FINANCIAL STABILITY REPORT

2022-2023

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AML	Anti-Money Laundering
BCBS	Basel Committee of Bank Supervision
BEPS	Base Erosion and Profit Shifting
BIS	Bank for International Settlements
BSI	Banking Stability Index
CAR	Capital Adequacy Ratio
CFT	Countering the Financing of Terrorism
CIMA	Cayman Islands Monetary Authority
CIREBA	Cayman Islands Real Estate Brokers Association
COVID-19	Coronavirus Disease 2019
CPF	Countering Proliferation of Weapons of Mass Destruction
CPIS	Coordinated Portfolio Investments
CSP	Corporate Service Providers
D-SIDTIs	Domestic Systemically Important Deposit Taking Institutions
DRLA	Directors Registration and Licensing
DSIDTI	Domestic Systemically Important Deposit-Taking Institution
ESG	Environmental, Social and Governance
EU	European Union
FAR	Fund Annual Report
FATF	Financial Action Task Force
FINTECH	Financial Technology
FSI	Financial Soundness Indicator
FSP	Financial Service Provider
GDP	Gross Domestic Product
GFCI	Global Financial Centers Index
GFIN	Global Financial Innovation Network
GFSR	Global Financial Stability Report

G-SIBS	Global Systemically Important Deposit Taking Institutions
GWP	Gross Written Premium
HLA	Higher Loss Absorbency
IFCs	International Financial Centre
ICAAP	Internal Capital Adequacy Assessment Process
IMF	International Monetary Funds
IOSCO	International Organization of Securities Commissions
MFA	Mutual Funds Act
MH	Medium High Risk
NFGS	The Network of Central Banks and Supervisors for Greening the Financial System
NPL	Non-Performance Loans
OECD	Organization for Economic Co-operation and Development
PFA	Private Funds Act
PSEs	Public Sector Entity
ROA	Return on Assets
ROE	Return on Equity
RTA	Registrar and Transfer Agency
SIBS	Securities Investment Business
SLR	Sea Level Rise
SMEs	Small and medium-sized enterprises
TCSP	Trust and Corporate Service Providers
VASP	Virtual Assets Service Provider

EXECUTIVE SUMMARY

This second edition of the Financial Stability Report (FSR) for the Cayman Islands serves the twofold purpose of providing insights into the performances of key sectors within the financial system, along with notable trends and identifying potential vulnerabilities that could translate into systemic risks to financial system. Notably, the FSR highlights the Cayman Islands' successful exit from the Financial Action Task Force (FATF) and the European Union (EU) grey and blacklists respectively, marking a significant achievement that underscores its dedication to upholding international standards of financial transparency and compliance. Through addressing concerns raised by the FATF and EU and implementing rigorous regulatory measures, the Cayman Islands has solidified its reputation as a trustworthy and transparent jurisdiction for global financial services. This milestone not only demonstrates the jurisdiction's commitment to meeting global regulatory standards but also reinforces its position as a major player in the international financial arena.

The world continues its path to recovery with Global Gross Domestic Product (GDP) estimates of 3.2% in 2024, despite grappling with multi-decade high and above-target inflation rates in 2022-23 and subsequent tightening of monetary policy. The Cayman Islands itself demonstrated robust economic performance, with an estimated growth of 3.8% for 2023, alongside decelerating inflation and record low unemployment.

Within the financial sector, the banking industry remains pivotal, serving as a significant cross-border financial intermediary for the jurisdiction. The Cayman Islands ranks eighteenth (18^{th}) internationally in terms of total international assets and liabilities, highlighting its global importance in financial intermediation and cross border payments. In insurance, the jurisdiction holds the position as the second-largest domicile for captives and leads worldwide in healthcare captives. The funds sector distinguishes itself as the cornerstone of the Cayman Islands' financial landscape, holding the second-ranking position worldwide for portfolio investments, second only to the United States, and catering primarily to large institutional investors.

Moreover, the FSR showcases the Cayman Islands' embrace of technology in financial services, particularly in the realm of virtual asset service providers (VASPs). Leveraging fintech solutions and blockchain technology has enabled the Cayman Islands to enhance efficiency, transparency, and security in financial transactions involving virtual assets. This strategic adoption of technology positions the jurisdiction as a forward-thinking international financial hub capable of meeting the evolving demands of the digital economy. Such initiatives not only boost the competitiveness of the Cayman Islands but also enhance the resilience and adaptability of its financial system in the face of technological disruptions.

In line with the government's concentrated action in the area of sustainability and climate resiliency, the Cayman Islands Monetary Authority (CIMA/Authority) is proactively tackling climate-related and environmental risks within the financial sector. The FSR highlights the Authority's and the country's commitment to sustainability and responsible investing through initiatives aimed at capacity building and promoting eco-friendly practices. By integrating climate risk assessments into financial regulations and supporting green finance endeavours, the jurisdiction is taking tangible steps to mitigate the impact of climate change on the financial system and contribute significantly to global environmental conservation efforts.

The findings outlined in this FSR, coupled with the ongoing initiatives being pursued, underscore the Authority's steadfast commitment to bolstering the integrity of the financial services industry. Furthermore, these efforts are pivotal in preserving the Cayman Islands standing as a resilient and credible financial hub.

CHAPTER 1: THE ECONOMIC AND FINANCIAL ENVIRONMENT

1.1 THE GLOBAL ECONOMIC AND FINANCIAL ENVIRONMENT

A resilient global economy…

Despite the trinity of blows from the Russia-Ukraine war, the COVID-19 pandemic and the cost-of-living crisis, the global economy has demonstrated remarkable resilience, showing signs of recovery and growth. Projections indicate a 3.2% expansion in the global GDP for 2024, similar to the growth rate in 2023 (Table 1). Moreover, these improvements result in the estimated growth trajectory remaining stable over the next two years. Controlled policy efforts to rein in inflation are gradually proving effective without causing a substantial downturn in economic activity.

Table 1: Overview of the World Economic Outlook Projections (%)

			Projections	
	2022	**2023**	**2024**	**2025**
World Output	3.5	3.2	3.2	3.2
Advanced Economies	2.6	1.6	1.7	1.8
United States	1.9	2.5	2.7	1.9
United Kingdom	4.3	0.1	0.5	1.5
Canada	3.8	1.1	1.2	2.3
Euro Area	3.4	0.4	0.8	1.5
Emerging Markets	4.1	4.3	4.2	4.2
India	7.2	7.8	6.8	6.5
China	3.0	5.2	4.6	4.1
Latin American and the Caribbean	4.2	2.3	2.0	2.5
World Inflation	8.7	6.8	5.8	4.4
Advanced Economies	7.3	4.6	2.6	2.0
Emerging Markets	9.8	8.3	8.3	6.2

Source: IMF World Economic Outlook, April 2024

Despite elevated interest rates…

Amidst the global challenge of grappling with multi-decade high and above-target inflation rates in 2022-23, there was a tightening of monetary policy, contributing to a gradual deceleration of inflation in the second half of 2023. A notable occurrence was the peak of the Fed funds rate at 5.5%—a 22-year high—following 11 interest rate hikes between 2022-23 as the US confronted its highest inflation rate in 40 years. Similarly, the Bank of England initiated policy rate increases in December 2021, currently standing at 5.25% after 14 rate hikes. The European Central Bank began their rate hikes later—in July 2022—with 10 increases to the marginal lending facility rate, elevating it from 0.25% to 4.75%. Notwithstanding these hikes, the Fed has indicated that three possible interest rate cuts can be expected in 2024, with the Bank of England and the European Central Bank also adopting a similar interest rate policy approach. Despite these predicted cuts, interest rates are anticipated to persist above its pre-pandemic levels in the near future to anchor inflation expectations and bring inflation back within its target by 2025 in most instances.

Complex and evolving global risks…

The World Economic Forum Global Risks Perception Survey 2022-2023 has prompted a shared concern among government and business stakeholders regarding the cost-of-living crisis, recognised as the most significant global risk for the next two years (Figure 1). This is particularly alarming due to its disproportionate impact on vulnerable populations. The potential consequences encompass heightened interest rates, an increased likelihood of debt distress, prolonged economic downturn, and fiscal tightening. Governments are faced with the challenge of balancing these factors, with the risk of undermining human development if not managed effectively.

Over the next decade, climate and environmental risks take centre stage, constituting 7 out of the top 10 concerns. The most prominent predicted risk in the next ten years is the failure to address climate change adequately. This risk is exacerbated by a growing disparity between climate targets for achieving net-zero, the political feasibility of such measures, and the lack of international cooperation on mobilizing resources, resulting in insufficient progress to fulfil the agreed action plans from Conference of the Parties 28 (COP28)

Figure 1: Global Risks Ranked by Severity over the Short and Long Term

Source: World Economic Forum Global Risk Perception Survey (2024)

In this era of concurrent shocks, a comprehensive and multipronged strategy to enhance resilience is crucial. This necessitates a multi-domain approach involving strengthened risk identification, preparedness, cooperation, and response. Moreover, there is a pressing need for a crosscutting and whole-of-society perspective when addressing all risks.

Balanced upside and downside economic and financial risks…

Looking forward, a balanced assessment reveals a mix of potential upsides and downsides in the economic landscape. On a positive note, there's a likelihood of inflation decreasing more rapidly than anticipated, potentially lessening the necessity for monetary tightening. This scenario might foster a quicker rebound in global demand, facilitated by a relaxed policy stance accompanied by heightened productivity growth and increased investment stemming from advancements in artificial intelligence and green technologies. However, on the flip side, any further slowdown in China's economic growth could adversely affect its trading partners. Additionally, the volatility of commodity prices, particularly in agriculture, might escalate due to climate and geopolitical shocks, potentially leading to more frequent crop failures. Another concern lies in the risk of financial market readjustment; an unexpected rise in inflation could prompt a revaluation of monetary policies, resulting in increased expectations of rising interest rates and a subsequent decline in asset prices, reminiscent of the events observed in March 2023. In light of these factors, regulators are encouraged to be cautiously optimistic.

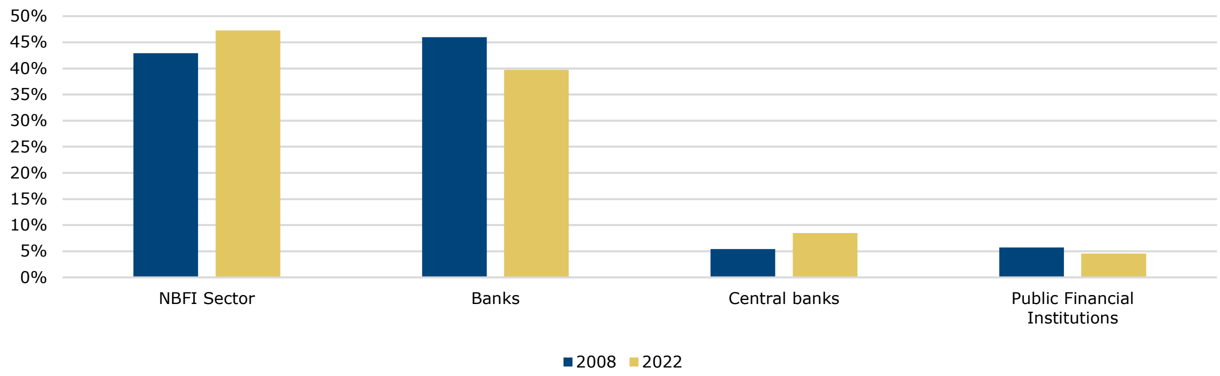
Global interest rates persist at elevated levels as a measure to counter rapid inflation, which poses a risk of dampening economic growth. Among financial institutions, banks experience both immediate and direct impacts, bearing the effects in both favourable and unfavourable ways. Positively, elevated interest rates can contribute to increased interest margins for banks, allowing them to pass on higher lending rates. However, prolonged periods of elevated lending rates may burden borrowers with challenges in servicing their debts, potentially leading to increased loan losses, particularly if the anticipated gradual economic stabilization fails to materialize. Additionally, the upsurge in interest rates could result in valuation losses, negatively impacting the profitability and sustainability of banks.

The overall repercussions of current interest rates remain uncertain. However, indicators of global bank stability continue to exhibit resilience, despite the uncertainties associated with the prospect of elevated interest rates in the short-term. Following the March 2023 turmoil and pressures in the global banking sector, funding liquidity pressures have receded. The collapse of the global systematically important Swiss bank appears to have had a limited effect on most bank's balance sheet and broader contagion to the global bank system was limited following liquidity support. Smaller banks took a sharp hit to deposits in the US following the March turmoil. However, deposits have gradually rebounded and approaching pre-turmoil levels.

Growth in financial sector assets with non-bank financial institutions take centre stage…

In 2008, global financial assets were approximately USD 222.4 trillion, of which global bank assets accounted for roughly 46% (Figure 2). Since then, global financial assets increased by 107.4% to USD 461.2 trillion in 2022. This was largely driven by growth in non-bank financial institutions (NBFIs) which increased from USD 95.4 trillion to USD 230.4 trillion between 2008 and 2021. In 2022, its contribution to global financial assets fell marginally due to aggressive hikes in interest rates to combat soaring inflation which resulted in a contraction in NBFI assets to USD 217.9 trillion.

Figure 2: Distribution of Global Financial Assets

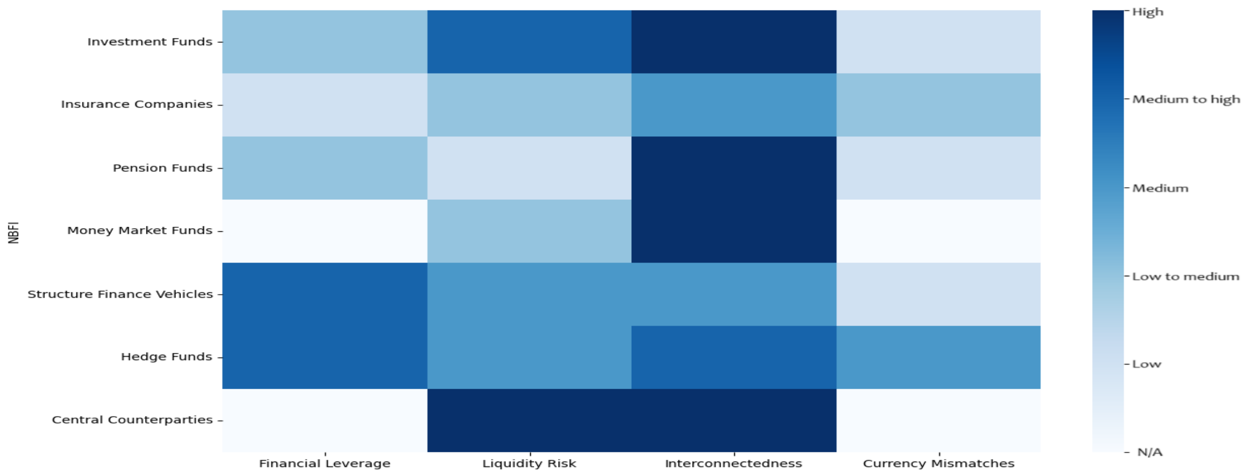


Source: Global Monitoring Report on Non-bank Financial Intermediation (2023)

NBFIs are now crucial in the global financial system as they contribute nearly half of global financial assets, particularly in emerging markets, with their share of financial assets almost doubling since 2008. This growth, mainly fuelled by investment funds and money market funds, has raised concerns about vulnerabilities due to sudden withdrawals. Monitoring investment funds closely is crucial as rapid outflows could destabilize financial markets, especially impacting high-yield bonds and exchange-traded funds, which have a history of experiencing significant outflows.

Concurrently with the expansion of NBFIs, there was a rise in vulnerabilities within this sector. According to the Global Financial Stability Report (April 2023), investment funds constituted 12% of global financial assets and faced heightened interconnectedness risks, which led to cross-border spillovers in emerging markets and developing economies (Figure 3). These risks were compounded by potential links to banks and derivative exposures. A parallel situation existed for insurance companies, as they emerged as significant holders of bank debt and contended with exposure to margin calls. Pension funds, however, confronted a critical challenge due to a substantial data gap, which hindered the ability for well-informed assessments. Meanwhile, hedge funds exhibited moderate vulnerabilities, encompassing financial leverage, liquidity issues, interconnectedness, and currency mismatches.

Figure 3: Heatmap of NBFI Vulnerabilities



Source: Global Financial Stability Report (April 2023)

1.2 THE DOMESTIC ECONOMIC AND FINANCIAL ENVIRONMENT

Economic activity continues to rebound…

The Cayman Islands continue to exhibit strong economic performance, with a real GDP growth rate of 4.2% recorded in 2023. This is driven by growth in most sectors but led by hotels and restaurants, and utilities (Table 2). This growth reflects a recovery from the economic contraction experienced in 2020, which saw a decline of 5.1%. Subsequently, growth rates of 4.9% and 5.2% were recorded in 2021 and 2022, respectively. The recorded growth for 2023 exceeds the average annual growth rate observed before the pandemic, which stood at 3.8%. Moreover, growth is anticipated to persist in 2024, driven by the financial sector, tourism, and ancillary services.

Table 2: Real GDP Growth in the Cayman Islands

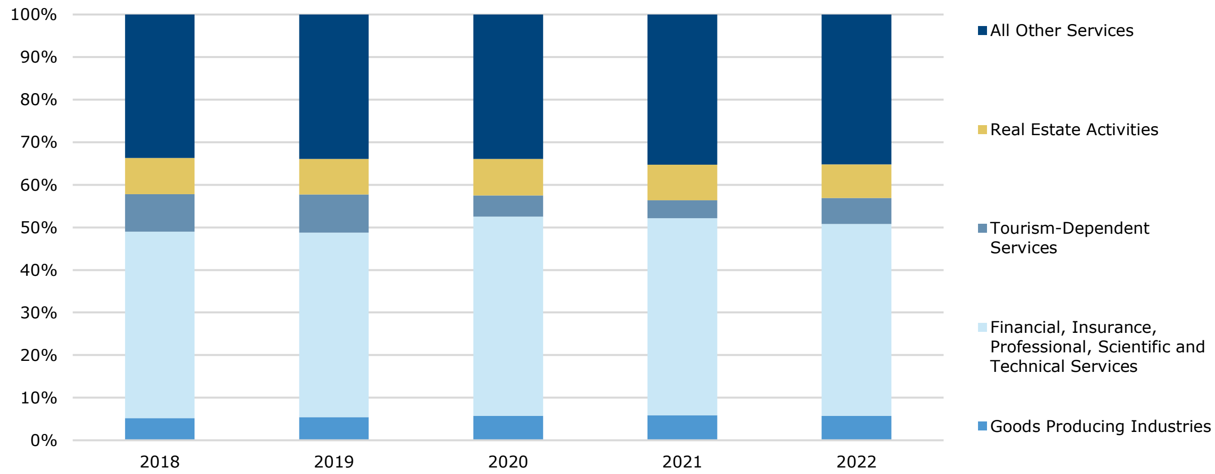
	2017	2018	2019	2020	2021	2022	2023	3-Year Average 2017-2019
Real GDP Growth (2015 = 100)	3.2%	4.3%	3.9%	-5.1%	4.9%	5.2%	4.2%	3.8%

Source: Economics and Statistics Office

Financial-related services contribute to nearly half of GDP…

Service-producing industries have consistently been the main drivers of real GDP, averaging 88.9% from 2017 to 2022, and this trend is anticipated to persist through 2023 and beyond. Within these industries, financial-related services accounted for 45.1% of real GDP in 2022, maintaining its contribution level from the past decade (Figure 4). In addition to this, the contribution of real estate activities averaged 8.3% over the last 5 years. Tourism-dependent sectors like hotels, restaurants, and transportation contributed 6.1% to real GDP in 2022, showing paced recovery to its pre-pandemic level of 9.0% in 2019. With the official end of the pandemic and normalisation of visitor arrivals, we anticipate increased contributions from these tourism-related industries in 2024.

Figure 4: Sectoral Contributions to GDP

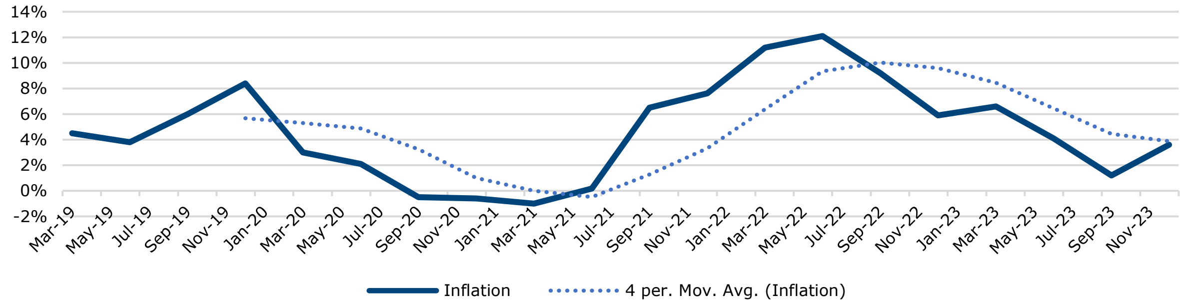


Source: Economics and Statistics Office

Disinflation continues…

Amid the global inflation challenges, the Cayman Islands, heavily reliant on imports, faced rising inflation. The annual average inflation rate surged from 3.3% in 2021 to 9.5% in 2022. Inflation reached its peak at 12.1% in the second quarter of 2022 but has since decelerated, standing at 3.6% in December 2023. Despite a slight increase in March and December 2023, the trend over the past year indicates a return to pre-pandemic levels, which averaged around 3.7% between 2017 and 2019. Although short-term inflation expectations surged in 2022, long-term expectations remained stable (Figure 5). The moving average inflation rate in the Cayman Islands has shown a consistent downward trajectory since September 2022.

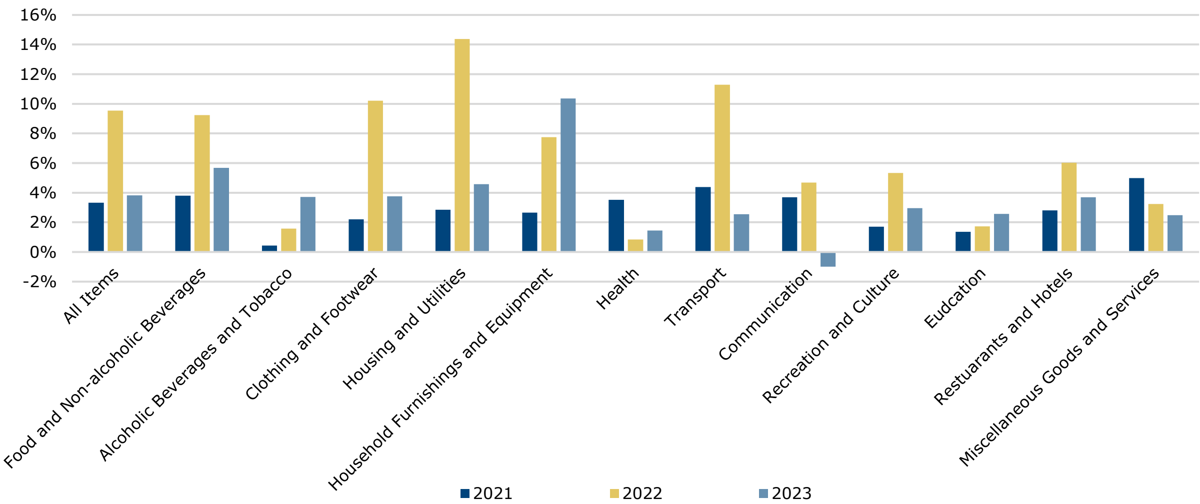
Figure 5: Headline Inflation in the Cayman Islands (Year-on-year % Change)



Source: Economics and Statistics Office

In 2022, inflation was largely driven by housing and utilities, attributed to elevated utility prices (Figure 6). Transportation costs also surged rapidly during the same period, caused by higher fuel prices resulting from the Russia-Ukraine crisis. However, in 2023, most categories experienced a moderation in inflationary pressures, except for household furnishings and equipment, which saw a notable increase of 10.4%. This spike was largely driven by rising prices for repairing household appliances and purchasing small electric household appliances.

Figure 6: Inflation by Category (Annual Average % Change)



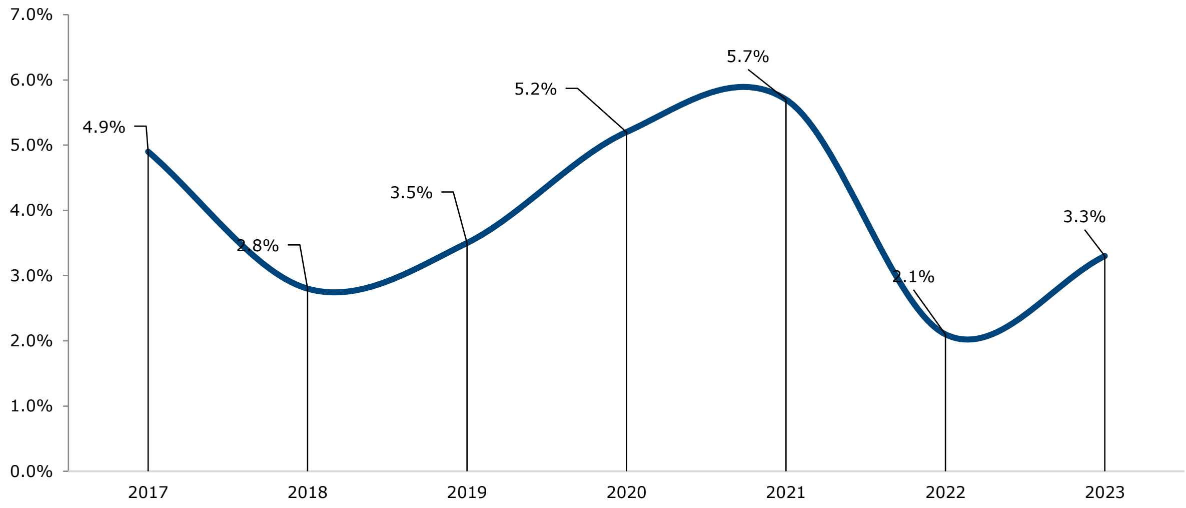
Source: Economics and Statistics Office

Unemployment at a record low…

After rising to 5.2% in 2020 and peaking at 5.7% in 2021 due to pandemic-related restrictions, unemployment has steadily declined. As of December 2022, it stood at a record low of 2.1% (Figure 7). This marks the Cayman Islands' lowest unemployment rate in the past decade, positioning it among the world's lowest rates.

Construction employment surged by 16.0%, while financial services saw a remarkable 20.5% increase between 2021 and 2022. Similarly, sectors like accommodation, transportation, and storage also experienced rebounds in employment. The unemployment rate closed 2023 at 3.3%, well below pre-pandemic levels.

Figure 7: Unemployment in the Cayman Islands



Source: Economics and Statistics Office

Currency reserves remain robust…

The Cayman Islands Monetary Authority maintains robust reserve assets that comfortably exceed the total currency in circulation. From 2018 to June 2023, reserves relative to the monetary base increased by 6.0% (Table 3).

Table 3: Reserves to Monetary Base

	2018	2019	2020	2021	2022	Mar-23	Jun-23
Total Reserves (in CI$ millions)	142.37	161.17	188.80	198.13	195.14	184.67	186.62
Total Currency in Circulation (in CI$ millions)	126.61	140.37	164.43	173.50	171.12	157.82	158.53
Reserves to Monetary Base	**112%**	**115%**	**115%**	**114%**	**114%**	**117%**	**118%**

Source: CIMA

And we're off "the grey list"

The Financial Action Task Force (FATF) has acknowledged the Cayman Islands' commendable strides in fortifying its AML/CFT (Anti-Money Laundering/ Combating the Financing of Terrorism) framework. Notably, the Cayman Islands exhibited considerable advancements in fortifying the efficacy of its AML/CFT regime, aligning with the obligations outlined in its action plan subsequent to the identification of strategic deficiencies by the FATF in February 2021. These improvements encompassed strengthening the implementation of sanctions and demonstrating a proactive approach in prosecuting various forms of money laundering in accordance with the jurisdiction's risk assessment.

Consequently, the Cayman Islands has successfully exited the FATF's grey list. The good news continued for the jurisdiction when it was announced in January 2024 that the Cayman Islands was also removed from the EU's blacklist which signalled positive implications for its reputation as an international financial centre (IFC).

CHAPTER 2: SECTORAL FINANCIAL STABILITY ANALYSIS

2.1 DEPOSIT-TAKING INSTITUTIONS

The Deposit-Taking Institutions' sector is comprised of all banks and societies (namely the cooperative societies and building society).

2.1.1 The Banking Sector – Overview

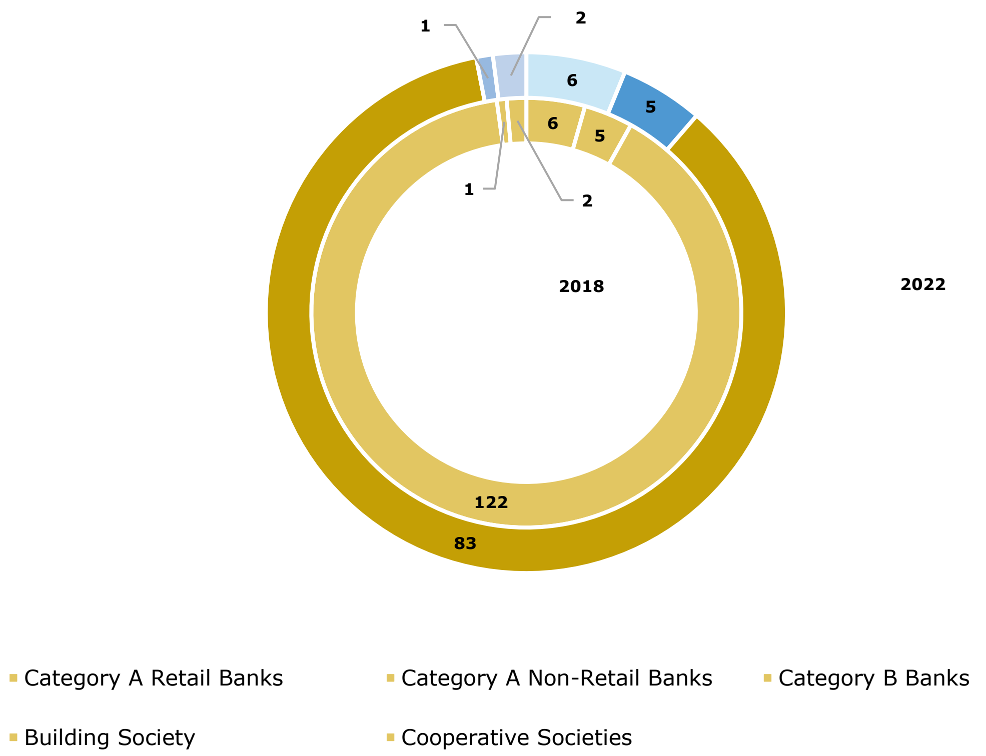
The banking sector plays a crucial role in the economy of the Cayman Islands. Despite facing global economic challenges such as a rapid increase in interest rates, high inflation, supply chain constraints, and the ongoing Russia-Ukraine war, as well as recovering from the adverse impact of the COVID-19 pandemic, the sector has demonstrated resilience throughout 2021 and 2022.

As of December 2022, the Cayman Islands ranked as the (18th) largest banking centre globally in terms of international assets (USD 472.5 billion) and international liabilities (USD 424.3 billion) among 48 financial centres.

In 2022, there were a total of 97 regulated deposit-taking institutions in the Cayman Islands, including Category A, Category B, a Building Society, and Cooperative Societies.

Over the past five years, there has been a noticeable decline in the number of Category B Banks, decreasing from 122 in 2018 to 83 in 2022 (Figure 8). This trend reflects ongoing consolidation and restructuring within the banking sector as institutions continue to enhance efficiency and elevate risk management. Despite the reduction in Category B Banks, there remains interest in obtaining banking licenses, evidenced by the issuance of two new Category B licenses over the five-year period. Meanwhile, the number of Category A Banks and Societies has remained stable, with no significant changes.

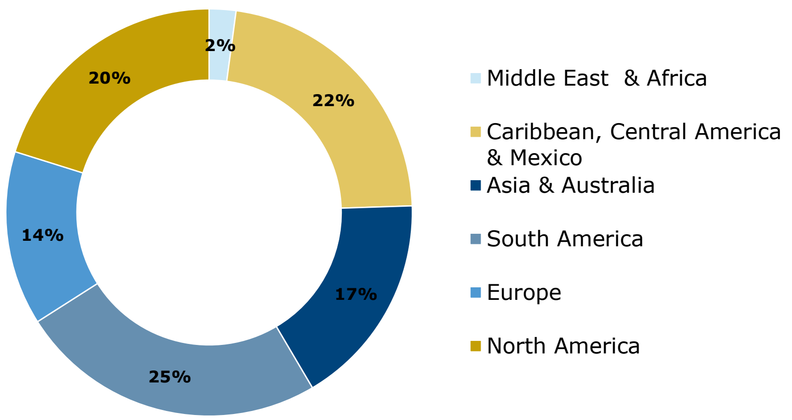
Figure 8: Number of Deposit-Taking Institutions



Source: CIMA

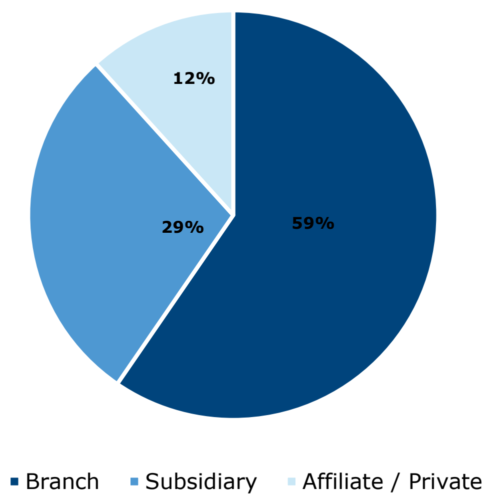
The regulated banks in Cayman Islands originate from over 33 countries in six regions (Figure 9). Most of the banks are branches of international banks, and the remaining banks are subsidiaries or affiliates of large financial institutions. The branch structures are exclusively used by Category B Banks. Category A Retail Banks are subsidiaries of large international financial institutions with parent companies located in Canada or the Caribbean region (Figure 10). These structure types remained relatively unchanged between 2021 and 2022.

Figure 9: Number of Banks by Region[1]



Source: CIMA

Figure 10: Number of Banks by Structure Type



Source: CIMA

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[1] Using BIS statistical parent location.

The domestic banking activities are mainly offered by Category A Retail Banks. Therefore, the financial soundness of the Category A Retail Banks will be the main focus of the assessment given their significant role in domestic banking activities. However, the overall banking sector financial soundness will be outlined as well.

While certain Financial Soundness Indicators (FSIs) experienced declines, the core FSIs remained robust and comfortably exceeded the minimum required thresholds. This resilience underscores a significant recovery from the adverse effects of the COVID-19 pandemic (Table 4). Further details on the FSIs are discussed later in the chapter.

*Table 4: Selected Financial Soundness Indicators**

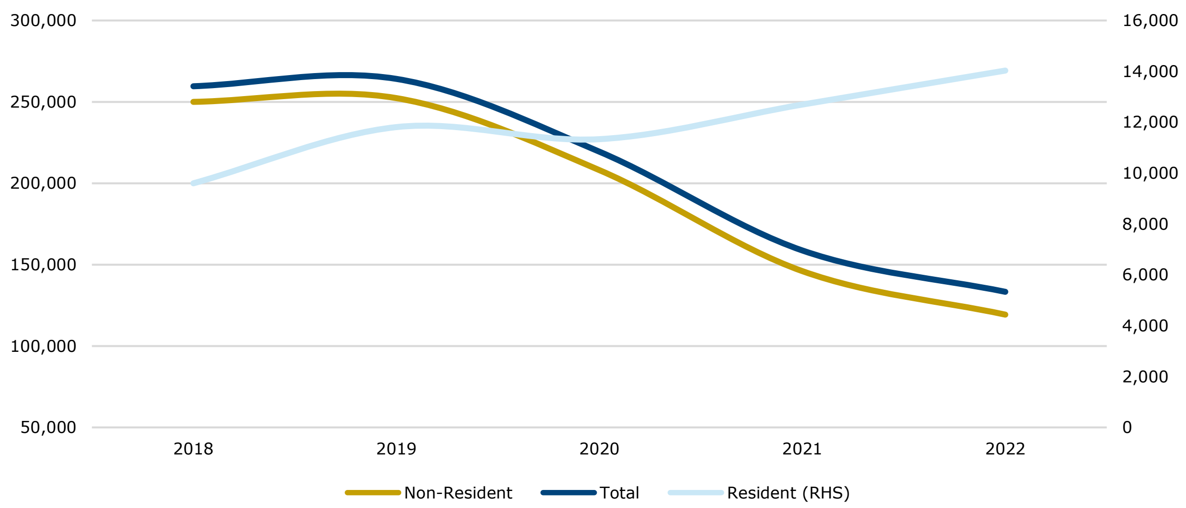
	All Banks		Category A Retail Banks	
Key FSIs (%)	**2022**	**2021**	**2022**	**2021**
Total CAR[2]	34.7	40.1	28.3	26.8
NPLs[3] to Total Gross Loans	1.4	0.8	1.7	1.8
Liquid Assets Ratio[4]	37.1	32.3	26.4	28.2
ROA[5]	(1.3)	0.3	2.2	1.7

Source: CIMA

2.1.2 The Banking Sector – Loans and Advances

Compared to 2021, resident loans and advances within the banking sector experienced an 11% increase, while non-resident loans decreased by 18%, resulting in an overall 16% decline in total sector loans and advances (Figure 11). This downward trend was primarily driven by a decrease in loans and advances from Category B Banks.

Figure 11: Loans and Advances - All Banks (US$ Millions)



Source: CIMA

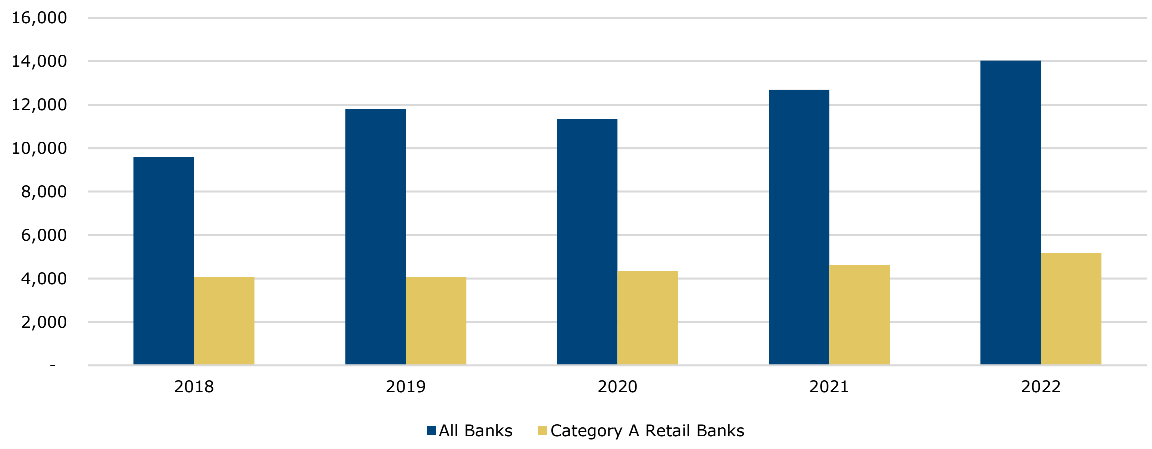
[2] Capital Adequacy Ratio
[3] Non-performing Loans
[4] Liquid assets to total assets
[5] Return on Assets
*The Financial Soundness Indicators are calculated on a consolidated basis.

In 2022, resident loans and advances constituted 11% of the total sector loans and advances, compared to 8% in 2021 (Figure 12). Despite the substantial increase in interest rates, resident loans and advances from Category A Retail Banks grew by 12% relative to 2021, signalling resilience in both the economy and the banking sector. For further insights into resident credit, please refer to the Household and Corporate sector section. The overall loans and advances for Category A Retail Banks saw a 7% increase, with resident loans and advances constituting 82% of total loans and advances. The increase in resident loans and advances for Category A Retail banks was primarily driven by an increase in exposures for residential mortgages, commercial mortgages, and sovereign exposures (Figure 13). The Increase in residential mortgages is consistent with the growth in the construction and real estate market. The proportion of non-resident loans and advances for Category A Retail banks have continued to decrease as the domestic economy continues to grow

Loans and advances by counterparty type

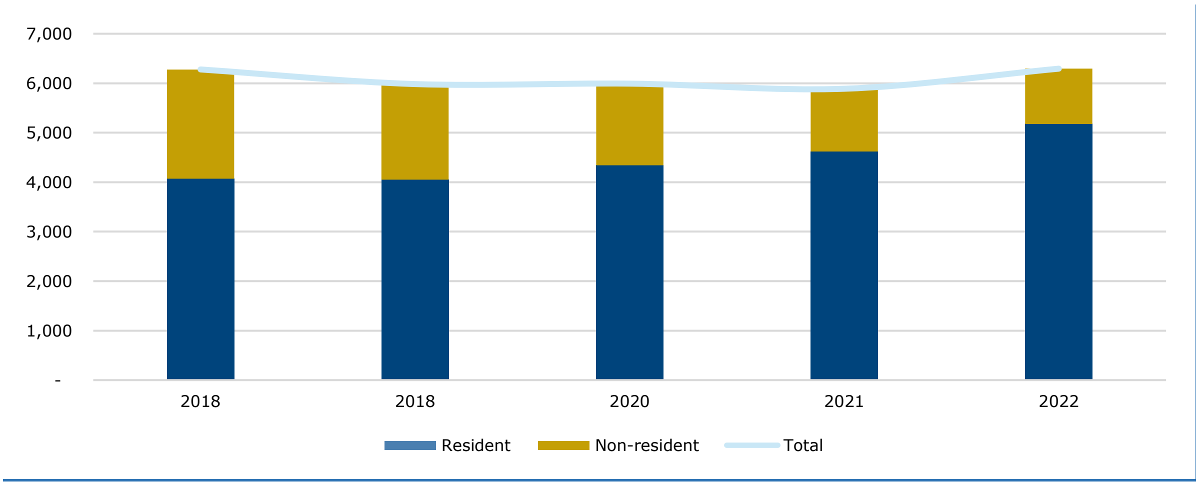
For the entire banking sector, loans and advances to group banking and non-banking entities represent 43% of the total loans and advances. This notable exposure to group-related entities primarily stems from Category B Banks, some of which are specifically established to offer banking services to related entities (Figure 15).

Figure 12: Resident Loans and Advances (US$ Millions)



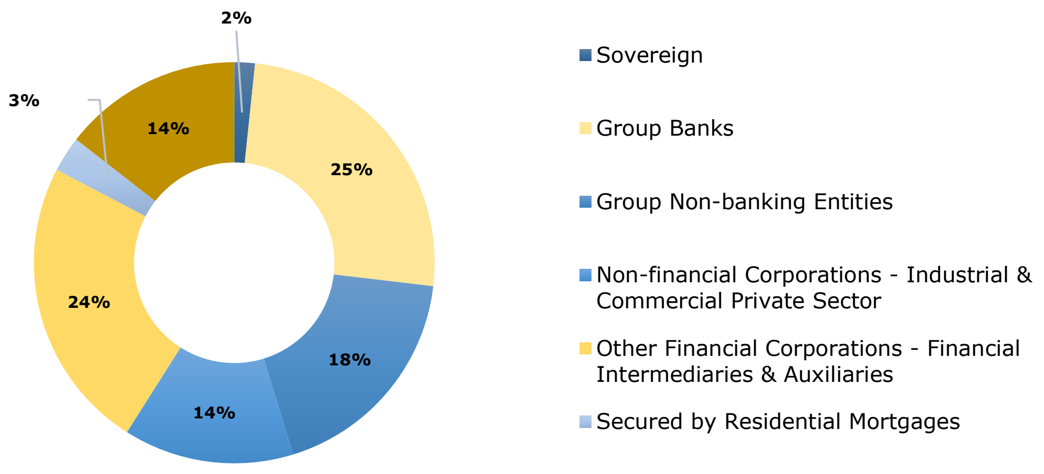
Source: CIMA

Figure 13: Loans and Advances - Category A Retail Banks (US$ Millions)



Source: CIMA

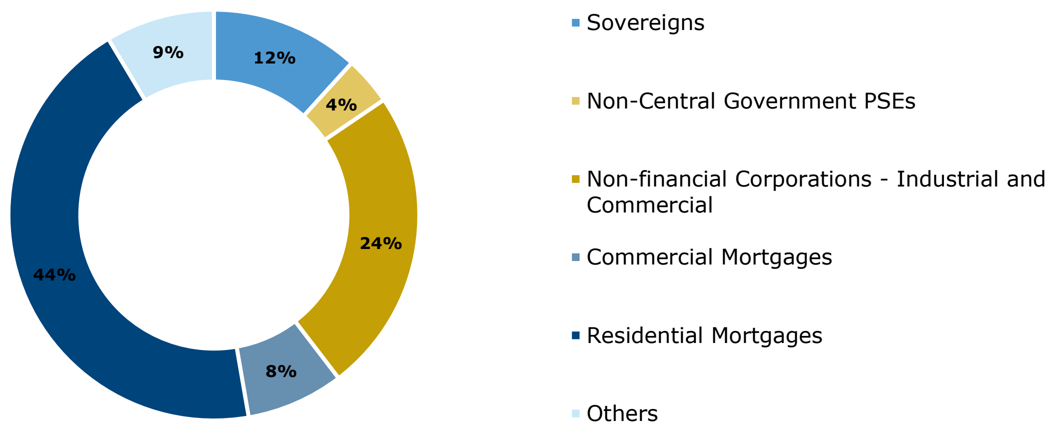
Figure 14: Loans and Advances by Counterparty Type – All Banks



Source: CIMA

For the Category A Retail banks, residential mortgages and loans to non-financial corporations – industrial and commercial, account for over 68% of the loan and advances portfolio. Loans and advances to related entities are minimal and account for less than 1% of the loan and advances portfolio.

Figure 15: Loans and Advances by Counterparty Type – Category A Retail Banks

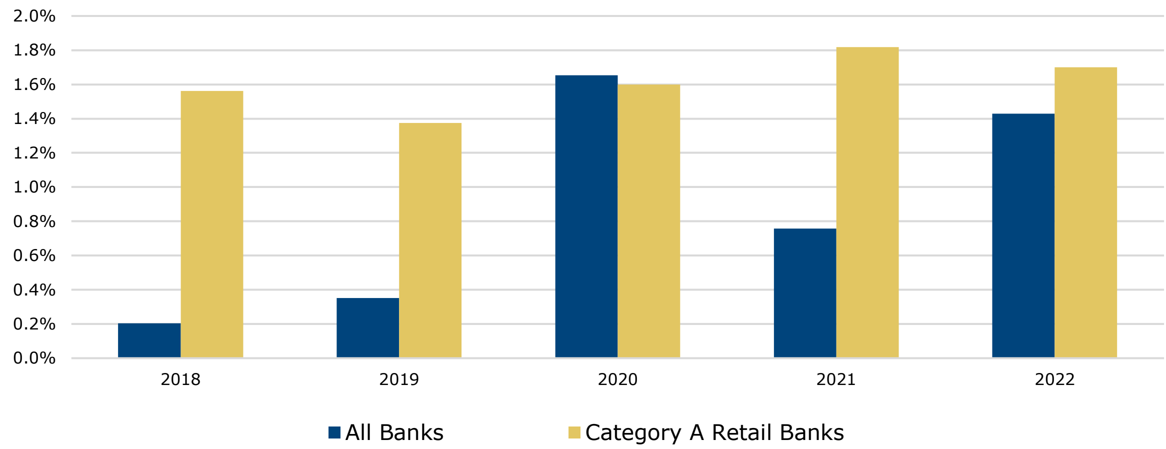


Source: CIMA

2.1.3 The Banking Sector – Asset Quality

Despite the prevailing economic challenges of high interest rates and inflation, non-performing loans (NPLs) remained relatively low. The overall banking sector experienced a slight increase in the ratio of NPLs to total loans, rising by 0.6% to reach 1.4%. Conversely, Category A Retail Banks saw a slight decline in this ratio, from 1.8% to 1.7%, between 2021 and 2022 (Figure 16).

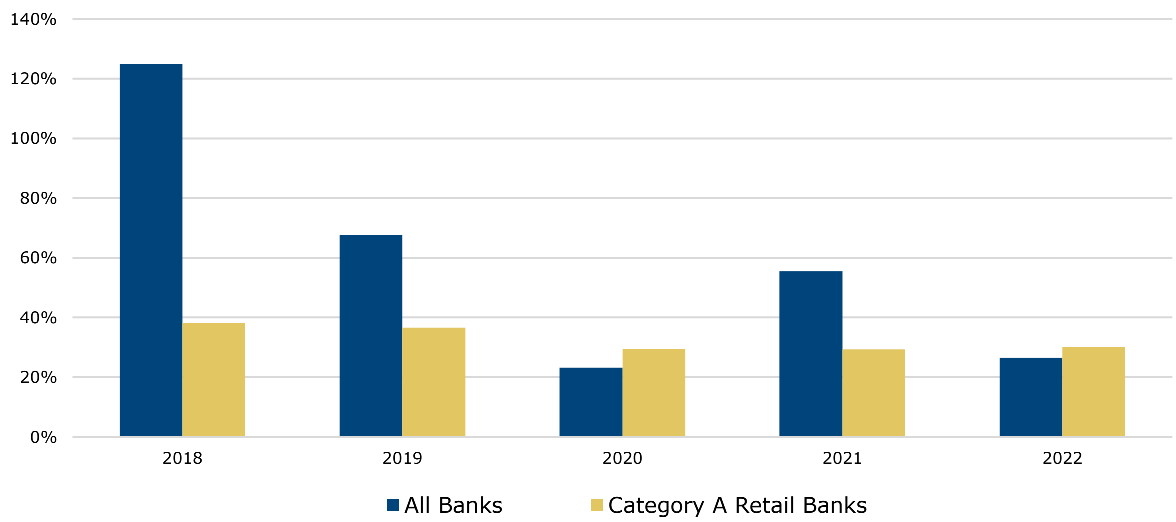
Figure 16: NPLs to Total Gross Loans



Source: CIMA

The specific loan loss provision to NPLs ratio exhibited a downward trend from 2018 until 2020. However, the ratio for all banks increased from 23% in 2020 to 55% in 2021 due to augmented provisioning as a result of the COVID-19 pandemic. However, in 2022, this ratio reverted to 27% due to the reversal of credit loss provisions (Figure 17). As for Category A Retail Banks, there was only marginal movement observed between 2021 and 2022.

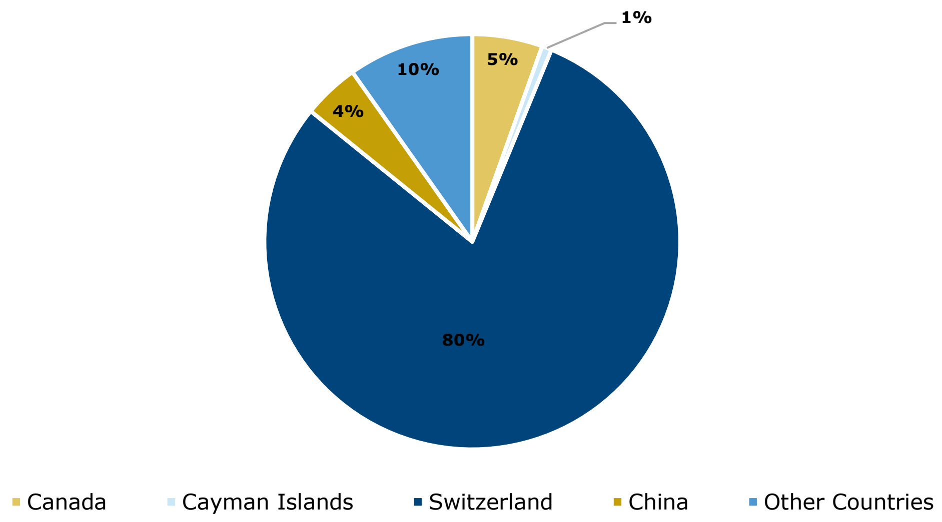
Figure 17: Specific Provisions to Total NPLs



Source: CIMA

NPLs from banks with a statistical parent from Switzerland, Canada, and China comprised 89% of the total sector NPLs. Compared to Q4 2021, NPLs increased by 13%, driven by significant increases for banks from Switzerland, Canada, Germany, and India, which were partially offset by decreases for banks from the Bahamas and the Cayman Islands (Figure 18). The rise in NPLs for Swiss banks was primarily attributed to NPLs recognised for a Category B Bank whose parent company encountered financial difficulties and eventually collapsed in March 2023.

Figure 18: Non-performing Loans by Jurisdiction - All Banks



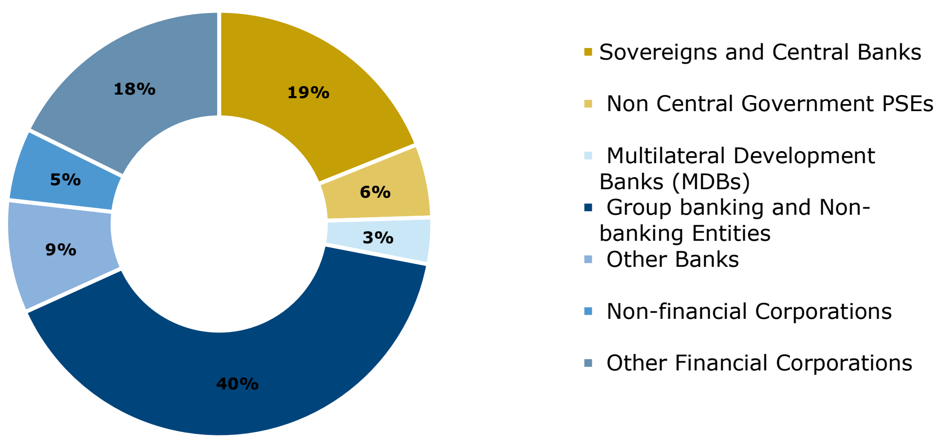
Source: CIMA

Investment Portfolio

The investment portfolio represented 28% (USD 139 million) of the banking sector's total assets. In 2022, the total investment portfolio decreased by 8%. Debt securities comprised 67% of the investment portfolio, while equities and funds made up 31% and 1%, respectively. The majority of the investment portfolio was held in the banking book, with only a very small proportion held in the trading book.

Investment securities issued by group-related entities accounted for 40% of the total sector investment portfolio, followed by sovereigns and central banks at 19%, and other financial corporations at 18% (Figure 19).

Figure 19: Investments by Issuer Type – All Banks



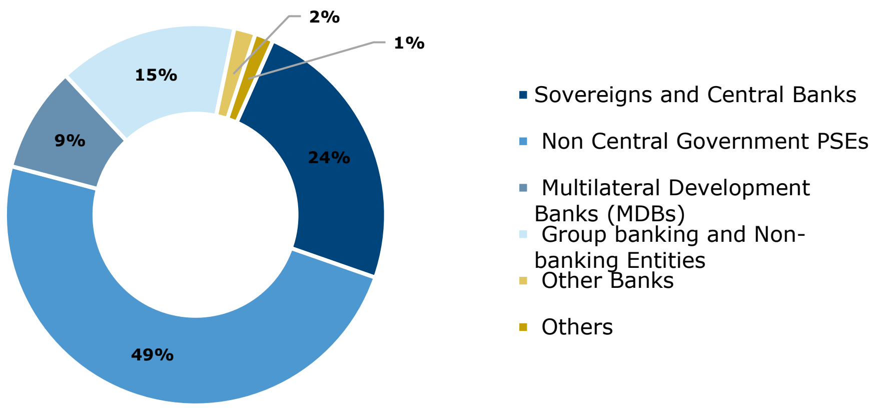
Source: CIMA

The investment portfolio for Category A Retail Banks constituted 30% (USD 4.73 million) of their total assets. In 2022, this portfolio saw a 7% decrease. Debt securities made up approximately 99.9% of the total investment portfolio, primarily held for liquidity purposes. None of the Category A Retail Banks had investments in the trading book.

Investment securities issued by non-central government public sector entities (PSEs) accounted for 49% of the total investment portfolio, followed by sovereign and central banks at 24%, and group banking entities at 15%.

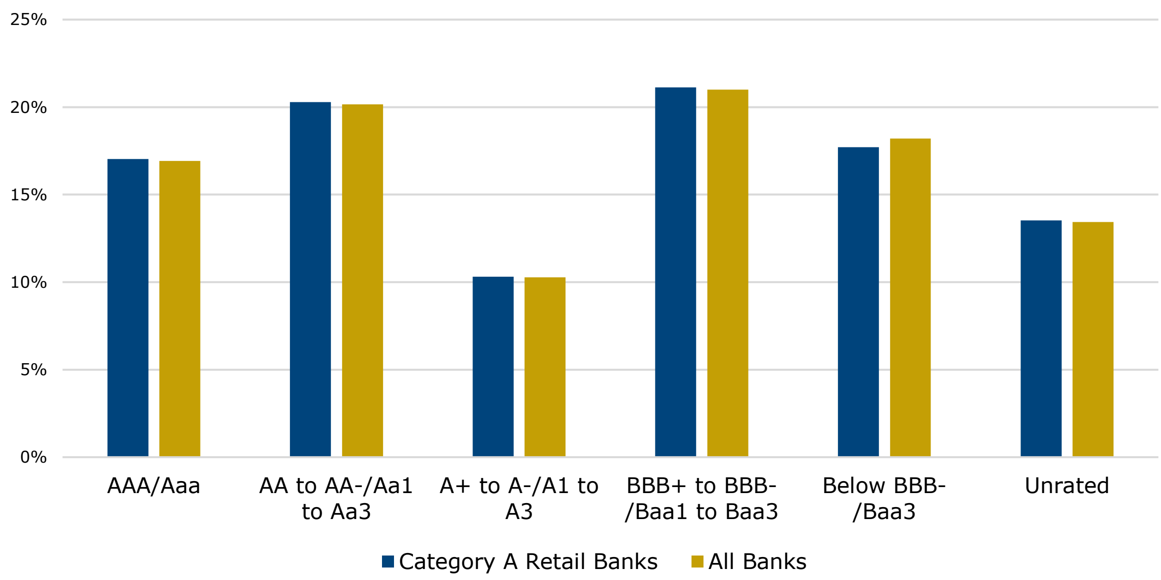
Investment-grade debt securities (rated AAA/Aaa to BBB-/Baa3) constituted 68% of the total banking sector's investment in debt securities (Figure 21). Similarly, for Category A Retail Banks, investment-grade debt securities accounted for 69% of their total investment in debt securities. This high proportion of investment-grade securities reflects the emphasis on liquidity purposes in the investment portfolio.

Figure 20: Investments by Issuer Type – Category A Retail Banks



Source: CIMA

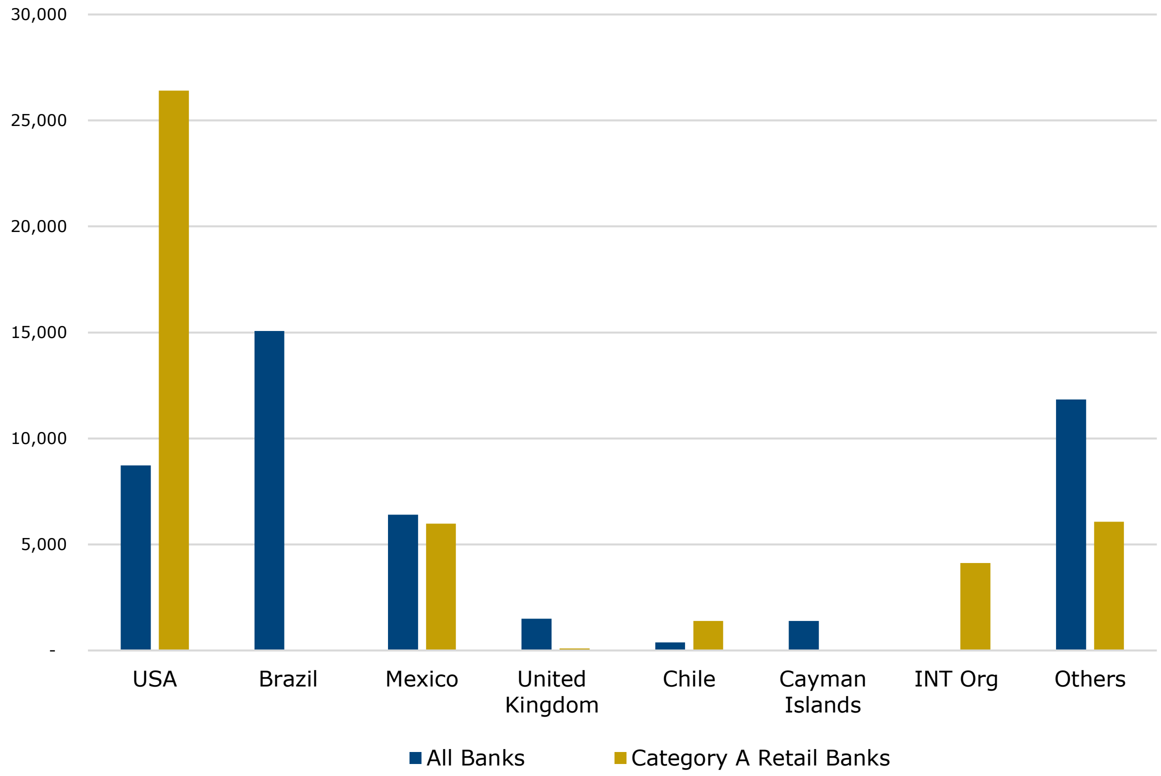
Figure 21: Debt Securities by Credit Rating



Source: CIMA

For all banks, debts securities issued by counterparties from Brazil and the USA accounted for 33% and 19% of the banking sector investments in debt securities, respectively. For the Category A Retail Banks, debt securities by issuers from USA and Mexico accounted for 60% and 14% of the investments in debt securities, respectively (Figure 22).

Figure 22: Debt Securities by Issuer Country (US$ Millions)



Source: CIMA

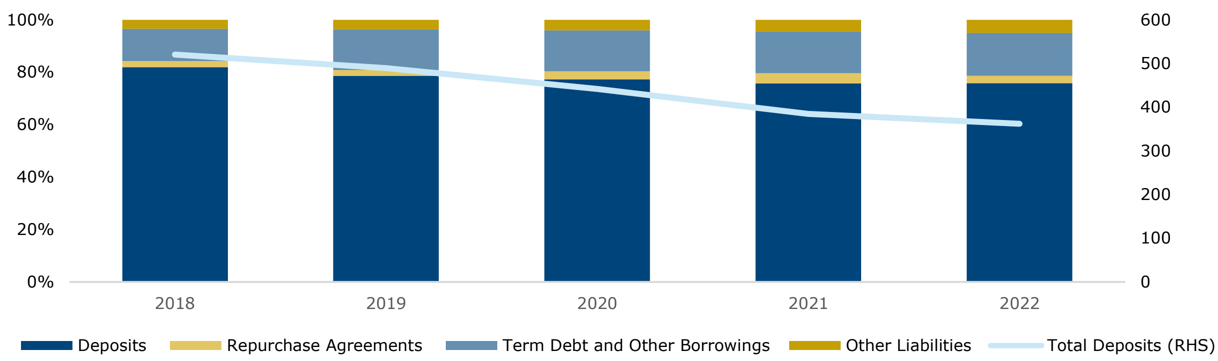
The higher proportion of investment securities from issuers in Brazil, the USA, and Mexico indicates that significant macroeconomic changes in these countries could substantially impact the investment portfolio.

Issuers of 79% of the banking sector investments in equities hold an investment-grade rating. Additionally, issuers of 98% of the investments in equities are from the USA, Luxembourg, and UK. Although the equity investments are more volatile, the issuers have a strong financial position, as evidenced by a strong issuer credit rating, and are based in developed economies. Investments in equities by Category A Retail Banks are immaterial.

Funding and Liquidity

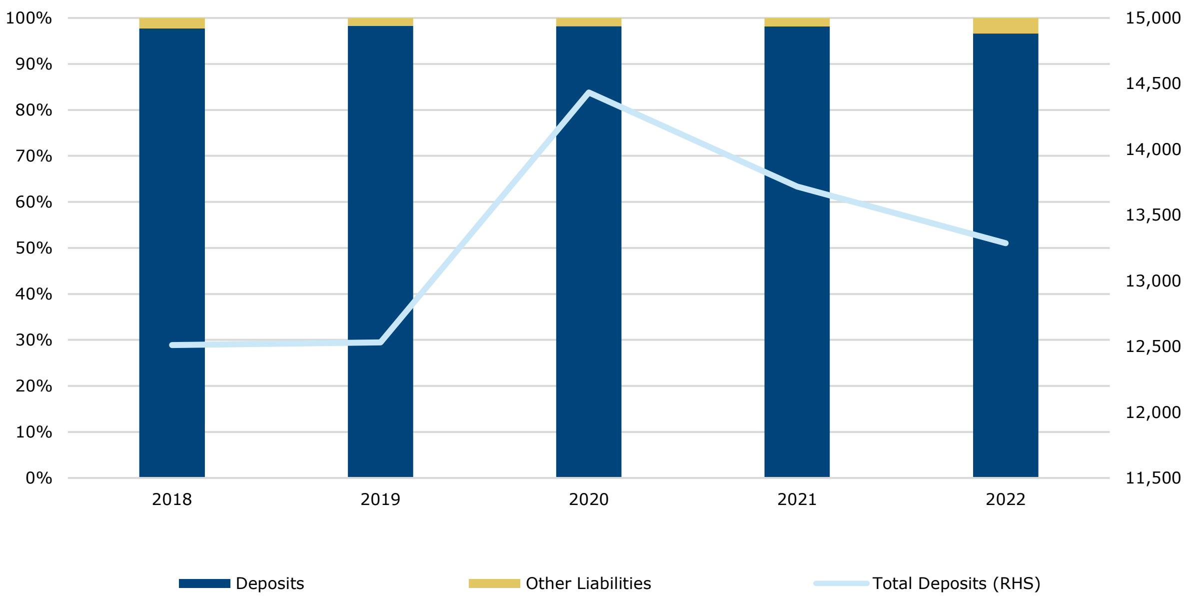
Funding remained predominately deposit-based despite the decline in total deposits since 2018 (Figure 23). Deposits accounted for over 76% (USD 362 million) of the banking sector's funding sources which was 2% less than the average over the last 5 years. For Category A Retail Banks, a vast majority of its funding source was from deposits representing over 97% (USD 13.29 million). The deposits for Category A Retail banks remained relatively stable between 2021 and 2022 although declined relative to 2020. The decline in deposits was attributable to higher customer spending after the lifting of the COVID-19 restrictions (Figure 24). However, the total deposits remained higher than the pre-pandemic levels.

Figure 23: Sources of Funding – All Banks (US$ Millions)



Source: CIMA

Figure 24: Sources of Funding (Deposits) – Category A Retail Banks (US$ Millions)

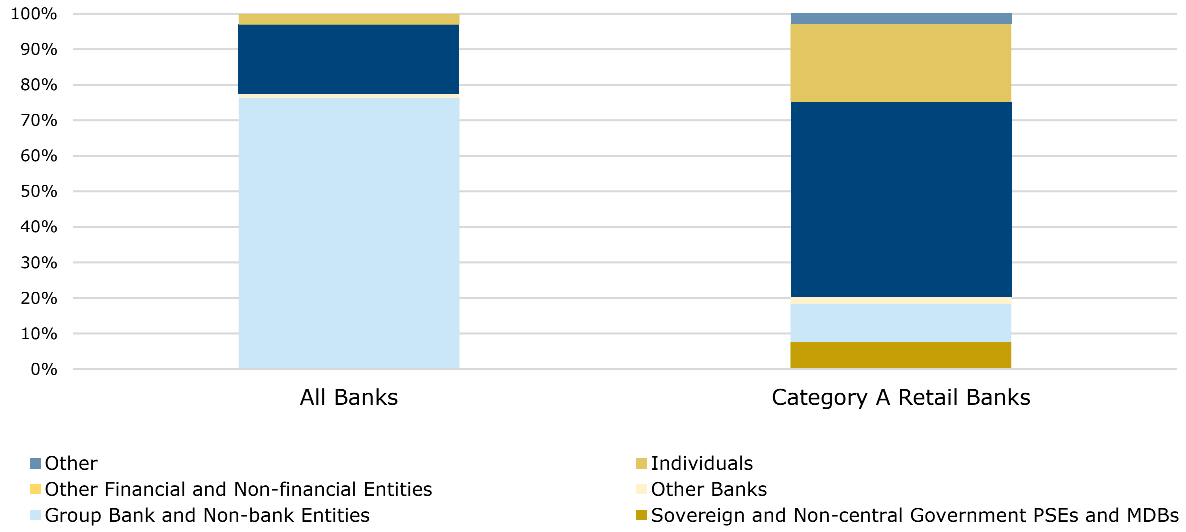


Source: CIMA

For all banks, deposits from Group related entities and other financial and non-financial entities accounted for over 76% and 19% of the total sector deposits, respectively. The higher proportion of deposits from Group related entities was attributable to Category B Banks, some of which are specifically established to provide services to Group entities. For Category A Retail Banks, deposits from other financial and non-financial entities and individuals accounted for 55% and 22% of total deposits. This is discussed further in the Household and Corporate sector section (Figure 25).

The loan-to-deposit ratio for the banking sector decreased to 37% in 2022, marking the lowest ratio observed over the past five years. This reduction suggests ample bank funding and a robust lending capacity. For Category A Retail Banks, there was a slight increase in the loan-to-deposit ratio from 43% to 47% in 2022. However, this ratio still indicates the availability of lending capacity within the Category A Retail Banks.

Figure 25: Sources of Customer Deposits

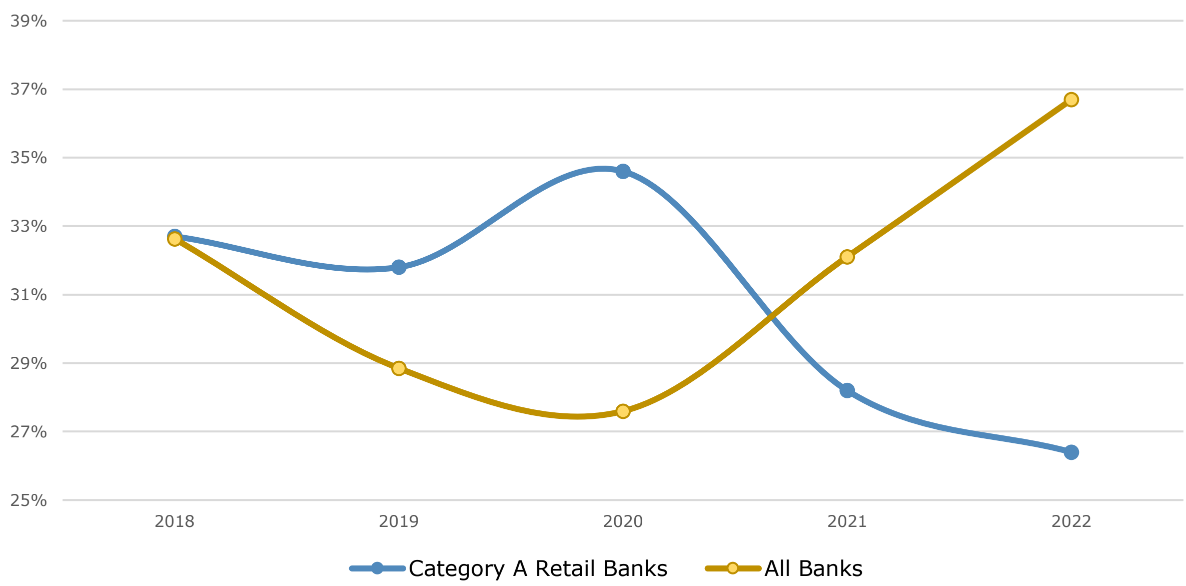


Source: CIMA

The liquid assets ratio for all banks, which measures the proportion of total assets that are immediately available for liquidity purposes, increased to 37.1% compared to 32.3% in 2021 (Figure 26). The sector's significant liquidity levels are mainly attributable to the Category B Banks offering treasury management and sweep services, thus holding a high proportion of cash and cash equivalents.

For the Category A Retail Banks, the liquid assets ratio decreased marginally from 28.2% in 2021 to 26.4% in 2022. The Category A Retail Banks can also rely on the investment portfolio discussed above for liquidity purposes. The strong liquid assets ratio and the investment portfolio support a resilient liquidity position despite higher reliance on customer deposits for funding.

Figure 26: Liquid Assets Ratio



Source: CIMA

Capital Adequacy

The banking sector's capital adequacy ratio, which represents the amount of capital a bank must hold as required by CIMA, decreased to 34.7% in 2022 compared to 40.1% in 2021 but remained significantly above the minimum required CAR of 11% to 15%, as most banks operate with a significant capital buffer (Figure 27). The Tier 1 CAR reduced from 37.7% in 2021 to 32.1% in 2022.

Conversely, for the Category A Retail Banks, the capital position improved, with the total CAR increasing to 28.3% compared to 26.8% in 2021, primarily due to higher regulatory capital levels driven by profitability relative to risk weighted assets (RWAs). The Tier 1 CAR increased to 24.5% compared to 24.1% in 2021.

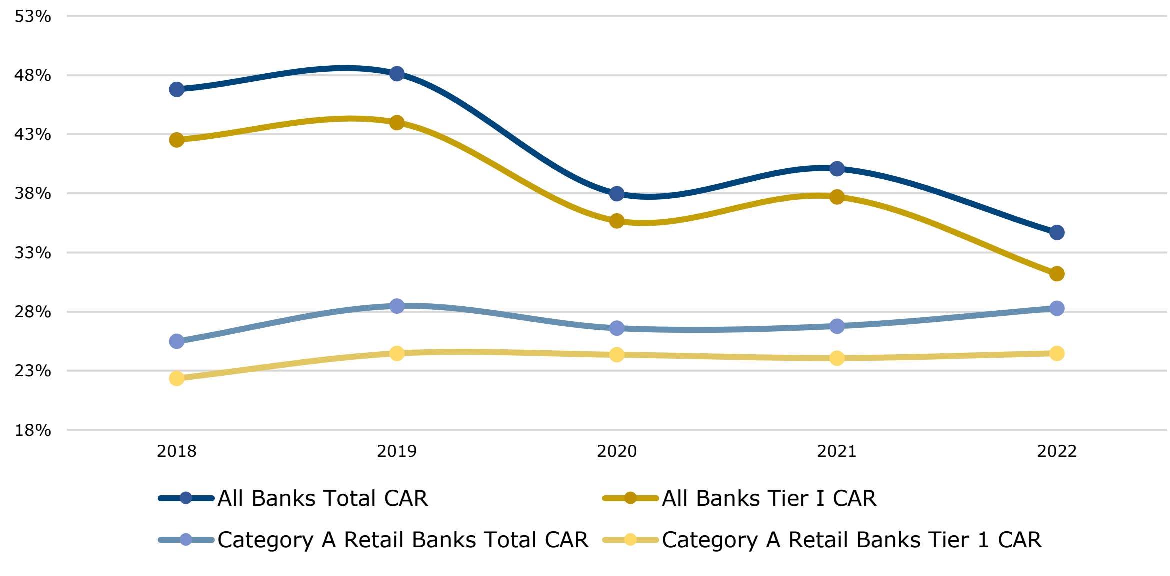
As the most stable source of capital for banks, Tier 1 CAR accounted for 89.9% and 86.5% of the banking sector and Category A Retail Banks' total CAR, respectively.

Earnings and Profitability

Compared to 2021, sector net-interest income decreased by 52% to USD 697 million, provisions for credit losses increased by 98% to USD 130 million, other operating income decreased by 428% to an operating loss of USD 5,726 million due to an extraordinary one-off transaction for a Category B Bank. Operating expenses increased by 25%, or USD 392 million, and cumulatively, the sector reported a net loss before taxes of USD 5,675 million (Figure 28). Excluding the financial performance of the one-off transaction in Category B banks in 2022, net income before taxes would be USD 2,203 million, which was 31% less than in 2021. The decrease in profitability was due to a reduction in the number of Category B Banks.

The significant 52% decrease in net-interest income was influenced by the increase in interest expense outpacing the increase in interest income. The increase in interest income and interest expense was attributable to changes in interest rates and a decline in assets and liabilities by 6%, respectively.

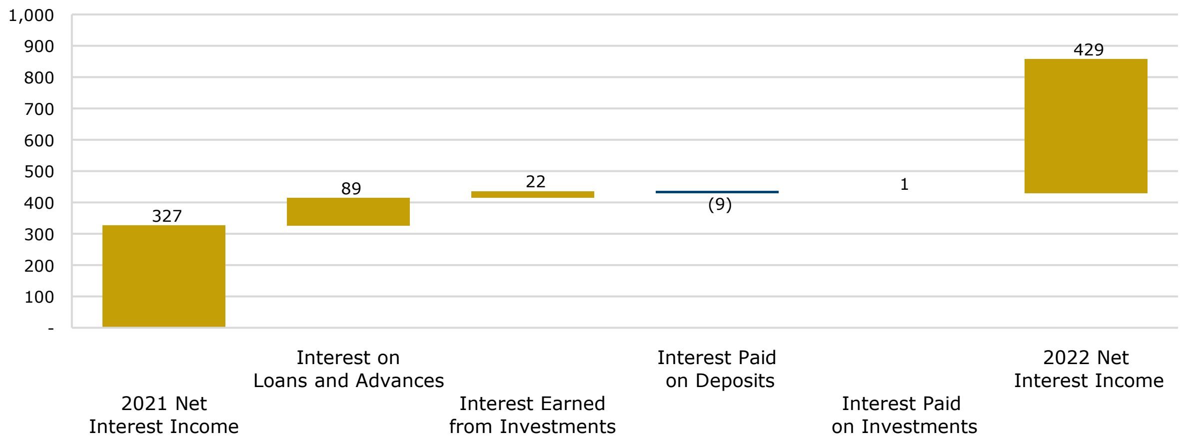
Figure 27: Capital Adequacy Ratio[6]



Source: CIMA

[6] CAR for all banks does not include the branches because capital adequacy requirements are not applicable for branches.

Figure 28: Drivers of Profitability – All Banks (in US$ Millions)



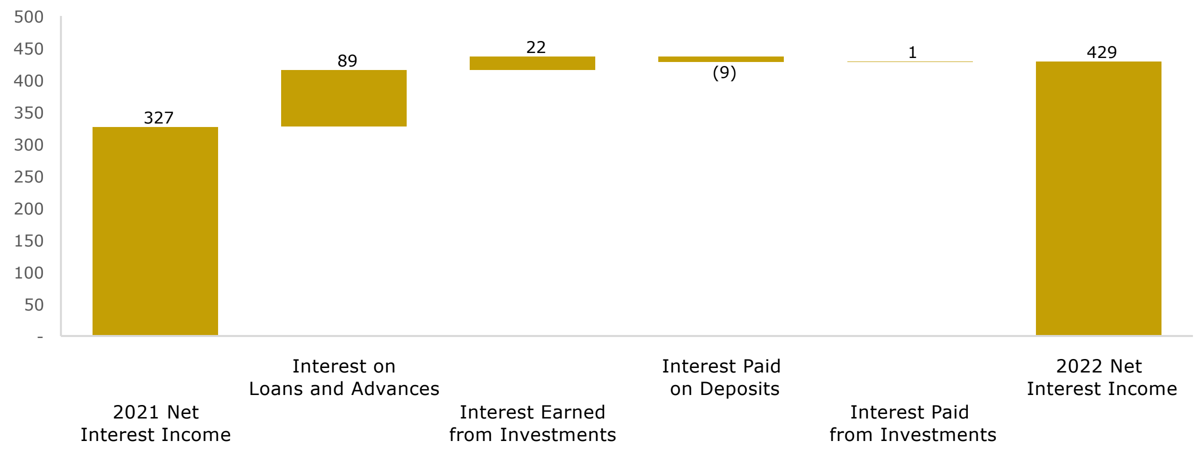
Source: CIMA

For the Category A Retail Banks, the net interest income increased by USD 102 million, provision for credit losses was higher by USD 2 million, other operating income increased by USD 43 million, and other operating expenses increased by USD 20 million. Cumulatively, this resulted in an increase in income before taxes of USD 147 million from USD 229 million in 2021. The increase in profitability for the Category A Retail Banks was primarily attributable to the rising interest rates throughout 2022 (Figure 29). Regarding net interest income, both interest income and interest expense increased by 31%, respectively.

Relative to 2021, the sector reported an increase in ROE from 7.5% in 2021 to 10.5%, while the ROA decreased from 0.3% to -1.3% (Figure 31). The ROE excludes the branches because they are not separate legal entities and do not necessarily have standalone equity, while the ROA includes the branches (Figure 32). The net loss for branches was USD 7 billion (2021: USD 2.98 billion). The movement in the sector's ROE was a result of strong performance results by the applicable banks. The decrease in the ROA was mainly attributable to the one-off transactions resulting in losses by a Category B Bank.

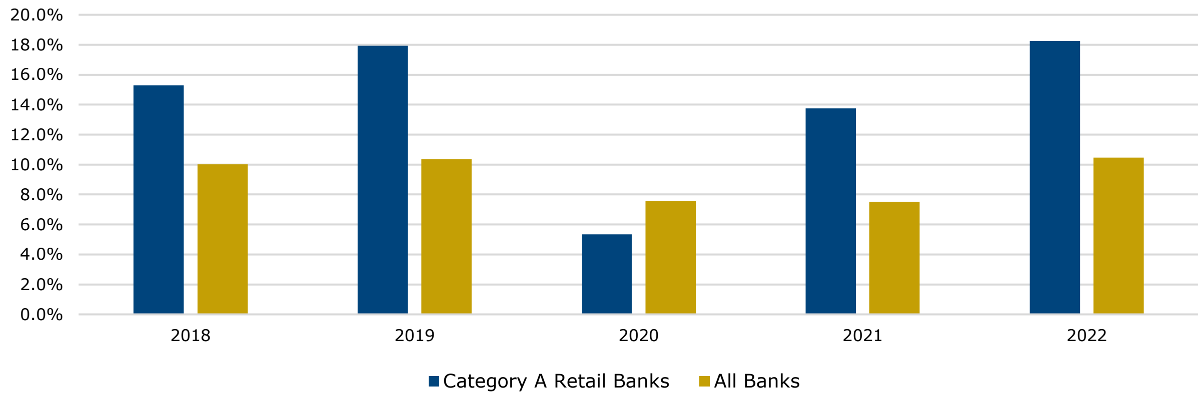
The ROE and ROA for the Category A Retail Banks increased from 13.8% to 18.3% and 1.7% to 2.2%, respectively, matching the pre-pandemic levels.

Figure 29: Drivers of Profitability – Category A Retail Banks (in US$ Millions)



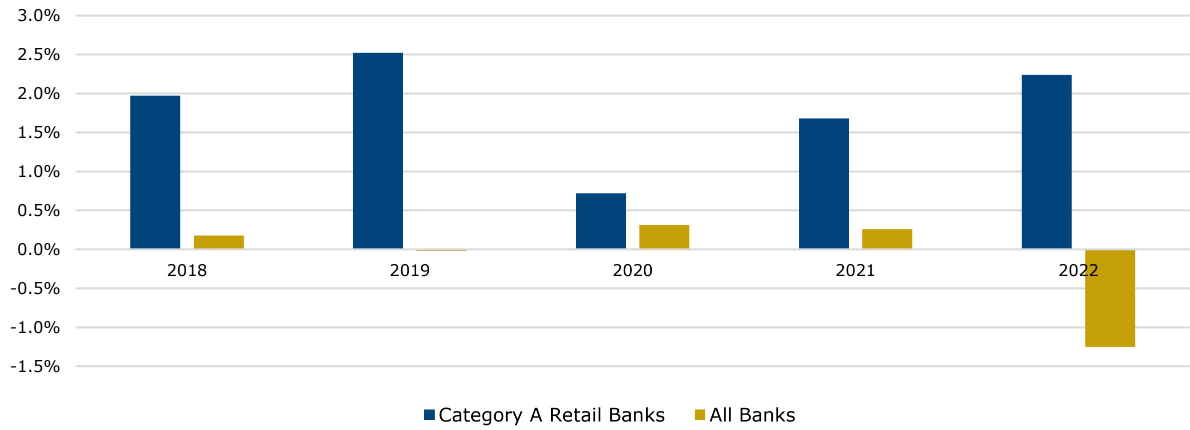
Source: CIMA

Figure 30: Return on Equity



Source: CIMA

Figure 31: Return on Assets



Source: CIMA

2.1.4 Societies

As of 31 December 2022, the Societies' total assets amounted to about 12.2% of the Category A total resident assets. The Societies' total assets increased by 8.4% to USD 655 million compared to USD 604 million in 2021 (Figure 32).

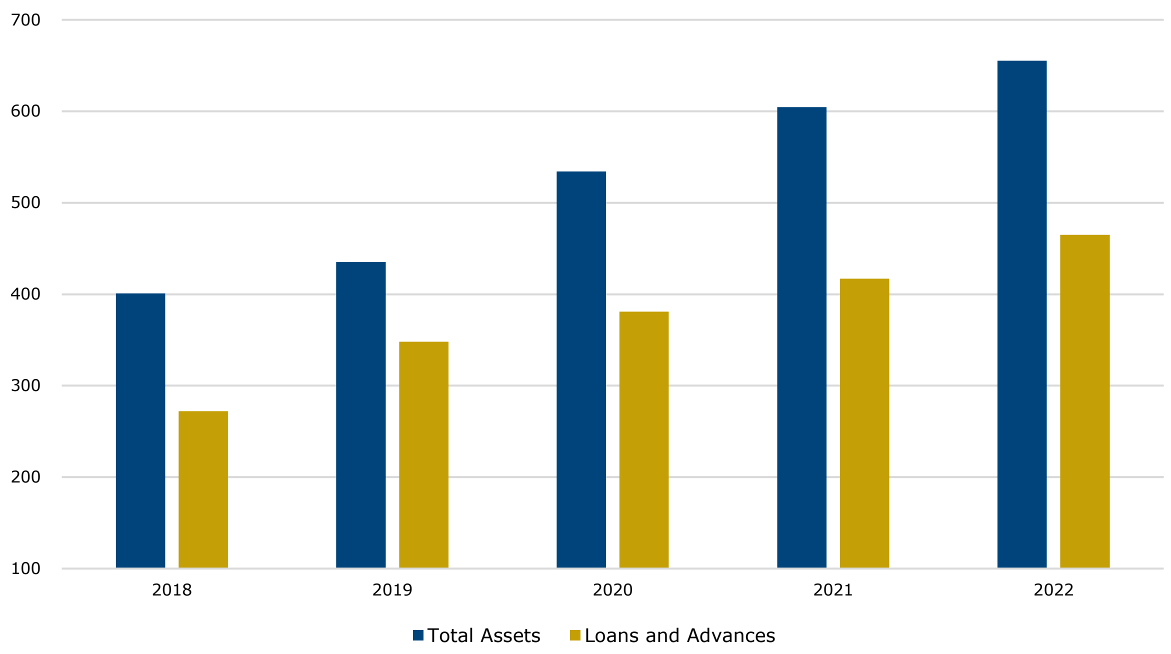
Loans and Advances

Similarly, the loans and advances continued on a growth trend rising by 11.4% to USD 464.7 million. The Societies' credit facilities are mainly to domestic households who are members of the Societies. The Societies' total loans and advances as of 31 December 2022 are equivalent to 9% and 19.6% of the Category A Retail Banks' total resident loans and total household loans, respectively.

Funding

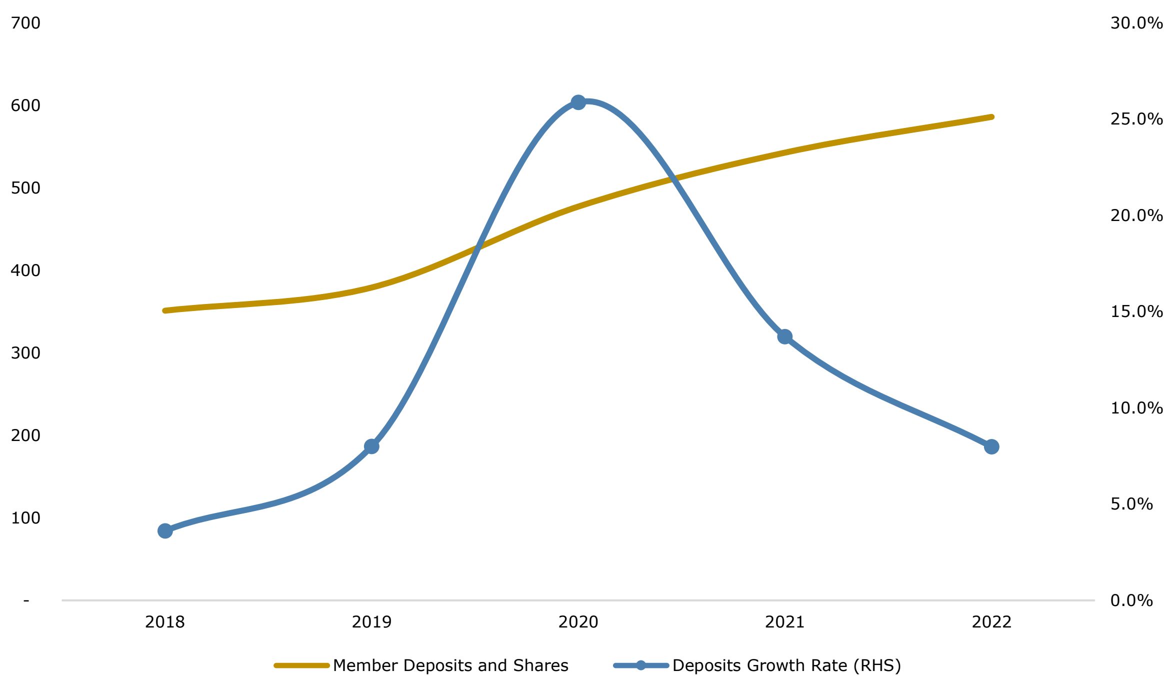
The Societies are mainly funded by member deposits. During the year, total member deposits increased by 8% to USD 586 million (Figure 33). The increase was partly attributable to the favorable returns provided on deposits by the Societies. Conversely, the deposit growth rate declined after 2020, primarily due to higher spending by customers as a result of the lifting of COVID-19 restrictions and the resultant reopening of the economy.

Figure 32: Societies' Total Assets and Total Loans and Advances (US$ Millions)



Source: CIMA

Figure 33: Societies' Member Deposits (US$ Million)

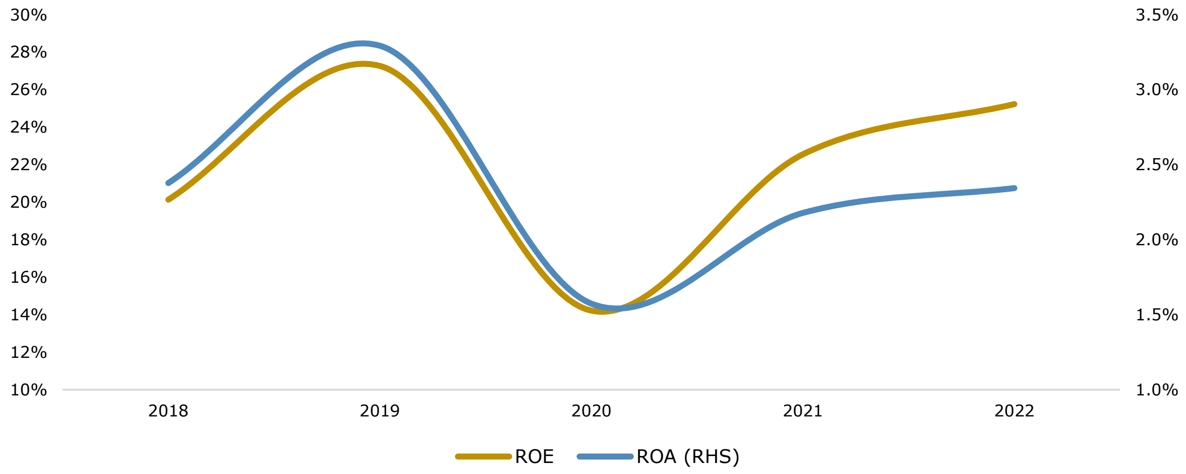


Source: CIMA

Profitability

The ROA increased by 0.1% to 2.3% compared to 2021, while the ROE increased to 25.2% from 22.6% in 2021. The change in ROA and ROE was mainly due to the increase in net income by 19% (Figure 34).

Figure 34: Societies' ROA and ROE



Source: CIMA

2.1.5 Domestic Household and Corporate Sector Review

Household credit increased by 7% to USD 2.96 billion compared to USD 2.8 billion in 2021. Household deposits contracted by 3% to USD 2.7 billion compared to USD 2.8 billion in 2021. Similarly, there was a marginal decrease in corporate sector credit by less than 0.3% to USD 1.37 billion, while corporate sector deposits increased by 6% to USD 3.2 billion.

The continued growth of household credit shows continued confidence in the real estate market despite high interest rates and prices. The narrowing of household deposits was a result of a resurgence in household spending stemming from the lifting of COVID-19 restrictions (Figure 35).

Household Sector

As indicated above in 2022, household[7] credit increased to USD 2.96 billion. The household credit was equivalent to 50.6% of the Cayman Islands' total GDP[8]. Household over-indebtedness can be affected by unfavorable economic conditions and compromise the stability of the financial system. However, the Cayman Islands' household credit to GDP ratio was lower than the proportion reported[9] by G20 countries and advanced countries, at 56.7% and 72.1%, respectively. However, the Cayman Islands' ratio exceeded the proportion for emerging markets of 45.2%.

Household deposits are a stable source of funding for banks. In 2022, there was a dip in household deposits as a percentage of loans, which moved from 99% to 90% due to high customer spending after the COVID-19 pandemic. 80% of the household deposits are savings and fixed deposits, and the rest are demand deposits.

Loans for domestic property account for the largest portion of household credit [USD 2.6 billion or 88.4%]. Other components of household credit include motor vehicles, education, and miscellaneous (Figure 36). Credit for domestic property experienced a year-on-year growth of 7.3%, while motor vehicle credit facilities shrunk by 4.1%. The growth in credit relating to domestic property was consistent with the continuing growth of the domestic real estate and construction industry.

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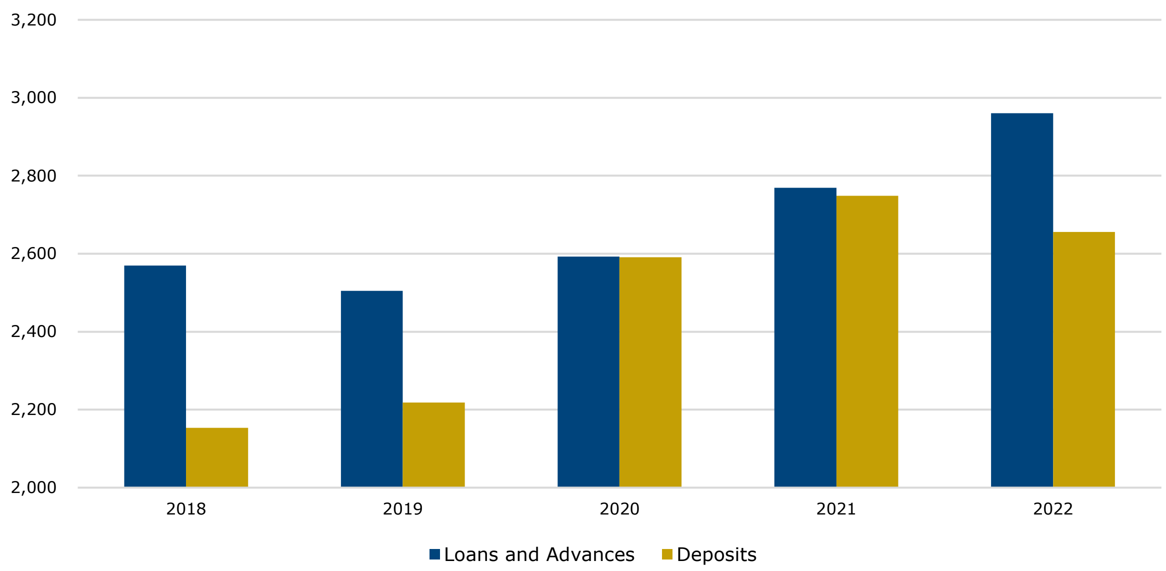
[7] Includes immaterial credit and deposits for NPIs.

[8] 2021 GDP figures by Economics and Statistics Office.

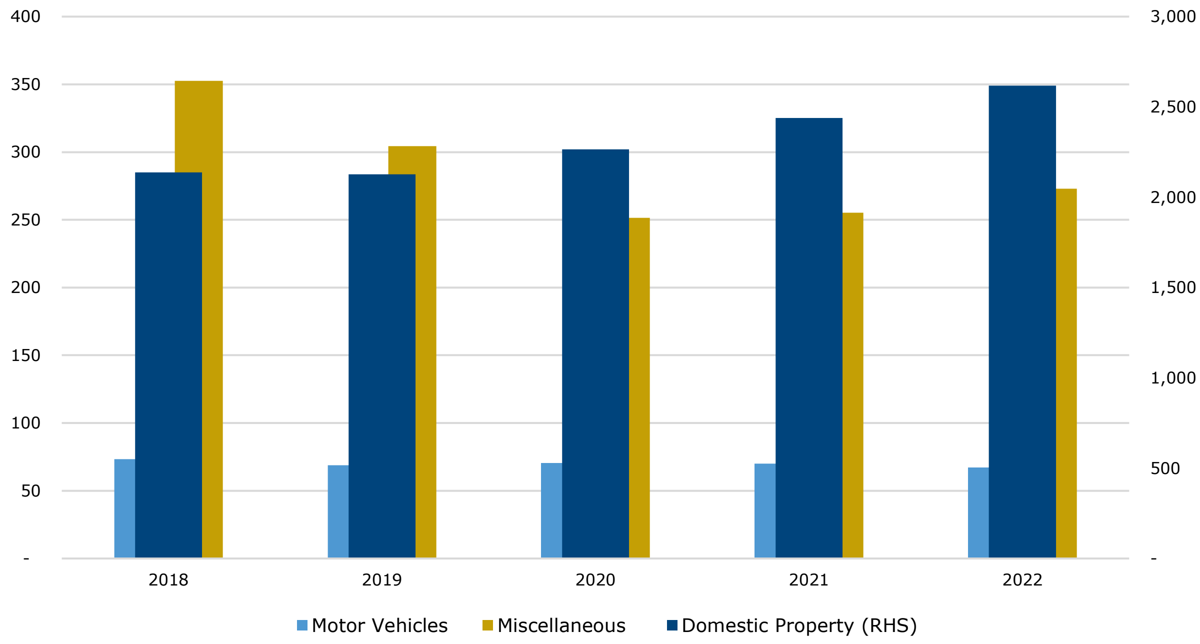
[9] Based on BIS statistics for Q4 2022 at PPP exchange rates.

Figure 35: Resident Household Credit and Deposits – All Banks (US$ Million)



Source: CIMA

Figure 36: Household Loans and Advances by Type – All Banks (US$ Million)



Source: CIMA

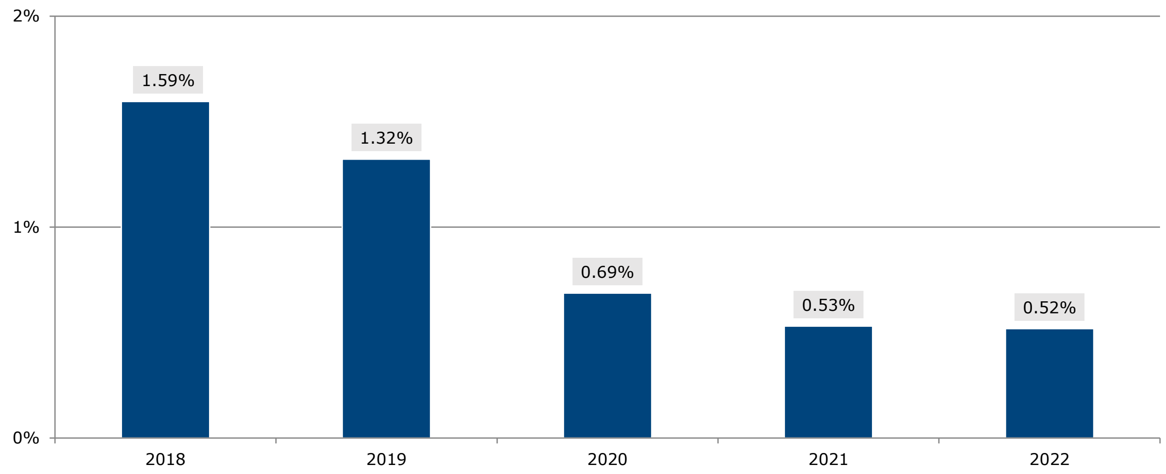
Foreclosures

Foreclosure is a process through which banks initiate legal proceedings to satisfy the financial obligations owed to them if customers fail to meet the contractual repayment requirements. Foreclosure is generally considered a lagging indicator of asset quality because the legal process usually begins after the customer defaults. Although total residential mortgages have been increasing since 2019, the foreclosure rate has continued to decline over the last five years, indicating resilient and strong credit quality. In 2022, the foreclosure rate decreased to 0.52% compared to 0.53% in 2021 (Figure 37).

Corporate Sector

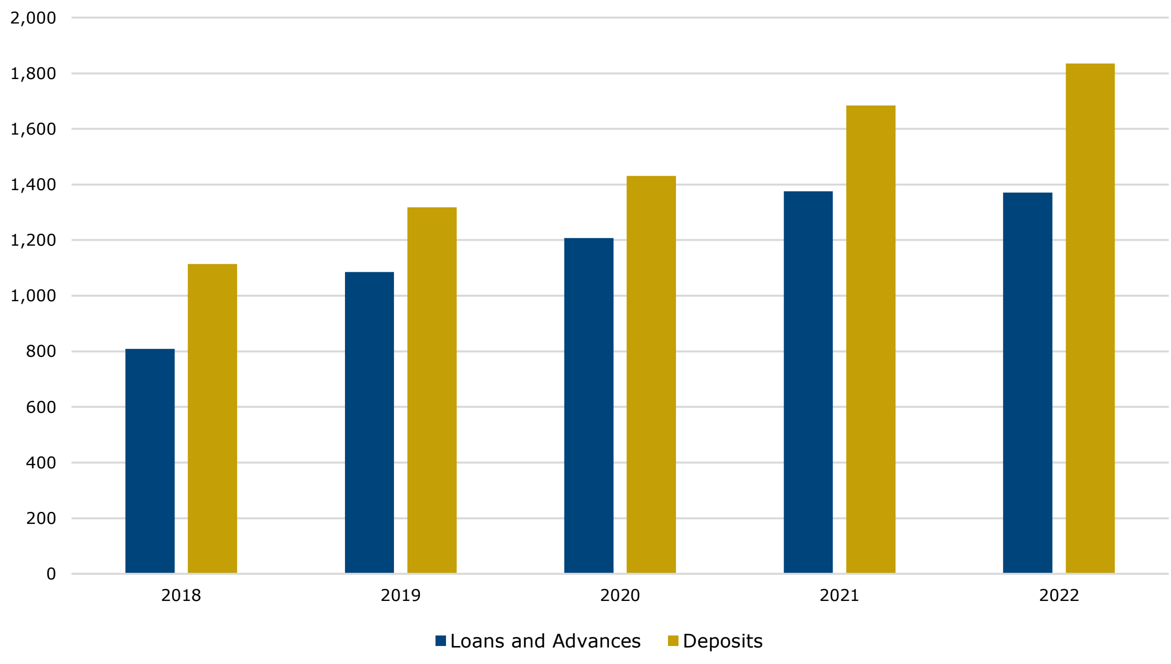
Corporate sector loans declined by 0.3%, while deposits increased by 6.4%. Corporate sector credit was 46% lower than credit to households, whereas corporate sector deposits exceeded those from households by 22% (Figure 38). The lower credit to the corporate sector indicates its continued strong financial position. Corporate sector credit accounted for 20.6% of the Cayman Islands' GDP. These debt levels do not suggest over-indebtedness in the corporate sector. Corporate sector credit-to-GDP was significantly lower than similar ratios for G20, advanced economies, and emerging markets, which stood at 248.9%, 267.2%, and 220.1%, respectively.

Figure 37: Foreclosure Rate (Foreclosure Inventory/Total Value of Residential Mortgages)



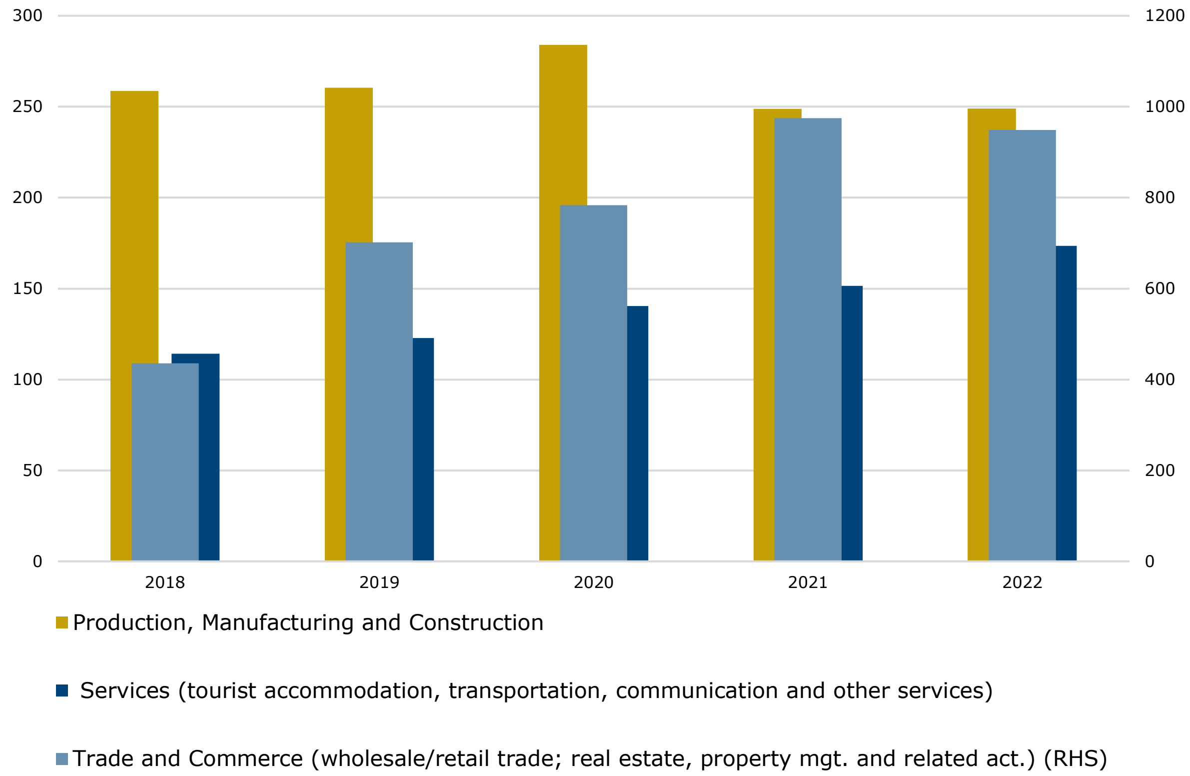
Source: CIMA

Figure 38: Corporate Credit and Deposits – All Banks (US$ Million)



Source: CIMA

Figure 39: Corporate Credit by Industry– All Banks (US$ Million)



Source: CIMA

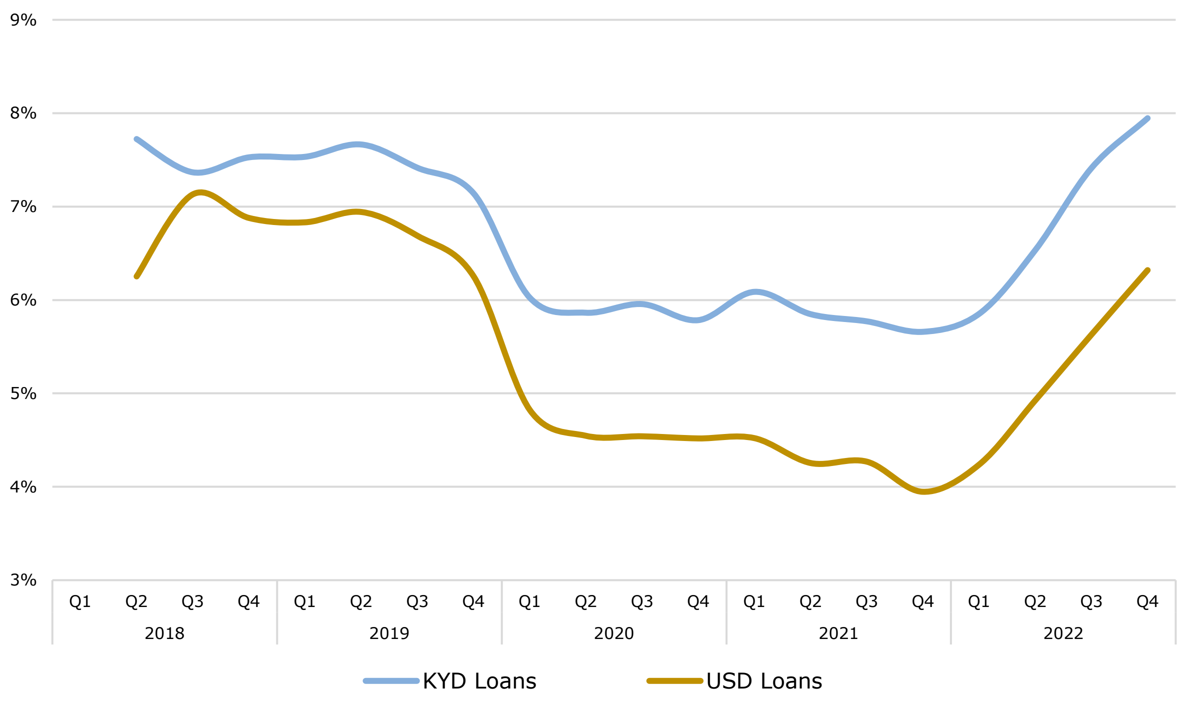
The breakdown of corporate sector credit as of December 31, 2022, by client industry was as follows: Trade and Commerce accounted for 69% or USD 949 million, Production, Manufacturing and Construction for 18% or USD 249 million, and the Services industry for 13% or USD 173 million (Figure 39). Comparing year-on-year data, credit for Production, Manufacturing and Construction increased by 0.1%, while credit for the Services Industry surged by 14.4%. However, credit for Trade and Commerce decreased by 2.6%. The movement in credit for the Service Industry can be attributed to its recovery following the lifting of COVID-19 pandemic restrictions.

Interest Rates

In 2022, the weighted average lending and deposit rates increased, consistent with the high-interest rate environment post-pandemic aimed at combating high inflation. The prime loan rate climbed by 4.25% in 2022, while KYD and USD lending rates rose by 2.3 and 2.4 percentage points (pps), respectively, to 7.95% and 6.32% (Figure 40).

Similarly, KYD and USD deposit rates also rose by 29 and 32 basis points, respectively. Generally, deposits have shorter maturities and faster repricing compared to loans and advances. Typically, KYD lending rates and deposit rates are higher than their respective USD rates. USD-denominated assets and liabilities account for 72% and 69% of the total assets and liabilities, respectively (Figure 41).

Figure 40: Weighted Average Lending Rates – Category A Retail Banks

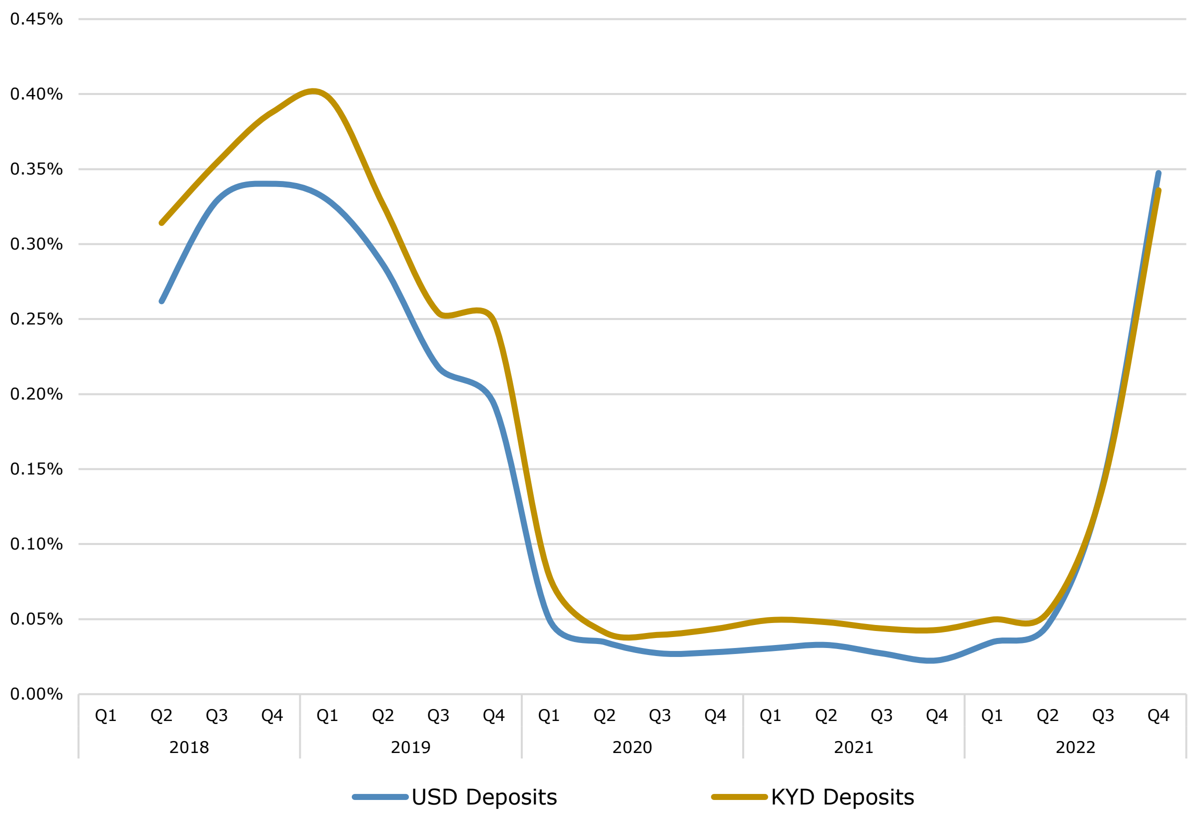


Source: CIMA

Domestic Systematically Important Deposit-Taking Institutions Update

The Rule and Regulatory Policy for Domestic Systematically Important Deposit-Taking Institutions ("DSIDTIs") was gazetted and published on the CIMA website in May 2023. The Rule and Regulatory Policy on DSIDTIs came into effect in May 2024. The framework establishes criteria for identifying institutions that could cause significant disruption to the Cayman Islands' financial system and economy in the event of their distress or failure and the approaches to mitigating negative externalities posed by these institutions. The DSIDTIs framework includes a Higher Loss Absorbency ("HLA") requirement which is a surcharge above the minimum regulatory capital requirement levied to increase a D-SIDTI's going concern loss absorbency capacity. The HLA requirement will further enhance and strengthen the domestic financial stability.

Figure 41: Weighted Average Deposit Rates – Category A Retail Banks



Source: CIMA

2.1.6 Beyond 2022

In 2023, the global banking system was shaken by several high-profile bank failures, a volatile stock market, continued high interest rates, high inflation, and global supply chain constraints. During the first two quarters of 2023, several banks in the US and Europe collapsed, sparking concerns about a potential global banking crisis. Notably, two of the failed banks held Category "B" licenses issued by the Authority to operate branches in the Cayman Islands. One of the two banks was sold to another bank after intervention by its home regulator while the other bank was liquidated by a US court appointed receiver.

Financial information received by the Authority during and after the above events along with the Authority's supervisory procedures revealed that there was no material impact on the Cayman Islands banking sector. The core FSI continued to remain strong and indicative of a robust banking sector.

The Authority continues to collaborate with domestic and international stakeholders on various initiatives to identify and implement measures to enhance regulatory framework to address lessons learned from the events above. The Authority is also closely monitoring international standard setters such as the Basel Committee on Banking Supervision to identify whether any changes will be recommended in response to bank failures.

2.2 INVESTMENTS SECTOR

SUMMARY BOX 1: THE CAYMAN ISLANDS' INVESTMENTS SECTOR

The following are main categories of mutual funds:

Registered Fund: must have either a minimum aggregate equity interest of KYD$80,000 (USD 100,000) purchasable by a prospective investor or the equity interests must be listed on a stock exchange approved by CIMA.

Master Fund: must have either a minimum aggregate equity interest of KYD$80,000 (USD 100,000) purchasable by a prospective investor in the master fund or the equity interests of the master fund must be listed on a stock exchange approved by CIMA.

Administered Fund: must have a CIMA-licensed mutual fund administrator providing its principal office. The regulatory responsibility for the administered fund, which has more than 15 investors and which is not a licensed or registered mutual fund, is placed largely in the hands of a licensed Mutual Fund Administrator.

Licensed Fund: must be registered with the Authority in the prescribed manner and a licensed mutual fund administrator is providing its principal office in the Islands, and, unless an exemption from this requirement has been granted by the Authority.

Limited Investor Fund: the equity interests are held by not more than 15 investors, a majority of whom are capable of appointing or removing the operator of the fund and unless an exemption from this requirement has been granted by the Authority.

Apart from the Mutual Funds, another large category of funds is **Private Fund:** a company, unit trust or partnership that offers or issues or has issued investment interests, the purpose or effect of which is the pooling of investor funds with the aim of enabling investors to receive profits or gains from such entity's acquisition, holding, management or disposal of investments.

Mutual Fund Administrators: are entities authorized by CIMA to carry out the following services of a fund: management, administration, providing a principal office in the Cayman Islands, or the provision of operator services (director, trustee or general partner) to the fund. Entities that are licensed as mutual fund administrators, fall into 2 distinct classifications:

Full - provides administration services to an unlimited number of regulated mutual funds (pursuant to Section 10(2) of the Mutual Funds Act (as revised) ("MFA")).

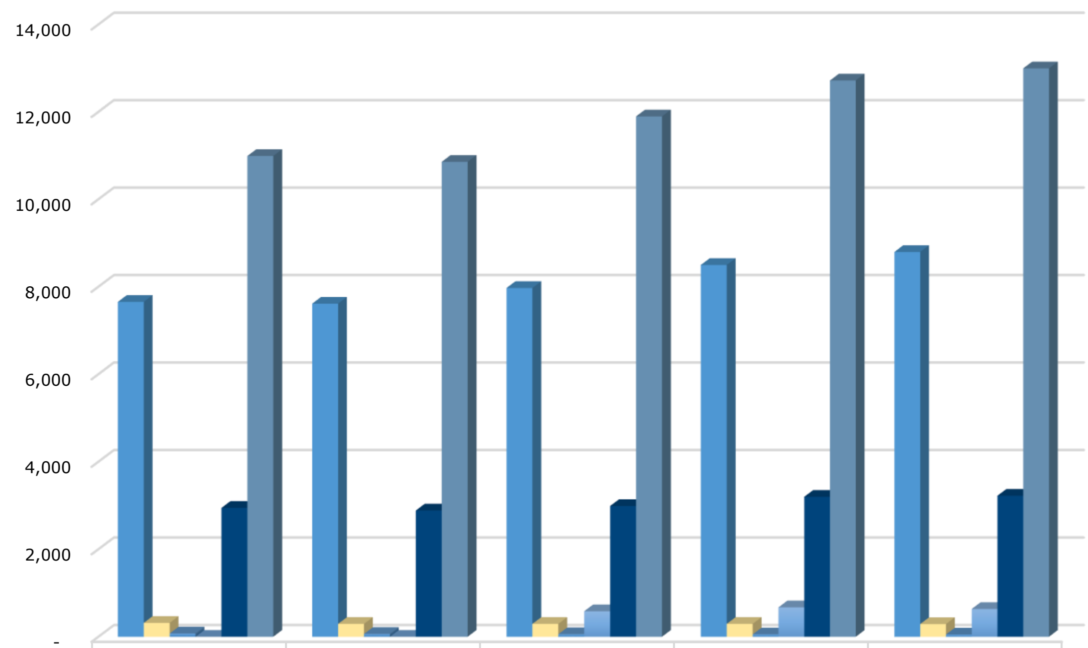
Restricted - provides administration services to regulated mutual funds specified from time to time in the license (pursuant to Section 10(3) of the MFA).

Mutual Funds

The Cayman Islands continues to be one of the most preferred jurisdictions for investment fund domiciliation. The jurisdiction's professional infrastructure, stability, regulatory regime, English common law framework and tax neutrality all support the growing sector. Regulation of investment funds in the Cayman Islands is comprised of mutual fund and private fund regimes.

Regulated Mutual Funds are approved under the MFA. As of 31 December 2022, a total of 12,995 Mutual Funds (comprised of 8,795 Registered Funds, 3,224 Master Funds, 290 Administered Funds, 51 Licensed Funds and 635 Limited Investor Funds) were approved under the MFA (Figure 42). Additionally, the total number of mutual funds has shown a steady increase in the last five years.

Figure 42: Active Mutual Funds by Type

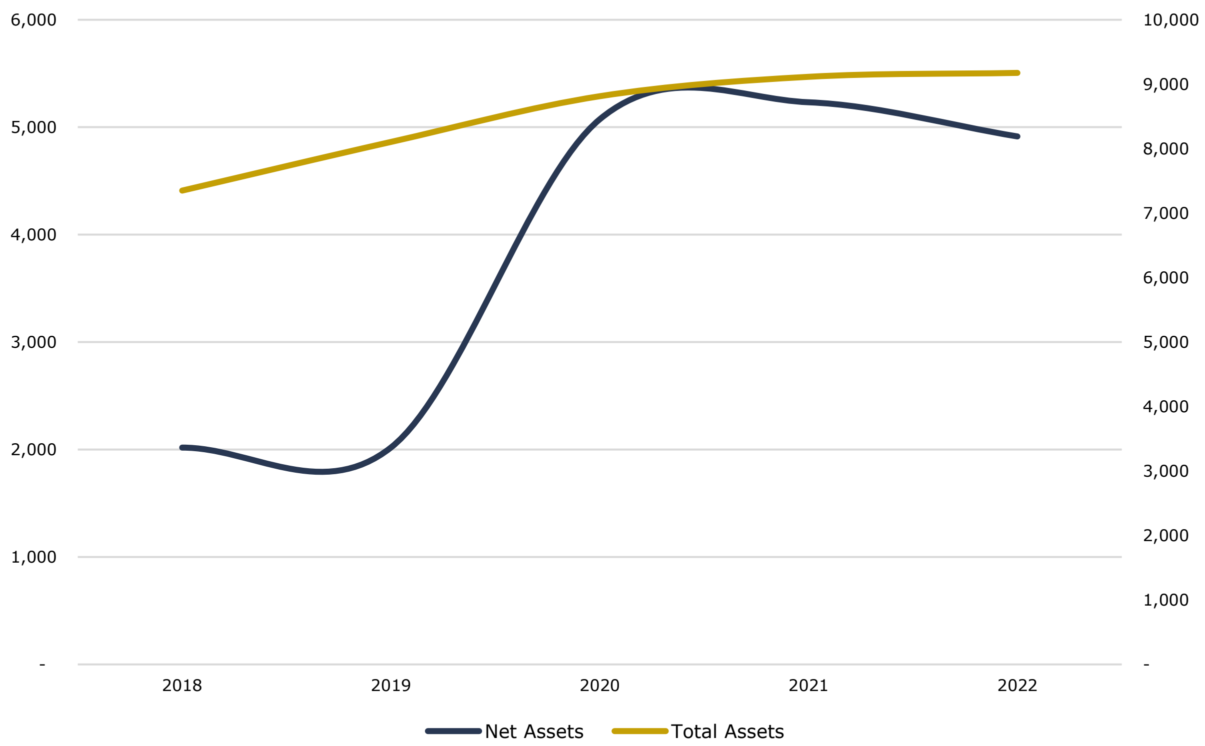


	2018	2019	2020	2021	2022
Registered Funds	7,654	7,612	7,972	8,499	8,795
Administered Funds	317	295	294	295	290
Licensed Funds	75	64	59	55	51
Limited Investors	-	-	583	672	635
Master Funds	2,946	2,886	2,988	3,198	3,224
Total	10,992	10,857	11,896	12,719	12,995

Source: CIMA

Based on the Funds Annual Return ("FAR") filings for 2022, Mutual Funds reported a total asset value of USD 9.2 trillion and total net asset value of USD 4.9 trillion. Notably, total assets and total net assets have also increased over the last five years (Figure 43).

Figure 43: Total Assets and Net Assets of Mutual Funds (US$ Billions)



Source: CIMA

Thus, the total number of Funds as well as the assets (total and net) represented by these Funds have shown an upward trend, which indicates that the jurisdiction has a strong regulatory regime that continues to attract investment funds.

Based on the FAR filings submitted for Mutual Funds for the year 2021, approximately 98% of the audit reports had unqualified[10] audit opinions which signifies that the audited financial statements present fairly in all material respects and there are limited concerns over the quality of financial reporting.

All Funds must appoint a local, CIMA-approved auditor to approve their audited financial statements. It was observed that auditors for 99% of regulated Mutual Funds which filed a FAR for 2021 have indicated that their current auditors have not resigned and indicated their intention to continue to perform the respective audits for the subsequent year of 2022. The confidence shown by local auditors regarding the renewal of the audit engagements coupled with very high percentage of unqualified audit reports produced is suggestive of a strong financial reporting framework in place in the Cayman Islands.

Most Funds prefer to engage multiple third-party service providers, including investment managers, auditors, administrators, and custodians, which provide an independent oversight of the activities and affairs of the fund and provide effective risk management.

For the year 2021, whilst there is no regulatory requirement for the appointment of an independent third-party service provider (such as investment manager or Net Asset Value ("NAV") or Registrar and Transfer Agent ("RTA") services), with the exception of Licensed and Administered Funds mentioned above, approximately 72% of regulated Mutual Funds engaged independent service providers.

[10] *An unqualified opinion is expressed when the auditor can conclude that the financial statements give a true and fair view and comply in all material respects with the relevant financial reporting framework (including applicable law).*

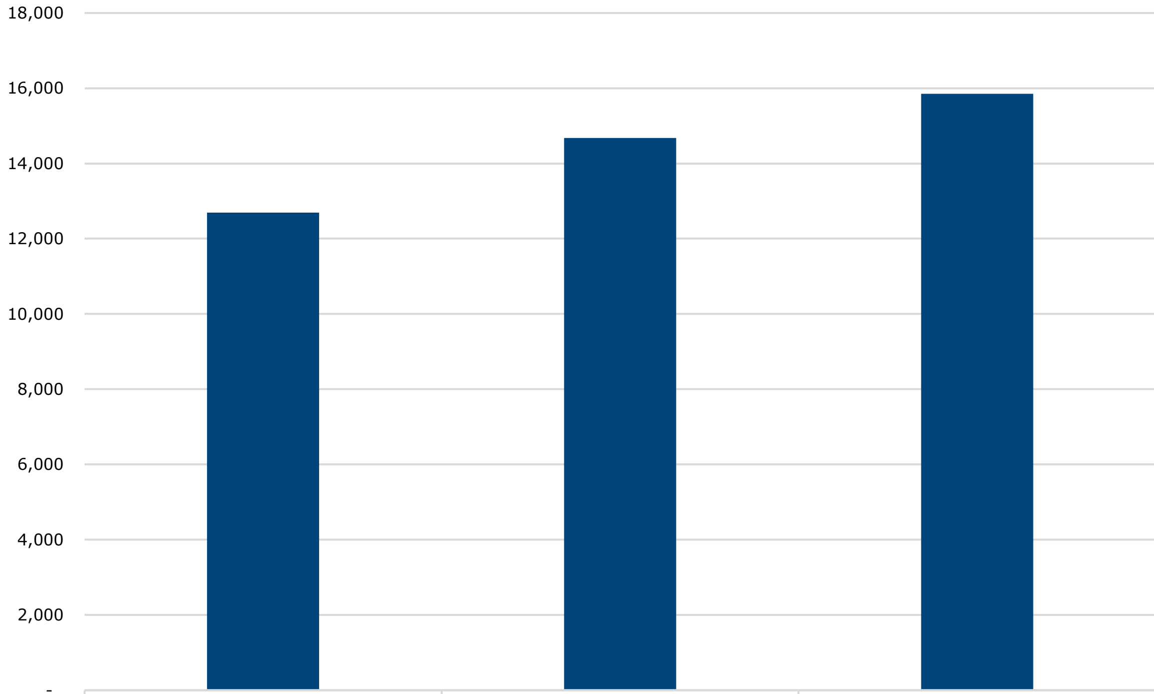
Directors of Mutual Funds must also be registered with CIMA pursuant to the Directors Registration and Licensing Act (as revised) ("DRLA"). This signifies a very high corporate governance culture even on a voluntary basis in the Mutual Funds domiciled in the Cayman Islands.

Mutual Funds can have minimum initial investment amount ranging from 'less than USD 50,000' to as high as 'USD 10,000,000 or more'. However, it is observed that the majority of Mutual Funds cater to institutional and high net-worth individuals with around 93% mutual Funds requiring minimum initial investment of USD 100,000 or more.

Private Funds

As of December 2022, a total of 15,854 Private Funds were approved under the Private Funds Act (as revised) ("PFA") which represents an increase of 8% from the 14,679 approved at the end of 2021 (Figure 44). That is, the total number of Private Funds has shown an overall increase during the past three years since the enactment of the PFA in 2020.

Figure 44: Active Private Funds

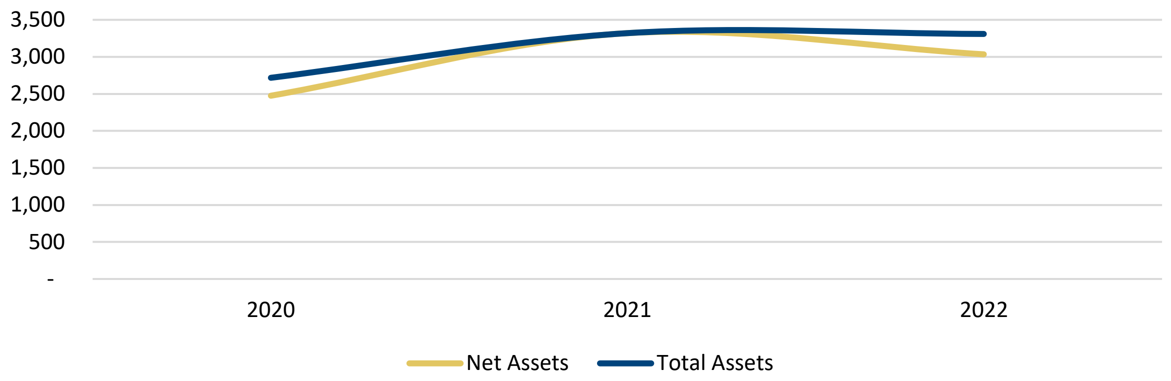


	2020	2021	2022
Private Funds	12,695	14,679	15,854

Source: CIMA

Based on the FAR filings for 2022, Private Funds reported a total asset value of USD 3.3 trillion and total net asset value of USD 3.0 trillion (Figure 45). The increased number of Private Funds as well as the assets (total and net) underscores the popularity of the jurisdiction, with its robust regulatory regime.

Figure 45: Total Assets and Net Assets of Private Funds (US$ Billions)



Source: CIMA

There is no regulatory requirement for the appointment of an independent third-party service provider (investment manager or NAV or RTA services). However, during 2022, more than 50% of regulated Private Funds engaged independent service providers, indicative of a robust corporate governance culture for Private Funds.

Based on the Private Funds FAR filings submitted for 2022, 98% of the audit reports had unqualified audit opinions which signifies that the audited financial statements present fairly in all material respects, indicating a high level of accuracy and transparency in the financial reporting of these Private Funds. Additionally, 99% of regulated Private Funds which filed a FAR for 2022 have indicated that their current auditors have not resigned and intend to continue to perform the respective audits for 2023. This demonstrates confidence in the existing audit engagements and suggests that both Private Funds and their auditors are committed to maintaining a strong reporting framework.

Investment Funds constitute the largest part of the product offering of the Cayman Islands as an international financial centre. Investment Funds have direct links to the local economy through contracting with domestic service providers such as company managers, corporate services providers, lawyers, auditors and Mutual Fund Administrators. In essence, it is a consistent contributor to government revenue and overall employment in the economy.

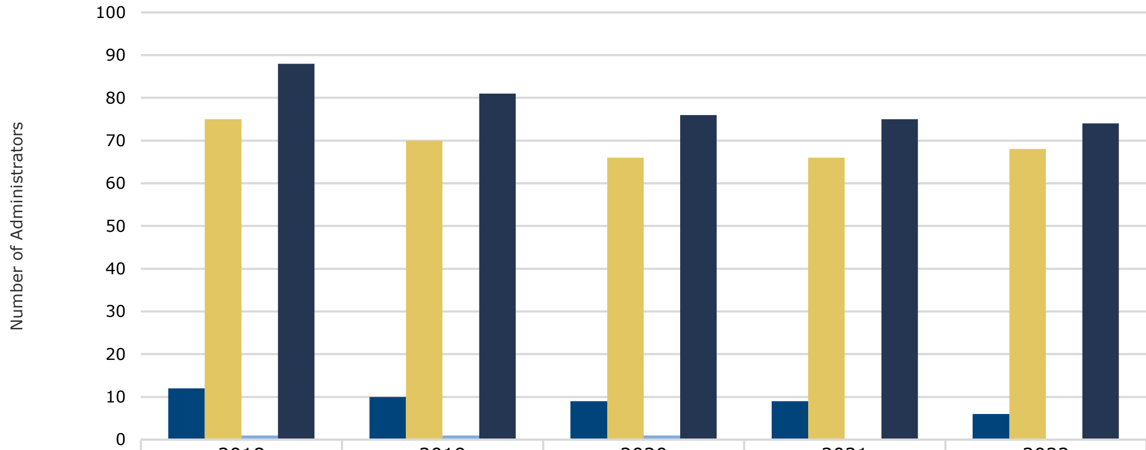
Mutual Fund Administrators

Mutual Fund Administrators ("Fund Administrators") which are licensed by CIMA, are deemed to be key service providers as it relates to CIMA's regulatory oversight of regulated Investment Funds within the jurisdiction. Fund administration business mainly consists of the provision of NAV and RTA services to funds. With a high volume and frequency of cross-jurisdictional transactions and a global investor base, it is essential that MFA implement appropriate policies, procedures and monitoring systems which are in line with the size, risk profile, complexity and nature of business of the Fund Administrators (Figure 46). Licensed Fund Administrators are subject to the provisions of the MFA and are also required to comply with several relevant regulations, rules, policies, and statement of guidance issued by CIMA. As part of CIMA's oversight, Fund Administrators are subject to onsite inspections to ensure that the applicable processes and systems are not only in place, but are effectively being performed, monitored, and evidenced appropriately and documented in alignment with their risk appetite. The frequency of the onsite inspections is determined by the Fund Administrators' risk rating determined by CIMA utilizing a risk-based approach. These assessments are conducted periodically to ensure ongoing compliance and risk mitigation. The strong regulatory framework in place aims to ensure the integrity and stability of the funds industry, including protecting the investors and maintaining confidence in the Cayman Islands' financial sector.

Local Fund Administrators accounted for 34% of Investment Funds filing a FAR in 2022, with the United States at 27%, Ireland at 7%, and Hong Kong at 4%. Similarly, RTA services were provided by local Fund Administrators for 38% of these Funds, followed by the United States at 21%, Ireland at 8%, and Hong Kong at 3%. This indicates that a significant portion of Fund Administrators overseeing Cayman Islands-domiciled Investment Funds hail from major international financial hubs with robust regulatory frameworks and extensive industry expertise. Their presence contributes significantly to the efficiency and reliability of the Cayman Islands' fund industry.

There has been a year-on-year decrease in CIMA issued Fund Administrator licenses. The trend does not necessarily indicate a decline within the Fund Administrator industry but more so highlights consolidation through corporate restructuring such as mergers and simplification that have taken place in the industry.

Figure 46: Active Fund Administrator by Type



	2018	2019	2020	2021	2022
Restricted	12	10	9	9	6
Full	75	70	66	66	68
Exempted	1	1	1	-	-
Total	88	81	76	75	74

Source: CIMA

By design, the regulatory framework of the Funds sector of the Cayman Islands provides flexibility to the Investment Funds to be managed by investment managers domiciled in both the Cayman Islands and overseas. A substantial portion of Investment Funds domiciled in the Cayman Islands are managed overseas. Based on the FAR filings for Mutual Funds and Private Funds submitted for the year 2022, the US remains the dominant jurisdiction of domicile for overseas investment managers, accounting for nearly 56% of Cayman Investment Funds under management whilst the UK accounts for around 7% of all Funds. The main players, apart from the above mentioned are mainly from the Asia-Pacific region with Hong Kong accounting for 4% and Singapore with 2% of the total number of Funds, respectively. The majority of the overseas investment managers are therefore based in leading jurisdictions with reputable financial centres and bring with them diverse investment strategies, expertise, and access to global markets, which can enhance the overall performance and stability of the Funds they manage.

Investment Funds regulated by CIMA are also required to establish, implement, and maintain an adequate corporate governance framework which takes into consideration the size, complexity, structure, nature of business and risk profile of the operations but not limited to assets under management, number of investors, nature of investment strategy, etc. through the appointment of directors, trustees, managing members and general partners (namely "Operators"). The Operators are responsible for the effective and prudent oversight of regulated Funds, whilst ensuring that the latter are conducting their affairs in accordance with the relevant Acts and regulations of the Cayman Islands. Effective oversight of regulated Funds by Operators ensures the mitigation of any potential risks by virtue of their investment managers being located outside the Cayman Islands. The overall robustness of the corporate governance across the investment Funds industry is evidenced by a relatively low percentage of less than 1% of regulated Investment Funds that were subject to regulatory investigations in 2021.

Among the important trends in investment strategies, investments in Digital Assets and Environmental, Social and Governance ("ESG") investments were the most noteworthy.

Investments in Digital Assets, including cryptocurrency, more than tripled with an ending net asset value of USD 23 billion in 2022, compared to USD 7 billion in 2020. Digital Assets have become a significant asset class for investors looking for potential returns and portfolio diversification.

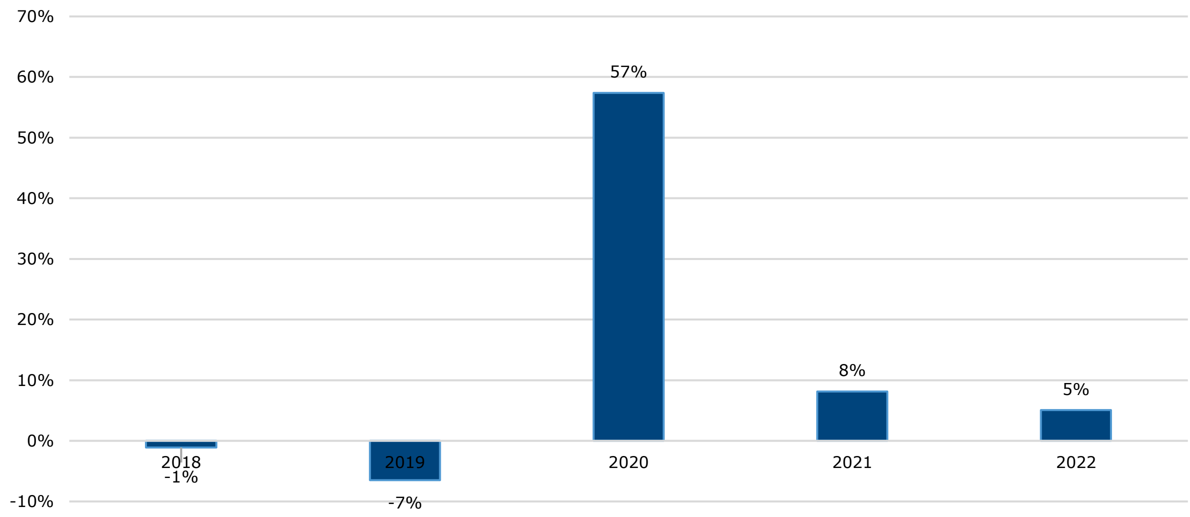
The rise in ESG matters in 2022 marked a significant shift in the global economic landscape. Despite the initial skepticism, ESG maintains momentum, emerging as one of the most influential trends in the global financial sector. Notably, Activism & ESG focused funds witnessed a substantial increase of around 14% between 2020 and 2022, reflecting a sustained commitment among investors to incorporate ESG factors into their investment strategies. This trend mirrors a broader global movement towards responsible and sustainable investing, driven by increasing awareness of environmental and social issues, as well as heightened corporate governance standards. Investors are increasingly recognizing the importance of considering ESG criteria in their investment decisions for the potential financial benefits and risk mitigation it offers.

Investment Financial Soundness Indicators

Size

As previously mentioned, The Cayman Islands continues to be a favoured choice for investment funds, with a consistent influx of positive net new funds from 2020 to 2022. Following the implementation of the PFA in 2020, there was a notable surge in net new funds as a percentage of total funds, skyrocketing to 57% in 2020 (Figure 47). Since then, the trend has remained resilient, with net new funds registering at 8% in 2021 and 5% in 2022. These figures underscore the sustained confidence investors have in Cayman funds.

Figure 47: Net New Funds to Total Funds

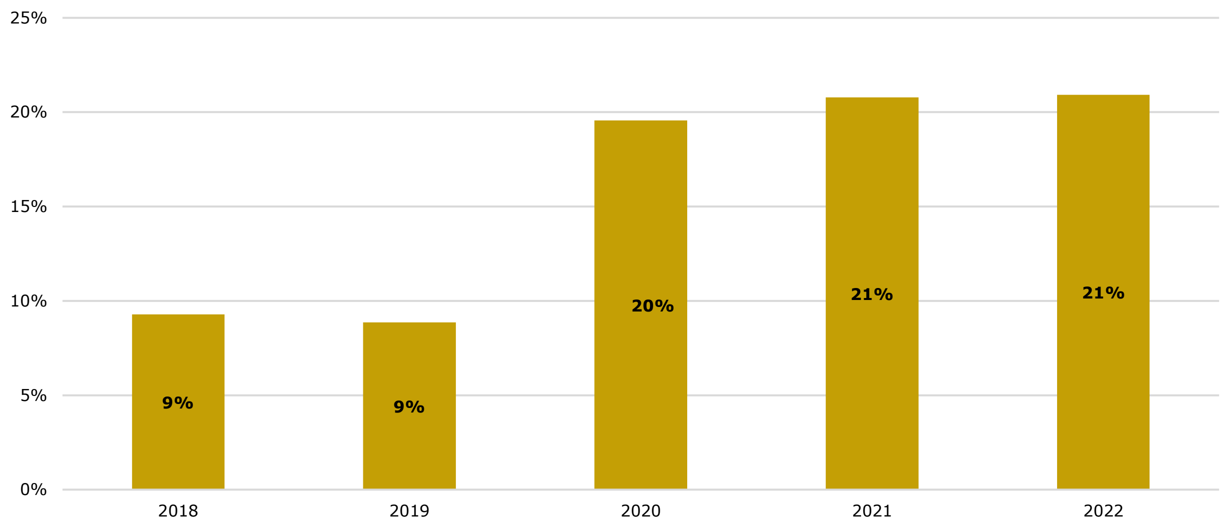


Source: CIMA

Substitutability

In addition, Cayman funds have seen a rise and sustained their substitutability compared to global funds, particularly since the inception of the PFA in 2020. In that year, Cayman funds comprised 21% of the total global funds, indicating their competitiveness and the efficiency of the financial markets, making them an appealing choice for investors' portfolios (Figure 48).

Figure 48: Number of Cayman Funds to Global Funds

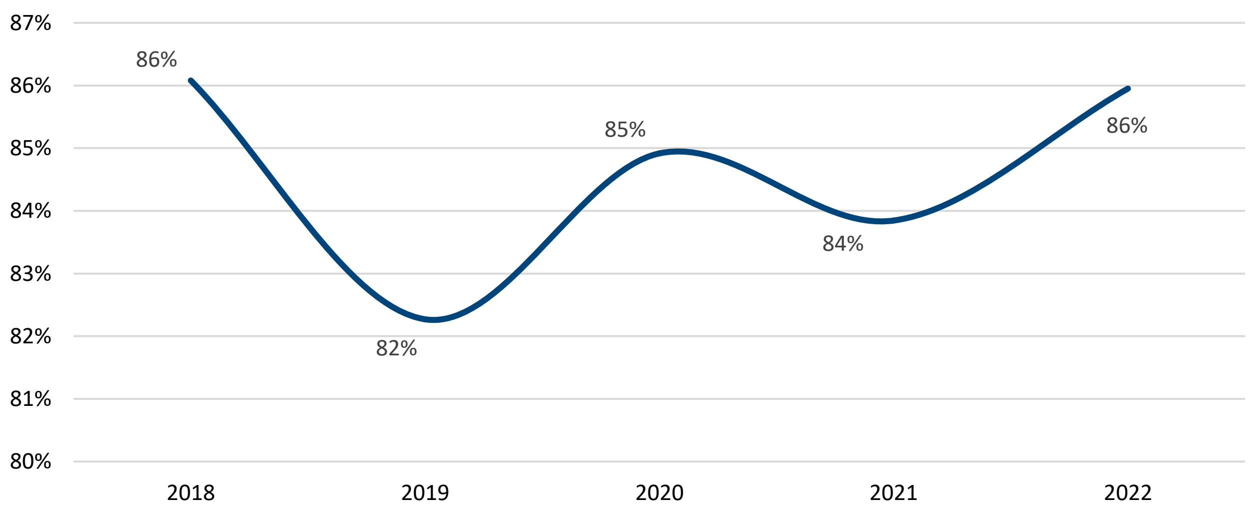


Source: CIMA

Transparency

The response rate for FAR filings on average is annual 85%, underscoring the robust compliance of fund managers with regulatory obligations (Figure 49). This level of adherence empowers CIMA to effectively oversee the financial health and operations of investment funds, promoting transparency, accountability, and investor protection within the sector.

Figure 49: FAR Filings Response Rate

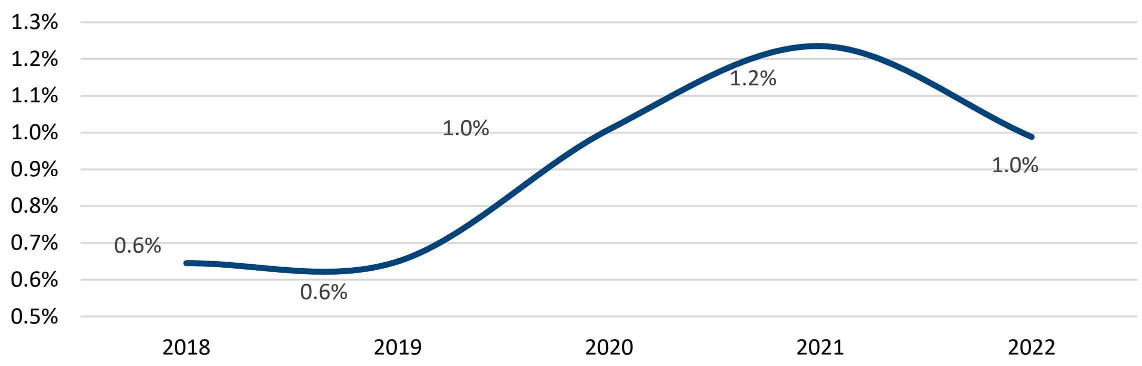


Source: CIMA

Conduct/Governance

Similarly, Cayman funds demonstrate a strong commitment to upholding industry conduct and governance standards. This is evidenced by the low percentage of non-compliant funds relative to the total, which stood at 1% in 2022 (Figure 50). This indicates a culture of adherence to regulatory requirements and best practices, fostering trust and stability within the funds sector.

Figure 50: Non-compliant Funds to Total Funds



Source: CIMA

2.3 INSURANCE SECTOR

The insurance industry has two distinct sectors: Domestic and International insurance segments. Domestic insurance market refers to insurance coverage provided to the Cayman residents and businesses by locally incorporated or branches of foreign insurers. International insurance market refers to insurance coverage provided for overseas/foreign risks by insurers incorporated in the Cayman Islands.

License Categories

There are seven distinct licence categories under the Insurance Act, 2010 ("the Act") which are:

1. *Class A Insurers:* Domestic or external insurer that carries on business generally in or from within the Cayman Islands, providing insurance business to the domestic insurance market or to carry out limited reinsurance business.
2. *Class B Insurers:* Such insurers are exempted to carry on insurance and/or reinsurance business other than domestic business from within the Cayman Islands.
3. *Class C Insurers:* Such insurers are exempted to carry on insurance business involving the provision of reinsurance arrangements. Class C license applies to fully collateralized international insurers e.g., Insurance Linked Securities and catastrophe bonds.
4. *Class D Insurers:* Such insurers carry on reinsurance business and such other business as may be approved in respect of any individual licence by the Authority. Class D licence is usually for large open-market reinsurers.
5. *Insurance Manager:* any company that provides insurance expertise to or for class B or class C insurers.
6. *Insurance Agent:* a person (who is not an insurer) who solicit domestic business on behalf of not more than one general insurer and one long term insurer.
7. *Insurance Broker:* a person who can arrange or procure, directly or through representatives, insurance or reinsurance contracts or the continuance of such contracts on behalf of existing or prospective policyholders.

Domestic Insurance Market

In 2022, there were a total of 88 licensees in the domestic insurance industry in the Cayman Islands under the supervision of the Authority (Table 5).

Table 5: Domestic Market Licensees

Licence Category	2018	2019	2020	2021	2022
Class A Insurer	27	26	27	26	26
Insurance Broker	26	23	23	23	23
Insurance Agent	45	45	46	42	39
Total	**98**	**94**	**96**	**91**	**88**

Source: CIMA

As at December 2022, the domestic insurance market consisted of 26 Class A insurance companies, 23 Insurance Brokers, and 39 Insurance Agents. The non-life insurance premiums of USD 956 million contributed 96% of the total Gross written Premium (GWP) and life insurance premiums of USD 35 million contributed 4% of the total GWP (Table 6). The total GWP were dominated by the health and property insurance class of business segments, contributing 42% and 31% respectively. Significant growth was recorded in the two classes of business over the past few years (Table 7). Health insurance coverage is mandatory for residents of the Cayman Islands and the growth in GWP can be attributed to the increase in population as well as premium rate increases.

Table 6: GWP by Class of Business (US$ Million)

Class Of Business	2019	2020	2021	2022
Property	237	231	279	304
Motor	44	43	49	52
Health	327	341	366	419
Liability	51	57	68	76
International Health	37	23	17	15
Marine & Aviation	45	29	35	46
Life	31	33	34	35
Other	44	35	42	45
Total	817	792	890	991

Source: CIMA

The growth in the property insurance premiums can be attributed to several factors including global economic challenges and uncertainties stemming from the COVID-19 pandemic such as the persistent inflation and supply chain disruptions as well as the impact of climate change and developments. These factors led to a general increase in the prices of products and services. Additionally, property insurance premiums have also increased due to the growth in the construction sector in the Cayman Islands. The domestic insurance market insurers rely heavily on reinsurance as they cede most of their premiums particularly for property insurance.

The hardening of the insurance market and the reinsurance capacity constrains for insurance companies operating in the Caribbean region due to climate related events has resulted in an increase in insurance premium rates and growth in property insurance GWPs in the Cayman Islands.

Table 7: Class of Business Contribution to GWP

Class Of Business	Contribution
Property	31%
Motor	5%
Health	42%
Liability	8%
International Health	1%
Marine & Aviation	5%
Life	4%
Other	4%
Total	100%

Source: CIMA

Table 8: International Market Licensees

Licence Category	2019	2020	2021	2022
Class B Insurer	618	624	634	642
Class C Insurer	23	23	21	21
Class D Insurer	5	5	6	7
Total International Insurers	646	652	661	670
Insurance manager	24	23	22	20
Total Licensees	670	675	683	690

Source: CIMA

International Insurance Market

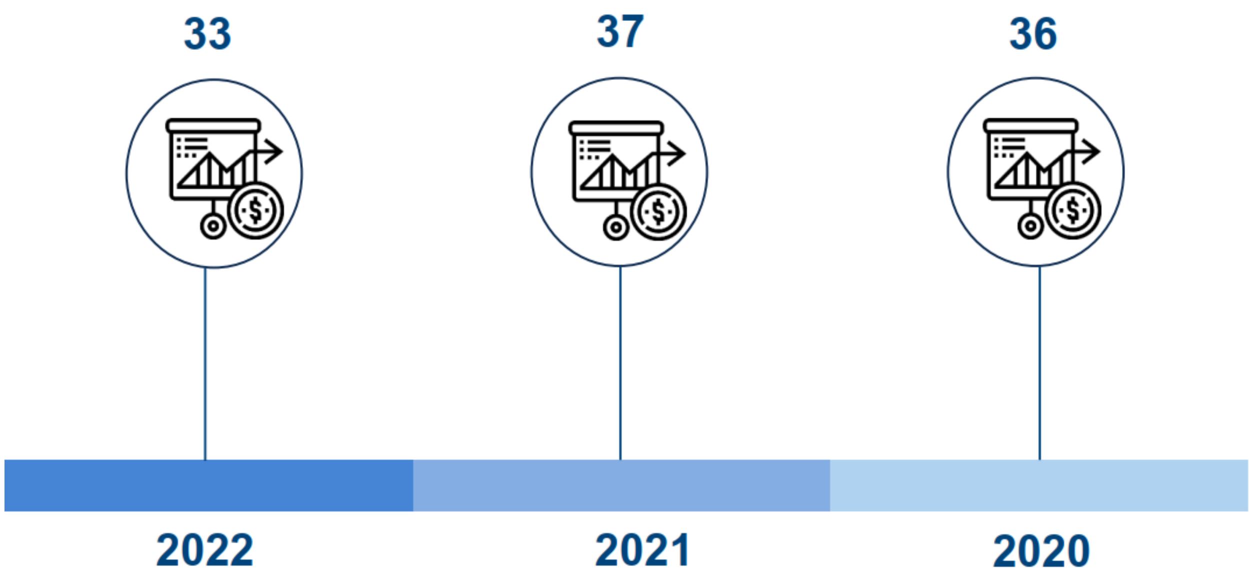
The international insurance market consisted of 670 insurance companies within Classes B, C, and D licence categories, and 20 Insurance Managers as of December 31, 2022 (Table 8).

The entities in the international insurance market are involved in the insurance business whereby the insured risk is located overseas, outside of the Cayman Islands. These include captive insurance companies providing self-insurance coverage to their overseas parent and affiliates, as well as commercial insurance and reinsurance companies providing insurance coverage to consumers internationally.

Licensing

The Cayman Islands continues to be a jurisdiction of choice for insurance solutions and the Authority licensed a total of 33 new entities in 2022 (Figure 51). There has been notable activity with new formations particularly under the international insurance market for the past few years. There is a direct correlation between the hardening of the insurance market and the heightened activity in the international insurance market, the current trend is projected to persist over the next few years. There has been a growing appreciation and knowledge of captive insurance solutions globally, leading to the establishment of new captive insurance domiciles or jurisdictions across the world as well as an increase in utilisation of captives for insurance solutions.

Figure 51: New Insurance License Issued



Source: CIMA

IFRS 17

The Act requires insurers to prepare their audited financial statements in accordance with internationally recognised accounting standards. Currently, approximately 10% of insurance licensees prepare their financial statements in accordance with International Financial Reporting Standards ("IFRS"). The new IFRS accounting standard for Insurance Contracts ("IFRS 17") became effective for annual reporting periods beginning on or after 1 January 2023. Consequently, all insurers that prepare their financial statements in accordance with IFRS will be required to adopt the new standard.

IFRS 17 establishes principles for the recognition, measurement, presentation, and disclosure of insurance contracts issued. It also requires similar principles to be applied to reinsurance contracts held and investment contracts with discretionary participation features issued.

Commencing in 2021, the Authority embarked on an implementation strategy to determine the preparedness and impact of IFRS 17 adoption on the financial condition of respective licensees. According to the survey conducted by the Authority, all licensees impacted by the new standard were on target to adopt the standard. It was further determined from the surveys, that there would be minimal impact on the licensees' ability to meet their capital and solvency requirements.

The Authority has not undertaken any legislative amendment to its existing capital and solvency framework as a result of the changes to the accounting standard. To manage the transition, the impacted licensees will be required to submit their financial statements prepared in accordance with IFRS 17 and comparable financial statements under IFRS 4.

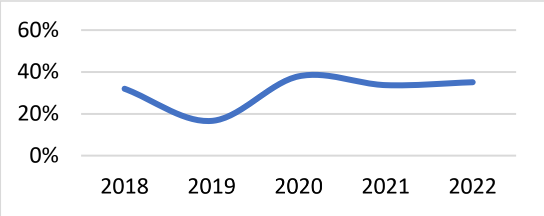
Stress Testing

The focus on climate related risks cannot be emphasized and the insurance industry is particularly vulnerable to the effects of climate related risk. Stress testing is a risk management technique used to evaluate the potential effects on an insurer's financial condition of a set of specified changes in risk factors corresponding to exceptional but plausible events. Historically, the insurance industry has been utilising stress testing as a risk mitigation tool. The Authority has a Rule on Risk Management for Insurers which requires Insurers, as part of their Risk Management Framework, to conduct quantitative and qualitative analyses namely stress tests and scenario analysis having regard to the size and complexity of the insurer, and the nature of its risk exposure. Insurers are exposed to both transition and physical risks through their underwriting and investment activities.

In an attempt to assist the industry to identify, mitigate and manage the impact of climate risk, supervisory guidelines released in June 2023 encourages the conduct of bottom-up stress testing by insurance entities.

SUMMARY BOX 2: INSURANCE FINANCIAL SOUNDNESS INDICATORS (FSIs)

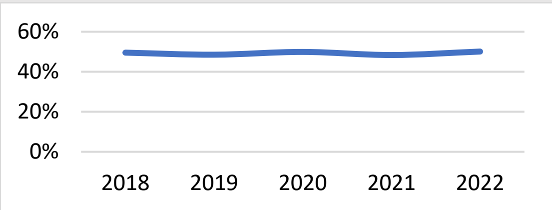
Figure 52: Capital to Total Assets – Non-life



Source: CIMA

The capital to total assets, which provides an indication of the capacity of the sector to absorb losses relative to risk exposures, has remained stable after the COVID-19 pandemic. The notable drop in 2019 was primarily due to losses incurred due to storm systems in 2018, where some property insurance carriers experienced significant losses which led to an increase in total assets from an increase in reinsurance receivables (Figure 52).

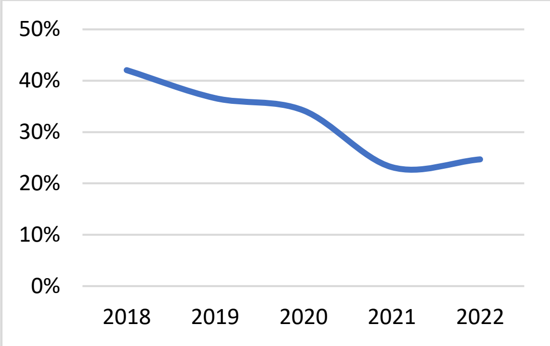
Figure 53: Risk Retention Ratio – Non-life



Source: CIMA

The non-life insurance companies continue to retain a significant portion of the GWP for most of the classes of business. The heavy reliance on reinsurance in property insurance is due to catastrophic exposure to events such as hurricanes which characterizes the Caribbean region (Figure 53). In 2022, property insurance class which accounted for 31% of the GWP saw insurers ceding 86% of premiums to reinsurers. Health insurance class which contributed 42% of GWP for the same period had insurers ceding 4% of the premiums to reinsurers. The industry average retention rate has remained at approximately 50% over the past five years.

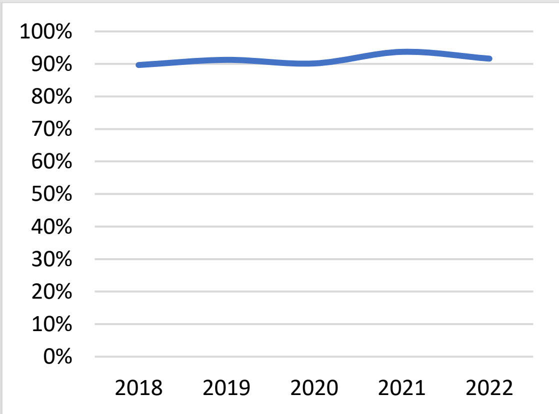
Figure 54: Capital to Total Assets – Life



Source: CIMA

Life insurers have experienced a declining trend in capital to total assets, which may be attributable to changing of actuarial assumptions on important factors like interest rates, inflation rates, and mortality rates within the context of continued interest rate volatility (Figure 54).

Figure 55: Risk Retention Ratio – Life

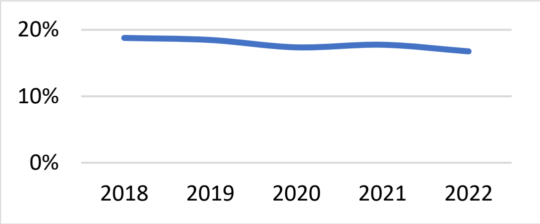


Source: CIMA

Similarly to the risk retention ratio of non -life insurers, the retention ratio for life insurers remained stable over the five-year period ending 2022. Notably the local life business is not as heavily reinsured as the non-life business, and therefore the risk retention ratio has averaged around 90 percent over the last five years (Figure 55).

SUMMARY BOX 2: INSURANCE FSIs (Continued)

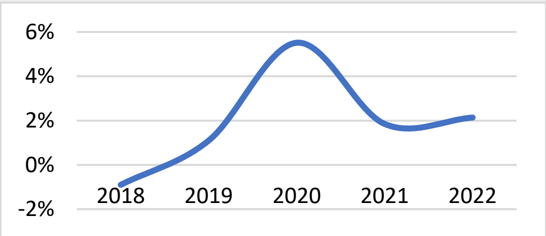
Figure 56: Expense ratio – Non-life



Source: CIMA

Regarding non-life insurers, the expense ratio, which compares expenses to the level of premiums generated, marginally improved over the 5-year period ending 2022 (Figure 56). This performance was due to the continued increase in the sectors' premiums received. There was significant growth in premiums received from both the health and property line of business. Adoption of online business model by companies post COVID-19, which was key in managing expenses partly contributed to the ratio remaining stable despite the prevailing inflationary environment.

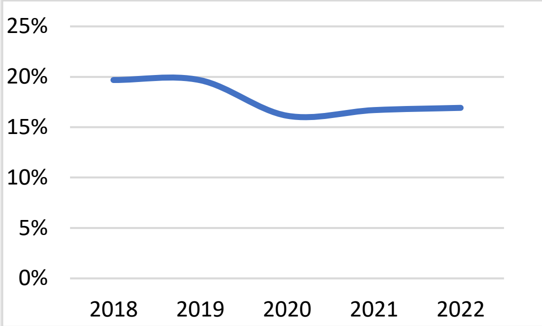
Figure 57: Return on Assets – Non-life



Source: CIMA

In 2021, profitability in the non-life or general business lines saw a significant decline. This was primarily due to an increase in claims activity, especially in health insurance, where companies began processing deferred elective procedures from the pandemic (Figure 57). Additionally, motor insurance claims, which had been relatively inactive during the pandemic, returned to their usual levels. However, in 2022, profits rebounded more quickly than asset growth. This recovery was driven by increased revenue from premiums and a stabilization in claims, leading to a normalisation of the profitability ratio.

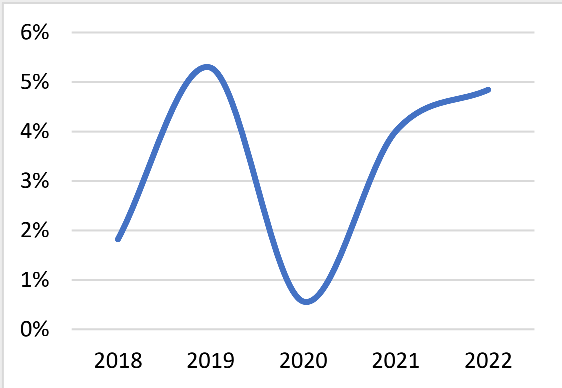
Figure 58: Expense ratio – Life



Source: CIMA

Despite a decline in 2020, life insurers expense ratio averaged 18.6 percent over the last 5 years. This ratio remained relatively unchanged over the 5 years. The slight increase in 2021 and 2022 was a result of business returning to normalcy post covid bringing the expense ratio to pre covid levels (Figure 58).

Figure 59: Return on Assets –Life



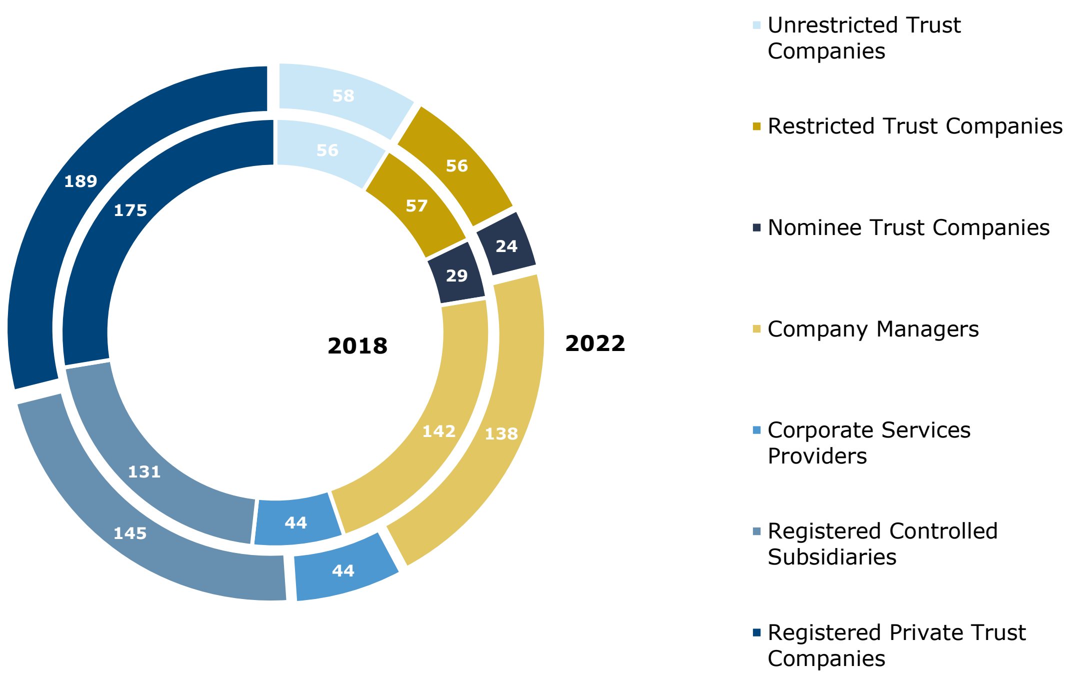
Source: CIMA

The life insurance industry saw a significant increase in profitability following the COVID-19 pandemic and exceeded the pre-pandemic performance in 2022. The primary cause of this performance has been the positive investment performance as the companies hold significant investment portfolios. This is in line with the ROE, which in 2022 rose to 25.1 percent (Figure 59).

2.4 TRUST AND CORPORATE SERVICE PROVIDERS ("TCSP")

The TCSP sector is comprised of licensed trust companies and licensed corporate services providers (CSP). There are three main licence categories of companies holding trust licences, namely Trust, Restricted Trust, and Nominee (Trust) and two main categories of companies holding trust registrations, namely Registered Controlled Subsidiaries and Registered Private Trust Companies. There are two main categories of companies holding corporate services licences, namely Companies Management and Corporate Services (Figure 60).

Figure 60: Growth in the TCSP sector from 2018 -2022.



Source: CIMA

Compared to 2018, there was no significant change in the number of trust licences. However, the number of active trust licences reduced from 142 in 2018 to 138 by the end of 2022, as trust licences refine and restructure their business models for cost efficiencies. The number of trust registrations, however, increased from 175 in 2021 to 189 in 2022, largely attributable to increased use by high net-worth individuals as part of their wealth structuring. The number of CSP decreased from 140 in 2021 to 142 in 2022. An analysis of the terminations yielded no reason for supervisory nor jurisdictional concern, as the Cayman Islands continues to be an ideal jurisdiction for the establishment of business vehicles, because of its stable legal system, modern and flexible corporate structures, and tax neutral status.

As of the end of 2022, per the Global Financial Centers Index (GFCI), the Cayman Islands was ranked 79 in the global rankings and ranked 1st in the Latin America & the Caribbean region. The Cayman Islands continue to hold a robust reputation as a financial centre, demonstrated by the increased number of company registrations. New company registrations for 2022 amounted to 11,796, which brought the number of active companies domiciled in the Cayman Islands as of 31 December 2022, to 119,128.

SUMMARY BOX 3: UNIQUE NATURE OF THE CAYMAN ISLANDS' TCSP SECTOR

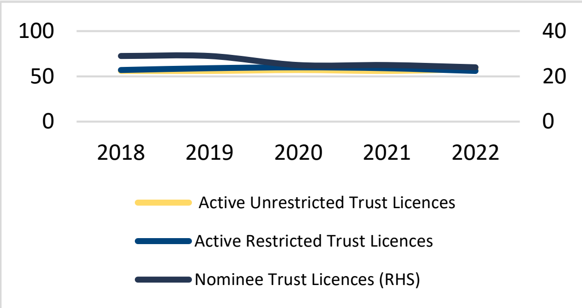
Trusts: The Trust Licence holder is authorized to offer trust business within and outside of the Cayman Islands, where licensees can provide trustee, executor, or administrator services. They can also provide company management services in connection with their business.

Restricted Trusts: The Restricted Trust Licence offers trust business with the restriction that Licensees shall not undertake trust business for persons other than those listed in the undertaking accompanying the application for the Licence.

Nominee Trusts: The Nominee (Trust) Licence offers trust business under a trust licence to a Licensee who is a wholly owned subsidiary of another licensee and where the sole purpose of that subsidiary is to act as its nominee.

Number of regulated trusts

Figure 61: Number of Regulated Trusts.



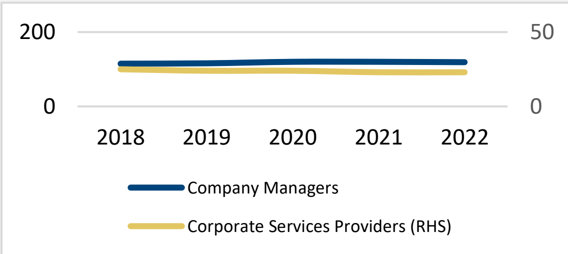
Source: CIMA

In the last five years, the number of Trust and Restricted Trust Licences have remained relatively stable, while the number of Nominee (Trust) Licences have decreased (Figure 61). This is due to companies with Trust Licences consolidating and restructuring the services provided through Nominee (Trust) Licences, integrating them into their range of services to achieve better cost, risk management, and governance structures.

Company Manager: The Companies Management Licence offers the provision of corporate services for profit or reward in or from within the Cayman Islands.

Corporate Service Provider: The Corporate Services Licence offers the provision of corporate services for profit or reward in or from within the Cayman Islands, like the Companies Management Licence. However, the Corporate Services Licensees are limited to the following services: company formation agent; registered office provider; establishing and maintaining beneficial ownership registers for companies incorporated and domiciled in the Cayman Islands; provision of accommodation, correspondence or administrative address for a company or for any other person; filing statutory forms, resolutions, returns and notices; and acting as or fulfilling the function of or arranging for another person to act as or fulfil the function of such person.

Figure 62: Number of Regulated Company Managers and Corporate Service Providers (CSPs)



Source: CIMA

Over the past five years, the number of Companies Management Licenses has shown a 3% increase in 2020, remaining steady until a slight decrease in 2022. This trend aligns with the rise in company registrations in the Cayman Islands, which has led to growth for companies' management service providers (Figure 62).

Additionally, over the past five years, there has been minimal movement in the number of Corporate Services Licences.

SUMMARY BOX 3: UNIQUE NATURE OF THE CAYMAN ISLANDS' TCSP SECTOR (Continued)

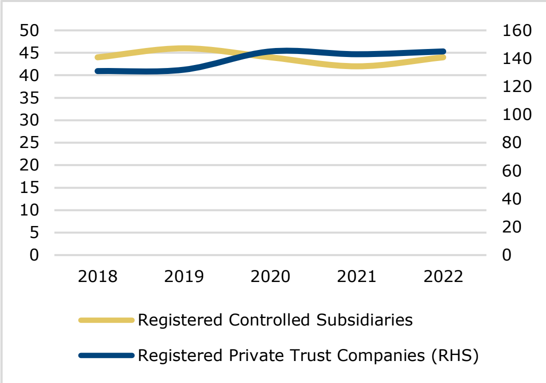
Private Trust Companies: The Private Trust Company Registration allows companies that are incorporated in the Cayman Islands, the ability to offer connected trust business, such as trust business in respect of trusts of which there is one or more than one contributor to the funds of which are all, in relation to each other, connected persons.

Registered Controlled Subsidiaries: The Controlled Subsidiary Registration allows Registrants to carry on the business of issuing debt instruments or to carry on other trust business that is connected with the trust business of the Licensee by which the controlled subsidiary is owned.

Number of Registered Private Trust Companies and Registered Controlled Subsidiaries

In the last five years, the number of registered private trust companies has increased due to the growing use of such structures by high-net-worth individuals as part of their wealth management. Additionally, the number of registered controlled subsidiaries has seen a marginal increase over the same period (Figure 63).

Figure 63: Number of Registered Controlled Subsidiaries and Private Trust Companies (Registrants)



Source: CIMA

As outlined earlier on, trustee and corporate services are mainly offered by Trust Licensees, with company management and corporate services mainly being offered by Companies Management Licensees.

Financial Soundness Indicators

The FSIs remain strong with TCSPs continuing to generate stable returns and sound growth within its sector. The TCSPs profitability and stable returns are largely attributable to the provision of a wide range of services, which continue to evolve and expand to meet the strong demand for international structuring because of rising household wealth; increased regulatory filings due to introduction of beneficial ownership registration and economic substance legislation; and the outsourcing of administrative services by fund managers. Furthermore, TCSPs show overall improvement in performance with the ROA and ROE increasing by 3.47% and 3.16%, respectively. However, Company Managers have seen an overall decrease in performance with the ROA and ROE decreasing by 3.14% and 3.45%. The liquidity ratios continue to be stable and remain well above the minimum required (Table 9).

Table 9: Key Financial Soundness Indicators

Key FSI	Liquid assets ratio (%)		ROA (%)		Liquid assets to short-term liabilities		ROE (%)	
	2022	2021	2022	2021	2022	2021	2022	2021
TCSPs	87.75	85.74	7.78	4.31	3.50	2.13	10.39	7.23
Unrestricted Trusts	86.65	87.66	6.42	1.19	4.49	2.10	7.96	2.04
Company Managers	92.54	77.82	11.92	15.06	2.40	2.28	19.41	22.86
Corporate Service Provider	79.20	97.62	10.13	10.20	1.22	1.90	29.07	20.94

Source: CIMA

2.5 SECURITIES INVESTMENT SECTOR

The Cayman Islands securities sector comprises of CIMA regulated securities market intermediaries, including securities investment business ("SIB") licensees (Licensees), registered persons (RPs), securities issuers and the Cayman Islands Stock Exchange (CSX). Notably, CIMA has regulatory and supervisory oversight and powers only over the SIB market intermediaries and not on the CSX or other providers of securities market infrastructures. The Securities Investment Business Act (2020 Revision) (the "SIBA") provides for the regulation of persons engaged in these activities in or from the Cayman Islands, including market makers, broker-dealers, securities arrangers, securities advisors and securities managers. Such persons must be licensed or registered by CIMA. Entities registered as SIB RPs conduct SIB activities exclusively for institutions, high net worth individuals, or sophisticated customers. Many SIB RPs, conducting SIB activities as securities managers and securities advisers are intertwined with the mutual funds and private funds registered with the Authority. Such client funds of the SIB RPs constitute the most material part of the Cayman Islands financial sector.

The securities sector represents the second-largest financial industry sector in the Cayman Islands in terms of assets under administration. SIB Licensees and RPs (collectively referred to herein as "Regulated SIB Entities") administer at least USD 1.28 trillion in assets. RPs represent a total of at least USD 1.26 trillion or approximately 99% of assets under administration by regulated SIB Entities, principally relating to private funds and mutual funds. SIB Licensees represent a total of at least USD 16.9 billion of assets under administration. Consistent with the Cayman Islands' status as an IFC, a significant majority of the sector involves non-resident customers.

SIB Licensees

As at 31 December 2023, there were 44 SIB Licensees and 1527 RPs on register compared to 45 Licensees and 1571 RPs during the same period in 2022 (Table 10).

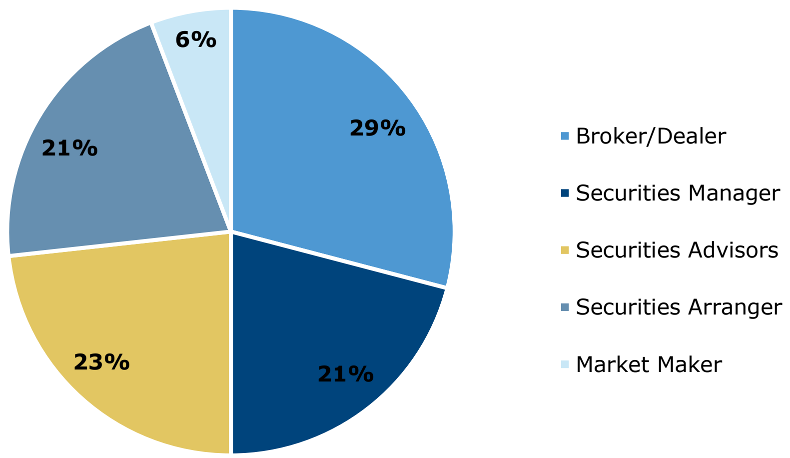
Table 10: Licence and Registration

Licence/ Registration Type	2019	2020	2021	2022	2023
Securities (Registered Persons)	1,663	1,665	1,632	1,571	1,527
Securities – Restricted (Licence)	0	0	1	1	1
Securities – Full (Licence)	46	46	45	45	44

Source: CIMA

Licensees carry out SIB in the manner depicted in the figure below. Thirty-two (32) Licensees carry out more than one of the five regulated categories of SIB activities. Single-family offices ("SFOs") that conduct SIB are required to be licensed or registered with CIMA but there are currently none that have applied to be licensed under the SIBA (Figure 64).

Figure 64: Securities Licensees Conduction Activity by Type



Source: CIMA

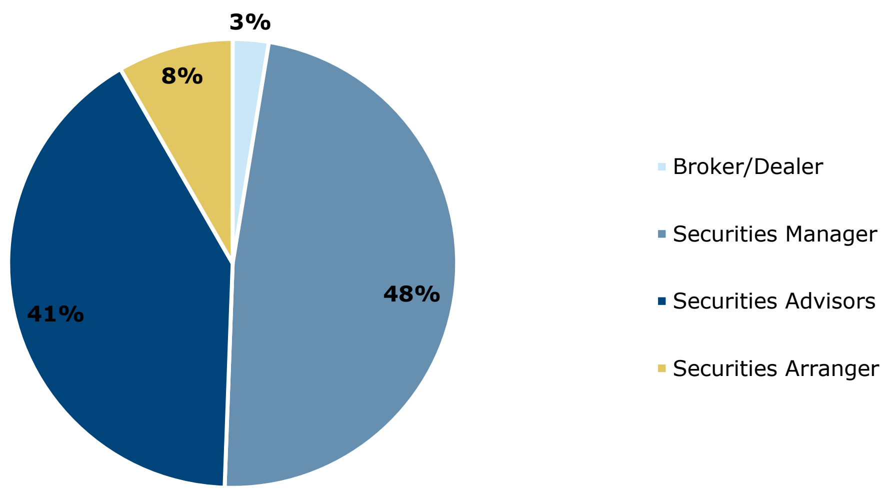
SIB Registered Persons

The amendments to the SIBA (which were Gazetted on 16 January 2020) endowed the Authority with supervisory, inspection and enforcement powers to regulate SIB RPs more effectively. These amendments took effect on 18 June 2019. Registrants, formerly operating under the "Excluded Person" category, were required to apply by 15 January 2020 to transition to the new category of "Registered Person," while all new applicants from 18 June 2019 onward were registered as RPs. It should be noted that during re-registration of "Excluded Person" to "Registered Person", some entities failed to meet the various requirements such as a minimum of two directors, directors not being in good standing and/or failure to provide requested information. To ensure compliance with the new requirements, the Authority also issued notices to former SIB Excluded Persons that did not file a re-registration application within the specified timeframe.

As at end September 2023, it was noted that the number of entities that fell within this non-compliant category had been reduced to 149 entities. In the event that such non-compliant Excluded persons are still conducting SIB, they would be non-compliant with SIBA and operate outside the regulatory perimeter. This poses a risk to the Authority, the jurisdiction and the investors dealing with such entities.

RPs carry out SIB in the following manner, as depicted in the chart below where 444 RPs carry out multiple SIB activities (Figure 65). RPs are only permitted to deal with sophisticated and high-net-worth persons including institutional investors or entities owned by such persons. RPs represent a significant majority of the SIB market in terms of regulated entities and assets under administration.

Figure 65: Securities Registrants Conducting Activity by Type



Source: CIMA

In addition to conducting multiples SIB activities, SIB Licensees and RPs also hold licenses under other regulatory acts that fall under the purview of other regulatory Divisions within the Authority. Such other licenses held by SIB Licensees and RPs include-

- Banking Licence, Trust Licence and Nominee (Trust) Licence under the Bank and Trust Companies Act;
- Corporate Services Licence, Company Managers Licence and Trust and Company Managers Licence under the Companies Management Act;
- Insurance Licence (Class A, or B or C) under the Insurance Act; and
- Mutual Fund Administrators Licence under the Mutual Funds Act

The holding of multiple licenses by certain SIB Licensees and RPs may suggest that such SIB Licensees and RPs are part of financial conglomerates. The holding of multiple licenses by SIB Licensees and RPs could be a source of systematic risk on account of the interconnectedness between different sectors (securities, investments, banking, insurance and fiduciary businesses). It should be noted that linkages or interconnections have increased due to a number of factors such as globalization, financial innovations, business strategies, technology and product characteristics.

According to the Joint Forum of the BIS, it is important that supervisors consider risks arising from the activities of unregulated entities, which are entities within the financial conglomerate that are not directly prudentially regulated. Each unregulated entity may present different risks to a financial conglomerate, and each may require separate consideration and treatment. In deciding which unregulated entities are relevant, consideration should, at a minimum, be given to:

- operating and non-operating holding companies (including intermediate holding companies),
- unregulated parent companies and subsidiaries, and
- special purpose entities.

Observations from Policing the Perimeter

Since the coming into force of the International Tax Co-operation (Economic Substance) Act (the "ITCESA") that reflects the Cayman Islands Government's commitment to meet its obligations as a member of the OECD's global Base Erosion and Profit Sharing (BEPS) Inclusive Framework, there have been several requests by RPs:

- to change their registered SIB activity from Investment/Securities Manager to Investment/Securities Advisor11; or
- deregister on account that they have purportedly ceased to conduct SIB and that they would be acting as consultants, research service providers and or procurers of advisors/managers as such activities.

In many instances post-deregistration, RPs desire to continue as a legal entity in the Islands and still proposes to conduct businesses as consultants, research service providers and/or procurers of advisors/managers as such activities are/may still be considered SIB. In most cases, such changes are merely semantic in nature.

[11] Under the ITCESA, entities are required to make annual notification as to whether or not they are carrying "Relevant Activities" (include Investment/Securities Management and exclude Investment/Securities Advisor) and if in the affirmative, they would be deemed to be "Relevant Entities".

The constitutive documents (offer document, bye laws and agreements) in place clearly demonstrate that a fiduciary relationship and a SIB activity still prevails notwithstanding the fact that the RP has had recourse to disguise or recharacterize its SIB activity and remuneration using various semantic alternatives to circumvent registration under the SIBA, and to be outside the regulatory perimeter.

In light of the foregoing, the Authority's regulatory approach is undergoing significant enhancements to bolster supervisory effectiveness and address emerging challenges. This includes a rigorous review and enhancement of supervisory processes to ensure they remain robust and adaptive to evolving financial landscapes. Additionally, efforts are underway to regulate entities engaged in Securities Investment Business (SIB) without proper authorization, particularly in emerging sectors like virtual assets. Concurrently, comprehensive risk assessments and ratings are being conducted for all SIB licensees to accurately gauge their risk profiles and ensure regulatory compliance. These measures aim to strengthen regulatory oversight, mitigate potential risks, and uphold the integrity of the Cayman Islands' financial system.

2.6 VIRTUAL ASSET SERVICE PROVIDERS

In the Cayman Islands, virtual asset service providers ("VASPs") are regulated under the Virtual Assets (Service Providers) Act (2022 Revision) ("VASP Act"). The VASP Act is in line with the Financial Action Task Force's ("FATF") Recommendation 15, which requires that VASPs be regulated for anti-money laundering, countering the financing of terrorism and countering proliferation financing ("AML/CFT/CPF") purposes, that they be licensed or registered, and that they be subject to effective systems for monitoring or supervision.

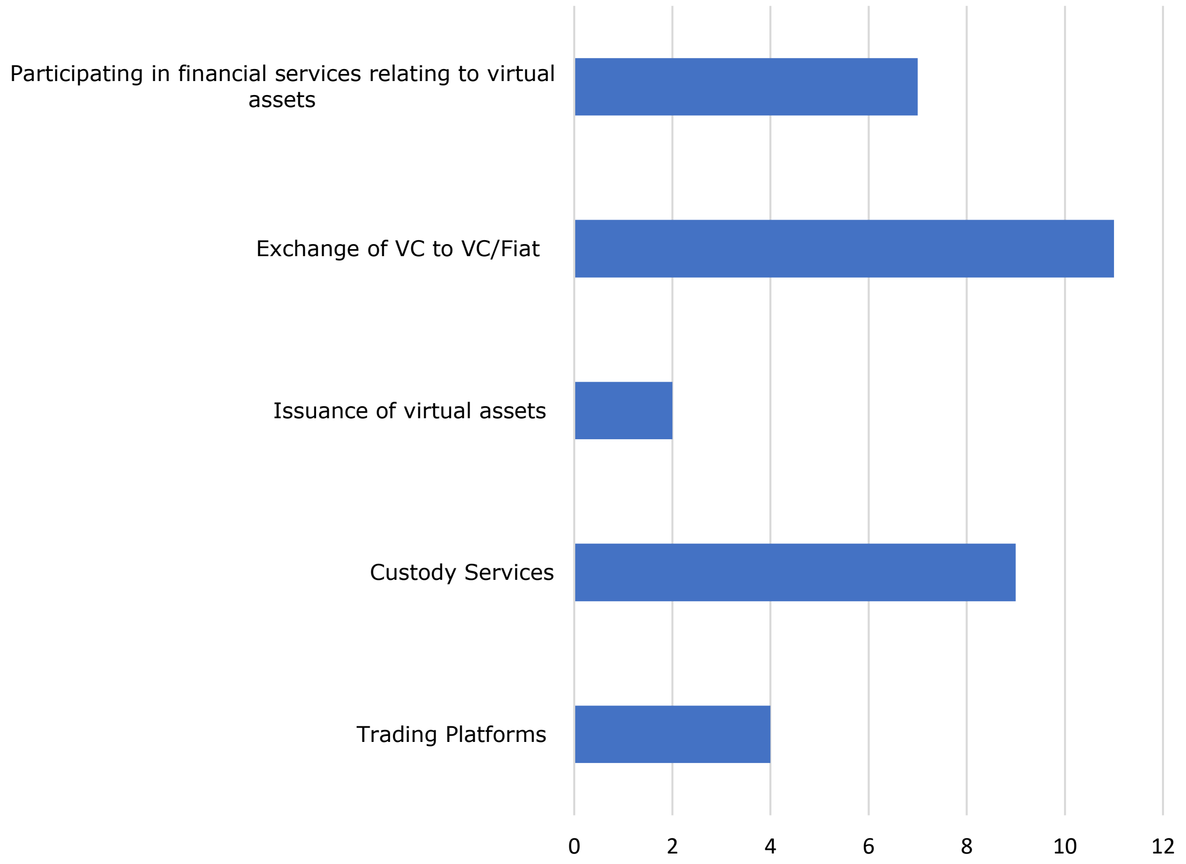
The jurisdiction took a phased approach in implementing the VASP Act and supervisory regime. Phase 1 of the VASP Act came into effect on 31 October 2020, and amendments were also made to other laws, regulations and guidance, including the Securities Investment Business Act, the Anti-Money Laundering Regulations and the Guidance Notes on the Prevention and Detection of Money Laundering and Terrorist Financing in the Cayman Islands, to ensure consistent treatment of virtual asset services and VASPs, especially as it relates to compliance with AML/CFT obligations.

Under Phase 1, VASPs are required to register with the Authority. Phase I is focused primarily on the oversight of Anti-Money Laundering/Combatting the Financing of Terrorism/ Combatting Proliferation Financing/ Targeted Financial Sanctions ("AML/CFT/CPF/ Sanctions"), cybersecurity and other key risk areas. Phase 2 of the VASP Act includes the introduction of a licensing regime for virtual asset trading platforms and custodians, a virtual asset issuance approval regime and a sandbox licensing regime for testing innovative services, uses of technology or methods of delivery.

VASPs in the Cayman Islands

As of 31 December 2023, the VASP regulatory regime is still in Phase 1. Since the implementation of Phase 1 of the VASP supervisory regime, the Authority has received 54 virtual asset service provider applications for registration under the VASP Act. Of those 54 applications, 22 were approved/ registered, 1 has been granted conditional approval, 7 were in progress, 19 were rejected/returned and 5 were withdrawn (Figure 66). The chart below depicts the number of different types of virtual assets services that are currently provided by the 19 VASP registrants.

Figure 66: Types of Virtual Assets Services.



Source: CIMA

Of the 19 current registrants, 1 have been rated as high-risk, 12 as medium-high, 1 as medium, 4 as medium-low, and 1 as low-risk.

Registration and Supervision of VASPs

The VASP sector is relatively new to the Cayman Islands and in general new to regulation, posing some initial challenges which include:

i) Knowledge gaps: the lack of knowledge and experience among industry players of both best business practices and applicable laws and regulations was evident and therefore the industry required more guidance and assistance.

ii) Incomplete applications: submission of applications for registration which were lacking critical information and supporting documentation hampered the ability of the Authority to efficiently process these applications in a timely manner.

iii) Noncompliant policies and procedures: submission of policies and procedures that did not comply or meet the requirements of the Cayman Islands legislative framework.

iv) Insufficient support documents: documentation to support the applications received did not contain all the detail relating to the business such as comprehensive business plans, ownership structures, and financials, among other relevant information.

Supervisory Regime

Section 24 of the VASP Act requires the Authority to take reasonable measures to identify natural or legal persons that are carrying out VASP activities without the required license, registration, or waiver. It also gives the Authority the power to supervise, monitor and ensure compliance by VASPs with requirements to combat ML/TF. CIMA takes a risk-based approach in supervising VASP entities and conducts on-site inspections and off-site monitoring. In 2023, CIMA conducted AML/CFT on-site inspections of 4 VASP registrants. In supervising the VASPs, CIMA continues to coordinate and cooperate with domestic and foreign competent authorities as necessary and shares relevant information as appropriate.

Since roll out of the regime, the Authority has proactively monitored the VASP industry within the Cayman Islands, reaching out to multiple entities considered to be offering virtual asset services for more information or direction regarding their registration status. The Authority uses information and intelligence received through various sources conducts its own research and investigation for efficiently policing the perimeter.

Travel Rule

To assist with the mitigation of money laundering and terrorist financing risks, the Authority adopted the FATF Travel Rule, via Part XA of the AML Regulations. The Travel Rule requires, at a minimum, the names and account numbers of the originator and beneficiary of a transaction accompany the transfer of virtual assets. Quarterly reporting to the Authority on compliance with the Travel rule came into effect on 1 July 2022 for all VASPs.

2.7 REGULATORY DEVELOPMENTS

In 2023, the jurisdiction continued its concerted efforts to enhance its regulatory framework by introducing new rules, statements of guidance, and regulatory policies. These initiatives are aimed at promoting the robustness and stability of the financial system. For a detailed overview of these regulatory developments, please refer to the Appendix.

CHAPTER 3: MACROPRUDENTIAL SURVIELLANCE AND EMERGING RISKS

This chapter outlines key emerging risks to the global financial system and by extension, the Cayman Islands. These risks include cybersecurity and fintech developments, climate change, households' exposure to real estate and the interconnectedness of the financial sector. Additionally, key surveillance metrics confirm the robustness and stability of the jurisdiction's financial landscape.

3.1 CYBERSECURITY AND FINTECH DEVELOPMENTS

Financial technology, commonly known as fintech, has rapidly transformed the landscape of traditional financial services, ushering in a new era marked by innovation, efficiency, and enhanced user experiences. Fintech represents the convergence of finance and technology, leveraging cutting-edge advancements to revolutionize the way individuals and businesses manage their financial activities. From digital payments and online lending to robo-advisors and blockchain applications, fintech solutions span a diverse range of services that streamline processes, create enhanced user experiences, increase accessibility, and democratize financial services. This dynamic sector thrives on agility and a commitment to addressing evolving consumer needs, paving the way for a more inclusive, interconnected, and technologically driven financial ecosystem. While fintech has facilitated numerous innovations, it is crucial to recognise the presence of both benefits and risks. As such, this section examines the main benefits and key challenges and risks associated with fintech in the context of financial stability.

Evolution of Fintech and Future Trends

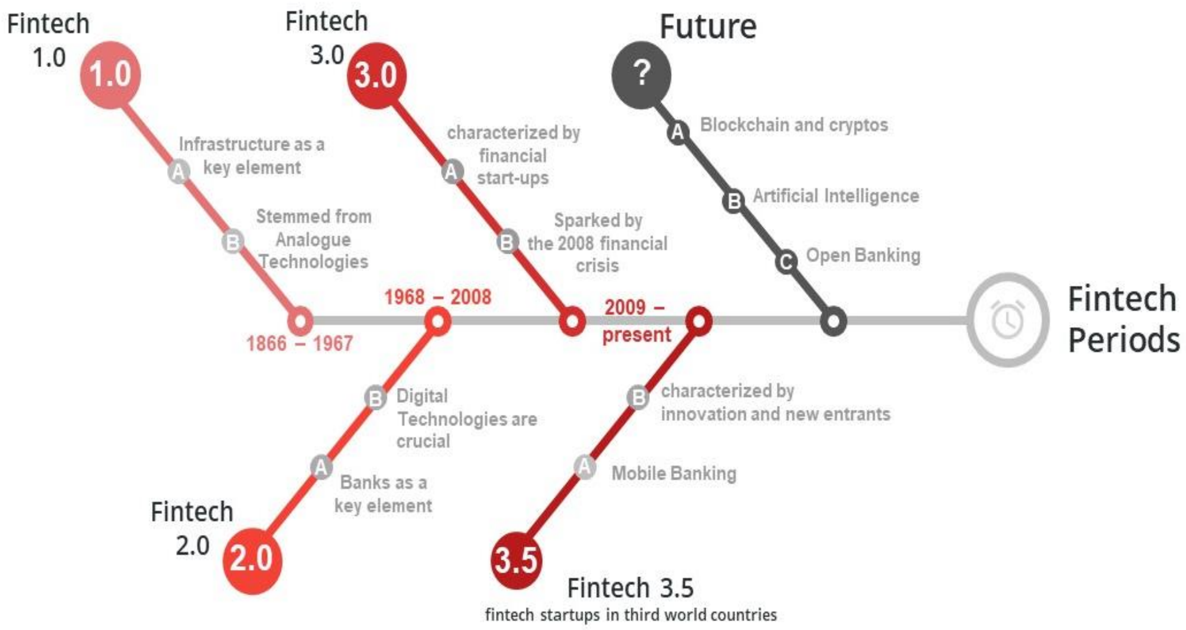
The historical evolution of fintech has been a dynamic journey marked by key milestones, and the relentless integration of emerging technologies (Figure 67). Fintech's roots can be traced back to the early days of computing when banks began adopting electronic systems for transaction processing in the 1950s. However, the real transformation gained momentum in the late 20th century with the rise of the internet and globalization.

One of the most important milestones in fintech history occurred in the 1970s with the arrival of automated teller machines (ATMs) and the Society for Worldwide Interbank Financial Telecommunications (SWIFT) banking system. These innovations revolutionized banking by providing customers with 24/7 access to their funds, reducing the reliance on traditional branches; and providing financial institutions with the ability to send international payments and settlements seamlessly. The 1980s witnessed the introduction of electronic trading platforms, paving the way for the digitization of financial markets and the eventual emergence of online trading in the 1990s.

The 21st century marked a new era for fintech with the expansion of mobile technology. The introduction of smartphones and mobile apps transformed the way consumers interacted with financial services. Mobile banking apps enabled users to check account balances, transfer funds, and even apply for loans on the go. Additionally, apps and mobile devices enabled users and merchants to pay and accept payments by just tapping with their device. This era also saw the rise of peer-to-peer lending platforms, crowdfunding, and the inception of cryptocurrencies like Bitcoin in 2009, challenging traditional banking systems.

As we approach the present day, fintech continues to evolve with the integration of new technologies. Artificial intelligence (AI) and machine learning (ML) are being employed for fraud detection, risk assessment, and personalized financial advice. Blockchain technology, beyond its role in cryptocurrencies, is finding applications in secure and transparent transaction systems. Furthermore, the emergence of decentralized finance (DeFi) platforms is redefining traditional banking services by providing decentralized and accessible financial solution.

Figure 67: Fintech Timeline



Source: CIMA (adopted from CFA Institute, 2017)

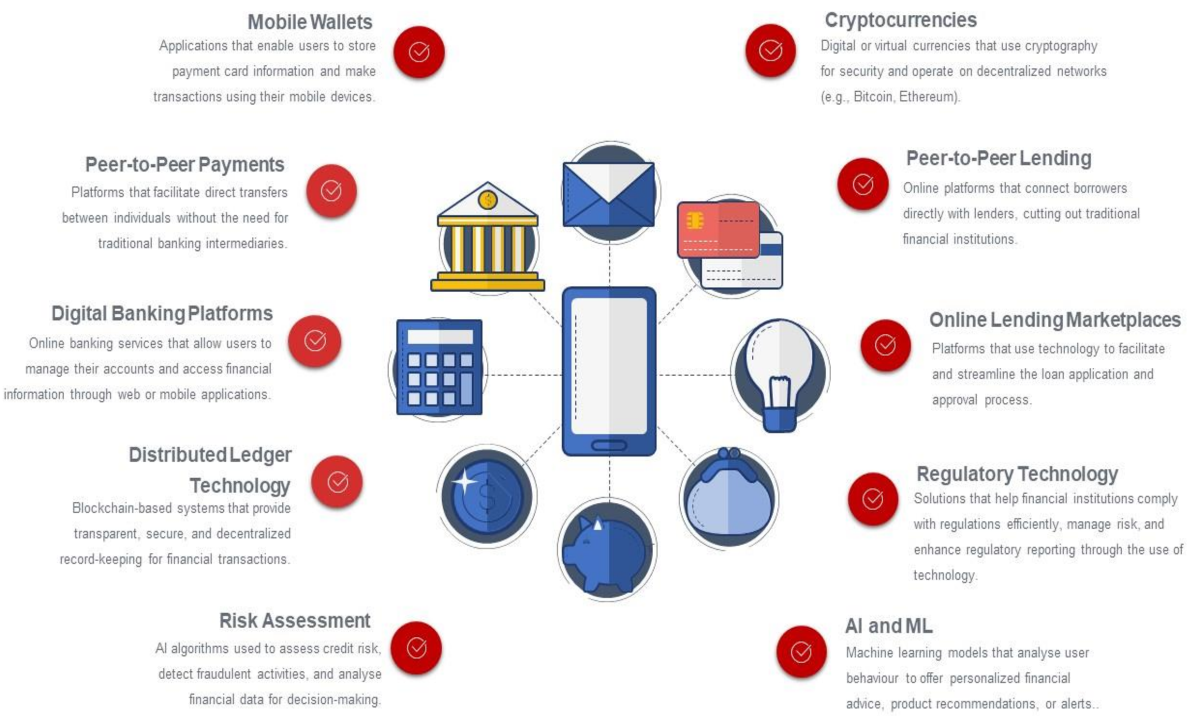
Fintech Ecosystem

The fintech ecosystem is a dynamic and interconnected network that changes the way we handle money. Imagine it as a vibrant community where different components work together seamlessly to bring innovation and convenience to financial services. The core of the fintech ecosystem revolves around groundbreaking startups, often referred to as disruptors. These entities are introducing novel and exciting solutions within the conventional financial system. Traditional establishments are now compelled to adjust to these shifts by either engaging in partnerships with startups or forging ahead with their own technological advancements.

The backbone of the fintech world is built on a myriad of advanced technologies (Figure 68). For example, cloud computing provides a scalable and secure infrastructure for storing and processing massive amounts of financial data. Artificial Intelligence (AI) and Machine Learning (ML) enhance decision-making processes and enable personalized services. Blockchain technology ensures the security and transparency of transactions, particularly in the realm of cryptocurrencies. Big Data Analytics sifts through vast amounts of data to uncover patterns, providing valuable insights for decision-making. Predictive Analytics, on the other hand, forecasts future trends, empowering businesses to stay ahead of the curve. RegTech serves as the rule-keeper in the financial playground. It automates regulatory compliance and risk management, ensuring that financial activities adhere to legal standards. This component is essential for maintaining trust and security in the fintech space. Similarly, SupTech are tools that can assist regulators to safeguard the financial system by offering innovative and efficient supervisory solutions. interconnectedness in fintech serves several crucial functions that contribute to the overall efficiency, innovation, and user experience within the financial technology ecosystem. (APIs) act as bridges, allowing different financial services to communicate and share data. Open Banking takes this a step further, encouraging collaboration by enabling third-party providers to access financial institutions' data and services.

This interconnectedness fosters innovation and streamlines the user experience. Fintech thrives on partnerships. Startups often collaborate with traditional financial institutions, creating a synergy that combines innovation with established infrastructure. Collaborations among fintech startups themselves lead to the development of comprehensive ecosystems, offering users a wide array of integrated financial services.

Figure 68: Components of Fintech



Source: CIMA

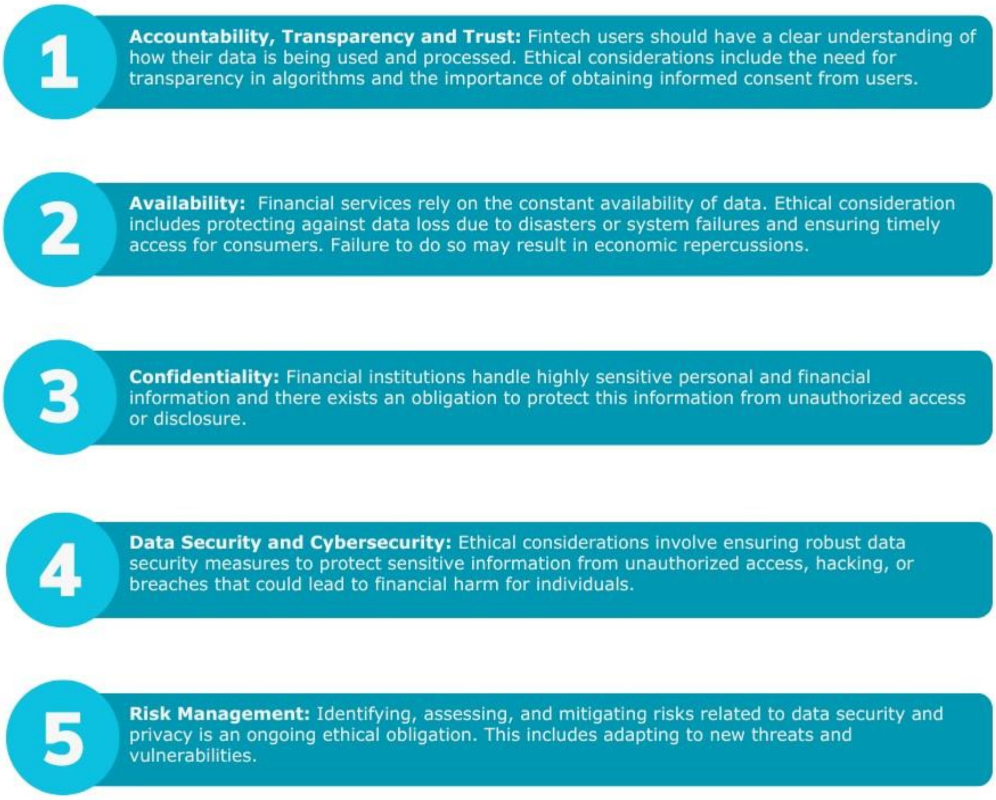
Financial Inclusion

Fintech has played a pivotal role in addressing the financial inclusion challenge by reaching the unbanked population – those persons who often reside in remote and undeserved areas that lack access to traditional banking services. Fintech bridges this gap through digital innovations in such areas of mobile banking and payments – which has become the new digital battleground that has been attracting so many persons. In many parts of the world, persons who faced challenges with opening traditional accounts can now use digital wallets which provide a secure and accessible means for the unbanked to store and transfer money digitally. Fintech also facilitates microfinance and microlending platforms, allowing small loans and financial services to be extended to individuals who may not qualify for traditional banking loans. This empowers entrepreneurs and small businesses in underserved communities. For the unbanked, who may lack access to traditional banking infrastructure, cryptocurrencies provide an alternative for transactions and savings. In many jurisdictions, Fintech companies frequently collaborate with non-banking entities, such as telecommunications providers or retailers, to expand their reach. These partnerships bring financial services to areas where traditional banks may not have a presence. Fintech for promoting financial inclusion has been quite popular in the Caribbean with Central Bank Digital Currency (CBDC) in Jamaica, the Bahamas and the Eastern Caribbean Currency Union.

Fintech and Ethical Considerations

While the adoption of fintech solutions offers numerous benefits, several ethical considerations are introduced that organisations and policymakers must carefully navigate (Figure 69).

Figure 69: Components of Fintech and Ethical Considerations



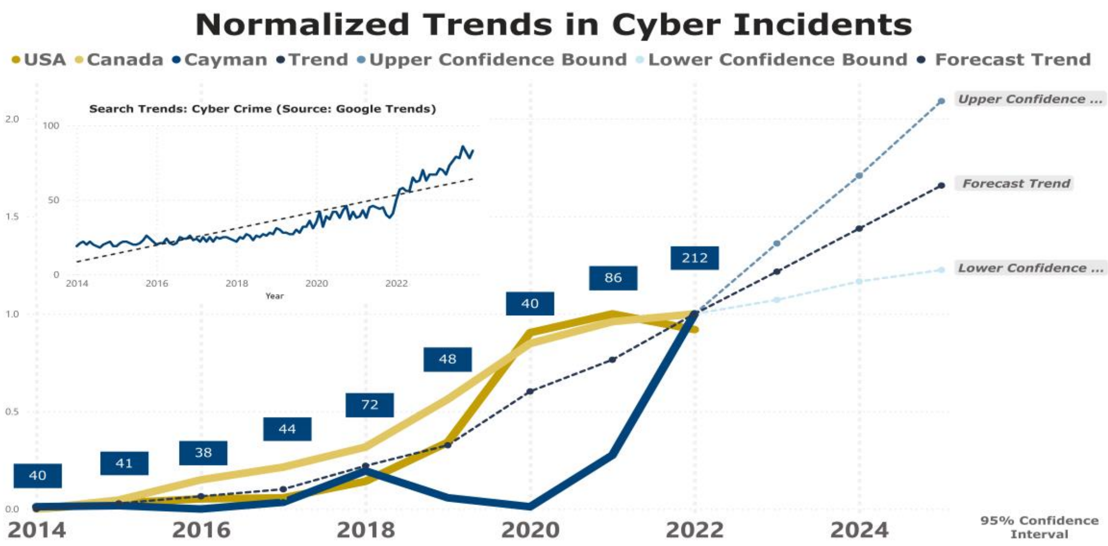
Source: CIMA

Fintech and Cybersecurity Implications

The rapid integration of fintech into the financial landscape has introduced a transformative shift in how individuals and businesses engage with financial services. However, this digital evolution has also heightened the vulnerability of financial institutions to cybersecurity incidents. The April 2024 Global Financial Stability Report (GFSR) cites that the number of cyberattacks have almost doubled relative to pre-COVID times. Cyber incidents are characterized as an event that adversely affects information systems through malicious and non-malicious activity. As fintech relies heavily on digital platforms, mobile applications, and interconnected systems, it becomes a prime target for malicious actors seeking to exploit vulnerabilities. The link between fintech and cybersecurity incidents is intricate with innovations in payment systems, blockchain, and online banking enhancing convenience but susceptible to data.

It's crucial to recognise the potential influence of cybersecurity on a nation's financial health as these incidents have become a pervasive concern, impacting not only individual privacy but also the broader aspects of national security and economic stability. Figure 70 below offers a comprehensive analysis of trends in cyber incidents across Canada, Cayman Islands, and the United States of America. The data trend, highlighted by a dashed line, reveals a concerning upward trajectory of cyber incidents year over year.

Figure 70: Trends in Cyber Incidents



Source: Statistics Canada, Internet Crime Compliant Centre (IC3), Royal Cayman Islands Police Service Statistics

According to the April 2024 Global Financial Stability Report the financial sector is highly exposed to cyber risk as almost one-fifth of the reported cyber-incidents in the last two decades have affected the financial sector. Banks were the most frequent targets, followed by insurance and asset managers. For the Cayman Islands, there was a decline in cyber incidents just prior to the COVID period, however, there has been a noteworthy and concerning surge in such incidents for the 2021-22, which is in line with global trends. Based on the reported data from the Royal Cayman Islands Police, incident rates have skyrocketed, increasing fivefold compared to 2020 and 2.5 times compared to the preceding year, 2021. Additionally, the Cayman Islands' strong financial ties with the United States amplify the importance of being vigilant about the potential spillover of cyber incidents. Looking ahead to 2025, with a 95% confidence interval, our projections suggest a continued linear increase in cyber incidents for the Cayman Islands, with the lower bound suggesting a more gradual logarithmic scale while the upper bound suggests an exponential rise. Regardless of the confidence interval bounds, it projects a higher frequency of cyber incidents for the jurisdiction, which is in line with global trend.

CIMA's Approach to Cybersecurity

Considering the dynamic landscape of fintech and the imminent threats confronting regulated entities, CIMA has taken proactive steps in implementing regulations and enhanced supervision for cyber risk. In May 2020, CIMA introduced a rule accompanied by a related Statement of Guidance on *Cybersecurity for Regulated Entities*, for adoption by regulated entities spanning all financial sectors. The Rule and Statement of Guidance articulate the regulatory requirements and establish minimum expectations for effectively managing cyber risks. The objective is to ensure the implementation of robust cybersecurity measures that aptly address the identification, protection, detection, response to, and recovery from cyber-related threats, incidents, and breaches.

Further to this, between April and December 2022, CIMA conducted a cybersecurity thematic review of twelve regulated entities which spanned the banking, insurance, and securities sectors and subsequently published a Thematic Cybersecurity Review Report (2023) which highlighted cyber-related deficiencies, best practices, and areas for improvement by the selected entities (Table 11).

Table 11: Summary of Best and Inadequate Practices

Best Practices	Areas for Improvement
Alignment with international standards and frameworks	Cybersecurity risk management strategies
Well-established control frameworks	Maintenance of risk registers
Detailed Board approved cybersecurity strategies, policies, and procedures	Performance of comprehensive risk assessments, with established risk appetite, and tolerance levels
Adequate cyber risk insurance coverage	Self-assessments performed on cybersecurity frameworks
Incident response plans	Better assessment and assurance on outsourced functions
Cybersecurity training programs	Technology refresh plans to ensure systems and software are up to date

Source: CIMA

The best practices reflect a comprehensive and proactive approach to managing cybersecurity risks, emphasizing the importance of standards alignment, governance, strategic planning, risk mitigation, and staff training. However, the areas which need improvement represent significant vulnerabilities which can directly impact the ability of regulated entities to protect against and respond to cyber incidents, thereby posing a high risk to their operations and data security. The savings from the implementation of robust cybersecurity frameworks far outweigh the cost. As such, CIMA is dedicated to promoting active involvement of regulated entities in the strengthening of their oversight of cybersecurity frameworks. These frameworks should be effectively implemented by senior management throughout all business lines and geographical locations.

As the fintech evolution continues to resonate globally, it will challenge traditional financial institutions to adapt, collaborate, and embrace the opportunities presented different waves of technological innovation. It is therefore crucial for regulated and supervised entities to implement robust cybersecurity measures to safeguard sensitive financial information, maintain trust in digital financial ecosystems, and ensure the resilience of the financial services sector in the face of evolving cyber threat.

3.2 CIMA CLIMATE RISK INITIATIVES

The CIMA has taken an important stride in addressing risks associated with climate change in 2023. In February 2022, CIMA joined the Network for Greening the Financial System (NGFS) and subsequently formed an internal working group on climate change and green finance initiatives. Against this backdrop, in September 2023, a RoadMap comprising multiple projects was formulated, with primary goals being to:

- address risks related to climate change and the environment that are associated with the financial system,
- review CIMA's operational procedures while establishing green targets as needed and
- encourage young Caymanians to develop their capacity in this area by promoting climate change education.

Using the foundation laid by NGFS, CIMA’s main focus include:

1. developing a precise description of climate related financial and environmental risks (CRER) and the micro and macro transmission routes to the financial sector;
2. having the board's commitment and the creation of a plan and roadmap;
3. developing both qualitative and quantitative assessments;
4. clearly stating the regulator's requirements through guidance and
5. implementing supervisory mechanisms for managing these risks. Approved Board recommendations involved a three-phase approach with phase one, or the initial phase, focusing on identifying financial vulnerabilities related to climate change, conducting an industry survey, and developing internal capacity. The creation of guidelines and other supervisory instruments to handle climate-related risk, as well as essential stakeholder interaction, will be the focus of phase two. Lastly, the third phase, will concentrate on climate disclosures and enhancing the capacity to handle CRER.

In February 2024, as part of the first phase—a “pulse” survey was developed and disseminated to all regulated entities. This survey, focused on garnering the strategic approaches supervised entities had taken to address climate-related risks, and also examined current risk management frameworks and corporate governance structures. The approach taken by CIMA regarding the survey and its contents was comparable to those carried out by other jurisdictions, including Germany and Australia. The results of the survey are being reviewed, and the industry can look forward to future surveys as the Authority deepens its understanding of how supervised entities have integrated climate risk management and assessments within their strategic objectives.

It is noteworthy that the Cayman Islands financial system plays a crucial role in the economy. The jurisdiction serves as an IFC with a strong presence in investment services, banking, and insurance. However, the interconnected nature of the financial sector means that the manifestation of CRER can have widespread and systemic implications. In particular, the physical impacts of climate change, such as extreme weather events and sea-level rise, can damage critical infrastructure, disrupt business operations, and lead to property damage and loss of assets. Furthermore, CRER can also affect the financial system through indirect channels, such as changes in investor behaviour as well as policy and regulatory requirements. Investors are increasingly considering environmental, social, and governance (ESG) factors in their decision-making processes, which means that companies and financial institutions operating in the Cayman Islands will be required to be more transparent and mitigate their exposure to CRER. Failure to address these risks could lead to reputational damage, loss of investor confidence, and ultimately, financial instability.

Notably, with the Cayman Islands, the industries that are most susceptible to climate events include construction and real estate activities, hotels and tourism, banking and insurance services, and hotels. These industries account for approximately 60.0% of Cayman’s real economic output. Another important statistic is that within the domestic banking sector, the proportion of total real estate loans to all loans (residential) is 78.1 %, indicating the banks' substantial exposure to risks associated with the materialization of physical risks from any climate change phenomena.

Against this backdrop, CIMA has taken various proactive steps to help alleviate the effects of such risks. Presently, CIMA mandates that banks include climate-related risk in their corresponding annual internal capital adequacy assessment process (ICAAP) reports to assess possible scenarios related to CRER and itemize the ways the entities plan to address and mitigate such risks.

In an insurance related project, CIMA, in collaboration with the Lands and Survey Department (LSD) collected data from each Class A Insurer on existing residential insureds. Currently, the coverage gap for homes with house insurance, according to this data matching exercise, was approximately 70%. Alternative products to close the protection gap such as a Parametric Microinsurance product – a supplementary insurance to cover residents to reduce the cost of insurance and increase coverage – is also being researched. Furthermore, CIMA released supervisory guidelines in June 2023 encouraging the conduct of bottom-up stress testing by insurance entities. These guidelines highlighted the use of scenarios and shock effects in their own stress testing frameworks.

Within the investment funds sphere, the Authority has attempted to gather more precise information on ESG and climate-related funds within the jurisdiction recognizing the need for a more comprehensive approach to risk management on CRER. As a result, in a supervisory circular letter dated November 2023, the Authority reminded entities that in filing the annual funds report, funds prioritizing environmental issues should choose to make such investments their primary investment strategy, while non-core investments should be chosen to be their secondary strategy. This was essential to improve statistical reporting and enhance monitoring in relation to the underlying investment strategies of the funds.

Overall, CIMA continues to participate in dialogue and projects, with key stakeholders including government and industry representatives, within the climate space. This is imperative as the Authority takes a more holistic approach to the measurement and management of this pertinent and emerging area of risk.

3.3 HOUSEHOLD EXPOSURES

Housing Market and Household Debt

In 2021, freehold transfers reached unprecedented heights, surging from 1,920 in 2020 to 2,983. This surge marked property transfers well above the 2010-2019 average of 1,789, showcasing the robust and resilient Cayman Islands property market. Despite the challenges of the pandemic and global uncertainties in 2020, the market remained vibrant. Accompanying this heightened demand, there was a significant increase in the total value of freehold transfers (Figure 71). The annual average value, which had held steady at approximately KYD 800 million between 2016 and 2020, skyrocketed to KYD 1,347 million in 2021.

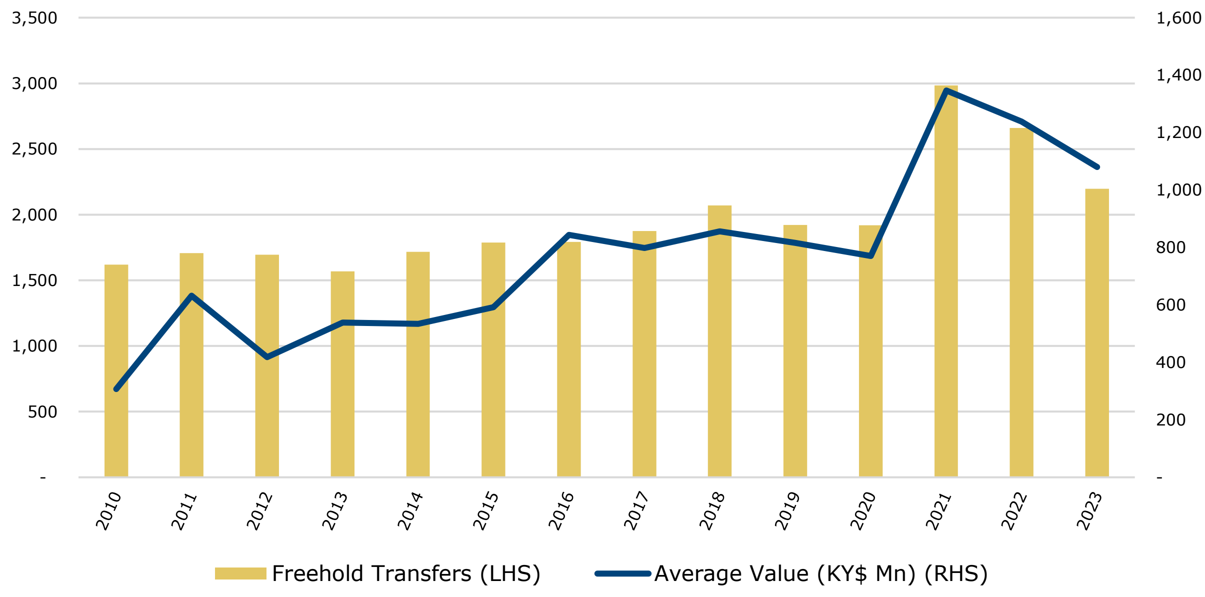
The Cayman Islands Real Estate Brokers Association (CIREBA) emphasized that this substantial upward trend between 2020 and 2021 can be attributed to the success of the Global Citizen Concierge Program and the inherent allure of the Cayman Islands. International buyers, particularly non-residents, are actively seeking safer havens for relocation or acquiring a second home, further contributing to the flourishing real estate market in the Cayman Islands. Since then, freehold transfers and their corresponding values have experienced a deceleration, aligning with global trends, yet they persist above pre-pandemic levels.
In 2023, freehold transfers dipped from their peak in 2021 to 2,198, while the total value followed suit, recording KYD 1,080 million in 2023. Despite these adjustments, the influence of foreign buyers remains evident, continuing to bolster property demand in the Cayman Islands. Moreover, the real estate market is dynamically adapting to the evolving landscape. This adaptation is evident in the surge of new construction projects and the completion of various developments that were previously delayed by the pandemic. This proactive response has led to a notable increase in new listings in 2022, reinforcing the stability and resilience of the real estate sector.

3.4 MACROPRUDENTIAL INDICATORS

Household credit-to-GDP

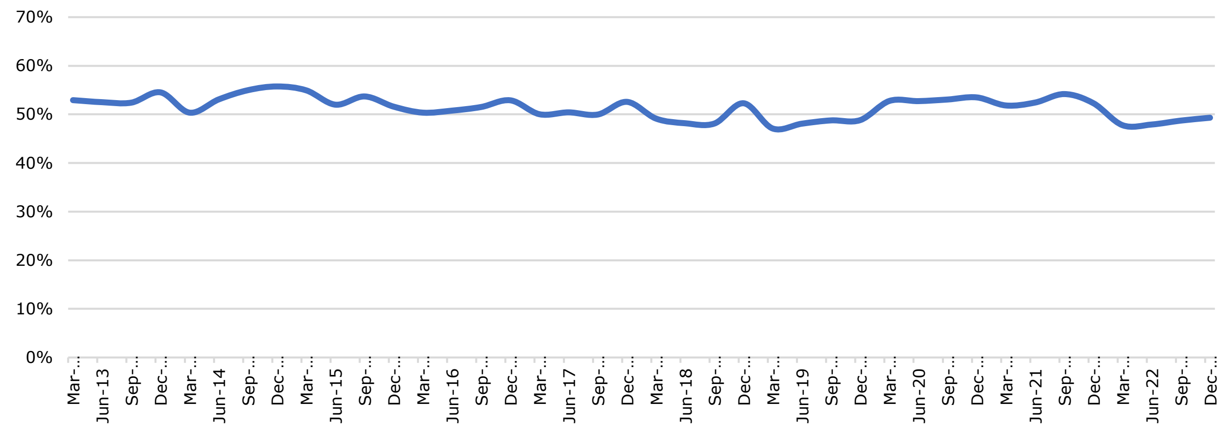
Monitoring household credit-to-GDP levels and growth is essential for effective macroprudential oversight. While short-term upticks in household credit-to-GDP can enhance economic growth, prolonged high levels or rapid expansion pose a potential threat to macroeconomic stability and overall economic development. Studies have revealed that recessions influenced by household debt, especially mortgage debt, can be particularly severe. Therefore, elevated household credit-to-GDP serves as a valuable indicator for predicting lower economic growth. Household credit-to-GDP in the Cayman Islands has consistently maintained moderate levels, exhibiting minimal growth from 2013 to 2022, averaging at 51% throughout the period (Figure 72). The rise in the monetary value of household credit has been parallel to a sustained increase in GDP. Moreover, the jurisdiction has remained resilient, avoiding any sudden or alarming shocks to household credit-to-GDP over the past decade.

Figure 71: Freehold Transfers and Average Values



Source: CIMA

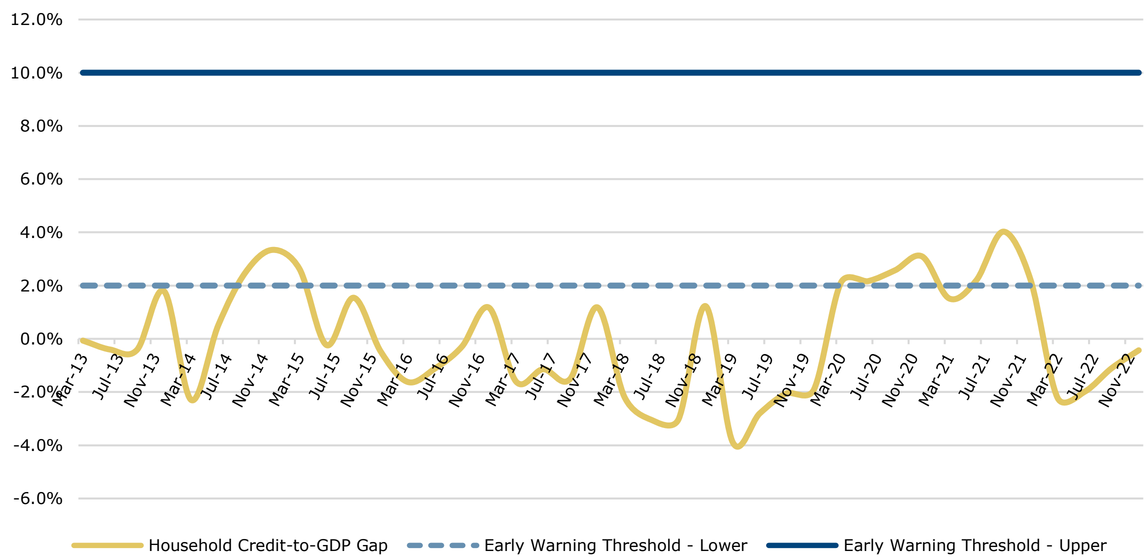
Figure 72: Household Credit-to-GDP



Source: CIMA

We reinforce our assertions with a common macroprudential indicator – the household credit-to-GDP gap (Figure 73). It aims at quantifying the notion of "excessive credit" in a simple way. It serves as an early warning indicator for potential banking crises or severe distress. It is defined as the difference between the household credit-to-GDP ratio and its long-run trend as computed by the Hodrick-Prescott (HP) filter. An elevated gap approaching the upper threshold of 10% indicates a potential buildup of financial imbalances from credit booms or excessive credit expansion.

Figure 73: Credit-to-GDP Gap



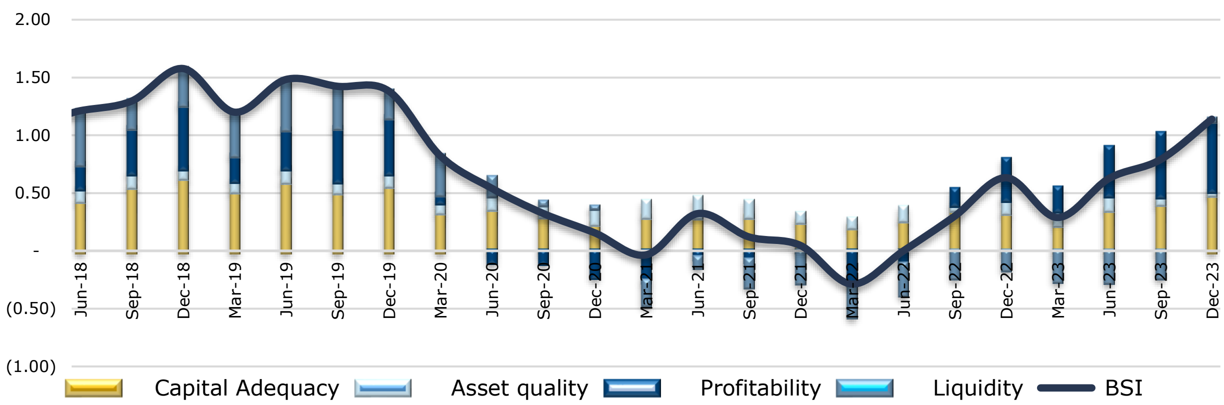
Source: CIMA

The household credit-to-GDP gap signals that the financial system in the Cayman Islands is operating within a sustainable and stable range since the gap only breached the lower bound early warning threshold in 2014 and again in 2020-21 but quickly reverted below the lower threshold. Furthermore, the household credit-to-GDP gap never approached the upper bound. It further signals that lenders and borrowers are behaving prudently, and they avoid excessive risk taking which reduces the likelihood of unsustainable credit growth, financial imbalances, and systemic risks from being overleveraged.

The Banking Stability Index

The Banking Stability Index (BSI) serves as a crucial macroprudential indicator for evaluating the general well-being and robustness of domestic retail banks. It evenly considers four key categories of financial soundness indicators: Liquidity, Profitability, Asset Quality, and Capital Adequacy. A BSI value greater than zero suggests that these indicators are performing better than their historical averages, while a value less than zero indicates underperformance compared to historical averages. This index is an invaluable tool for monitoring the overall health of the banking sector, pinpointing potential vulnerabilities, and implementing measures to uphold stability.

Figure 74: The Banking Stability Index



Source: CIMA

Between 2018 and 2020, the Banking Stability Index (BSI) for retail banks in the Cayman Islands consistently maintained a robust average of 1.04 (Figure 74). This stability was primarily attributed to strong capital adequacy, with regulatory capital averaging 23.1% of risk-weighted assets, and a healthy return on equity at 9.2%. The current BSI as at-end December 2023 of 1.14 remains above the three-year average and relative stability, adequate buffers and confidence within the banking sector. Asset quality and liquidity demonstrated steady performance over the same period. However, in 2020, the BSI experienced a decline as the performance of retail banks' soundness indicators weakened in comparison to their 10-year average, primarily due to the impact of the COVID-19 pandemic. Profitability suffered as earnings decelerated due to pandemic restrictions and the low-interest-rate environment. The most significant drop occurred in March 2022, attributed to a decline in return on assets and return on equity. Subsequently, the BSI swiftly recovered, starting in June 2022, and resumed an upward trajectory toward pre-pandemic levels. This recovery was driven by sustained high capital adequacy and improving profitability. Consistent with its long-term performance, the BSI is expected to remain elevated as retail banks continue to maintain sufficient capital and liquidity, manage assets to uphold quality, and enhance profitability.

The Aggregate Financial Stability Index

Following the 2007/08 global financial crisis, safeguarding financial stability has become of paramount importance for governments and regulators as they try to improve their ability to measure, monitor and anticipate sources of instability. To do this, useful policy tools such as early warning systems, stress testing and financial stability indexes have been created.

One of the main indexes was the Aggregate Financial Stability Index (AFSI) developed by Albulescu (2008) and replicated by several regulators globally (see for example, Morris, 2010; Karanovic and Karanovic,2015).

The AFSI is constructed to capture a single measure of financial (in)stability by examining the domestic and international economy (Table 12). It is comprised of four (4) sub-indexes:

1. Financial Development Index (FDI) – This index captures financial system development in terms of lending, efficiency, and concentration.
2. Financial Soundness Index (FSI) – This index examines the liquidity and solvency of financial institutions.
3. Financial Vulnerability Index (FVI) – This index examines the macroeconomic structure of the economy and the ability of economic agents to withstand vulnerabilities and shocks.
4. World Economic Climate Index (WECI) – This index recognises that the external macroeconomic environment can impact domestic financial stability and as such, it captures elements of the world economic climate that can have spillovers to the domestic economy.

Table 12. AFSI Indicators

Sub-index	Indicator	Impact
Financial Development Index **(weight – 15%)**	Total Credit to GDP	+
	Market Capitalisation to GDP	+
	Interest Rate Spread	-
	Herfindahl-Hirschmann Index	+
Financial Vulnerability Index **(weight – 35%)**	Inflation	-
	Total Credit to Deposits	-
	GDP Growth	+
	Reserve Assets to Monetary Base	+
Financial Soundness Index **(weight – 40%)**	Banking - Bank Capital to Assets	+
	Banking - Non-performing Loans to Total Loans	-
	Banking - Capital Adequacy Ratio	+
	Banking - Return on Assets	+
	Banking - Liquid Reserves to Assets	+
	Investment Funds - Number of Cayman Funds to Total Global Funds	+
	Investment Funds - Cayman Fund's NAV to Global Fund's NAV	+
	Investment Funds - Cayman Fund's Liquidity	+
World Economic Climate Index **(weight – 10%)**	G-20 and Euro Area Average GDP Growth	+
	VIX Index	-
	S&P 500 Index	+

Following the OCED (2008) methodology on constructing indices, each indicator is normalised using the min-max approach:

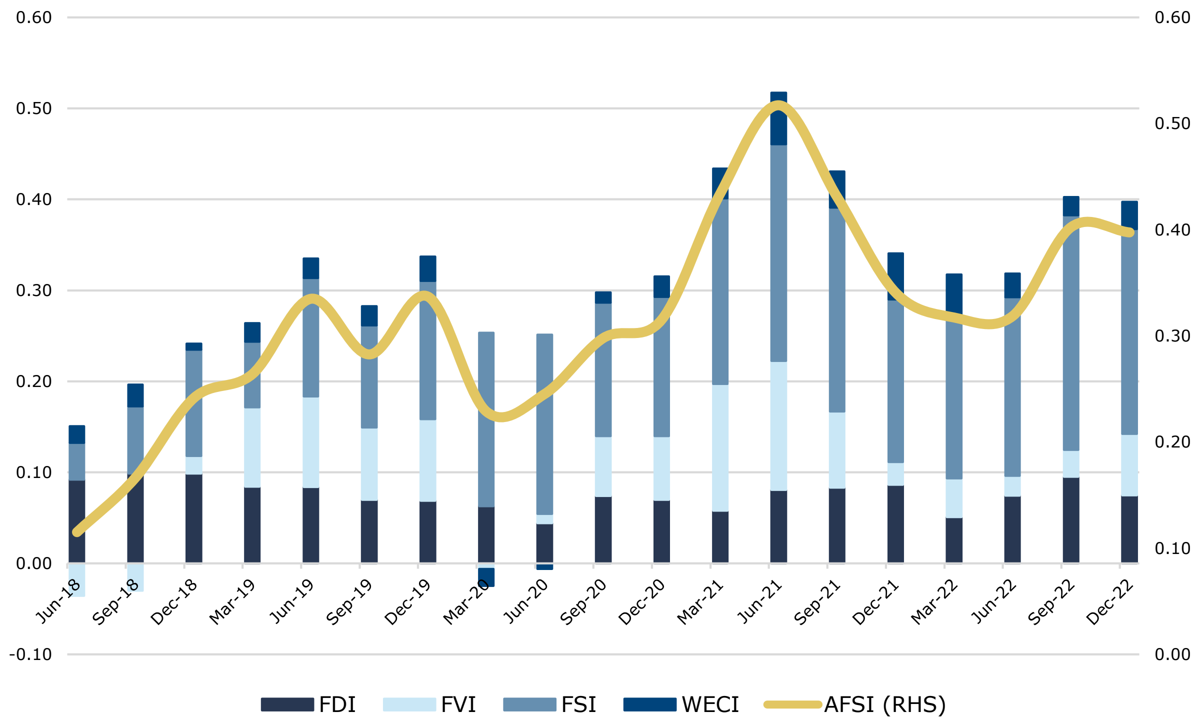
$$Indicator\ X_{it} = \frac{X_{it} - \min(X)}{\max(X) - \min(X)}$$

The normalised values are then equally weighted to construct each sub-index and then weighted to construct the AFSI.

Using the historical trend, we classify index values above 0.30 as signalling financial system soundness and stability while four or more consecutive periods below 0.30 as exhibiting heightened vulnerabilities. The AFSI experienced a decline in the first quarter of 2020, primarily influenced by the shocks triggered by the COVID-19 pandemic. However, the Cayman Islands demonstrated resilience as the AFSI rebounded in the subsequent quarter, maintaining its upward trajectory until June 2021. Although the AFSI saw a subsequent decrease, it remained at a higher lower-bound compared to the onset of the pandemic. This decline was primarily attributed to diminishing sub-indices, particularly the Financial Vulnerability Index (FVI) and Financial Soundness Index (FSI).

The FVI contracted due to a significant increase in domestic inflation resulting from global spillover effects. Additionally, the FSI marginally decreased, driven by a decline in banking system liquidity, as indicated by the ratio of liquid assets to short-term liabilities. Despite these challenges, the period of moderate risk was short-lived. With inflation decelerating and financial soundness indicators rebounding, the AFSI remained robust, experiencing a resurgence in the latter half of 2022. It currently stands at 0.38, well above the period average, affirming the sustained solidity of the financial stability in the Cayman Islands (Figure 75).

Figure 75:The Aggregated Financial Stability Index



Source: CIMA

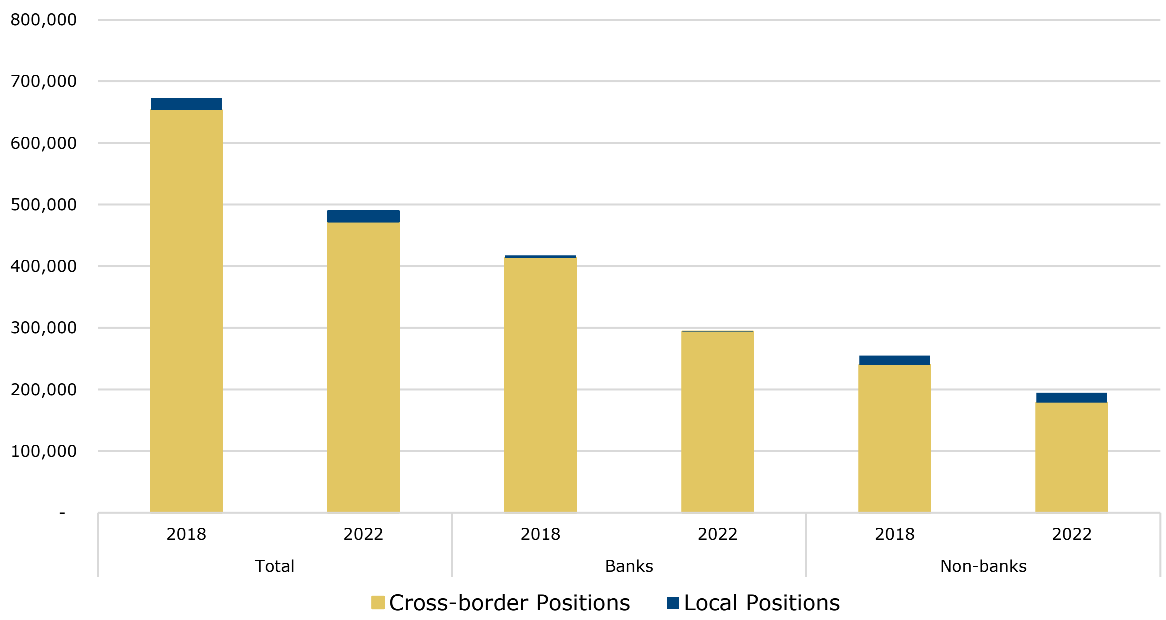
3.5 INTERCONNECTEDNESS

The expansion of cross-border positions of both the traditional banking sector and non-bank financial intermediaries has heightened interconnectedness, interdependencies, and contagion. This phenomenon has the potential to spread across jurisdictions, emerging as a critical channel that amplifies financial stress. The Cayman Islands continue to play a critical role in global financial intermediation, especially as it relates to hedge funds, and this has become more pronounced over the years.

The distribution of assets and liabilities from the banking sector, remains predominantly reliant on cross-border positions, with local positions maintaining a relatively small share. From 2018 to 2022, cross-border assets constituted an average of 97% of the banking sector's total assets. There was a rise in the local position of assets held by non-bank entities from USD 15.1 to USD 15.8 billion, but a counterbalanced fall in cross-border assets from USD 240.1 to USD 178.7 billion. Furthermore, cross-border assts held by banks decreased from USD 413.4 to USD 293.8 billion over the same period with an accompanying decline in local positions held by banks from USD 4.2 to USD 1.0 billion (Figure 76). However, the overall distribution of assets remained relatively stable between 2018 and 2022.

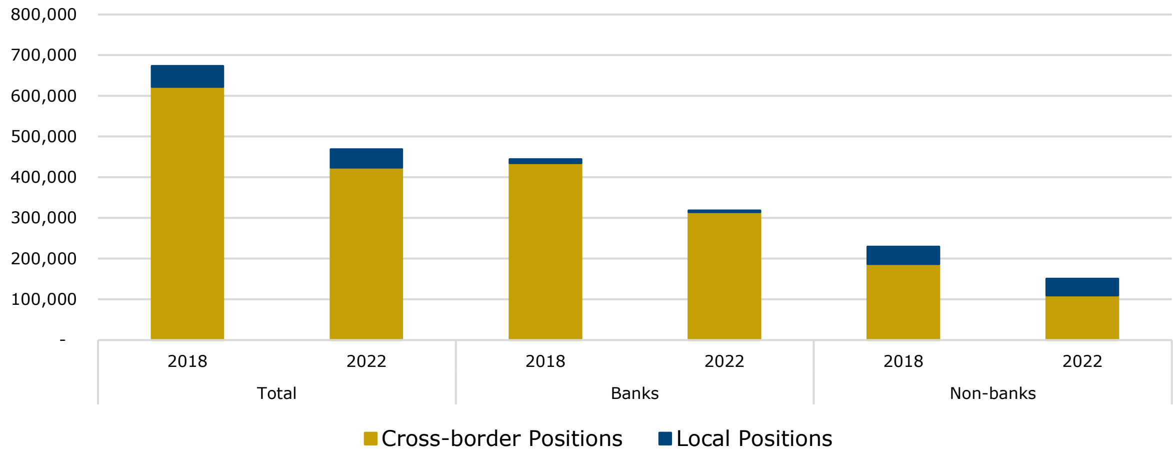
Over the same period, cross-border liabilities averaged 92.5% of total banking sector liabilities. Just like assets, the distribution between banks and non-banks remains asymmetric, with bank cross-border liabilities accounting for the majority of total liabilities between 2018 and 2022. Over the same period, cross-border liabilities held by banks decreased from USD 435.1 to USD 314.1 billion and non-banks followed in a similar vein, decreasing from USD 187.1 to USD 110.1 billion (Figure 77). Local positions for both banks and non-banks followed a comparable trend. In general, the potential dangers linked to concentrating assets and liabilities in cross-border positions are minimal, given that the distribution is typical for international financial hubs like the Cayman Islands.

Figure 76: Cayman Islands Banks – Total Assets (US$ Millions)



Source: CIMA

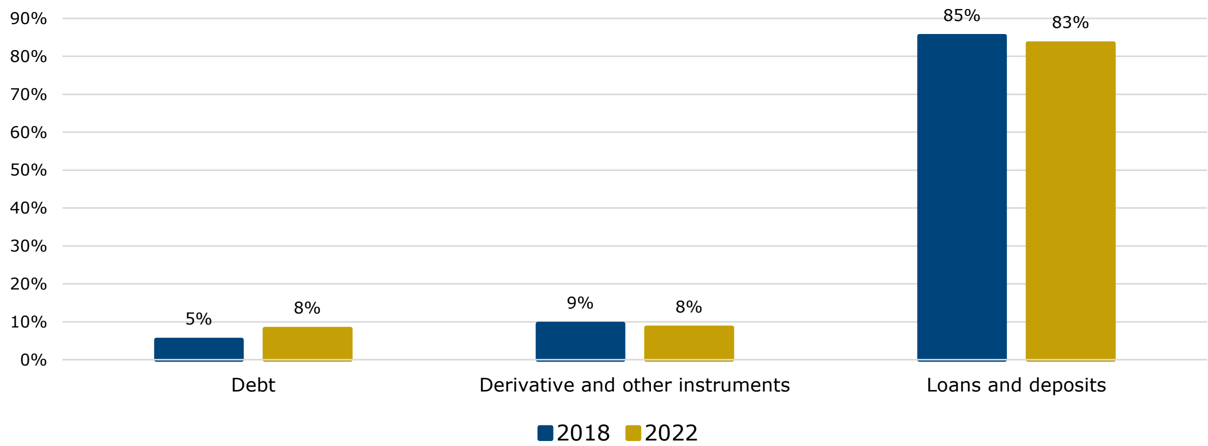
Figure 77: Cayman Islands Banks – Total Liabilities (US$ Millions)



Source: CIMA

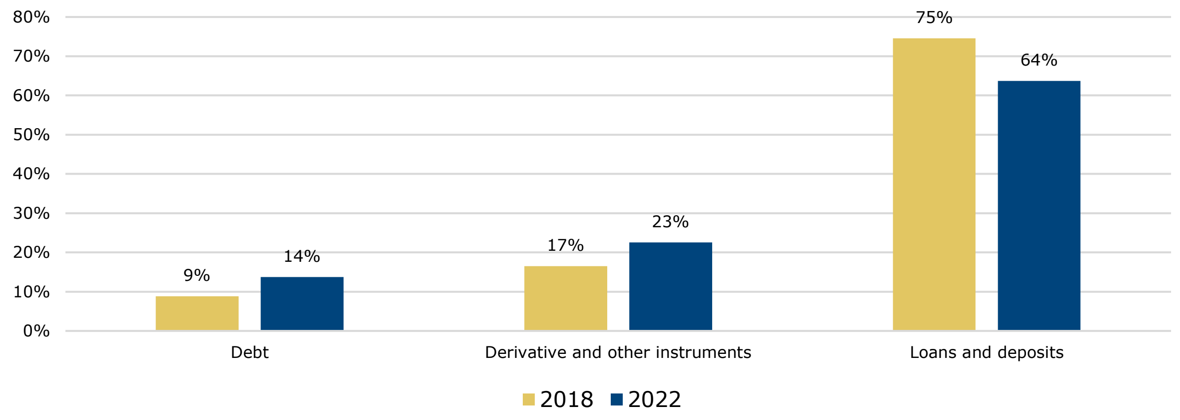
Cross-border assets in 2022 still predominantly consist of loans and deposits, comprising 64% of all such assets. However, the emphasis on loans and deposits has decreased by 11% since 2018, with a noticeable increase in other asset categories like debt and derivatives and other instruments (Figure 78). This shift indicates a decreased concentration in the distribution of cross-border assets by 2022 compared to 2018, despite loans and deposits maintaining their dominance. Unlike banks' assets, the distribution of cross-border liabilities across the three categories remained relatively unchanged between 2018 and 2022, with majority of liabilities accounting for 83.0% of total cross-border liabilities while debt and derivatives and other instruments combine for 17.0% in 2022 (Figure 79). Particularly for cross-border assets, the increase in the use of derivatives and other instruments poses a marginal increase in risks to financial stability due to their complex nature and potential for amplifying market volatility. However, the Authority continuously monitors market developments and evaluates the effectiveness of its regulatory measures to address emerging risks and challenges associated with derivatives and other instruments.

Figure 78:Cayman Islands Banks – Cross-border Assets by Category



Source: CIMA

Figure 79: Cayman Islands Banks – Cross-border Liabilities by Category



Source: CIMA

Despite the decrease in both overall banking assets and cross-border assets, a significant concentration persists in developed countries, representing roughly 80% of all cross-border assets. Specifically, the United States holds 58% of cross-border assets in 2022, while the remaining 22% is dispersed among other developed economies. Developing economies make up 14% of cross-border assets in 2022, with 9% concentrated in Brazil. Regarding the overall interconnectedness, Cayman Islands banks maintain concentrated cross-border asset exposure in the United States, although they also have asset exposures globally. Cross-border liabilities are also concentrated in developed countries with an average of 80.0% between 2018 and 2022. However, it is more dispersed across developed countries when compared to cross-border assets (Figure 80). For example, the United States held 30% of cross-border liabilities in 2022 while the United Kingdom and the Euro Area held 20.0% and 18.0% respectively. The risks associated with such concentration are low since it is comparable to the locational exposure of other IFCs and they are in jurisdictions with stable economic conditions, strong governance structures, and robust legal frameworks.

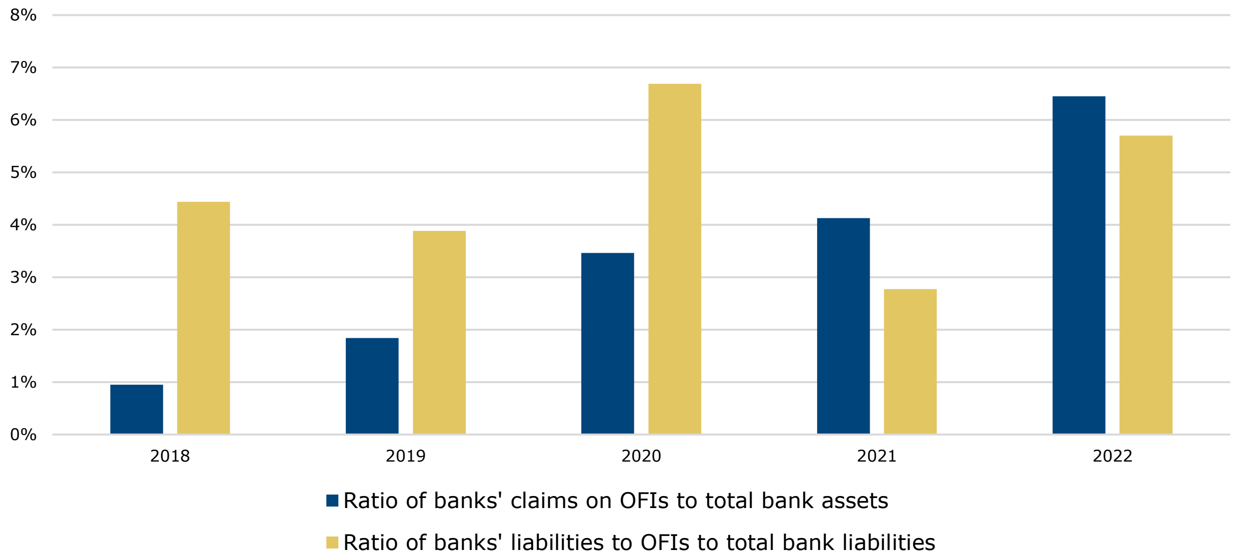
Figure 80: Cayman Islands Banks – Cross-border Assets (A) and Liabilities (L) Interconnectedness by Country (US$ Billions)

Source: CIMA

While the size of the Cayman Islands' banking sector decreased, there has been a substantial growth in non-bank financial intermediation (NBFI), notably in other financial intermediaries (OFIs) like hedge funds, various investment funds, and structured finance vehicles. With the addition of registered and regulation of private funds, the OFIs' magnitude nearly doubled from USD 6.9 trillion to USD 13.3 trillion between 2018 and 2022 and this is currently the largest sector of the Cayman Islands financial system. This surge primarily stemmed from the expansion of hedge funds, equity funds, fixed income funds, private funds, and other similar funds. The combined net asset value (NAV) of these investment funds is mainly concentrated in the Cayman Islands (32%) and the United States (26.6%), with the remaining 41% distributed among developed and developing countries. This distribution further accentuates the interdependence and interconnectedness of Cayman Islands OFIs. Increased interconnectedness and cross-border flows of the Cayman Islands' financial system and particularly OFIs can be accompanied by greater vulnerabilities and serve as a shock amplifier from such an open and integrated financial system. As such, the Authority takes a collaborative approach with international standard setting bodies such as the Financial Stability Board to engage in proactive risk management to help mitigate such risks.

The NBFI ecosystem can be connected to other NBFIs or the traditional banking system and the use of leverage and liquidity and maturity transformation makes it susceptible to financial stress and it can even amplify or spread financial stress. Notwithstanding the decline in the size of the Cayman Islands' banking sector, interconnectedness with OFIs, via banks claims, increased by approximately four times between 2018 and 2022 (Figure 81). Specifically, Cayman Islands banks' claims on OFIs increased from USD 6.4 billion to USD 31.6 billion over the stated period. Conversely, Cayman Islands banks' liabilities to OFIs fluctuated over the same period with a marginal increase from 4.4% in 2018 to 5.7% in 2022. This was in large part due to the decline in banks' liabilities to OFIs falling at a slower rate than total liabilities. Overall, banks' liabilities to OFIs decreased from USD 29.9 billion to USD 26.7 billion over the same period.

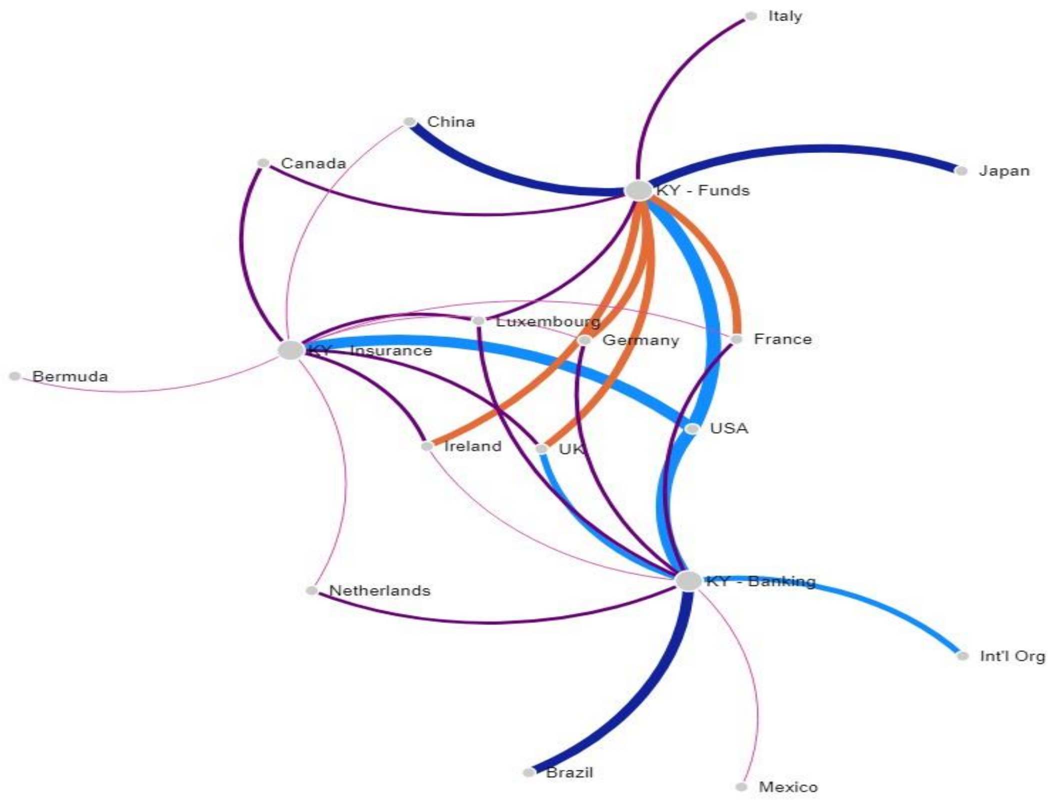
Figure 81: Banks' Interconnectedness with OFIs



Source: CIMA

The Coordinated Portfolio Investment Survey (CPIS) captures information on cross-border holdings of equity and debt securities in the pursuit of comprehensively understanding the size and structure of global financial markets. The Cayman Islands CPIS covers three sectors of the jurisdiction's regulated entities, namely banking, insurance and currently the mutual funds industry. As expected, the United States is the top destination for portfolio investment for all three regulated sectors (Figure 82). Other systemically important jurisdictions to the Cayman Islands include China, Japan, Brazil, France, and the United Kingdom.

Figure 82: Cross-border Holdings of Equity and Debt Securities – Banks, Insurance, and Mutual Funds.



Source: CIMA

Given the extensive global interconnectivity of the Cayman Islands, the Authority continues to monitor the financial landscape rigorously and consistently. Following international best-practices and guidelines, CIMA adopts a risk-based supervision approach and actively engages in on-site inspections of regulated entities. These efforts are underscored by CIMA's commitment to upholding its robust regulatory framework.

In addition to its supervisory initiatives, CIMA has demonstrated resilience in meeting Anti-Money Laundering (AML) and Countering the Financing of Terrorism (CFT) requirements, as evident by successfully graduation from the FATF grey list. CIMA has a continuous dedication to enhancing the financial services sector, positioning it not only as a prominent industry but also as a vital economic driver for the Cayman Islands. This strategic focus aligns with the broader goal of fostering a thriving and compliant financial ecosystem that contributes positively to the islands' economic development.

CHAPTER 4: ARTIFICIAL INTELLIGENCE – OPPORTUNITIES, CHALLENGES, AND IMPLICATIONS FOR FINANCIAL STABILITY

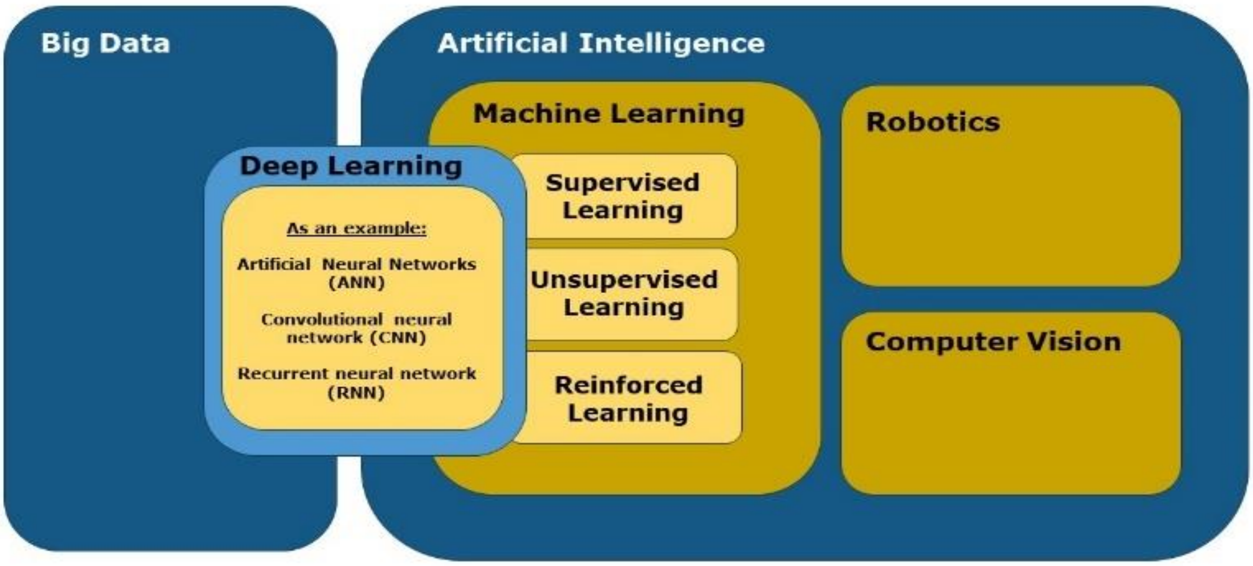
4.1 BROAD DEFINITIONS WITHIN AI

Artificial Intelligence (AI), was coined by an American computer scientist, John McCarthy, in 1955 as "the science and engineering of making intelligent machines." Today AI is known in financial services as the application of advanced computational algorithms and machine learning techniques to analyse, interpret, and automate various tasks within the financial industry. There are some other broad terms within this space that is necessary to define (Figure 83). These include:

Machine learning is a concept of using sample data to train computer programs to recognise patterns based on algorithms. Within machine learning there are three useful concepts i.e. supervised learning (algorithms learning from labelled data), unsupervised learning (algorithms finding patterns in unlabelled data) and reinforced learning (algorithms learning by interacting with an environment and receiving feedback). Machine learning has a component of human intervention called heuristics, which can improve computation time or better define the problem for machine learning algorithms. ***Deep learning*** is a subset of machine learning that involves neural networks with multiple layers (deep neural networks) and has been particularly successful in tasks such as image recognition, natural language processing, and speech recognition.

The concept of ***Computer vision*** has also emerged in the last couple of years and involves a field of computer science that focuses primarily on enabling computers to identify and understand objects and people in image and video applications. It is a subset of AI and seeks to imitate not just the way humans see things but also the way such things are understood by humans generally. The applications surrounding computer vision has been growing and is now the central component of many innovative solutions. ***Robotics***, another subset of AI, combines AI with mechanical engineering to create intelligent machines capable of performing physical tasks within inter alia fields of manufacturing and healthcare.

Figure 83: Common terms used within the AI ecosystem.



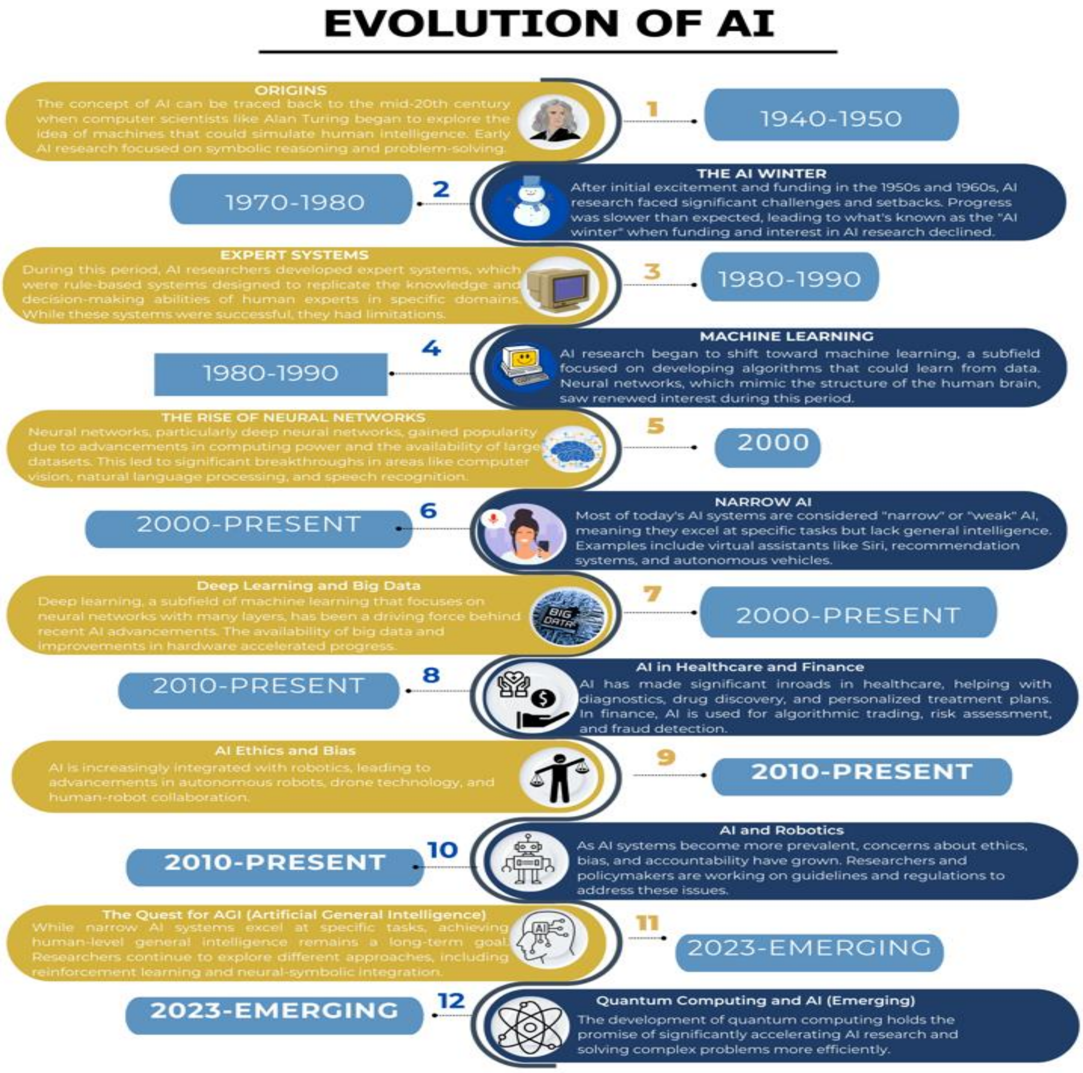
Source: CIMA

These broad definitions encompass a range of applications that leverage AI to enhance decision-making, improve efficiency, and provide innovative solutions. However, the real fuel for AI is ***Big Data*** (e.g., unstructured data, sensor data, social media feeds, transaction records) which provides an abundant of diverse datasets for AI algorithms to recognise patterns, make predictions and generate insights. It is clear that, the field of AI has grown significantly, encompassing various subfields and applications.

4.2 EVOLUTION OF AI

While AI can be traced back to mid-1990's, the formal inception of AI as a dedicated field of study took shape in the mid-20th century, and its evolution continues to shape the present landscape as ongoing research and development contributes to advancements in machine learning, natural language processing, computer vision, and robotics (Figure 84). AI is now an integral part of various industries, shaping the future of technology and human-machine interaction. AI is also enhancing data analytics and streamlining regulatory processes and compliance with the purpose to improving the robustness of the financial system. However, it is crucial to acknowledge that as AI progresses rapidly, a growing digital divide is emerging between advanced and developing economies.

Figure 84: Evolution of AI



Source: CIMA, 2024 (adapted from Anyoha, 2017; Karjian, 2023)

4.3 MAIN DRIVERS FOR ADOPTION OF AI TECHNOLOGIES

AI is shifting and transforming the way consumers, financial institutions and financial regulators interact and operate. It is a known fact that innovations are usually born out of crises as deficiencies become evident. For instance, after the 2008 Global Financial Crisis, AI started flourishing given the need to have a more transparent, accountable financial sector. Furthermore, the growth and adoption of AI intensified since the COVID-19 pandemic in light of the need for better risk management and customer service, due to the large number of loans requested in the bank sector. There are many drivers of AI from both the demand-side and supply-side but two key drivers of interest to financial service regulators are innovation hubs and regulatory sandboxes.

Innovation Hubs

One of the key innovation hubs is the Bank for International Settlements (BIS) Innovation Hub which develops technology-based resources and tools that will benefit central banks and contribute to how the financial system operates. One of the proof-of-concept projects developed by the BIS innovation hub is Project Ellipse - a regulatory reporting and data analytics platform – which explores how AI technology and solutions can enable financial supervision to be more data-driven and robust. For instance, advanced analytics such as machine learning and natural language processing were applied to data sources to analyse risk correlations and alert supervisors in real time of potential issues that may need further investigation. Another use case comes from network analytics to demonstrate how exposures can be mapped thereby identifying potential systemic risks to the banking system.

Sandboxes

In 2016, the first regulatory sandbox was implemented and from then through 2020, there have been 73 fintech sandboxes in 57 countries, with over half established between 2018 and 2019, and a fifth initiated in the first half of 2020. These sandboxes have been crucial in many aspects of fintech adoption and their use for AI is quite similar. One prominent use case was by the Global Financial Innovation Network (GFIN) which was launched in 2019 by a group of 23 regulators who were committed to helping firms interact and communicate more efficiently with regulators across borders via cross-border testing or global sandbox which essentially creates an environment for trial and scale of products across jurisdictions. One of the key benefits of such cross-border sandboxes it aid pioneering enterprises such as AI startups to craft novel proofs-of-concept for their products and services. Another case is the first regulatory sandbox on AI presented by the EU in mid-2022 which aimed to connect innovators and regulators, facilitating collaboration to develop AI systems that comply with the forthcoming European Commission's AI Regulation. This initiative generated best practice guidelines and materials to aid companies, particularly SMEs and startups, in implementing future AI rules. By operationalizing requirements and exploring features like conformity assessments, the sandbox pilot was successful in preparing the ecosystem for the AI Act in December 2023.

4.4 OPPORTUNITIES AND CHALLENGES OF AI IN FINANCE

The adoption of AI into the financial services landscape has reshaped the industry's dynamics to provide impactful opportunities that can transform products, services, institutions, and the industry as a whole. For instance, AI can be used to enhance operational efficiency, risk and compliance management, product and service delivery and customer interactions. However, AI comes with complex challenges including ethical concerns and cybersecurity risks.

However, once these risks are understood and fully navigated, regulators and institutions within the financial services sector can continue to explore and capture the transformative benefits of AI (Figure 85). There are some main benefits and risks for the adoption of AI within the financial services sector. These benefits and risks clearly enunciate that AI offers numerous benefits to the financial services sector; however, it comes with inherent risks. Therefore, it is imperative that robust risk management and effective risk mitigation strategies, with transparency mechanisms and ethical boundaries be adopted so that entities can harness the benefits of AI while minimizing the risks.

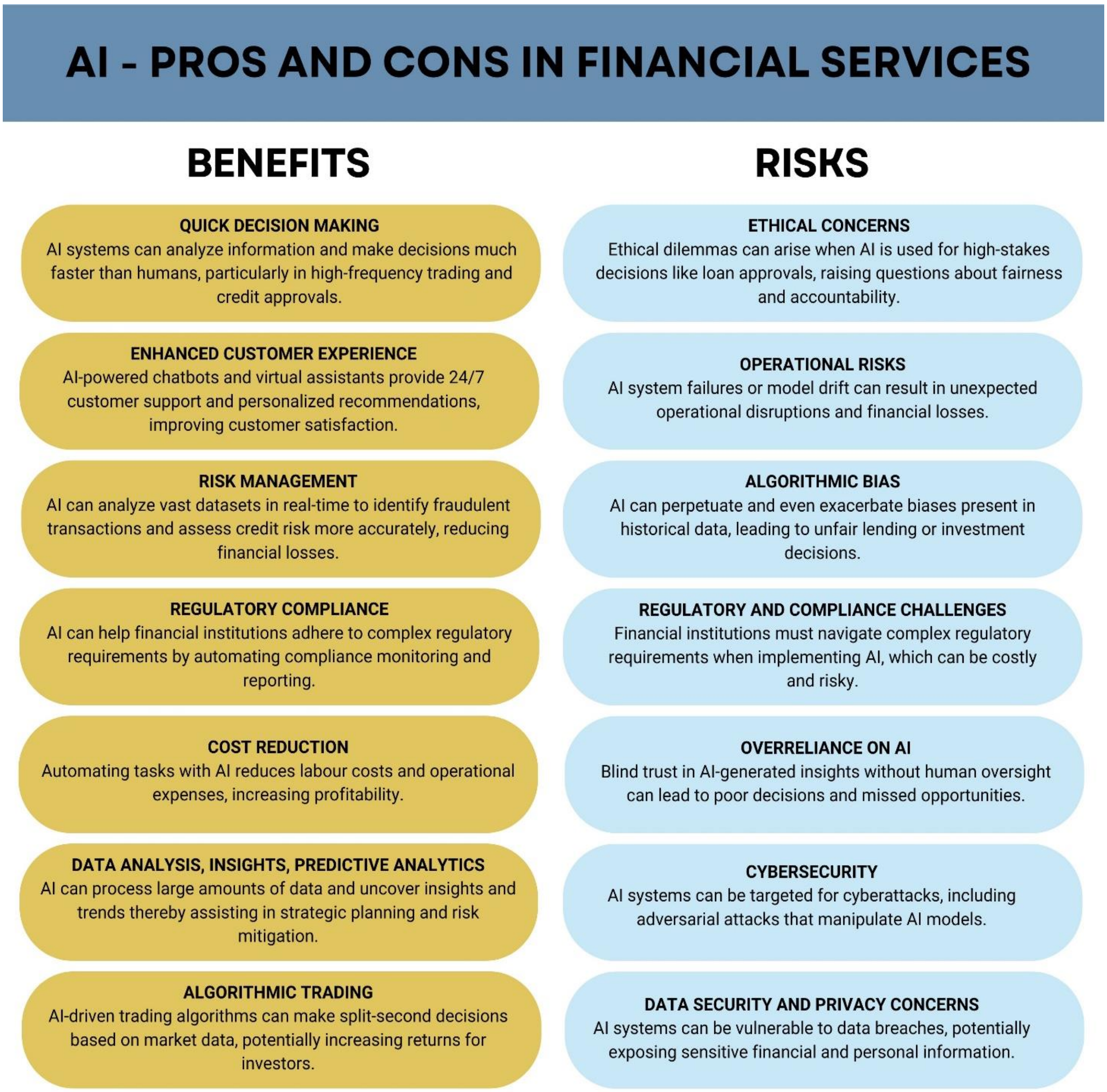


Figure 85: Pros and Cons of AI in Financial Services

Source: CIMA, 2024 (adapted from Forbes, 2023; OECD, 2022; Harvard Business Review, 20

Impact on Financial Stability

The increasing adoption and integration of AI in the financial system offers both advantages and challenges for financial stability. One notable benefit is the transformative impact it can have on financial supervision through the application of supervisory technology (suptech). Suptech refers to the use of technologies by supervisory agencies to support supervision. Suptech leverages AI to enhance various aspects of regulatory oversight, including market surveillance, compliance monitoring, and predictive analytics. For instance, AI can assist macroprudential oversight by facilitating real-time monitoring as AI technologies enable continuous monitoring of financial data which allows policymakers to quickly react to potential threats to financial stability. For example, Banco de España uses supervised ML to assist with misconduct detection, especially in areas that are traditionally hard to detect. Similarly, the Bank of Thailand uses AI to analyse financial institution's board meeting minutes to assess the board's regulatory compliance and give recommendations as part of ongoing supervision.

Another noteworthy benefit of AI is that it drives simulations for scenario analysis and stress testing to assess the potential impact, and the resilience of the financial system which can enable policymakers to develop appropriate and timely policy responses. For example, the Monetary Authority of Singapore worked on a project where supervisory credit risk assessment can be undertaken using algorithms instead of sampling. Similarly, De Nederlandsche Bank explored the usefulness of AI in detecting liquidity problems at regulated banks and the probability and potential for deposit runs.

These advancements, among others, enable regulatory bodies to keep abreast of potential risks and maintain a more proactive approach to financial oversight. However, the rapid adoption of AI also introduces novel challenges, with new sources and channels of risks that have implications for financial stability. One such challenge arises when the pace of AI advancements surpasses the development of the regulatory framework or when regulatory changes struggle to keep up with the dynamic nature of AI technologies. Concurrent regulatory frameworks are needed with technological advancements to ensure appropriate governance, as traditional and retrospective regulations may be insufficient. However, current global regulation lags behind the velocity of technological progress. Another challenge resulting in lagging regulation is the question of what to regulate as there is no one size fits all regulation when it comes to AI because this can result in over-regulating or under-regulating in different instances. These misalignments may create or contribute to systemic risks as regulatory oversight becomes less effective in managing emerging threats associated with AI and applications in finance.

Moreover, the global interconnectedness of the financial system adds another layer of complexity. AI's ability to rapidly process and disseminate information can amplify the speed and scale of risk propagation. The heightened interconnectedness also has the potential to lead to broader contagion effects, where risks spread swiftly across markets and institutions. The result is a domino effect that can exacerbate the impact of individual incidents, posing challenges to financial stability on a larger scale. This can be compounded by financial regulator's inconsistent approaches to AI governance as well as limited oversight on some AI models.

With the integration of AI in financial services, coupled with global interconnectedness and the storage and use of large quantities of sensitive data, the threats and severity of cyber-attacks and other incidence of data privacy concerns are of principal importance. Threats to AI/ML pose risks to the financial sector's integrity and trust, potentially affecting risk assessment and management. Additionally, attackers targeting sensitive datasets could exacerbate systemic risks in the financial system. Therefore, robust cybersecurity measures are essential to protect against potential breaches that could severely impede financial stability.

Overall, the adoption of AI and ML in the financial sector offers significant benefits to financial institutions such as enhanced efficiency, accurate forecasting, and better risk management and compliance. These opportunities extend to regulators by strengthening prudential oversight and aiding the development of new tools towards macroprudential mandates. But with the adoption of AI technology showing no signs of slowing, regulators must be able to harness its benefits while managing and mitigating potential risks to ensure the integrity and stability of the financial system.

4.5 CURRENT DEVELOPMENTS IN THE APPLICATION OF AI: CLIMATE RELATED FINANCIAL RISKS

Using artificial intelligence to gather information for evaluating climate-related financial risks has boosted macroprudential policy and risk management in the face of a rise in disclosures from financial institutions and other businesses. For example, to evaluate the potential systemic nature of climate related exposure, regulators worldwide require high-quality data. With the traditional method, the analyst must either look for the information in publicly available business reports or contact multiple stakeholders to obtain information for new institutions and key performance indicators (KPIs). Unfortunately, gathering and analysing crucial data on climate risk is challenging in the lack of a unified reporting standard.

Quite recently, the Bank for International Settlements (BIS) alongside its project partners, the Bank of Spain, the Deutsche Bundesbank and the European Central Bank, has launched Project Gaia AI which can be used to analyse voluntary net-zero commitments, carbon emission reports from companies, and the issuing of green bonds.[12] Project Gaia created a proof of concept and tested it using use cases, as it relates to financial climate risk analysis. Large language models were used to automatically extract climate-related indicators from corporate reports that were publicly available. According to a joint statement by the project partners, Project Gaia was able to overcome variations in definitions and disclosure regimes between countries and provided increased transparency, which makes it easier to evaluate indicators on climate-related environmental concerns. A previously unthinkable level of climate risk analysis is now feasible because of the extraction and analysis of several KPIs from numerous institutions.

Internationally, more and more regulators are requiring climate-related disclosures of listed companies, including banks and insurers. This will result in more precise data being collected rather than the voluntary processes used up until now. Therefore, making AI-driven Gaia as an open online tool for analysts to use would be a potential next step in helping more nations manage risks associated with climate change.

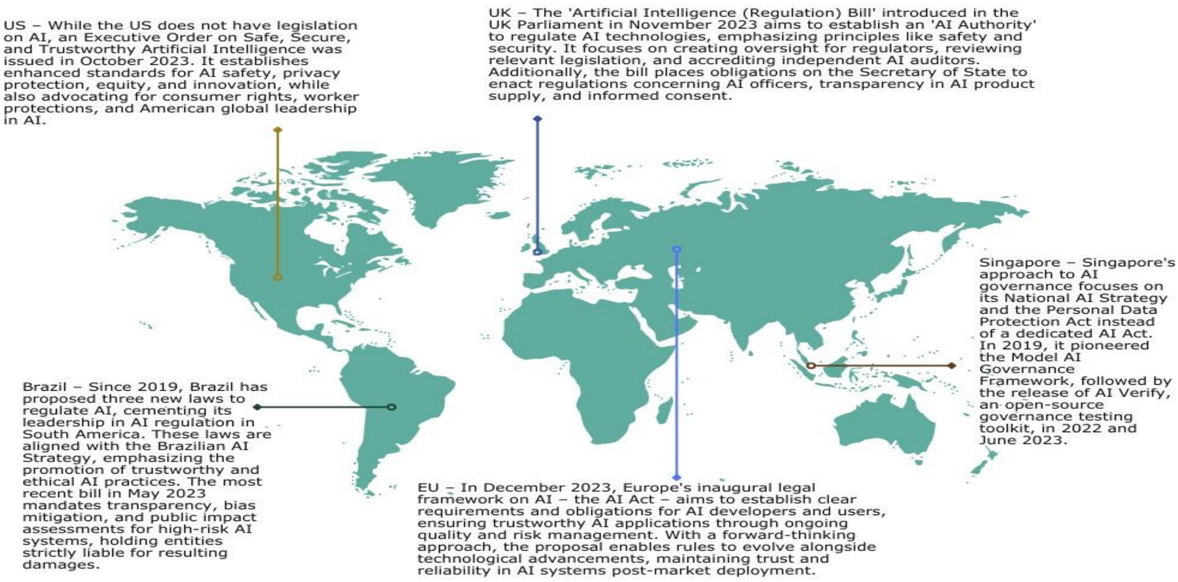
[12] See figure 87.

4.6 GLOBAL KEY REGULATORY AND LEGISLATIVE DEVELOPMENTS WITHIN THE AI SPACE AND THE FUTURE OF AI IN CAYMAN

Across the globe, AI has been gaining momentum, as policymakers better understand and come to terms to the new approaches to regulation in the context of the use of AI. Many regulators are leaning towards the OECD principles for AI which has been serving as a guiding light for policymakers (Figure 86). These principles include respect for human rights, transparency, and a robust risk management framework.

Some of the key developments include ethical AI guidelines to ensure responsible and ethical use of AI technologies as well as, a more focused approach to abiding by data protection regulations for AI developers and organisations using AI technologies. In some jurisdictions algorithmic transparency and accountability has become paramount, to ensure that AI systems are explainable, auditable and accountable for their decisions and actions. Certain industries (e.g., autonomous vehicles, medical, financial services) have introduced of sector-specific regulations on the development and deployment of AI technologies, to ensure the reliability and safety of clients, as liability issues are unique across each sector. In some instances, frameworks for testing and certifying AI systems have been implemented, to assess e.g., compliance with regulatory requirements. The purpose of these certification programs is to ensure the quality and trustworthiness of AI technologies are maintained.

Figure 86: Latest regulatory and legislative developments in AI in five key financial regulatory Jurisdictions.



Source: CIMA

The Cayman Islands are in the early stages of embracing AI technology within financial services, acknowledging its potential impact son revenue, costs, productivity, and organisational culture to name a few. Despite the prominence of traditional financial service providers, there is a concerted effort among Cayman Islands' financial services, industry stakeholders, regulators, government, and media to foster collaboration and promote the adoption of new technologies like AI. As the momentum behind AI continues unabated, the Cayman Islands Monetary Authority (CIMA) is exploring AI’s potential uses to enhance risk assessment, fraud detection, and compliance efforts through machine learning. To navigate the evolving landscape, establishing a robust AI governance framework is imperative to facilitate adoption while mitigating emerging risks.

CHAPTER 4: ARTIFICIAL INTELLIGENCE – OPPORTUNITIES, CHALLENGES, AND IMPLICATIONS FOR FINANCIAL STABILITY

One of CIMA's strategic objectives for the 2024-2026 Strategic Plan focuses on enhancing technological capabilities by identifying innovative solutions to improve overall operational efficiencies. Therefore, in an effort to stay abreast of global trends and foster innovation, CIMA actively engages in international forums and conferences to glean insights on emerging policies, technologies, and best practices from global markets and regulatory bodies. For example, CIMA is an active member of GFIN, contributing and collaborating to the regulatory network, and committed to supporting international digital transformation, including AI applications in financial services. These efforts represent crucial steps in harnessing the potential of AI while ensuring the Cayman Islands remain competitive in the rapidly evolving financial landscape.

APPENDIX
REGULATORY DEVELOPMENTS

When Issued	Type of Standard	Title	Description
April 2023	Rule and Statement of Guidance	Internal Controls for Regulated Entities	This measure consolidated the previous Rule and four (4) Statements of Guidance issued by the Authority relating to internal controls. The measure incorporated developments in best practices on internal controls and addressed deficiencies identified during assessments conducted by the Authority.
April 2023	Rule and Statement of Guidance	Rule on Corporate Governance for Regulated Entities. Statement of Guidance on Corporate Governance for Mutual and Private Funds	These measures replaced the previous Rule on Corporate Governance for Insurers and Statements of Guidance on Corporate Governance Regulated Entities and Mutual Funds. These measures set out to expand the scope of applicability for corporate governance regulation/standards to all regulated entities and address the identified issue of supervisory enforceability as well as align with international corporate governance principles and standards.
April 2023	Rule and Statements of Guidance	Amendment to certain Regulatory Measures for applicability to Virtual Assets and Other Regulated Entities: Rule: Cybersecurity for Regulated Entities Statement of Guidance: Outsourcing Regulated Entities. Statement of Guidance: Cybersecurity for Regulated Entities. Statement of Guidance: Nature, Accessibility and Retention of Records	The scope of applicability for these four Regulatory Measures was expanded to VASPs and other regulated entities.

When Issued	Type of Standard	Title	Description
April 2023	Regulatory Policy	Approved Stock Exchanges	This measure seeks to clarify the Authority's definition of a stock exchange with an "approved" status pursuant to the relevant Regulatory Acts, while outlining the Authority's process for the approval/removal of a stock exchange from the published list of approved stock exchanges.
May 2023	Rules and Statement of Guidance	Reinsurance Arrangements	This measure sets out to expand the scope of applicability for reinsurance requirements to all insurers and registered PICs supervised by the Authority that use outward reinsurance. Additionally, the measure seeks to include relevant updates from the insurance Core Principles on Reinsurance and other forms of Risk Transfer.
May 2023	Rule and Regulatory Policy	Domestic Systemically Important Deposit-Taking Institutions	This measure sets out the Authority's criteria for identifying Domestic Systemically Important Deposit-Taking Institutions (D-SIDTIs) in the Cayman Islands and calibrating HLA capital requirements applicable to such entities. The Rule sets out requirements that must be met by institutions identified as being systemically important at the domestic level.
May 2023	Regulatory Policy	Licencing for Class D Insurers	This measure provides regulatory clarity on the criteria and procedure for issuing a licence for this category of insurance business. It also enhances the recognition of the Cayman Islands reinsurance supervisory framework and promotes compliance with relevant international standards.
August 2023	AML Guidance Notes	Guidance Notes Amendment (e-KYC and Remote CDD/Ongoing Monitoring)	These measures remove any ambiguity on whether the use of technological solutions for remote/virtual/non-face-to-face CDD is permitted beyond the context of Covid 19 and

When Issued	Type of Standard	Title	Description
			clarify that financial service providers need only conduct further verification on a risk-based approach and case-by-case basis, dependent on the risk factors and scenarios presented.
August 2023	Guidance Notes	Guidance Notes on the Prevention and Detection of ML, TF and PF in the Cayman Islands August 2023	This measure establishes the requirements and provides guidelines that should be adopted by FSPs in order to maintain the integrity of the Cayman Islands financial sector in respect of preventing and combating money laundering ("ML"), terrorist financing ("TF") and proliferation financing ("PF"). Additionally, the GNs of August 2023 consolidated previously issued amendments to the parts of the June 2020 GNs related to Securitization and Virtual Assets Service Providers.
August 2023	Rule and Statement of Guidance	Nature, Accessibility, and Retention of Records for Licensees Conducting the Business of Company Management.	This measure delineates a clear framework for minimum requirements and related guidance to licensees conducting the business of company management on the maintenance of records in a manner that promotes accessibility, retention, and appropriate security.
November 2023	Regulatory Policy	Consolidated Supervision	This measure clarifies the Authority's approach to Consolidated Supervision and incorporates developments in international standards of group-wide supervision by Standard setters.

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