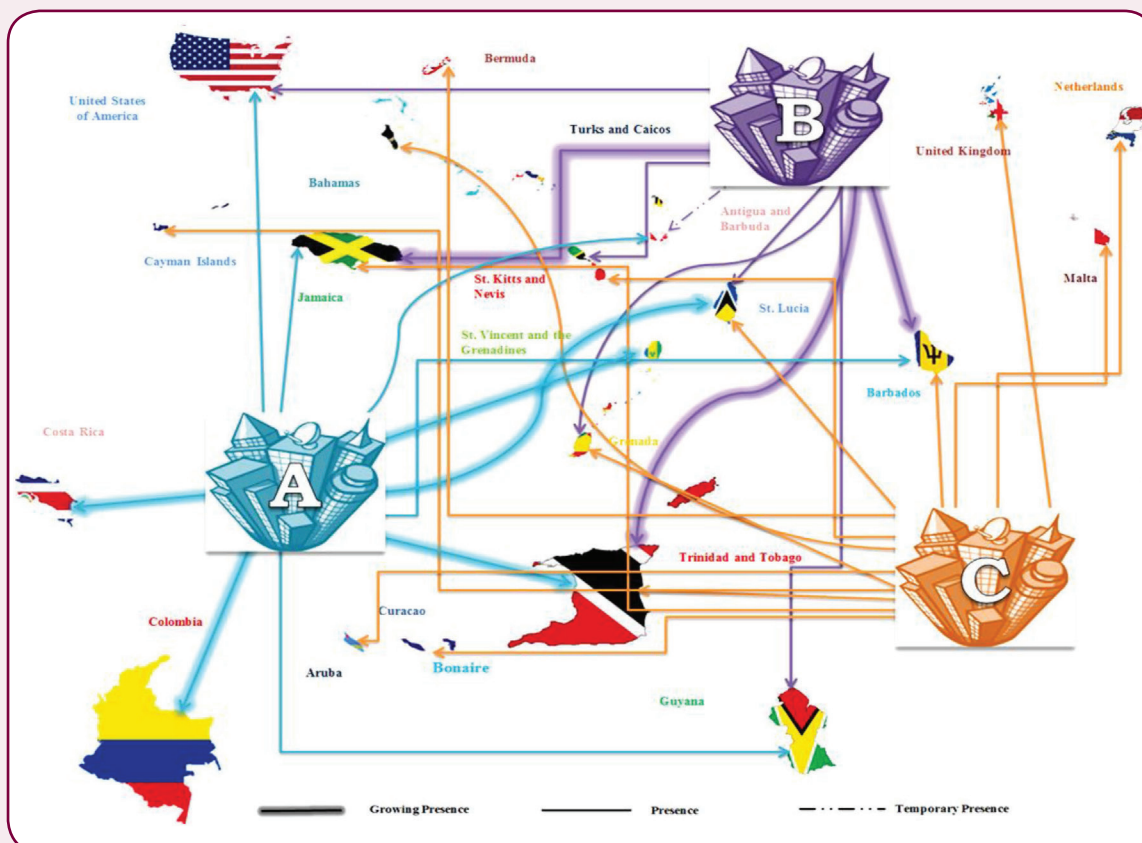
Note: Lines represent the host countries to which banking SIFI's have country risk exposure in the form of loans, equity and investment

Overall, the four domestic SIFIs illustrated above as banks A, B, C and D accounted for 90.1 per cent of total commercial banking sector assets as at December 2015 – the same as in the previous year – with a growing share of total country exposure (that is loans, equity and investment). This warrants tight collaboration among regulators in the form of inter alia regulatory colleges and consolidated supervision.

BOX 3 (CONT'D)

Trinidad and Tobago: Major Financial and Non-Financial Cross-Border Linkages

Figure 3b
Cross Border Ownership Linkages of the Conglomerate Groups of Trinidad and Tobago as at 2015



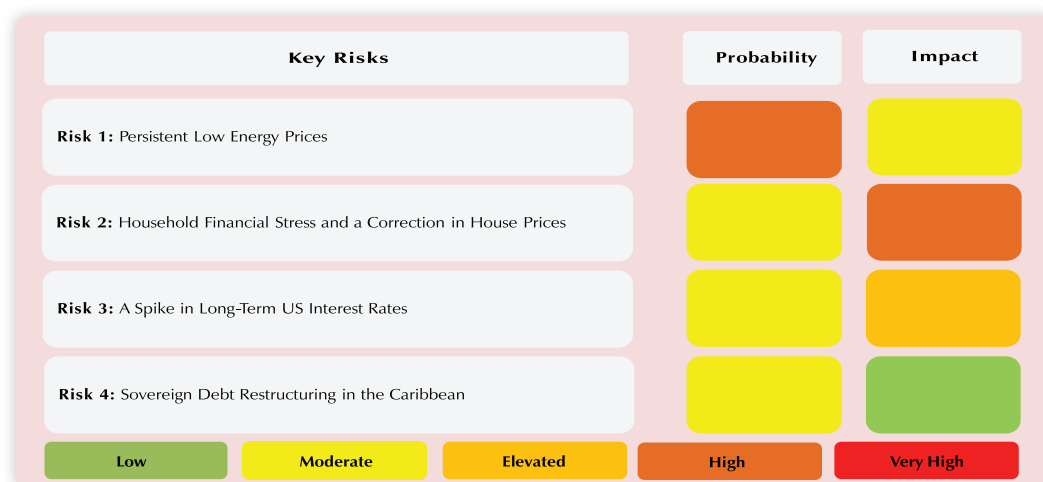
Source: Central Bank of Trinidad and Tobago.

Note: The links denote branches, subsidiaries, affiliates and/or joint ventures locations.

Figure 3b shows the expanding presence of these three mixed conglomerates - A, B and C. In 2015, there has been a series of expansions mostly to Latin America and the Caribbean in the areas of distribution, manufacturing and energy. The most significant exposures are to Barbados where the conglomerates are heavily concentrated in the distribution, finance, insurance, retail, real estate and automotive sectors.

On the non-financial side, interconnectedness is evident by the companies' geographical dispersion of trading partners. Trade exposures of locally domiciled conglomerates are heavily concentrated in North America and Latin America and the Caribbean, which together accounted for more than 80 per cent of total exports and around 60 per cent of total imports over the five-year period 2011-2015.

Figure 25
Summary Heat Map –
Key Risks to Financial Stability in Trinidad and Tobago



Source: Central Bank of Trinidad and Tobago.

The banking system's loan exposure to the energy sector remains minimal, accounting for below 4 per cent of total loans over the past five years. There has, however, been an uptick in private sector credit to the energy sector in 2015. On the other hand, stress tests¹⁸ of large exposures revealed that commercial banks' exposure to the government, though still manageable, may be a source of vulnerability.

Household Financial Stress and Correction in House Prices

The overall risk is assessed as "elevated" (probability of this risk materialising is moderate, and its impact on the financial system would be high).

The risk of household financial stress and correction in house prices has been assessed as "elevated". Several factors have the potential to increase pressure on the repayment capacity of households:

- An increase in interest rates which can affect repayments on variable rate loans;
- a negative shock to income associated with a rise in unemployment; and
- a decrease in property prices where the value of the home falls below the outstanding mortgage balance.

Some interest rates have been trending upward since September 2014 following the decision by the Central Bank to raise the Repo rate. Although 90 per cent of mortgages are variable rate, mortgage market rates, including the Mortgage Market Reference Rate¹⁹ have not risen in step (**Figure 26**)²⁰.

A shock to households could also stem from deterioration in the labour market as rising unemployment affects household income. The unemployment rate marginally increased to 3.4 per cent at the end of September 2015 from 3.3 per cent one year earlier due to a rise in the number of persons unemployed and the number of persons actively seeking work. Supplementary information suggests that unemployment also rose in the fourth quarter of 2015. Consumer sentiment according to the Central Bank's Consumer Confidence Survey revealed that unemployment is a top concern for the quarter ending March 2016, consistent with the results of the December 2015 Labour Market Confidence Survey, which highlighted rising concerns about job security over the next six months. While job losses are anticipated in the short term, the impact on financial stability would depend on if the occupational groups losing jobs intersect with those that are heavily exposed to consumer and real estate mortgage debt. Effective February 2016, the net impact of the decrease in VAT from 15 per cent to

¹⁸ See Chapter 3 on Stress Testing in November 2010 FSR.

¹⁹ The MMRR is an interest rate benchmark against which mortgages are expected to be priced and repriced.

²⁰ The MMRR was raised to 3 per cent at the end of March 2016.

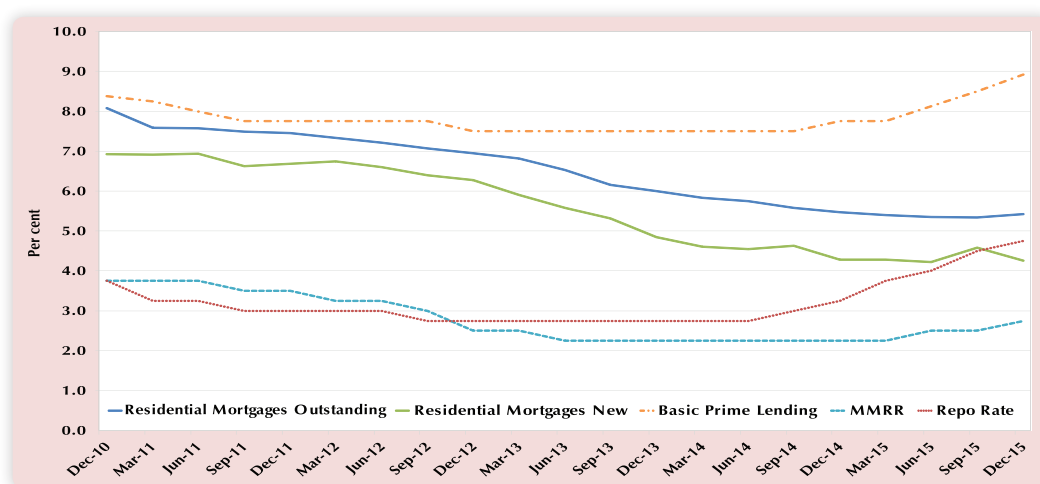
12.5 per cent, along with the reintroduction of VAT on previously zero-rated items could potentially place added pressure on households' disposable income, particularly for low-income earners.

For the year ending 2014, the median house price peaked at approximately \$1.25 million, a 45 per cent growth over the last five years (**Figure 27**). The value of real estate mortgage loans outstanding increased by approximately 60 per cent for the same period. Data for the nine months to September 2015 showed a slight dip in the median house price to \$1.2 million. Any scenario that results in falling house prices can increase the credit risk of mortgage portfolios. As property values decline, the value of the bank's collateral is impacted and in the event of debtor delinquency, increases the likelihood of loss and deterioration in the asset quality of residential real estate related portfolios²¹.

However, in assessing vulnerability and risk it is important to appreciate that mortgage underwriting standards in the commercial banking sector have traditionally been quite conservative. This has been borne out to date by favorable NPLs for residential real estate mortgages which have been generally low from a historical perspective, averaging 1.7 per cent since 2010.

The Central Bank is examining possible macro-prudential policy tools in this area. One of the common tools used to address housing market excesses is the loan to value²² ratio. LTV ratios for the commercial banking sector increased in 2015 and now hover around 75 per cent for the purchase of residential land and building. Further, the Central Bank property price stress test on the local commercial banking system measures its response to a fall in property prices which can result in deteriorating asset quality of residential real estate related portfolios. The results of the stress test indicate that the system remains resilient to this risk.

Figure 26
Selected Interest Rates
2010 – 2015

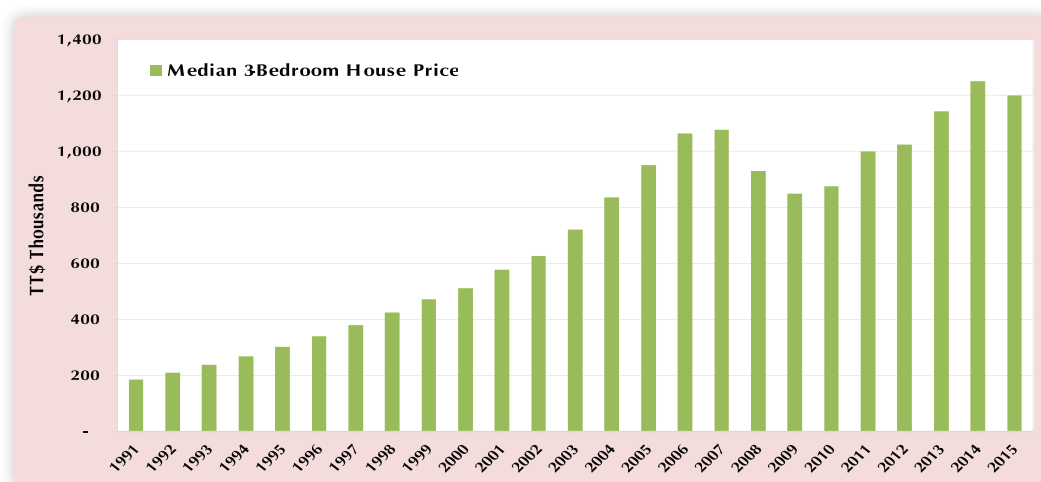


Source: Central Bank of Trinidad and Tobago.

21 Residential real estate related loans include mortgages, bridging finance, land and real estate and home improvement loans for residential purposes.

22 The LTV ratio is the ratio of the amount borrowed to the value of the underlying property.

Figure 27
Median 3-Bedroom House Price
1991 – 2015



Source: Central Bank of Trinidad and Tobago.

A Spike in Long-Term US Interest Rates

The overall risk assessment remains “moderate” (probability of this risk materialising is moderate, and its impact on the domestic economy and the financial system would be elevated).

After almost a decade, the Federal Open Market Committee (FOMC) raised the federal funds rate by 25 basis points in December 2015, responding to positive signs of economic and employment gains in the US. However, in subsequent meetings the FOMC left the rate unchanged as they continue to monitor global economic and financial developments. Notable downside risks being monitored include the softer economic outlook for China, lower growth outturns in advanced economies, a strengthening US dollar and low commodity prices. The FOMC resolved to maintain an accommodative stance as long as possible in an effort to support economic growth and to mitigate possible interest rate shocks.

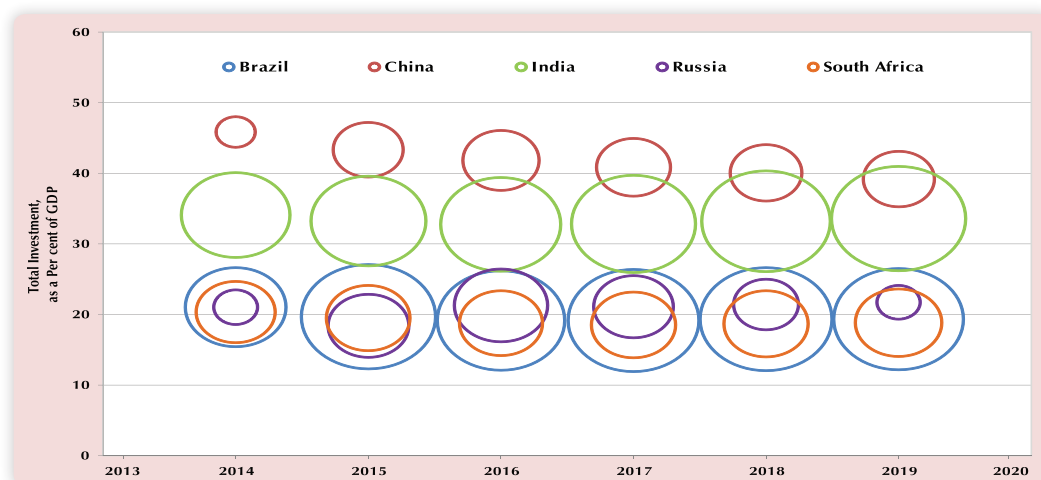
EMEs such as Brazil, South Africa and China have been particularly affected by capital flow reversals in the wake of expectations of higher US interest rates and a revealed preference by investors for safe assets amidst amplified financial market volatility. In addition, historically high levels of borrowing, particularly in foreign currency, have aggravated corporate debt burdens and NPLs in select EMEs. This, along with increased US rates, could

contribute to declining investment, sharpen refinancing risks and further impede growth prospects (**Figure 28**).

In Trinidad and Tobago, accommodative monetary policy, a persistent liquidity overhang and muted investment conditions supported a low interest rate environment for several years. In the long term, negative real interest rates (on account of persistently higher domestic inflation) present a threat to financial stability. A rise in US interest rates widening the differential between Investors may be incentivized to move capital abroad where the interest rate differentials may be more favourable.

Still, even though the Central Bank is ‘ahead of the curve’ there is no guarantee that financial markets will respond in an orderly manner to US monetary policy normalisation since the Fed notes that there was still an apparent ‘perception gap’ that could influence sharper than expected rate increases. Both short term and long term central government investment yields have already started to adjust upwards. There has also been a slightly uneven shift in the TT yield curve as at December 2015 and differentials against US rates have widened. If the US policy interest rate adjustments do not align with market expectations, two scenarios are envisioned. In the first case, if rates stay lower than expected for a longer period of time, increased debt loads can exacerbate the fragility of the financial system when rates eventually increase.

Figure 28
Investment and Net Borrowing in the Top EMEs
2014-2019



Source: International Monetary Fund World Economic Outlook, October 2015.

Note: Estimated values from 2014 to 2019. The size of the bubbles indicates general government net lending/borrowing US\$ billions.

Alternatively, an increase in interest rates which is above market expectations and does not allow for a smooth adjustment of portfolios would shock the system via loan portfolio deterioration which can, in turn, erode banks' balance sheets. Furthermore, the balance sheets of financial institutions are affected if concentrated in long duration bonds or equity. It should be noted though that life insurers long term liabilities are similarly reduced, mitigating the impact. Stress tests based on December 2015 data indicated that the banking sector remains resilient to a single, extreme interest rate shock (**Appendix B**). However, increased interconnectedness and corresponding feedback effects warrant close monitoring in these interest rate conditions.

Sovereign Debt Restructuring in the Caribbean

The overall risk assessment remains "moderate" (probability of this risk materialising is moderate, and its impact on the domestic economy and the financial system would be low).

High public debt continues to challenge the Caribbean region. In 2015, CARICOM's public debt burden was approximately 66 per cent of regional GDP, with the service based economies being the major holders of debt (83.2 per cent in 2015). This is estimated to rise to 70.2 per cent in 2016 (**Table 4**).

Table 4
Debt-to-GDP Ratios of CARICOM Members, 2015-2017

| Total Debt/GDP by Category | 2015 ^e | 2016 ^f | 2017 ^f |
|--|-------------------|-------------------|-------------------|
| Total CARICOM Debt-to-GDP | 66.4 | 70.2 | 71.2 |
| Share of Total CARICOM Debt by Category | | | |
| Service-based | 83.2 | 84.9 | 83.9 |
| Commodity-based | 47.6 | 53.8 | 57.4 |

Sources: International Monetary Fund World Economic Outlook Database, October 2015 and Central Bank of Trinidad and Tobago calculations.

^e Estimated.

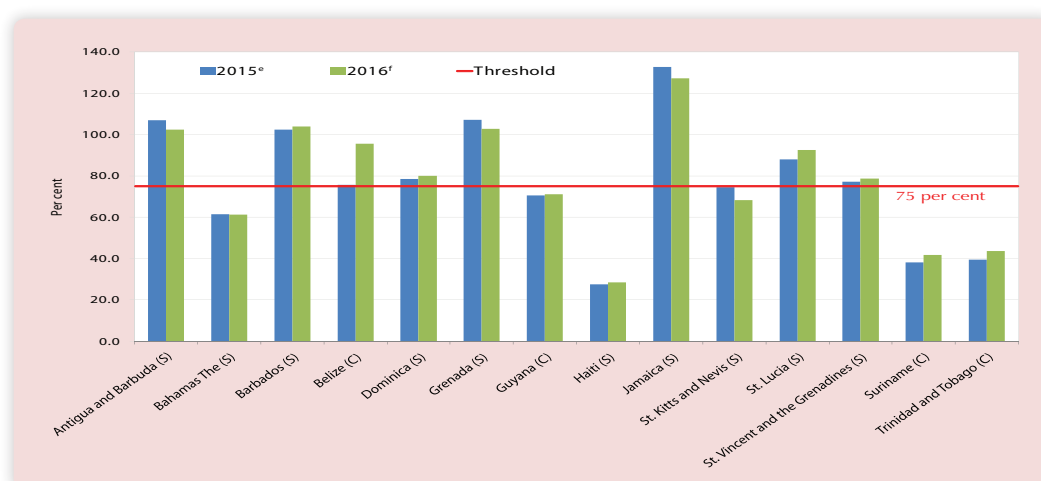
^f Forecasted.

It is forecasted that debt stocks may rise in more than 60 per cent of the regional economies (**Figure 29**), as projections revealed increases in the debt-to-GDP ratio for Barbados, Dominica, Guyana, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago. This outlook may further dampen the region's already fragile growth prospects.

The sovereign debt overhang has undermined the region's capacity to support growth oriented endeavours,

as shown by excessively high debt-to-revenue ratios and declining expenditure-to-GDP and revenue-to-GDP ratios. Many financial institutions, particularly domestic SIFIs, hold regional sovereign debt. Debt restructuring in the region can therefore jeopardise domestic and regional financial stability given the degree of regional financial interconnectedness. Effective cross border supervision, centered on 'home' and 'host' country regulatory cooperation and information sharing, is vital to mitigating this risk.

Figure 29
CARICOM Debt-to-GDP Levels
2015-2016



Sources: International Monetary Fund World Economic Outlook Database, April 2016.

e Estimated.

f Forecasted.

S Service-based CARICOM members.

C Commodity-based CARICOM members.

CHAPTER 3

STRENGTHENING THE LEGISLATIVE, REGULATORY AND SUPERVISORY FRAMEWORK

CHAPTER 3

STRENGTHENING THE LEGISLATIVE, REGULATORY AND SUPERVISORY FRAMEWORK

The global regulatory architecture has been strengthened following the international financial crisis. In the aftermath of the crisis the G20 launched a comprehensive programme of international financial regulatory reforms to increase the resilience of the financial system, while preserving its open and integrated structure.

According to a Financial Stability Board (FSB) status report issued to the G20 in November 2015²³, there has been steady but uneven progress toward completing the implementation of the four key areas of global reform: (i) building resilient financial institutions, (ii) ending “too big to fail,” (iii) making derivatives markets safer; and (iv) transforming shadow banking into resilient market-based finance. The reforms also cover a number of other areas, reflecting the lessons from the crisis. For example, the Bank for International Settlements in 2012 harmonized and strengthened the standards for payments system and other financial market infrastructures with the publications of a set of new Principles for Financial Market Infrastructures (PFMIs). These standards were developed in response to potential risk to the integrity and safety of financial market infrastructures that came to the fore during the financial crisis and were raised as concern by FSB and G20²⁴.

The FSB report highlights that some EMDE members face challenges in implementing reforms due to the limited size and level of development of their domestic financial markets, capacity and resource constraints, and cost pressures (e.g. for new infrastructure). The FSB has advised that EMDEs should continue to make appropriate use of the existing flexibility within international standards to enable them to implement the agreed reforms in a way that is appropriate to their circumstances and in line with their international commitments. This is the approach Trinidad and Tobago has taken, recognizing the need to improve the resilience of the financial sector

and modernize the supervisory framework, even while maintaining the overall provision of credit to the economy and facilitating monetary policy.

Trinidad and Tobago is at various stages of progress in developing and implementing these reforms to its financial sector regulation. The full, timely and consistent implementation of a financial regulatory reform programme aims to strengthen resilience of our financial system and support strong, sustainable and balanced economic growth.

The following sections describe the status of the legislative, regulatory and supervisory reform initiatives in the financial sector.

Legislative Developments

The Central Bank continued its work on two important pieces of legislation pertaining to the insurance and credit unions sectors, however there have been some delays in these areas. Other key legislative projects included work on the Foreign Account Tax Compliance Act (FATCA), and the Motor Vehicle Accident Fund (MVAf).

The Insurance Bill, 2015

The Insurance Bill 2015 was laid in Parliament in April 2015 and was referred to a Joint Select Committee (JSC) at its second reading in Parliament on May 5, 2015 for a detailed review of the substantive changes to the previous Bill. The Insurance Bill 2015 lapsed on June 17, 2015 due to the dissolution of Parliament.

There is an urgent need to revise the legislation governing the Insurance sector since the current Insurance Act²⁵ is fundamentally unchanged from the 1966 Act and does

23 <http://www.fsb.org/wp-content/uploads/Report-on-implementation-and-effects-of-reforms-final.pdf>.

24 <http://www.bis.org/cpmi/publ/d101.htm>.

25 Insurance Act Ch. 84:01.

not provide an effective regulatory framework to treat with the risks posed by insurance business. For instance the existing Insurance Act does not inter alia:

- require insurance companies to hold capital commensurate with their risk profile;
- reflect corporate governance best practices;
- treat with consolidated supervision; or
- address oversight of financial groups.

Therefore, the Insurance Bill is intended to improve regulatory oversight of insurance companies through the strengthening of prudential requirements, corporate governance practices and market conduct standards. Key provisions will significantly improve the safety, soundness and resilience of insurers by:

- Increasing minimum capital requirements;
- Introducing risk based capital;
- Introducing a consistent, minimum basis for the valuation of liabilities;
- Introducing a stress testing regime (Financial Condition Report); and
- Introducing more prudent limits for credit exposures to connected parties.

The Bill has been included on the short term legislative agenda of the Government.

Credit Union Bill, 2014 and Protection Fund

On November 18, 2014, the Credit Union Bill, 2014 and consequential amendments to the Cooperatives Societies Act via the Co-operative Societies (Amendment) Bill were introduced in the Senate. Similar to the Insurance Bill, these Bills lapsed on June 17, 2015 due to the dissolution of Parliament.

By way of background, in July 2005, Cabinet agreed to transfer the supervision of financial activities of all Credit Unions to the Central Bank of Trinidad and Tobago (the Central Bank). Cabinet also agreed that the Co-operative Societies Act, Chap 81:03 should be amended to remove supervision of the financial activities of credit unions from the Commissioner for Co-operative Development (the Commissioner). Therefore, it was envisaged that the sector would be governed by two Acts:

- **The Credit Union Act** by which the Central Bank would provide prudential regulation and supervision of the financial activities of credit unions; and
- **The Co-operative Societies Act** by which the Commissioner would supervise the constitutional, membership and developmental aspects of credit unions.

An important aim of the Credit Union Reform Agenda is to ensure that credit unions in Trinidad and Tobago are safe and sound while preserving the cooperative principles of member equality, participation, volunteerism and democracy.

The Credit Union Reform Agenda which is on the mid-term legislative agenda of the Government has as its key elements the introduction of:-

- corporate governance standards including Fit and Proper criteria for members of the board as well as specific accountabilities for the board;
- risk management limits including prudential criteria for capital, liquidity and investments;
- a regime of prompt and corrective action to be taken by the Inspector, such as, the issuance of compliance directions and removal of ineffective members of the board;
- authority for either the Central Bank to wind-up, or petition the Court for the wind-up of, a credit union; and
- protection of members' funds from financial fraud.

In 2015, Cabinet also approved a Policy Proposal Document for the establishment of a mandatory Protection Fund for the deposits and shares held by credit union members. The Credit Union Protection Fund ('the Fund') is to be established by way of amendments to the Central Bank Act, Chap. 79:02 and will be administered by the DIC. Representatives from the Central Bank, MOF, Chief Parliamentary Counsel and the DIC met during 2015 to review the draft legislative amendments for the establishment of the Fund.

Foreign Account Tax Compliance Act (FATCA)

FATCA is a US tax law designed to combat offshore tax evasion by US persons. It was signed into US law on March 18, 2010 and became effective January 1, 2013.

FATCA will require our non-US financial institutions (referred to as Foreign Financial institutions or FFIs) under FATCA law) to provide information to the US Internal Revenue Service (IRS) regarding accounts held by US citizens at their institutions. Non-compliance with FATCA can subject a FFI to a 30 per cent withholding tax and has the potential to compromise correspondent banking relationships.

As of November 30, 2014 Trinidad and Tobago reached an agreement in substance with the IRS on a Model 1 Intergovernmental Agreement (IGA). The Ministry of Finance is identified in the IGA as the Competent Authority and the Board of Inland Revenue (BIR) is expected to carry out the implementation of FATCA requirements.

The signing of the IGA is dependent on the conclusion of negotiations on certain matters including amending certain laws such as the FIA and IA to facilitate, for example, the sharing and transfer of confidential consumer information from financial institutions to the IRS. The deadline for the transmission of data to the IRS by the BIR is September 30, 2016.

Motor Vehicle Accident Fund (MVAf)

In March 2015, Cabinet approved policy proposals for the establishment of a MVAf which is designed to provide redress for victims of uninsured and untraced (“hit and run”) drivers. The MVAf provides for the treatment of issues such as claims handling, compensation assessment, recoveries, exclusion clauses and funding requirements and is intended to compensate individuals who have suffered loss as a result of accidents caused by uninsured and untraced drivers as follows: -

- persons who suffer bodily injury;
- beneficiaries of victims who are killed in accidents; and
- persons who suffered damage to property.

Meetings to progress the MVAf are on-going.

Regulatory Developments

During 2015, the Central Bank continued work on its initiative to enhance the prudential capital requirements of banking institutions through the introduction of Basel II Capital Adequacy Standards. In addition, the Bank issued Revised Terms and Conditions for the Operations of Bureaux de Change (Bureaux). Details of the two initiatives are outlined below.

Revised Capital Adequacy Standards for Institutions licensed under the FIA, 2008 (Basel II/III)

In November 2014, the Central Bank launched a significant project to implement the Basel II Capital Adequacy Standards which was aimed at strengthening the capital adequacy requirements of banking institutions. The Basel II standards aim to enhance the soundness of financial institutions by inter alia:

- aligning capital requirements for exposures to foreign sovereigns more closely with the sovereign rating;
- introducing capital charges for operational risk;
- increasing the minimum Capital Adequacy Ratio from 8 per cent to 10 per cent;
- increasing the Minimum Tier 1 Capital Adequacy Ratio from 4 per cent to 7 per cent; and
- introducing the Minimum Common Equity Tier 1 ratio of 4.5 per cent as proposed in the Basel III framework on a phased basis.

The Central Bank is working closely with the banking industry on the introduction of the new capital adequacy framework and has established a Technical Working Group (TWG) comprising representatives of the Central Bank and the industry to ensure effective implementation of the proposals.

While the capital adequacy ratio for the banking system averaged 24 per cent in 2015, this ratio is likely to decline with the implementation of Basel II. In this regard, a Quantitative Impact Study to assess the impact of the new proposals on banks’ capital ratios is in progress and the submissions are due by July 2016. Work has also commenced on drafting the new capital adequacy regulations needed to implement the standards.

Revised Terms and Conditions for the Operations of Bureaux de Change (Bureaux)

In August 2015, pursuant to Section 5 of the Exchange Control Act, Chap. 79:50, the Central Bank issued revised Terms and Conditions for Operations of a Bureau de Change (Terms and Conditions) in order to improve regulatory oversight of the sector. Key enhancements to the regulatory framework governing Bureaux included the following: -

- Introduction of fit and proper requirements for directors, officers, controlling shareholders and external auditors;
- Introduction of a minimum capital requirement of \$500,000;
- Provisions for conduct of on-site examinations; and
- Stipulation of regulatory/enforcement actions that could be taken by the Central Bank for non-compliance with the Terms and Conditions.

Bureaux have been allowed a transition period of six months to comply with fit and proper standards and twenty-four months to meet the minimum capital requirements.

Regional Supervisory Initiatives

Regional Co-ordination in Supervision of Cross-Border Financial Groups

Given the rising interconnectedness of regional financial entities, the Central Bank continued to collaborate with regional regulators to strengthen the supervisory framework governing regional cross-border financial groups. The three key ongoing initiatives areas follows:

- **Consolidated Supervisory Framework for Cross-Border Entities** – This project is a Caribbean Group of Banking Supervisors (CGBS) initiative. The Central Bank chaired a regional working group to develop a Consolidated Supervision Framework (Framework). The Framework which was finalized in May 2016

includes, inter alia, protocols to be adopted when a regulator is conducting cross-border consolidated on-site examinations, information that should be collected by regional regulators to effect consolidated supervision and criteria for Group structures to allow for effective Consolidated Supervision. Work on operationalizing the Framework is ongoing.

- **Loan Classification and Provisioning Harmonisation Project** – This project is also a CGBS initiative. A TWG comprising representatives from six regional countries and chaired by the Central Bank developed minimum standards for loan classification and provisioning to facilitate better comparisons and analysis across regional financial groups. The regional policy document is scheduled to be completed by end July 2016.
- **Regional and National Financial Crisis Management Plans (Plans)** – These Plans are intended to provide key stakeholders with an effective regime to bring about an orderly resolution of crisis situations involving financial institutions. Each jurisdiction is expected to develop a National Crisis Management Plan which will feed into a wider regional Crisis Management Plan. The Central Bank is collaborating with other domestic stakeholders, including the MOF and the TTSEC to finalize a draft National Crisis Management Plan for Trinidad and Tobago.

Anti-Money Laundering/Combatting the Financing of Terrorism

The CFATF 4th Round Mutual Evaluation of Trinidad and Tobago concluded in January 2015 and the final report was published on the CFATF's website on June 3, 2016²⁶. Trinidad and Tobago was assessed as being either compliant or largely compliant with the majority of the FATF Revised 40 recommendations from a legal (technical compliance) standpoint. However, the country has been placed in enhanced follow-up largely due to observed deficiencies in effectiveness of the AML/CFT framework. The first follow-up report to the CFATF is due in May 2017

26 See link to Trinidad and Tobago's 4th Round Mutual Evaluation Report on the CFATF's website (<https://www.cfatf-gafic.org/index.php/documents/4th-round-meal-reports>).

The assessment concluded that Trinidad and Tobago has established a relatively sound framework towards preventing and combating money laundering and terrorist financing and made several recommendations to further strengthen the country's AML/CFT regime.

In preparation for the mutual evaluation, focus was placed on legislative amendments to address 3rd Round deficiencies, as well as new requirements of the revised FATF Recommendations. Amendments to the primary AML/CFT legislation and their subsidiary regulations were passed in Parliament at the end of 2014. The legislative amendments assisted greatly with the strengthening of the legal framework for AML/CFT.

A National Risk Assessment (NRA) was also conducted with assistance from the World Bank to identify the main sources and drivers of money laundering and terrorist financing risks and work on finalizing the action plans and the NRA report is in progress.

The Central Bank, the TTSEC and the FIU operationalized the three-way Memorandum of Understanding which was signed in 2014. This has strengthened existing collaborative relationships and facilitates the sharing of information and intelligence amongst the regulators.

Additionally, the Central Bank has participated in several discussions on the issue of 'de-risking' (see **Box 2**). As noted previously, the de-risking of entire client segments by financial institutions has become an area of concern and is engaging the attention of several international agencies including the World Bank, the IMF, the Financial Stability Board and the FATF. Locally, in 2015 the Central Bank issued supervisory guidance promoting risk management rather than risk avoidance to licensees under the FIA to treat with the de-risking of high risk clients such as private members' clubs and money and value transfer services providers.

Payments System Oversight

The Central Bank's mandate with respect to oversight of the National Payments System (NPS) involves ensuring that it operates in a safe and efficient manner. Presently, the domestic payment system comprises one Systemically Important Payment System (SIPS), the Real Time Gross Settlement System (RTGS), and three Significant Retail Payment Systems (SRPSs). These SRPSs include the Automated Clearing House (ACH), the Cheque clearing system and the ATM and POS network system for credit and debit cards. New international standards for assessing risk management for Financial Market Infrastructures were formally adopted by the Central Bank in October 2014 and rolled out to all operators after consultation²⁷.

The new Principles for Financial Market Infrastructure (PFMIs) require operators to put in place measures to strengthen their risk management frameworks such as: -

- Principle 4 on credit risk calls for collateral resources so that the financial market infrastructure could continue to operate if a participant were to default;
- Principle 7 on liquidity risk expects operators to undertake stress testing and scenario analysis to ascertain their liquidity adequacy. This will require the creation of new indicators for measuring liquidity risk and the development of methodologies to perform payments system specific stress tests. It also requires collateral to be set aside in the event of default;
- Principle 15 requires the setting aside of sufficient resources to cover general business risk;
- Principle 17 on operational risk which requires all sources of this risk to be identified including cyber risk (see Box 4) and appropriate measures adopted; and
- Principle 23 which places a high emphasis on transparency and disclosure of pertinent information on rules and procedures to the public.

27 <http://www.central-bank.org.tt/content/payments-system>.

BOX 4

Cyber Risk

Financial stability practice has traditionally focused on financial risks and resilience as well as assessing the network of financial interconnections that create systemic risk. However, the financial sector also serves as an operational hub which delivers essential services to market participants and end users such as payment of salaries, settlement of debt obligations and transfers from one bank account to another.

To maintain the stability and soundness of the financial system, nodes in this network must be operationally resilient and must reliably provide important services. Furthermore, if disruptions occur institutions must have the capability to recover quickly and methodically so as to minimize any adverse impact.

Growing use of technology presents an array of cyber risk for financial institutions including disruptions of communication channels (e-mail, data exchange, and transactions), reputational damage due to loss of personal identification information (credit card, bank account, and PINs/passwords), and financial loss due to stolen funds/assets/loss of corporate information or intellectual property.

Unlike other natural causes of operational disruption, cyber attacks are deliberate acts by persons who have the will, and increasingly the means, to attack systems. This risk is on the rise globally and is a growing source of concern to the financial industry and country authorities alike. As with financial risk, cyber risk is amplified by the interconnectedness of the financial system. A successful attack on a large institution or vital infrastructure (including non-financial infrastructure that the financial sector relies on, such as telecommunications, water or electricity) could cascade throughout the financial system. Another dimension of these attacks is that there are no physical boundaries. The attack can emanate from anywhere rendering containment efforts futile.

While efforts are afoot to combat cybercrime, the evolving and adaptive nature of the threat means that ways of managing this risk must also evolve. Internationally, there has been good progress in understanding the nature and scope of cyber risk and the need for financial sectors to be resilient to cyber risk. Authorities are also building capacity to assess the ability of individual institutions to recover from attacks in a systematic way.

1 The financial loss, disruption or reputational damage to a financial institution as a result of failure in its information technology system.

Financial Stability Report - 2015

Appendices

Appendix A: An Assessment Of Household Debt In Trinidad And Tobago

Appendix B: Commercial Banking Stress Testing Summary

APPENDIX A

AN ASSESSMENT OF HOUSEHOLD DEBT IN TRINIDAD AND TOBAGO

Introduction

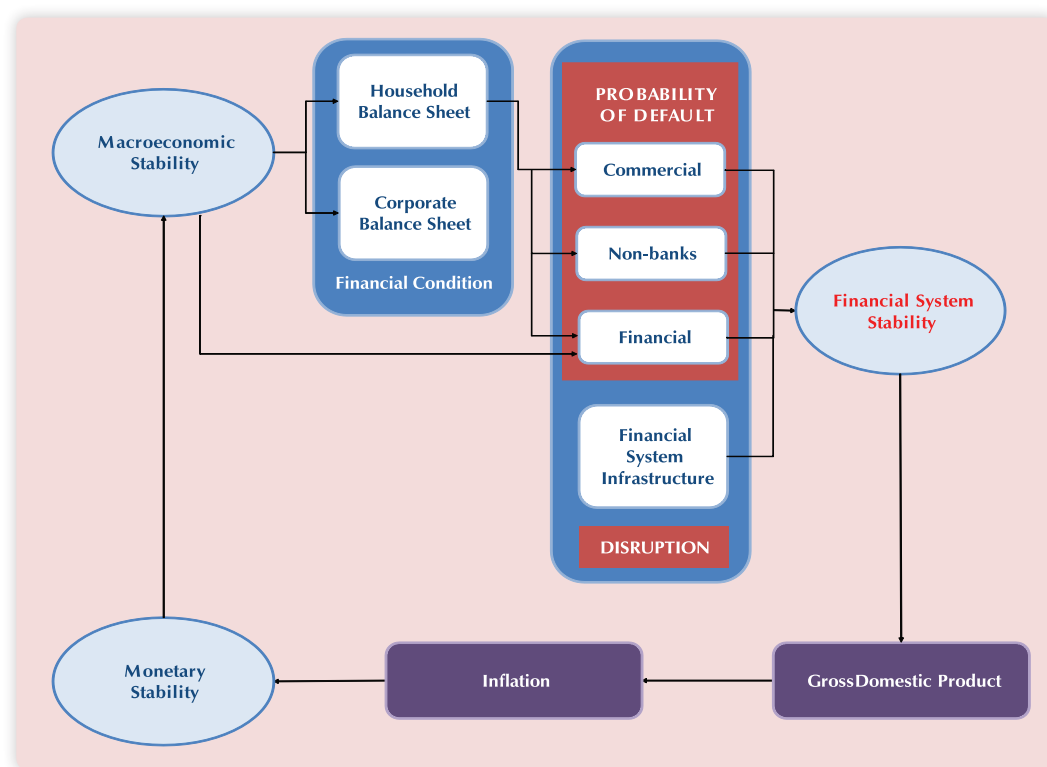
The level of household indebtedness is an important consideration for financial stability as research shows that downturns such as the 2009 global financial crisis are more severe when preceded by rapid increases and unsustainable levels of household debt (IMF 2012). This has led regulatory authorities worldwide to pay closer attention to the growth of the consumer loan profile of financial institutions, while developing and implementing measures to stymie excessive buildup of risk in this area.

The potential for households to severely affect the financial sector is dependent on both the exposure of the financial system to the household sector, as well as the ability

of households to service debt amidst adverse economic conditions. Shocks to households can originate from the real economy in the form of an increase in interest rates affecting repayments on variable rate loans, a negative shock to income – such as a rise in unemployment – and a decrease in property prices where the value of the home falls below the outstanding mortgage balance.

These shocks could lead to increased instances of household default which can in turn lead to loan losses in the financial sector. Financial institutions' response to deteriorating asset quality can have further implications for real economic activity. **Figure A1** illustrates the feedback effect between the real and financial sectors, by which household sector fragility can affect the financial system.

Figure A1
Feedback Effect Between the Real and Financial Sectors



Source: Santoso and Sukada 2009.

This preliminary investigation utilises currently captured forms of household debt data to highlight the vulnerabilities in the domestic financial system. Also, it introduces the Central Bank's ongoing initiative to strengthen its understanding of risks posed by indebtedness of the household sector.

Stylised Facts of the Household Sector

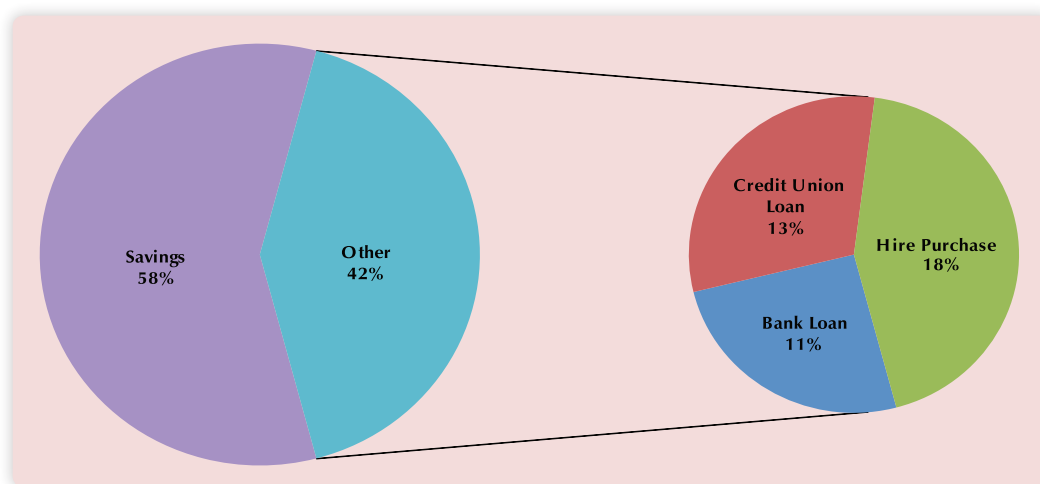
Consumer Sentiment 2015

In the March 2016 Consumer Confidence Survey, participants were asked to identify their preference for funding household purchases. **Figure A2** shows that 42 per cent of respondents preferred to finance their household purchases using some form of credit including hire purchase,

credit union loans and bank loans. It is noteworthy that the majority of respondents who indicated a preference for credit chose to use hire purchase over that of traditional financing, perhaps due to the faster turnaround and less stringent qualifying requirements.

The Central Bank recognises the importance of monitoring this source of funding as it is typically characterised by higher interest rates, placing borrowers at a greater risk of being unable to meet their debt obligations in the case of a negative economic shock. Hire purchase lenders are not currently supervised by the Central Bank (or any regulatory authority) and it has been a challenge to capture essential data such as outstanding hire purchase credit, item repossession, accounting provisions and borrower income. However, the Central Bank is currently undertaking a project that seeks to fill this data gap.

Figure A2
Consumer Confidence Survey – Preference for Funding Household Purchases
March 2016



Source: Central Bank of Trinidad and Tobago.

Estimated Household Debt in Trinidad and Tobago

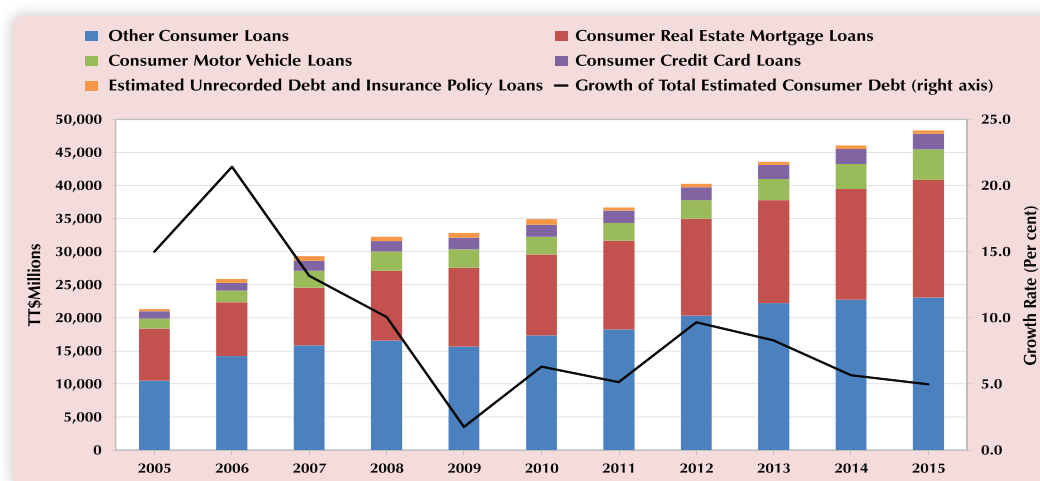
Household debt can be defined as an obligation or liability arising from borrowing money or taking goods or services on credit. It comprises the credits extended to households including open accounts, personal loans, credit card facilities, mortgage advances, instalment sales transactions and lease agreements.

In Trinidad and Tobago, consumer lending is supported by both financial and non-financial institutions, including the licensed deposit taking institutions, credit unions, insurance companies, thrift institutions, mortgage lending institutions and furniture and appliance merchants. Some components of household debt are neither collected by the Central Bank nor published in annual financial statements. Available data was used and supplemented with expert judgement; therefore interpretation should be guided accordingly.

Figure A3 shows the growth of estimated household debt for the period 2005 to 2015. Growth peaked in 2006 after which it declined to its lowest value in 2009 amidst the global financial crisis and the CL Financial debacle.

As at December 2015, total estimated household debt grew 5 per cent from the previous year. However, on a net basis (considering asset holdings of households), the vulnerability to household debt may be lower.

Figure A3
Estimated Household Debt Composition and Growth
2005 - 2015



Source: Central Bank of Trinidad and Tobago.

Note: "Estimated Unrecorded Debt" refers to an estimate of hidden or unrecorded debt, for example money lenders, pawn brokers, credit concessions, etc.

The IMF encourages the use of the Household Debt-to-GDP ratio as a financial soundness indicator to measure the overall level of household indebtedness as a share of domestic production. There is no benchmark ratio suggested, but rather importance is placed on the sustainability of the debt level. In Trinidad and Tobago, the estimated Household Debt as a share of GDP stood around 29 per cent in 2015, increasing from an average of 21 per cent during the five year pre-crisis period (2004-2008).

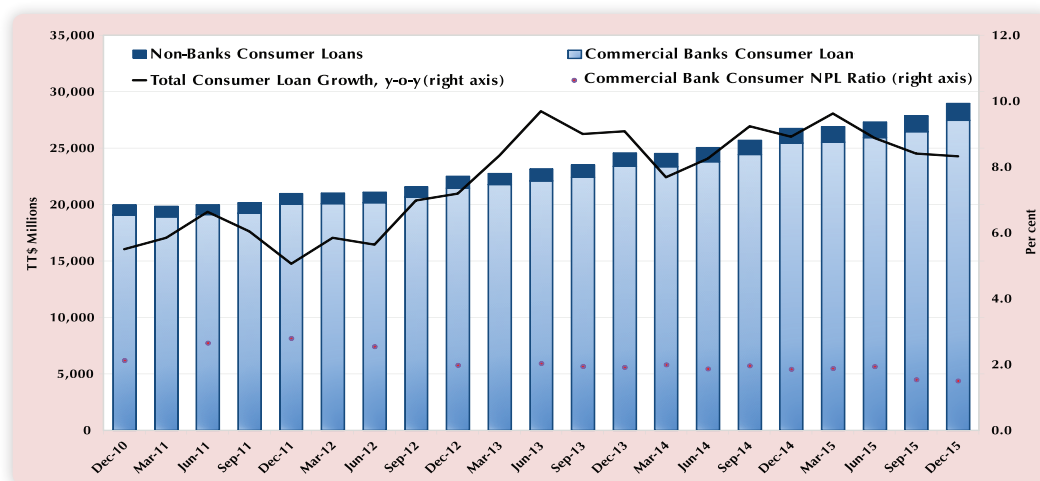
Consumer Loans of the Banking System

Preliminary regulatory data supplied by the banking system, that is, the commercial banking and non-banking sectors, accounts for approximately 60 per cent of estimated household debt. As such, data analysis in the remaining sections will focus on the regulatory returns of these institutions given the ample data available compared to non-licensed counterparts.

Consumer loans have been on the rise since December 2010 (**Figure A4**) as the local economy recovered from the preceding downturn, albeit at a slower pace for the last three quarters. This growth can be attributed to rising disposable income and low unemployment against the backdrop of historically low interest rates. Year-on-year growth in consumer loans has averaged 7.6 per cent since December 2010. Nevertheless, delinquency rates have remained relatively low. Commercial banks, which account for around 95 per cent of total consumer loans of the banking system, registered a consumer NPL ratio of 1.5 per cent in December 2015, down from a high of approximately 3 per cent in December 2011.

The composition of banking system consumer loans by purpose has changed marginally within recent years. Real estate mortgages have remained the largest component (42 per cent), followed by motor vehicle loans and refinancing and consolidation at 16 per cent and 12 per cent respectively, at the end of December 2015 (**Figure A5**).

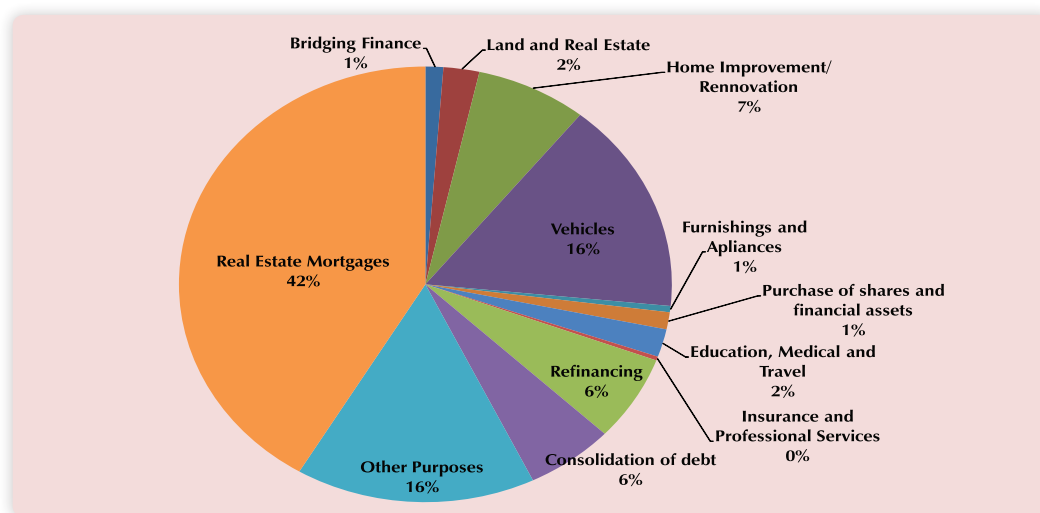
Figure A4
Banking System Total Consumer Loans Against Year-on-Year Growth and NPL Ratio
2010 - 2015



Source: Central Bank of Trinidad and Tobago.

Note: Commercial Bank NPL ratios for the Consumer sector are available semi-annually from June 2010 to June 2013, and quarterly onwards.

Figure A5
Consumer Loans by Purpose
December 2015

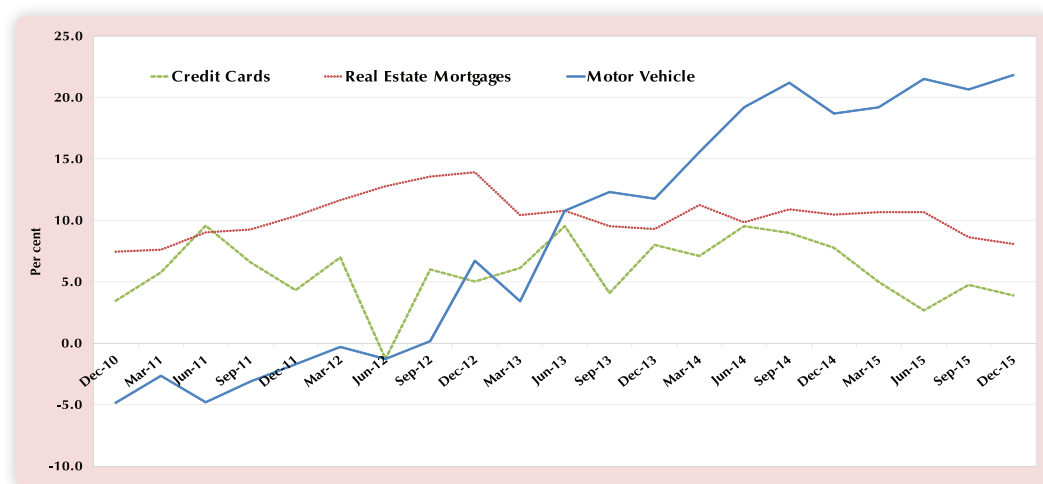


Source: Central Bank of Trinidad and Tobago.

While its share as a percentage of total consumer loans has not changed, there has been notable growth in motor vehicle loans over the last two years (**Figure A6**), particularly for the purchase of new private cars. Along

with new vehicles and other durables, credit card loans and personal expenses, real estate mortgages and other housing costs have registered among the highest average growth rates over the last five years.

Figure A6
Year-on-Year Growth of Selected Consumer Loans
2010 - 2015



Source: Central Bank of Trinidad and Tobago.

Credit Cards

Statistics on the consumer credit card loan portfolio are limited, but the Central Bank captures aggregate credit card information on all sectors in various forms. These aggregate indicators give a fair gauge of the health of the consumer credit card loan portfolio, as loans to consumers comprise over 90 per cent of total credit card loans.

While credit cards account for a mere 4 per cent of total loans of the banking system, their use has recorded

tremendous growth in popularity over the last five years. Credit card issuances have grown 35 per cent to approximately 423,000 internationally branded credit cards (**Table A1**). Of those issued, credit cards that are actively used have grown almost 50 per cent for the same period. Further, the share of credit cards as a percentage of active payment cards in the system has more than doubled since December 2010.

Table A1
Payment Cards and Credit Cards, December 2010 and December 2015

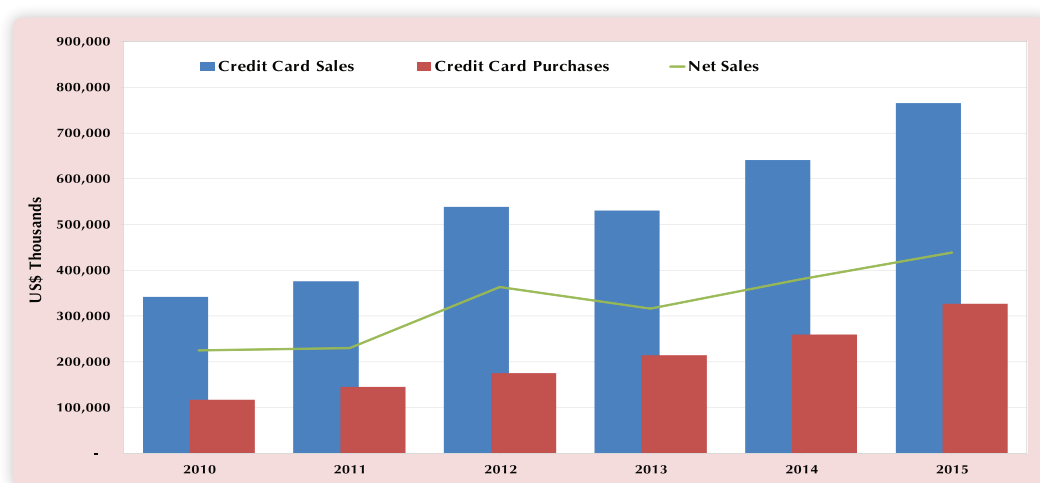
| | December 2010 | | December 2015 | | | Growth from Dec-10 to Dec-15 | | |
|--------|---------------------------|--------------------------|------------------------------|---------------------------|--------------------------|------------------------------|--------------------------|-------------------------|
| | Payment Cards (Thousands) | Credit Cards (Thousands) | Credit Card Share (per cent) | Payment Cards (Thousands) | Credit Cards (Thousands) | Credit Card Share (per cent) | Payment Cards (per cent) | Credit Cards (per cent) |
| Issued | 2,526.1 | 313.8 | 12.4 | 3,478.1 | 422.5 | 12.1 | 38 | 35 |
| Active | 1,388.7 | 147.6 | 10.6 | 929.8 | 220.3 | 23.7 | -33 | 49 |

Source: Central Bank of Trinidad and Tobago.

The growth in credit card use is accompanied by an increase in foreign transactions over the period 2010 to 2015. **Figure A7** shows the effect on the total foreign exchange position as reflected in the positive value of net credit card sales (the difference between credit card sales and purchases). Credit card sales represent settlement for US dollar transactions using locally issued credit cards,

while credit card purchases represent settlement received for foreign credit cards used locally. It is worth noting that credit cards, while classified as short-term borrowing, are more frequently used as a method of payment as seen by the surge in online shopping. However, the typical annual market interest rate on credit card loans has remained around 24 per cent for the last five years.

Figure A7
Credit Card Foreign Exchange Sales and Purchases
2010 - 2015

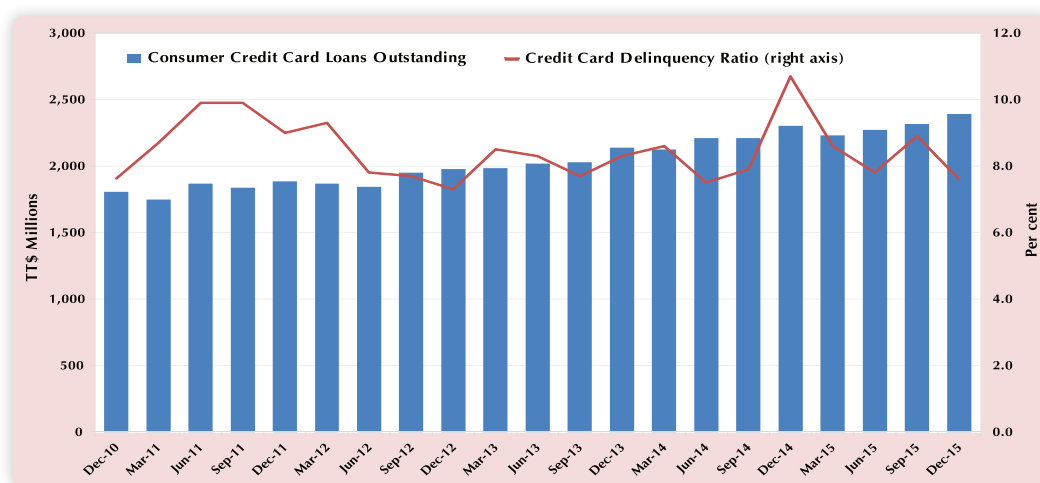


Source: Central Bank of Trinidad and Tobago.

In spite of this, the share of past due credit card loans accounted for under 8 per cent of the credit card loan portfolio in December 2015 (**Figure A8**), while the NPL

ratio (those loans which are past due greater than three months) was around 2 per cent.

Figure A8
Consumer Credit Card Loans Outstanding Against Credit Card Delinquency Ratio
2010 - 2015



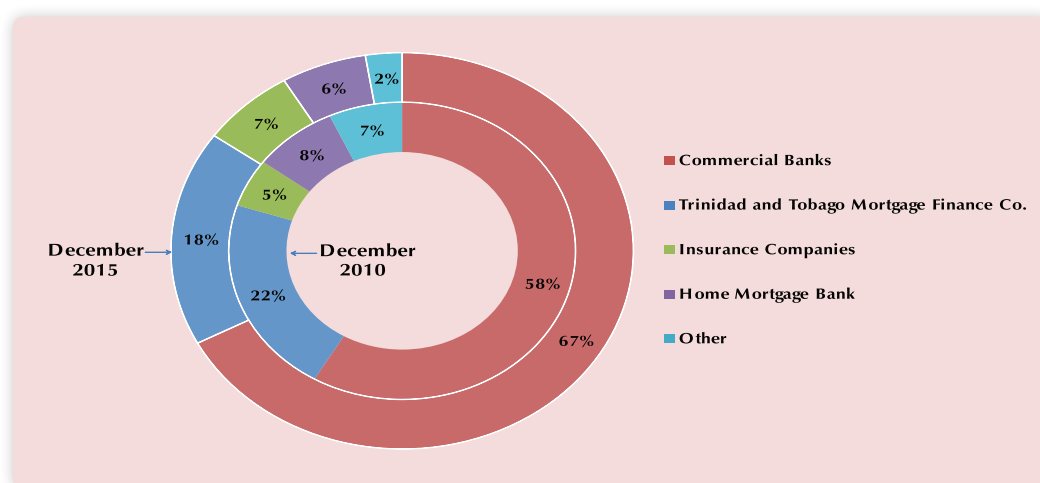
Source: Central Bank of Trinidad and Tobago.

Real Estate Mortgages

According to estimated household debt data, commercial banks continue to dominate real estate mortgage lending in the financial sector, significantly outpacing other lending institutions (**Figure A9**). Additionally, the commercial

bank real estate mortgage portfolio has grown over 60 per cent over the last five years due to high liquidity, low interest rates and aggressive marketing efforts by individual commercial banks in response to favourable economic conditions.

Figure A9
Mortgage Debt by Lending Institution
2010 and 2015



Source: Central Bank of Trinidad and Tobago.

Note: "Other" includes Non-Bank Financial Institutions, the National Insurance Board, the Housing Development Corporation and Pension Companies.

With mortgages representing the majority of household debt, the commercial banking sector in particular faces heightened credit risk exposure. Consumer real estate

mortgages have increased to 43 per cent of total loans to consumers and 19 per cent of the entire commercial bank loan portfolio (**Table A2**).

Table A2
Commercial Banks Consumer Loans Exposure, 2010 and 2015
TT\$ Millions

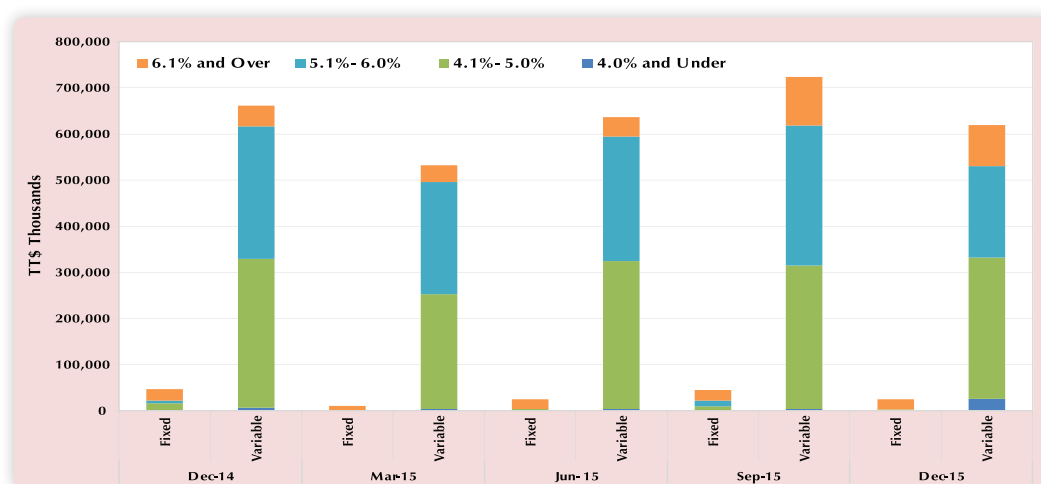
| | December 2010 | December 2015 | Growth from Dec-10 to Dec-15 (per cent) |
|-----------------------------|-----------------|-----------------|---|
| Real Estate Mortgages | 7,145.5 | 11,958.9 | 67 |
| Other Consumer Loans | 11,937.5 | 15,544.9 | 30 |
| Total Consumer Loans | 19,083.0 | 27,503.8 | 44 |
| Total Loans (Gross) | 46,326.5 | 62,749.6 | 35 |

Source: Central Bank of Trinidad and Tobago.

In 2011, the Central Bank initiated a new regulatory form to collect a comprehensive suite of data related to the real estate sector. Among the new data collected is the value of new mortgages disbursed by interest rate band. Aggregate data of the commercial banking sector shows that new mortgages have typically been granted within the 4-6 per cent variable interest rate band in the twelve months to December 2015. **Figure A10** also shows that the bulk of these approvals are at variable versus fixed interest rates, making the majority of consumers susceptible to interest rate shocks. While the value of variable

rate mortgages between the 4-5 per cent and 5-6 per cent bracket appeared to be similar up to September 2015, it must be noted that the number of mortgages disbursed in the 5-6 per cent bracket was on average 20 per cent higher than the number in the 4-5 per cent range for that period. However, for the quarter ended December 2015, there has been a significant decrease in the number (and value) of mortgages disbursed in the higher range. Despite this, there remains a higher mortgage value per customer in the lower interest rate bracket.

Figure A10
Value of New Mortgages Disbursed by Interest Rate Type and Band
2014 - 2015



Source: Central Bank of Trinidad and Tobago.

On the other hand, data shows that the largest value of outstanding mortgage loans falls within the 5-6 per cent variable interest rate bracket (**Figure A11**). As expected, there are notably more outstanding mortgages at higher variable interest rates than with new mortgages disbursed.

Shocks to the Household Sector

In order to effectively assess the financial stability risk posed by the household sector, prudential authorities seek to gain a thorough understanding of the key triggers to household financial stress which may originate in the real economy or through financial policies. Increasing household fragility demonstrated by a deterioration of households' debt-servicing capacity, in conjunction with

a higher level of household indebtedness, exacerbates the effect of a negative shock to the household balance sheet. The subsequent rise in NPLs can in turn impair the balance sheets of financial institutions.

In the Trinidad and Tobago context, these triggers can include: -

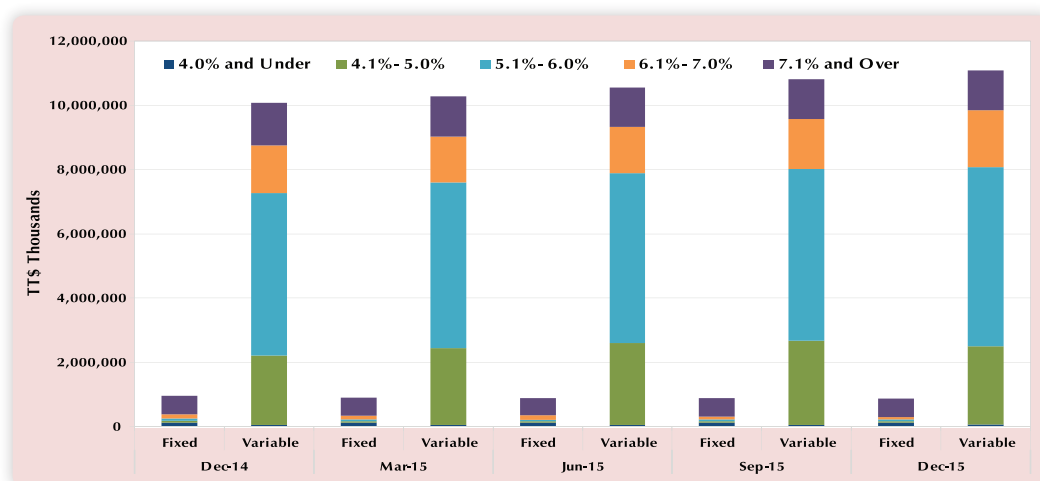
- Rising unemployment
- Increasing interest rates
- A decrease in property prices

A comparison of the results of the December 2015 and March 2016 Consumer Confidence Surveys revealed that consumers have increased concerns over the effect of inter alia unemployment, low energy prices and inflation

(Figure A12). While it appears that public uncertainty over interest rates and real estate prices has decreased slightly over the quarter, they remain key concerns.

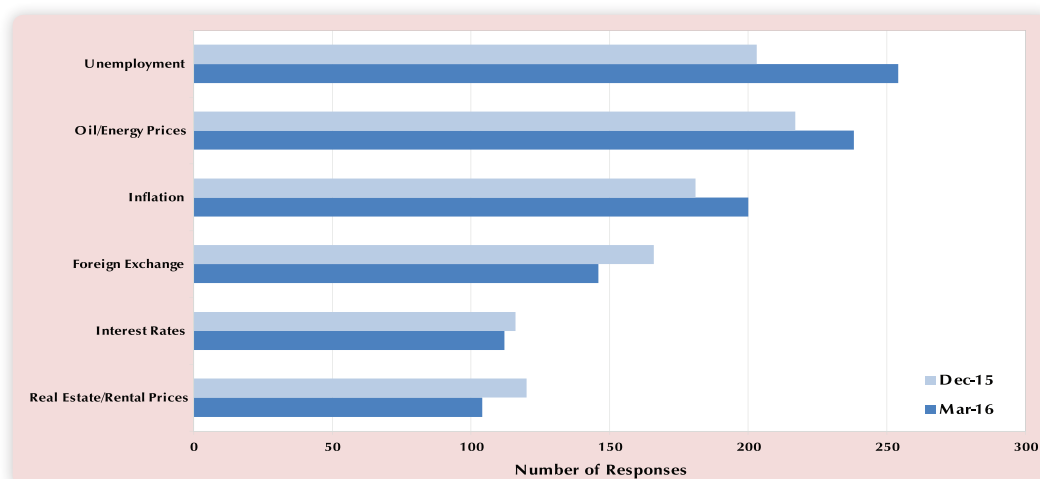
In light of the foregoing, developments in these areas are carefully monitored in order to pre-empt and mitigate financial stability risks originating in the household sector.

Figure A11
Value of Outstanding Mortgages Disbursed by Interest Rate Type and Band
2014 - 2015



Source: Central Bank of Trinidad and Tobago.

Figure A12
Responses to Consumer Confidence Survey
“What are your biggest concerns for the economy over the next 6 months?”
2016 - 2016



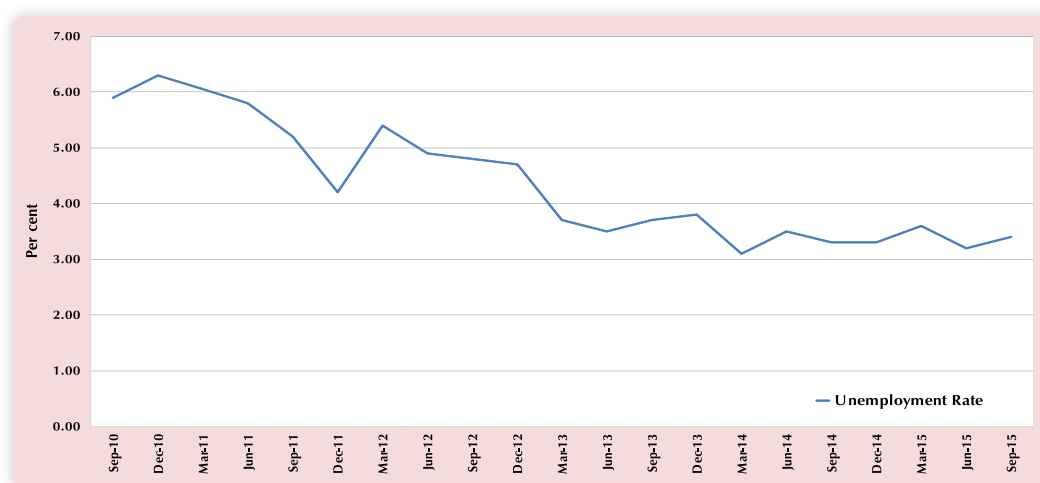
Source: Central Bank of Trinidad and Tobago.

Rising Unemployment

A rise in unemployment and the resulting loss of household disposable income would have perhaps the most direct impact on household financial distress. Greater levels of household indebtedness would imply an increased probability of default for households. Their debt servicing capacity could substantially weaken over time. Accordingly, financial institutions with large consumer and residential mortgage loans could be exposed to higher credit risk.

Figure A13 shows the unemployment rate marginally increased to 3.4 per cent at the end of September 2015 from 3.3 per cent one year earlier due to a rise in the number of persons unemployed and the number of persons actively seeking work. The five year average hovers around 4.4 per cent. Consumer sentiment suggests unemployment is a top concern for the quarter ending March 2016, mirroring the results of the December 2015 Labour Market Confidence Survey which highlighted rising concerns of job security over the next six months.

Figure A13
Unemployment Rate 2010 - 2015



Source: Central Bank of Trinidad and Tobago.

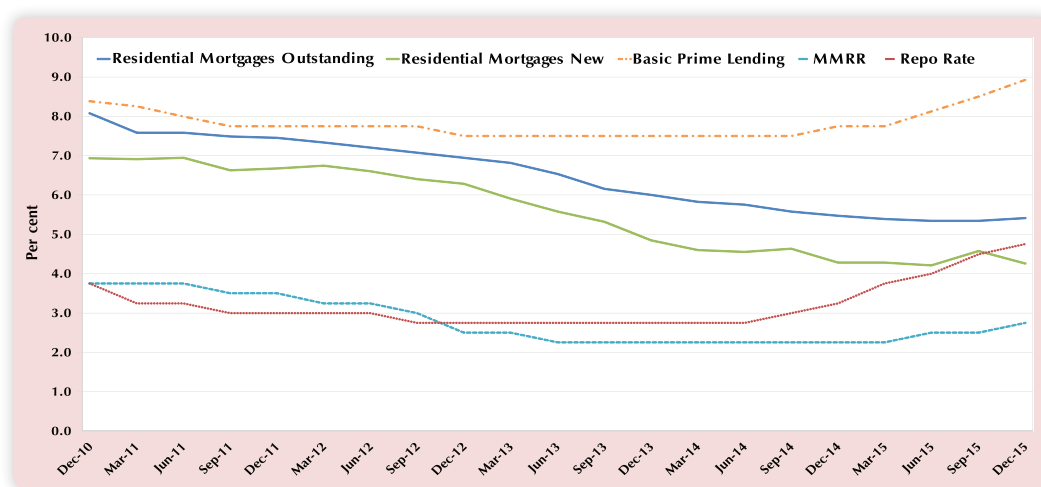
As part of its quarterly Stress Testing Exercise, the Central Bank applies a credit shock to the commercial banking sector which results in a greater incidence of loan defaults. The stress test simulates an increase in defaults by migrating a percentage of loans from one past due loan category (for example, three to six months past due) to a worse off category (for example, six to twelve months past due). The results of the December 2015 Credit Stress Test indicate that the CAR of the commercial banking sector fell by less than 1 per cent when the shock was applied to the consumer loan portfolio only.

Increasing Interest Rates

Following a protracted period of relatively low interest rates in Trinidad and Tobago, a sharp directional change

in the cost of borrowing could result in higher debt repayment burdens for households with variable rate loans. Variable interest rates are closely related to movements in policy rates, but since the majority of consumer loans excluding residential mortgages are fixed rate, rising interest rates should have a negligible impact. However, over 90 per cent of outstanding residential mortgages are variable rate and are susceptible to higher interest repayments. Rising debt obligations along with a less than compensating increase in income is a potential concern for financial stability since debt-service ratios may rise higher than the level stipulated by banks' credit policies. Thus, financial institutions with overly large residential mortgage portfolios could face increased credit risk.

Figure A14
Selected Interest Rates, 2010 - 2015
 (End of Period)



Source: Central Bank of Trinidad and Tobago.

Figure A14 shows that selected interest rates have been trending upward since September 2014 following the decision by the Central Bank to raise the Repo rate¹. As expected, mortgage market rates have been slower to adjust. In 2011, the Central Bank issued a Residential Real Estate Mortgage Market Guideline in which it introduced the MMRR, an interest rate benchmark against which mortgages are to be priced and repriced. The MMRR is computed by the Central Bank based on information on commercial banks' cost of funds and the yield on a 15 year Treasury bond. The rate faced by the consumer is based on the MMRR plus a margin charged by the lending institution. While the MMRR does not move directly with the Repo rate, any adjustment to the Repo rate will have an eventual impact on the MMRR through the commercial banks' cost of funds.

With the Repo rate increases over the period September 2014 to November 2015, it is expected that interest rates on residential mortgages will trend upwards in the short term. However, the MMRR Guideline (the Guideline) has mechanisms in place to protect consumers from rapid rises in interest rates. While the lending institution is required to reprice residential mortgages when the current MMRR is lower than that on which the last repricing was based, they may choose not to reprice residential

mortgages when the MMRR is on the rise. Secondly, adjustable and variable rate residential mortgages may be repriced by the lending institution no more than once every twelve months on the anniversary date of the mortgages. Lastly, the Guideline states that over any three year period, the mortgage rate could only increase by a maximum of 350 basis points or by the increase in the Repo rate, whichever is larger.

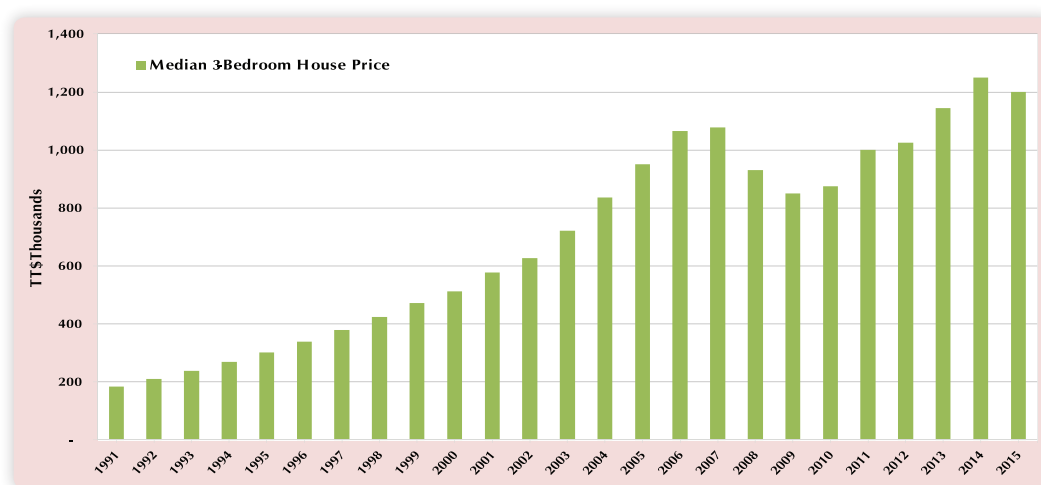
A Decrease in Property Prices

An understanding of the multidimensional relationship of the domestic property market along with the financial system and the real sector is crucial for assessing financial stability. Higher levels of household indebtedness reflect, rather than drive higher property prices². This is evident in the case of Trinidad and Tobago where lower interest rates have afforded consumers the opportunity to contract larger mortgages. At the end of 2014, the median house price peaked at approximately \$1.25 million, a 47 per cent growth over the last five years (**Figure A15**). The value of real estate mortgage loans outstanding increased by approximately 60 per cent for the same period. However, 2015 data showed a slight dip in the median house price to \$1.2 million.

¹ The Repo rate is the principal instrument used by the Central Bank to influence the structure of commercial banks' interest.

² Filardo 2009.

Figure A15
Median 3-Bedroom House Price
1991 - 2015



Source: Central Bank of Trinidad and Tobago.

Significant value can be derived from identifying those factors that influence growth in the housing market such as changes in interest rates, economic conditions and demographics. Any scenario that results in falling house prices can increase the credit risk of mortgage lending institutions as households are more likely to default when the value of the house is less than the underlying mortgage balance. As such, the Central Bank is examining possible macro-prudential policy tools; one of which is a limit on the LTV ratio in an effort to reduce risks associated with sharp changes in house prices. The lower the LTV ratio, the greater the drop in the house price needs to be, to fall below the value of the mortgage. In the case of default, banks will be able to obtain higher recovery ratios making them less susceptible to balance sheet losses. In Trinidad and Tobago, the LTV ratio is currently used to aid micro-prudential supervision in the banking system.

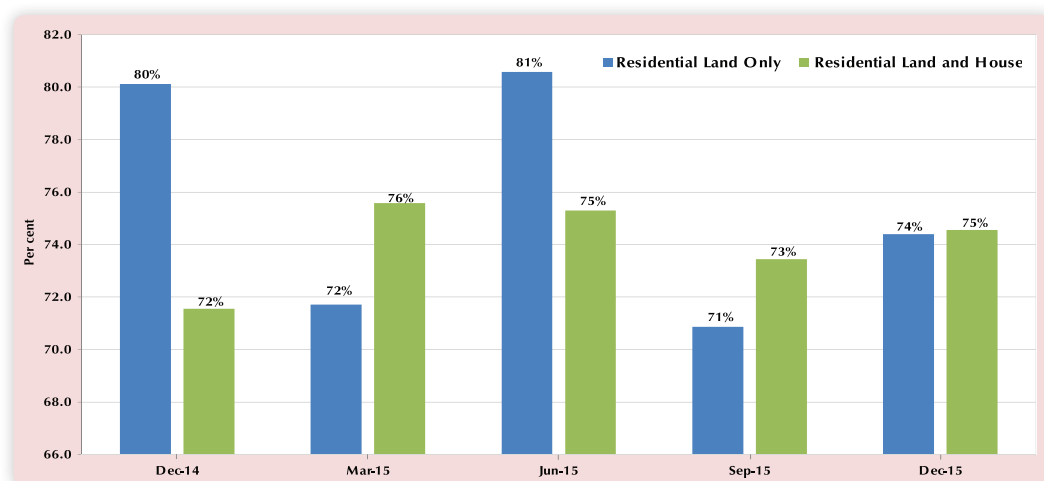
For the past year, the LTV ratio for the commercial banking sector mortgage portfolio has averaged 74 per cent for purchase of residential land only and 75 per cent for the purchase of residential land and house (**Figure A16**).

Further, the Central Bank conducted a specialised Property Price Stress Test on the local commercial banking system to measure its response to a fall in property prices which can result in deteriorating asset quality of residential real estate related loans³ as declining property valuations affect debtors' willingness to pay. The test also included the impact of falling property prices on large exposures⁴ to the real estate sector. **Figure A17** shows that the system remains resilient in the face of severe shocks to the residential real estate sector of up to a 45 per cent write-off of all residential real estate exposures.

³ Residential real estate-related loans include mortgages, bridging finance, land and real estate and home improvement loans of the Residential Sector.

⁴ A large exposure is defined as a credit exposure to persons, borrower groups or related groups amounting to ten per cent or more of the commercial bank's capital base.

Figure A16
Average LTV Ratios of the Commercial Banking Sector, 2014 –2015
(End of Period)



Source: Central Bank of Trinidad and Tobago.

Figure A17
Breaking Point Analysis of Property Price Stress to Consumer Loans
of the Commercial Banking Sector
December 2015



Source: Central Bank of Trinidad and Tobago.

Initiatives Going Forward

It should be noted that there are data limitations with respect to pertinent household data including, but not limited to, measures of income and expenditure. This needs to be addressed going forward with the relevant stakeholders.

In order to further enhance the Central Bank's macro-prudential oversight and to ensure greater consistency with international best practice, it is envisioned that a macro-prudential policy framework will be introduced and implemented. This would include the development of a systematic approach to the identification, monitoring and assessment of vulnerabilities and systemic risks; establishment of a toolkit of macro-prudential instruments to address potential identified risks, and the institutional

framework for governance and application of the framework.

Build up of systemic risks to financial stability emanating from the household sector can be addressed through the use of macro-prudential policy instruments, such as limits on LTV and DTI ratios. Recent data from the IMF suggests that country authorities have been increasing LTV and DTI constraints gradually over the years. There has been widespread use of these tools for reducing the procyclicality of household credit and bank leverage, moderating credit growth, improving the credit worthiness of borrowers and lowering the rate of house price growth⁵. However, in the CARICOM region, there has not yet been formal implementation of macro-prudential policy tools to address household sector vulnerabilities⁶.

5 Schembri 2015.

6 Mahabir 2014.

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APPENDIX B

Commercial Banking Stress Testing Summary

| Commercial Banking System Stress Testing Results (per cent) | | Dec-14 | Mar-15 | Jun-15 | Sep-15 | Dec-15 | |
|---|--|--------|--------|--------|--------|----------------|-------------------------------------|
| Pre-Shock CAR | | 22.5 | 23.0 | 22.8 | 22.1 | 22.1 | |
| Pre-Shock CAR Adjusted for Provisions | | 20.8 | 21.3 | 20.9 | 20.2 | 20.4 | |
| Single Factor Tests | | | | | | | |
| | | | | | | Post-Shock CAR | Change from Pre-Shock Ad-justed CAR |
| Interest Rate Risk | Interest Rate ↑ 700 basis points | 7.2 | 9.3 | 8.3 | 7.8 | 8.2 | -12.1 |
| | Interest Rate ↓ 100 basis points | 22.5 | 22.9 | 22.5 | 21.8 | 22.0 | 1.6 |
| Foreign Exchange Risk | TT Dollar depreciates 40 per cent | 21.5 | 21.9 | 21.3 | 20.8 | 21.2 | 0.8 |
| Credit Risk | Deterioration of Loan Portfolio | 18.7 | 19.2 | 18.9 | 18.2 | 18.4 | -2.0 |
| Credit Risk - Property Prices | Property Prices ↓ 30 per cent | 18.6 | 19.2 | 18.7 | 18.1 | 18.2 | -2.2 |
| Scenario Tests | | | | | | | |
| | | | | | | Post-Shock CAR | Change from Pre-Shock Ad-justed CAR |
| Energy Price Shock | Price ↓ 50 per cent - No Policy Response | 9.5 | 11.1 | 10.2 | 9.8 | 10.3 | -10.1 |
| | Price ↓ 50 per cent - Policy Response | 21.2 | 21.5 | 21.0 | 20.5 | 20.9 | 0.5 |
| Regional Disaster Scenario | Regional Natural Disaster | 19.2 | 19.9 | 19.4 | 18.8 | 19.0 | -1.4 |

Source: Central Bank of Trinidad and Tobago.



CENTRAL BANK OF
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