



Liquidity Risk in the Bermuda Long-term Insurance Market (Year End 2024)

April 2026

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1. Executive Summary

The Bermuda Monetary Authority (Authority or BMA) continues to monitor liquidity risk management practices across the long-term insurance sector, building on the comprehensive assessment published in 2024, which was based on 2023 data. This report focuses on regulatory requirements, liquidity risk management practices observed in the Commercial Insurer's Solvency Self-Assessment (CISSA) submissions, investment allocations and stress testing results, providing an updated analysis based on year-end 2024 data.

The findings demonstrate that Bermuda's long-term insurance sector maintains strong resilience against potential liquidity stresses, supported by prudent asset allocation strategies and robust risk management frameworks. This report includes the following key observations:

- **Regulatory Framework:** The BMA's comprehensive liquidity risk management requirements continue to be further embedded in the sector, with insurers¹ implementing board-approved programmes, conducting regular stress tests and maintaining appropriate liquidity buffers. The analysis of the 2024 CISSA submissions reveals varying levels of sophistication in liquidity risk management practices, providing valuable insights into how insurers are operationalising these requirements
- **Investment Allocation:** Long-term insurers continue to maintain a prudent investment approach, with approximately 57% of investments held in cash, sovereign bonds and corporate bonds. This significant allocation to more liquid asset classes is complemented by measured exposure to alternative investments, creating a diversified portfolio that balances yield generation with risk and liquidity management
- **Liability Profile:** The percentage of Best Estimate Liabilities (BEL) exposed to lapse has decreased from 78% in 2023 to 72% in 2024, reducing potential surrender-driven liquidity demands. Additionally, products with medium economic penalties for early surrender now represent 65% of surrender values (up from 52% in 2023), providing stronger disincentives against (opportunistic) lapses
- **Stress Testing Results:** Under the BMA's 1-in-200 stress scenario, the median Liquidity Coverage Ratio (LCR) for Year End (YE) 2024 has increased to 471% (up from 418% for YE 2023), indicating substantial resilience against severe liquidity stresses. Also, when applying the International Association of Insurance Supervisors (IAIS) haircut methodology, the sector maintains robust coverage with a median LCR of 350%
- **Liquidity Management Practices:** The review of the 2024 CISSA submissions reveals a solid foundation of liquidity risk management capabilities across the sector, with advanced practices observed in risk appetite formulation, metric

¹ In this report, insurers also include reinsurers. In scope are Class C, D and E insurers as well as Dual insurers with LT business. Groups are excluded.

development, stress testing and contingency planning. However, varying levels of sophistication suggest opportunities for continued enhancement

While the overall findings are positive, the BMA expects all insurers to continue developing their liquidity risk management frameworks. In doing so, the practices identified in this report should be taken into account as principles of proportionality based on the insurer's size, complexity and risk profile. As detailed in the conclusion of this report, the Authority has identified liquidity risk management as a key supervisory priority for 2026 with specific expectations regarding enhanced governance and controls, validation processes, stress-testing sophistication and contingency planning. The Authority will continue to engage with insurers to promote the adoption of best practices through regulatory dialogue, thematic reviews, targeted feedback on CISSA submissions and, where appropriate, on-site inspections.

The analysis of YE 2024 data in this report confirms that Bermuda's long-term insurance sector remains well-positioned to withstand liquidity challenges. The combination of prudent investment allocation strategies, evolving product features with enhanced surrender disincentives, robust liquidity buffers, and increasingly sophisticated liquidity risk management practices provides multiple layers of protection against potential liquidity stresses.



2. Liquidity Risk Management Practices

Liquidity risk remains a focal point for long-term insurers and regulators alike, particularly amid evolving market conditions and asset allocation strategies. Building on 2024's comprehensive analysis of liquidity risk drivers and market-specific features, this current report also focuses on the implementation of liquidity risk management practices across the sector. A key enhancement in this year's analysis is the inclusion of insights derived from 2024 CISSA reports, which provide a window into how insurers are operationalising regulatory requirements and developing sophisticated approaches to liquidity management.

2.1 BMA Liquidity Risk Requirements

The BMA has established a robust framework to ensure long-term insurers maintain adequate liquidity and effectively manage the associated risks. This framework is grounded in strong governance and proactive risk management. At its core, the framework requires each insurer to have a board-approved liquidity risk management programme. This programme must clearly articulate the company's risk appetite, define internal liquidity metrics and targets, and be subject to annual reviews.

A critical component of this framework is rigorous stress testing. Insurers must assess their liquidity position against both a moderate (1-in-20-year) and a severe (1-in-200-year) stress scenario. A key regulatory threshold is the LCR, which requires that, after applying a severe stress, a company's available liquidity must be at least 105% of its potential outflows.

Furthermore, insurers using the Scenario-Based Approach (SBA) for reserving are subject to enhanced requirements, including more detailed reporting and specific liquidity and lapse stress tests.²

The BMA ensures adherence to this framework through active supervision, including on-site inspections, detailed reviews of liquidity stress tests reported in the annual CISSA filings and targeted market assessments.

2.2 Market-Wide Liquidity Risk Management Practices

A comprehensive review of CISSA submissions from Bermuda long-term insurers, which represent a mix of large, medium, and small entities across different business models, provides insights into liquidity risk management practices across the market.³ The analysis focuses on key aspects of liquidity risk frameworks, including risk definitions, governance structures, risk appetite articulation, measurement methodologies, stress testing practices and mitigation strategies.

² See, for example, 'Lapse, liquidity and SBA returns' (to be found in the "Reporting Forms and Guidelines" section of the BMA website).

³ The review covers 76 CISSA submissions for 2024 from Bermuda long-term insurers, comprising Class C (38 insurers), Class D (2 insurers) and Class E (36 insurers). This represents a comprehensive cross-section of the market, including both direct writers and reinsurers, with varying sizes, business models and complexity levels. The analysis focuses on specific sections of the 2024 CISSA reports related to liquidity risk management and may not capture all aspects of each firm's complete liquidity risk framework.

The findings show a high degree of consistency in core areas such as risk definitions and governance structures, while also highlighting variations in sophistication and approach that reflect insurers' diverse business models, risk profiles and operational complexity. The analysis demonstrates that the sector has generally well-established liquidity risk management frameworks, with numerous examples of practices that align with or exceed regulatory expectations. At the same time, the review identifies areas where practices vary more widely and where there may be opportunities for continued development, particularly around the adoption of more company-specific measurement techniques and contingency planning capabilities. These observations will be discussed in more detail in the following subsections.

2.2.1 Definitions and Board Oversight

Bermuda long-term insurers demonstrate a high degree of consistency in defining liquidity risk. The vast majority of reviewed CISSAs formally define liquidity risk, with most definitions centring on the concept of insufficient liquid funds to meet obligations as they fall due. More detailed frameworks also distinguish between different types of liquidity needs, such as short-term operational liquidity (focused on day-to-day cashflow management, 0-90 days), medium-term tactical liquidity (addressing foreseeable funding needs, 3-12 months) and long-term strategic liquidity (ensuring structural balance between assets and liabilities, 1+ years).

The insurers in the sample integrate liquidity risk into their Enterprise Risk Management (ERM) frameworks using dedicated policies, risk appetite statements, quantitative metrics, regular monitoring, and stress testing. Board oversight is consistently applied across the market, with more developed governance practices including the establishment of dedicated Asset-Liability Management (ALM) committees with explicit responsibility for liquidity risk oversight.

Table 2.2.1: Definition and Board Oversight of Liquidity Risk

Board Oversight Function	Overall Adoption Rate
Regular Reporting to Board/Board Committee	91%
Formal Board Approval of Liquidity Risk Policies	89%
Board Review of Liquidity Stress Test Results	62%

2.2.2 Liquidity Risk Appetite and Measurement Methodologies

The measurement of liquidity risk varies across Bermuda insurers, with approaches ranging from simple qualitative statements to sophisticated multi-metric frameworks. The sector demonstrates a strong foundation in quantitative risk measurement, though the sophistication of approaches varies by business model complexity and risk profile.

- **Quantitative Risk Appetite Statements:** 89% of insurers employ quantitative liquidity risk appetite statements, moving beyond purely qualitative descriptions to incorporate specific metrics and thresholds. This high adoption rate reflects the

sector's maturity in translating liquidity risk into measurable, actionable metrics. The remaining 11% have qualitative statements, for example, '*Maintain sufficient liquidity to meet obligations*'

- **Enhanced Liquidity Thresholds:** 57% of insurers have implemented enhanced liquidity thresholds that go beyond basic regulatory requirements. These typically include tiered warning levels (e.g., Green/Amber/Red zones) that trigger escalating management responses as liquidity positions approach predefined limits. This practice enables proactive risk management and early intervention before liquidity stress becomes critical
- **Internal Stress Tests:** 67% of insurers conduct internal stress tests specifically designed for liquidity risk assessment. These tests complement regulatory stress testing requirements and are tailored to each insurer's specific risk profile, business model and potential vulnerabilities. Common scenarios include market disruption, mass policyholder surrenders, collateral calls on derivative hedges, credit rating downgrades and operational disruptions
- **Cashflow Projections:** 71% of insurers utilise detailed cashflow projections as a core component of their liquidity risk measurement framework, in addition to regulatory LCR calculations. These projections go beyond the standardised LCR methodology by forecasting expected inflows and outflows over various time horizons tailored to each insurer's specific business model and risk profile. Most firms utilising this approach focus on multiple time horizons, including short-term (0-90 days), medium-term (3-12 months), and in some cases long-term (1-5 years) periods

Table 2.2.2: Liquidity Risk Measurement

Practice	Overall Adoption Rate	Description	Example Formulations
Quantitative Liquidity Risk Statements	89%	Use of quantitative risk appetite statements, moving beyond purely qualitative descriptions	Minimum cash balance requirements; liquidity coverage ratios; liquid asset to liability ratios; days of liquidity on hand
Enhanced Liquidity Thresholds	57%	Implementation of tiered warning levels that trigger escalating management responses as liquidity positions approach predefined limits	Green/Amber/Red zone frameworks; multi-level threshold systems (e.g., target/trigger/limit); escalation procedures tied to threshold breaches

Internal Stress Tests	67%	Conduct of internal stress tests tailored to the insurer's specific risk profile, business model and potential vulnerabilities	Market disruption scenarios; mass policyholder surrender events; collateral call scenarios; credit rating downgrade impacts; operational disruption tests
Cashflow Projections	71%	Detailed forecasting of expected cash inflows and outflows over various time horizons (beyond regulatory LCR calculations)	Baseline cashflow forecasting (quarterly or more frequent); short-term projections (30-90 days); medium-term projections (3-12 months); long-term projections (1-5 years); stressed cashflow scenarios (mass lapse, market downturn)

Leading practices observed in the market include the integration of multiple liquidity measurement approaches to provide a comprehensive view of liquidity positions. Firms demonstrating more advanced liquidity risk management frameworks typically combine regulatory LCR calculations with detailed cash flow projections across multiple time horizons, supplemented by stress testing under various adverse scenarios. Some insurers further enhance their frameworks by integrating liquidity stress analysis with potential impacts on capital adequacy and earnings, enabling a more holistic assessment of how liquidity events could affect overall financial resilience.

2.2.3 Liquidity Risk Mitigation

Bermuda long-term insurers employ a range of strategies to mitigate liquidity risk and prepare for potential liquidity stress events. The sector demonstrates strong adoption of fundamental mitigation practices, though there is room to enhance more sophisticated contingency planning. Most insurers maintain buffers of High-Quality Liquid Assets (HQLA) as a first line of defence against liquidity stress. Beyond this, these are the most used practices:

- **Diversification of Funding Channels:** 63% of insurers maintain diversified funding channels to ensure access to liquidity through multiple mechanisms. These typically include inter-company facilities, credit facilities, banking relationships and access to capital markets. Diversification of funding channels reduces reliance on any single funding source and enhances resilience during periods of market stress
- **Asset-Liability Matching (ALM):** 82% of insurers focus on ALM as a core mitigation strategy for liquidity risk. Sound ALM principles involve aligning the cash flow characteristics and maturity profiles of assets with the expected timing of liability payments. This structural approach to liquidity management reduces the risk of maturity mismatches and ensures that assets are available when needed to meet obligations

- Contingent Liquidity Plans:** 83% of insurers have established formal, documented Contingency Liquidity Plans (CLPs) or liquidity risk management policies that outline procedures for managing liquidity stress events. These plans typically include clearly defined trigger events and early warning indicators, escalation procedures and decision authorities, pre-approved action plans for different stress levels (ranging from routine monitoring to crisis management), communication protocols for internal and external stakeholders, and regular testing and review processes. Leading practices involve integration of CLPs with broader recovery and resolution planning frameworks, regular dry-run simulation exercises to test plan effectiveness, and documented management action toolkits specifying available liquidity sources and their activation procedures under various stress scenarios

Table 2.2.3: Liquidity Risk Mitigation

Practice	Overall Adoption Rate	Description	Examples
Diversification of Funding Channels	63%	Maintenance of multiple funding channels to ensure access to liquidity and reduce reliance on any single source	Inter-company facilities; credit facilities; banking relationships; access to capital markets
Asset-Liability Matching	82%	Alignment of cashflow characteristics and maturity profiles of assets with the expected timing of liability payments	Duration matching strategies; cashflow matching for near-term obligations; laddered maturity structures; liability-driven investment strategies
Contingent Liquidity Plans	83%	Formal, documented Contingency Liquidity Plans or liquidity risk management policies that outline procedures for managing liquidity stress events	Clearly defined trigger events, escalation procedures to senior management and the Board, pre-approved action plans, communication protocols and regular testing processes to ensure operational readiness

2.2.4 Observations and Areas for Enhancement

Based on the 2024 CISSA reports reviewed, the Bermuda long-term insurance market demonstrates a solid foundation in liquidity risk management, with numerous examples of

practices that align with or exceed regulatory expectations. The analysis reveals several key observations:

Strengths:

- **Universal ERM Integration:** All insurers integrate liquidity risk into their Enterprise Risk Management (ERM) frameworks, demonstrating sector-wide recognition of liquidity as a material risk category
- **Strong Governance:** Board oversight is consistently applied, with the vast majority of insurers having formal board approval processes for liquidity policies and risk appetite
- **High Quantitative Sophistication:** The sector demonstrates maturity in risk measurement with widespread use of quantitative liquidity risk statements
- **Robust Contingency Planning:** Strong preparedness for stress scenarios is evident through established contingent funding arrangements

Areas with Opportunity for Enhancement:

- **Enhanced Thresholds:** Broader adoption of multi-metric frameworks with tiered warning systems and clearly defined escalation procedures would strengthen proactive risk management across the sector
- **Diversification of Funding Channels:** There is room for more insurers to establish diversified funding channels, particularly among smaller or less complex entities
- **Cash Flow Projections:** More widespread use of detailed cash flow projections across various time horizons would enhance forward-looking liquidity assessment
- **Internal Stress Testing:** Continued refinement of scenarios to reflect evolving market conditions and emerging risks would benefit the sector

It is notable that while most firms classify liquidity risk as material, some classify it as non-material due to structural mitigants inherent in their operations. This heterogeneity underscores the importance of applying proportionality when assessing liquidity risk management practices.

The BMA expects all insurers to continue developing their liquidity risk management frameworks, taking into account practices identified in this report while applying principles of proportionality based on their size, complexity and risk profile. In particular, areas for enhancement include:

- More widespread adoption of multi-metric frameworks with clearly defined escalation procedures and management actions
- Further development of reverse stress testing capabilities to identify potential vulnerabilities and breaking points
- Greater integration of liquidity considerations into product design and strategic planning processes

- Enhancement of contingency funding arrangements with regular testing and validation to ensure operational readiness
- Continued refinement of stress testing scenarios to reflect evolving market conditions and emerging risks
- Broader adoption of diversified funding channels to reduce concentration risk

As part of the BMA's ongoing supervisory approach, the Authority will continue to engage with insurers to promote the adoption of sound practices through regulatory dialogue, thematic reviews and targeted feedback on CISSA submissions. The BMA recognises that effective liquidity risk management requires continuous evolution to address emerging challenges in the global financial landscape and will work with the industry to further strengthen the sector's resilience to liquidity stresses.



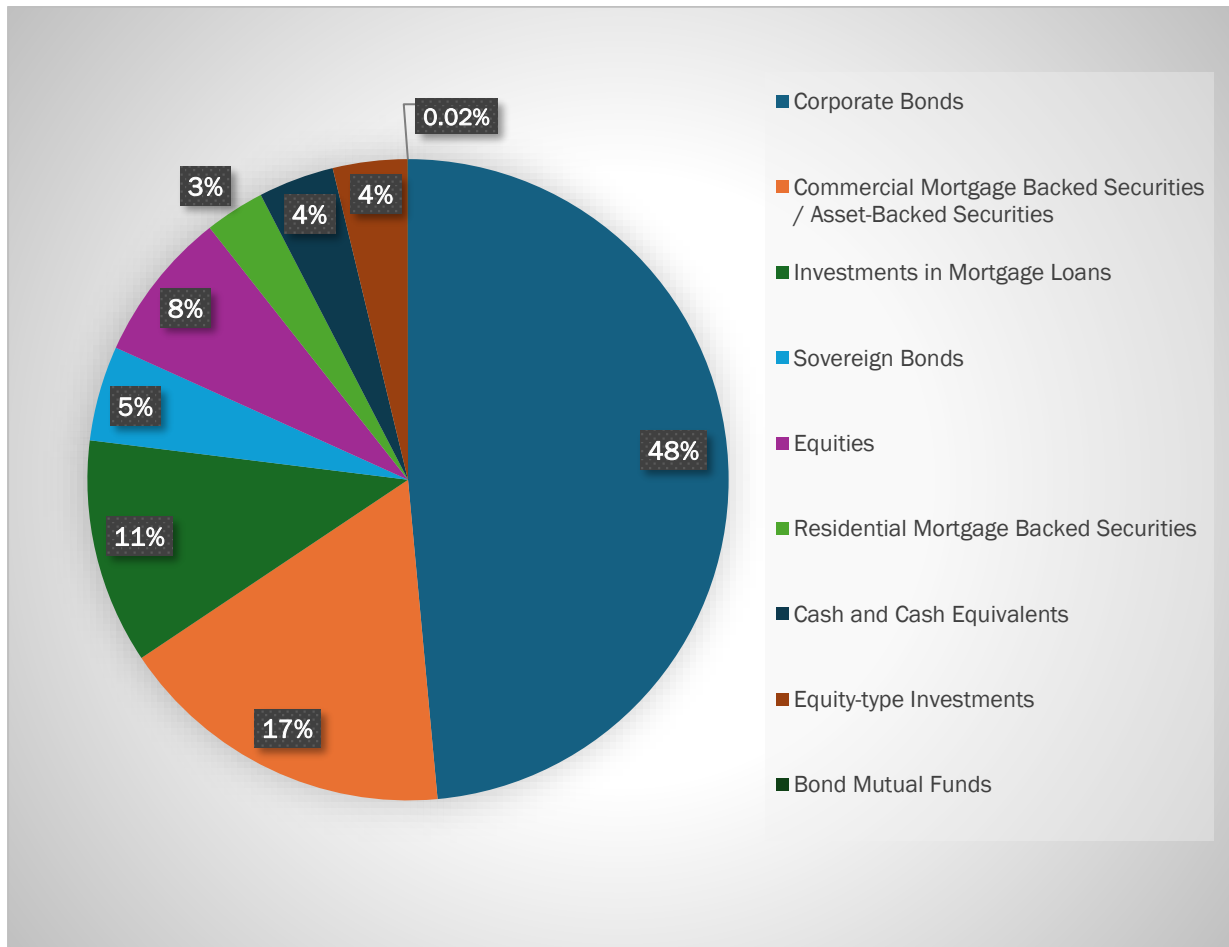
3. Investment Allocations and Available Liquidity Sources

Liquidity risk management remains a critical focus for long-term insurers, particularly as they navigate evolving market conditions. The investment composition of an insurer's balance sheet remains a primary determinant of its ability to meet unexpected cash demands. While highly liquid assets, including cash, government securities and investment-grade bonds, provide readily accessible funds during stress periods, the growing allocation to alternative investments presents both opportunities and challenges. These less liquid investments may offer better matching with liabilities and enhanced returns but could prove difficult to monetise quickly without facing substantial discounts during market disruptions. YE 2024 data provide insights into how Bermuda's long-term insurers are balancing these priorities in their investment strategies.

3.1 Investment Allocation

The investment portfolio composition of Bermuda's long-term insurers provides insights into the liquidity risk profiles and overall risk management approach.

Chart 3.1: Investment allocation, long-term insurers in Bermuda, YE 2024



The 2024 investment allocation chart for Bermuda's long-term insurance sector shows that traditional fixed-income securities continue to account for the largest share of investment portfolios, with corporate bonds at 48% (56% in 2023). Sovereign bond allocations have reduced slightly from 6% to 5%.

3.2 Liquidity Sources

The BMA's regulatory framework employs a risk-based approach to evaluating insurers' liquidity positions, applying restrictive criteria and mandatory haircuts to various asset classes. This methodology provides a more prudent assessment of available liquidity than balance sheet figures alone would suggest.

Chart 3.2: Liquidity sources, long-term insurers in Bermuda, YE 2024

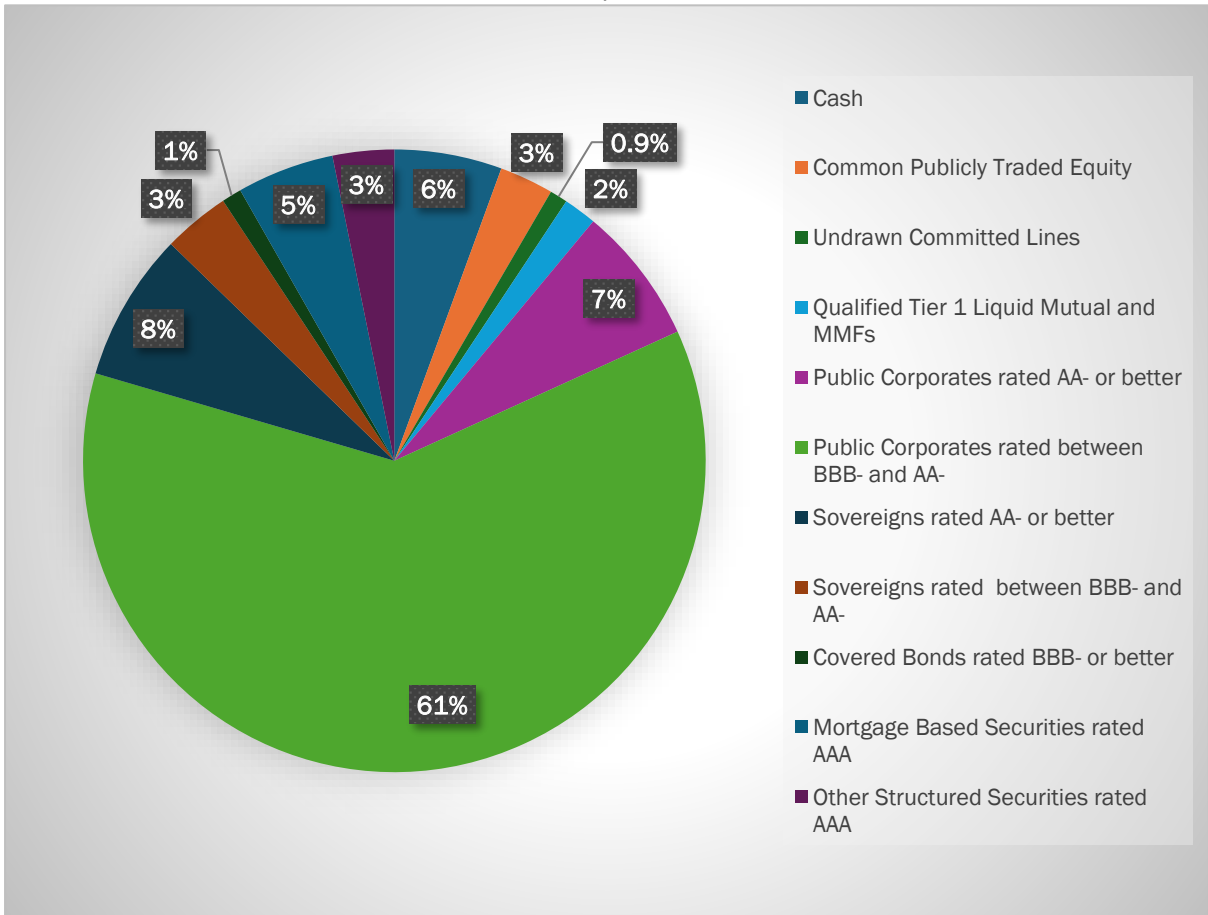
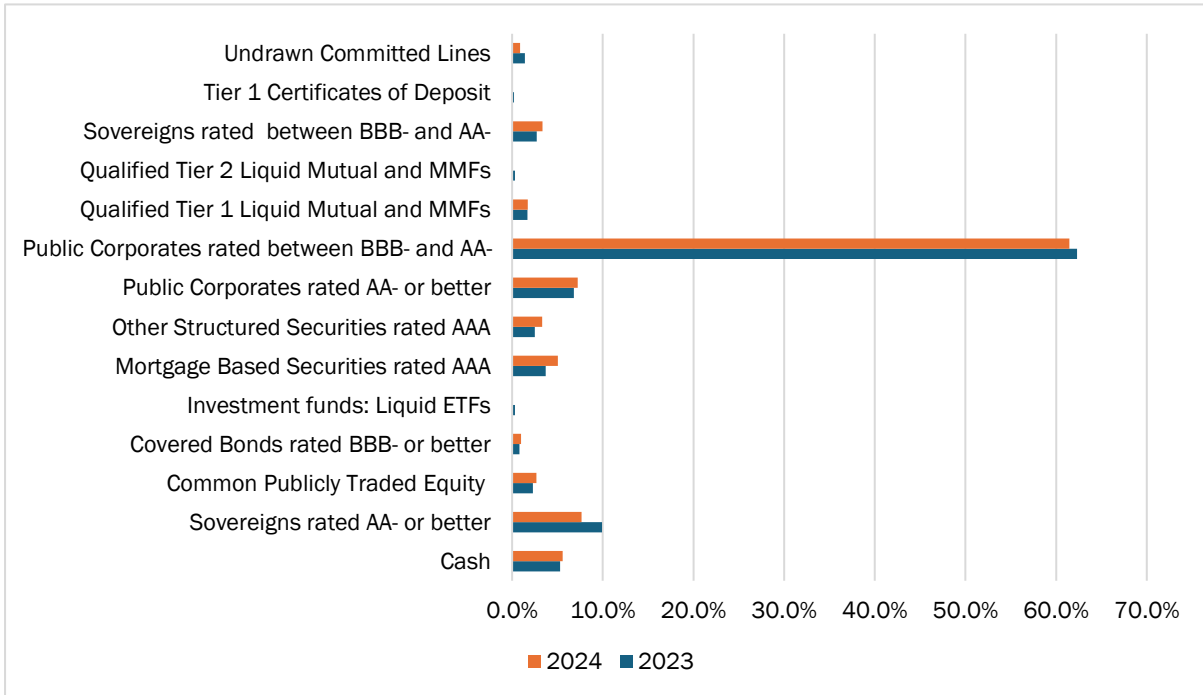


Chart 3.3: Liquidity sources, long-term insurers in Bermuda, YE 2023 vs YE 2024



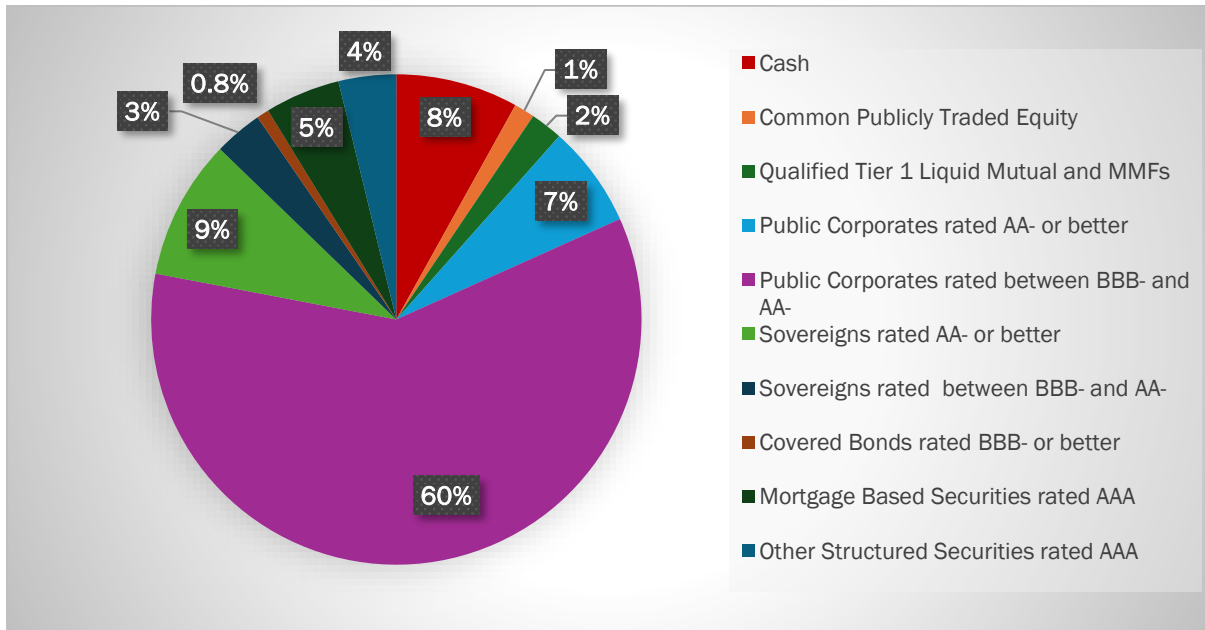
The 2024 regulatory liquidity sources data reveal a relatively stable liquidity profile across the sector, with several incremental adjustments from the previous year:

- Investment-grade corporate bonds (BBB- to AA-) continue to serve as the primary liquidity reservoir at 61.5% (marginally down from 62.3% in 2023)
- Higher-rated corporate bonds (AA- or better) increased their contribution to 7.2% (up from 6.8% in 2023)
- Sovereign bonds rated AA- or better represent 7.7% of liquidity sources (down from 9.9% in 2023)
- Cash positions increased slightly to 5.6% (from 5.3% in 2023)
- Common equity holdings increased modestly to 2.7% (from 2.3% in 2023)

These adjustments reflect a continued emphasis on high-quality fixed-income securities as the cornerstone of liquidity management.



Chart 3.4: Post 1-200 stress liquidity sources, long-term insurers in Bermuda, YE 2024



As shown in Chart 3.4, applying stress scenarios provides critical insights into how liquidity sources might perform during severe market disruptions. After incorporating the BMA's 1-in-200-year stress haircuts⁴, the liquidity picture changes:

- Public Corporate bonds rated BBB- to AA- maintain their predominance at 60%, demonstrating their resilience even under severe stress
- Cash increases in proportional significance to 8%
- High-quality sovereign bonds (AA- or better) represent 9% of stressed liquidity sources
- Equity holdings decline in relative importance due to their higher haircuts

⁴ See Appendix for an overview of all BMA mandatory haircuts, both under a 1-20 and 1-200 stress event. These haircuts need to be applied on the assets in the liquidity stress tests. The available Liquidity Sources after haircuts are then compared to the total outgoing cashflows after a mass lapse shock, which is further described in paragraph 4.3.

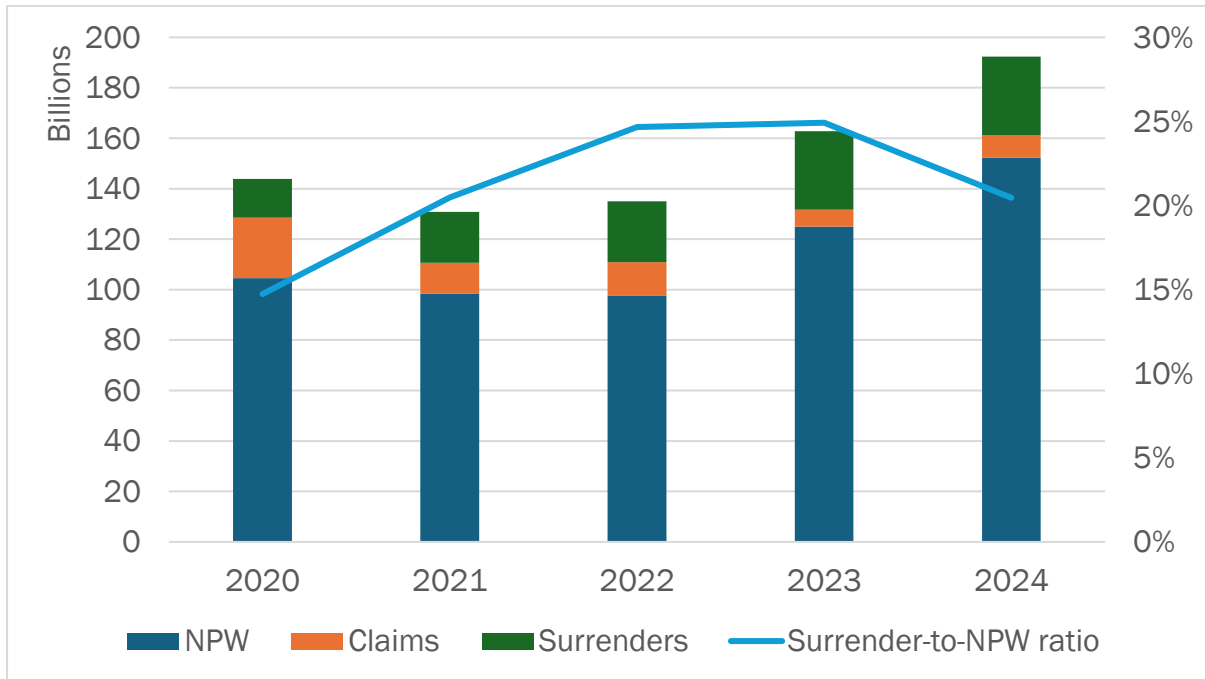
4. Liabilities and Liquidity Coverage Ratios

In the evolving landscape of Bermuda's long-term insurance sector, understanding the dynamics between liabilities and potential liquidity demands remains paramount. This section examines how insurers' liability structures influence their liquidity risk profiles and how these risks are managed through various stress testing methodologies.

4.1 Liability Dynamics and Surrender Trends

The relationship between premium inflows, claims and surrenders provides critical insights into the sector's operational cashflow patterns. The 2024 data reveal important developments in these fundamental metrics.

Chart 4.1: Net Premium Written (NPW), claims and surrenders
(NPW claims and surrenders on the left axis; surrender-to-NPW ratio on the right axis)



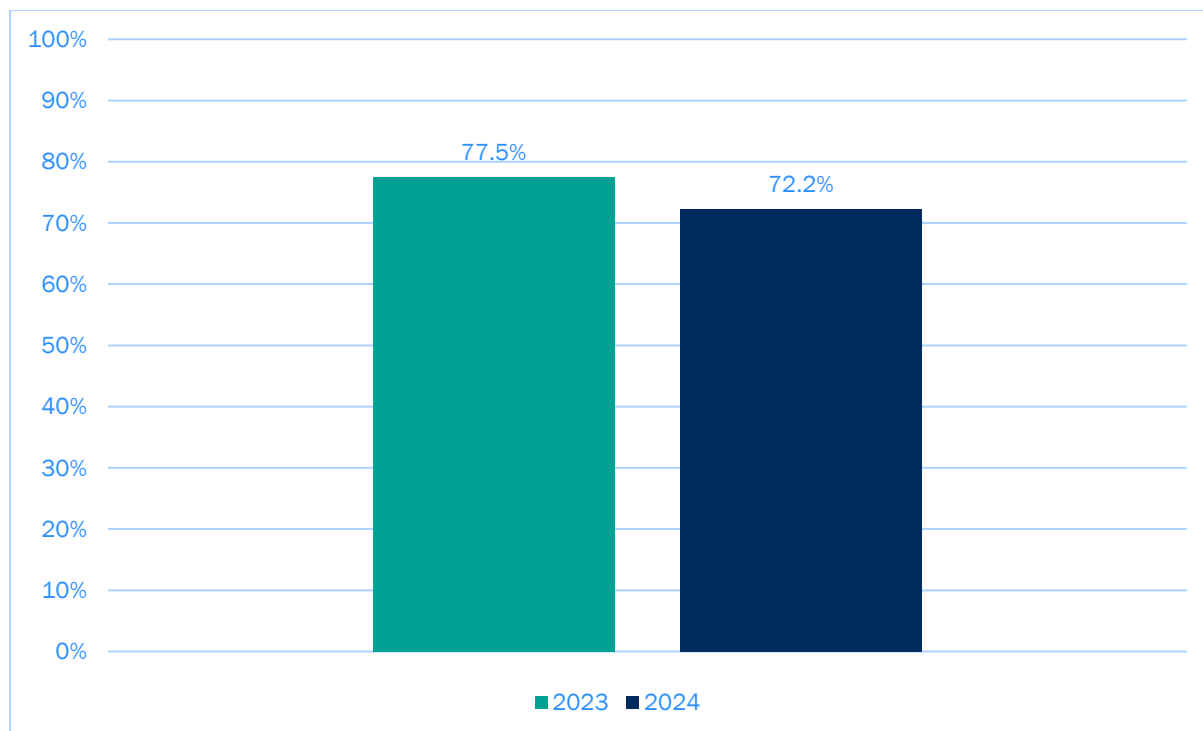
The five-year trend analysis (2020-2024) of NPW, claims and surrenders illustrates some shifts in the Bermuda long-term insurance market's cashflow dynamics. While NPW has maintained a generally upward trajectory over this period, the relationship between surrenders and premium income deserves some attention.

The surrender-to-NPW ratio, which had been trending upward between 2020 and 2022, appears to have stabilised in 2024. This stabilisation suggests that the elevated surrender activity observed during the period of rapidly rising interest rates in the 2022-2023 period may have normalised. The moderation in surrender activity likely reflects both the slower pace of interest rate increases in 2024 and insurers' proactive management of policyholder behaviour through enhanced communication and product adjustments.



All of this underscores the importance of robust liquidity planning and prudent best-estimate lapse assumptions, as higher surrender activity might have become an enduring feature of the market rather than a temporary anomaly.

Chart 4.2: Best estimate liabilities exposed to lapse, YE 2024



The proportion of liabilities exposed to lapse risk provides further context for understanding potential liquidity demands. As shown in Chart 4.2, the percentage of BEL exposed to lapse decreased to 72.2% in 2024 from 77.5%⁵ in 2023. This reduction suggests a shift in the liability profile of Bermuda's long-term insurers, potentially reflecting new business growth in product lines with reduced surrender options and/or natural maturation of existing business with decreasing surrender-value penalties.

The declining proportion of lapse-exposed liabilities represents a positive development from a liquidity risk perspective, as it reduces the potential magnitude of surrender-driven liquidity demands during stress periods.

4.2 Lapse Risk Mitigation Features

The structural characteristics of insurance products play a crucial role in determining their vulnerability to lapse-driven liquidity stresses. Economic penalties for early surrender and time restraints on policy liquidation serve as important behavioural deterrents against mass surrender events.

⁵ For comparison, the entities in scope of the YE2023 number are aligned to the entities in scope of the YE2024 number to create a like-for-like view of the movement in this metric.

Table 4.1: Percentage of cash surrender value

Time Restraint	Low		Medium		High		
Economic Penalty	Retail	Institutional	Retail	Institutional	Retail	Institutional	Total
Low	5%	0%	22%	4%	0%	3%	34%
Medium	6%	0%	59%	0%	0%	0%	65%
High	0%	0%	1%	0%	0%	0%	1%
	11%	0%	82%	4%	0%	3%	100%

Table 4.2: Legend for economic penalty and time restraint

	Economic Penalty	Time Restraint
Low	No Economic Penalty	Less than 1 week
Medium	Less than 20% economic penalty	Between 1 week and 3 months
High	More than 20% economic penalty	More than 3 months

The 2024 data reveal notable shifts in the distribution of surrender values across different penalty and time restraint categories:

- Low penalty products now represent 34% of total surrender value (down from 47% in 2023)
- Medium penalty products have increased to 65% (up from 52%)
- High penalty products remain stable at 1%

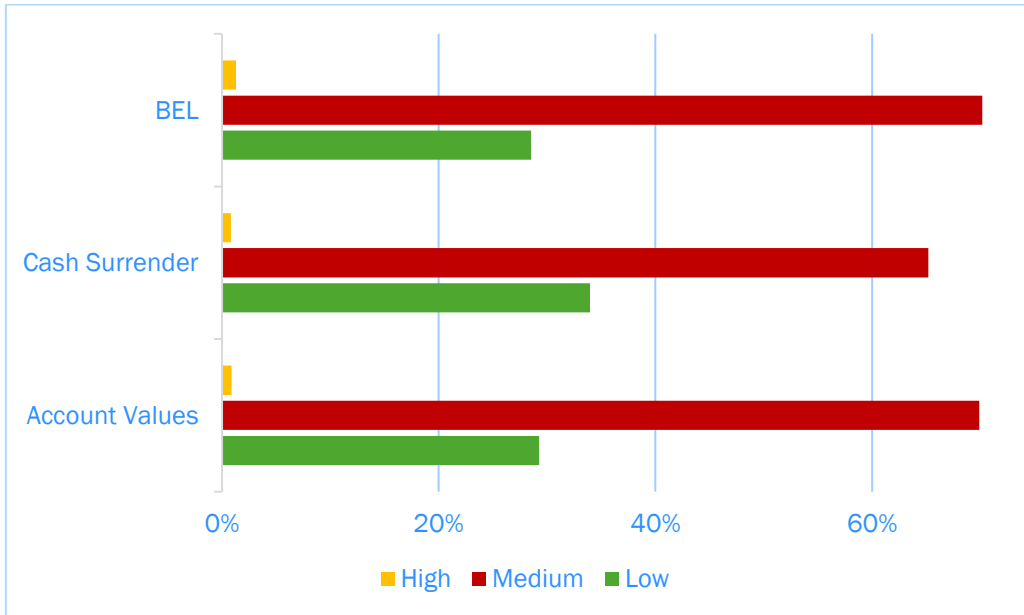
From a time-restraint perspective:

- Products with medium time restraints (one week to three months) now account for 86% of surrender values (up from 76% in 2023)
- Low time-restraint products (less than one week) have decreased to 11% (down from 13%)
- High time-restraint products (more than three months) have decreased to 3% (down from 11%)

The increased proportion of medium penalty products provides stronger disincentives against opportunistic surrenders, while the concentration in medium time-restraint categories offers insurers an operational buffer to manage potential liquidity demands in an orderly fashion.



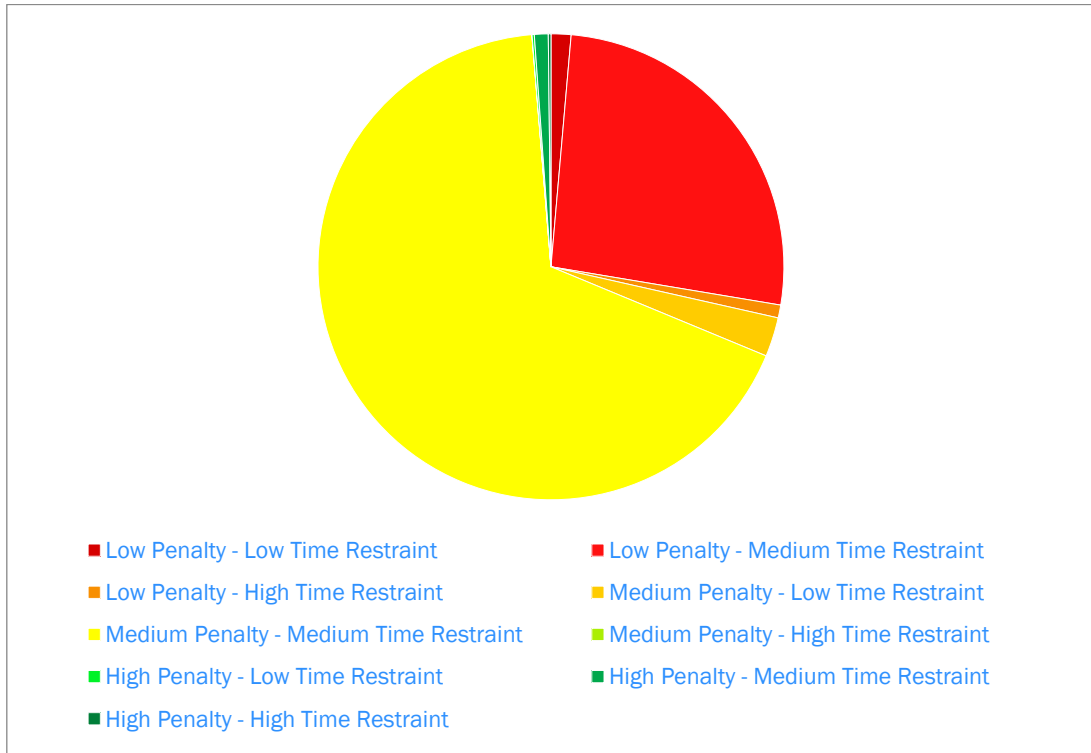
Chart 4.3: Breakdown BEL, cash surrender value and account value by economic penalty; YE 2024



The breakdown of BEL, cash surrender values and account values by economic penalty levels (Chart 4.3) provides additional granularity on how penalty structures influence the relationship between accounting measures and potential liquidity demands. The more detailed segmentation by both penalty level and time restraint (Chart 4.4) further illustrates the multidimensional nature of surrender disincentives embedded in the sector's product portfolio.



Chart 4.4: Breakdown of BEL by economic penalty and time restraint; YE 2024



The 2024 data show a continued prevalence of medium penalty/medium time restraint products, which balance policyholder flexibility with prudent liquidity risk management. This balanced approach appears to be a strategic preference across the sector, offering protection against mass surrender scenarios while remaining competitive.

4.3 Liquidity Coverage Ratios (LCR)

The ultimate test of insurers' resilience to surrender-driven liquidity demands is their ability to meet potential outflows without resorting to distressed asset sales. The BMA's liquidity stress testing framework provides a standardised methodology for assessing this resilience.



Chart 4.5: Distribution of LCR

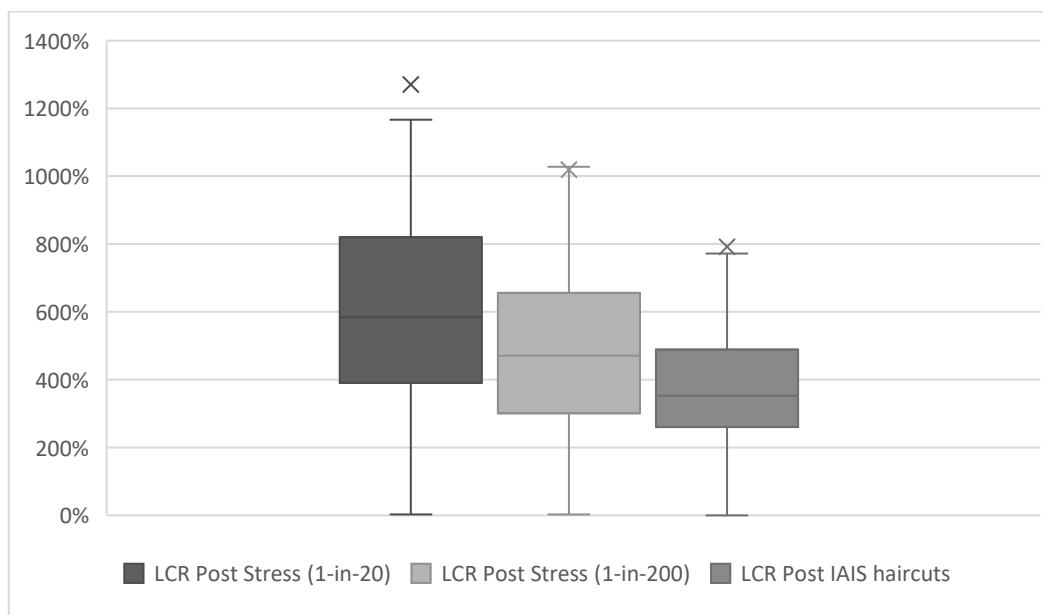


Table 4.3: LCR ratio year-end 2024

LCR post-stress	1 in 200	IAIS haircuts
Weighted Average	762%	582%
Median	471%	350%

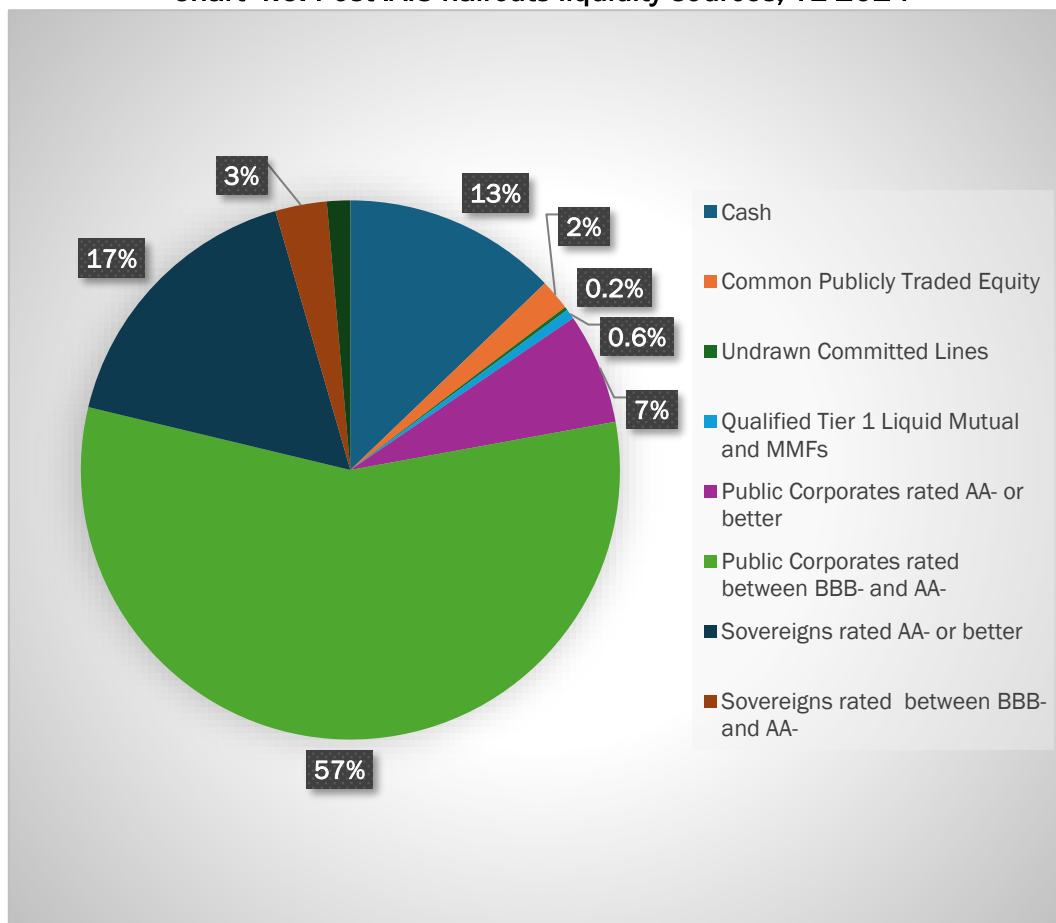
The 2024 liquidity stress test results demonstrate the continued strength of Bermuda's long-term insurance sector:

- Under the BMA's 1-in-200 stress scenario, the median LCR has increased to 471% (from 418% in 2023)
- The weighted average LCR under the same scenario has increased to 762% (from 527% in 2023)

To provide a more comprehensive view of liquidity risk, the Authority has also analysed the sector's liquidity position using the IAIS haircut methodology, which applies different weighting factors to various asset classes⁶.

⁶ See Appendix for IAIS haircuts

Chart 4.6: Post IAIS haircuts liquidity sources, YE 2024



Under the IAIS methodology, the composition of available liquidity sources shifts slightly:

- Cash increases in relative importance to 13% of total liquidity sources
- Sovereigns rated AA- or better represent 17%
- Public corporates rated between BBB- and AA- remain the dominant source at 57% (though reduced from their pre-haircut proportion)
- Common publicly traded equity contributes only 2% (due to substantial haircuts)
- Undrawn committed lines are effectively eliminated as a liquidity source (due to the 90% haircut applied)

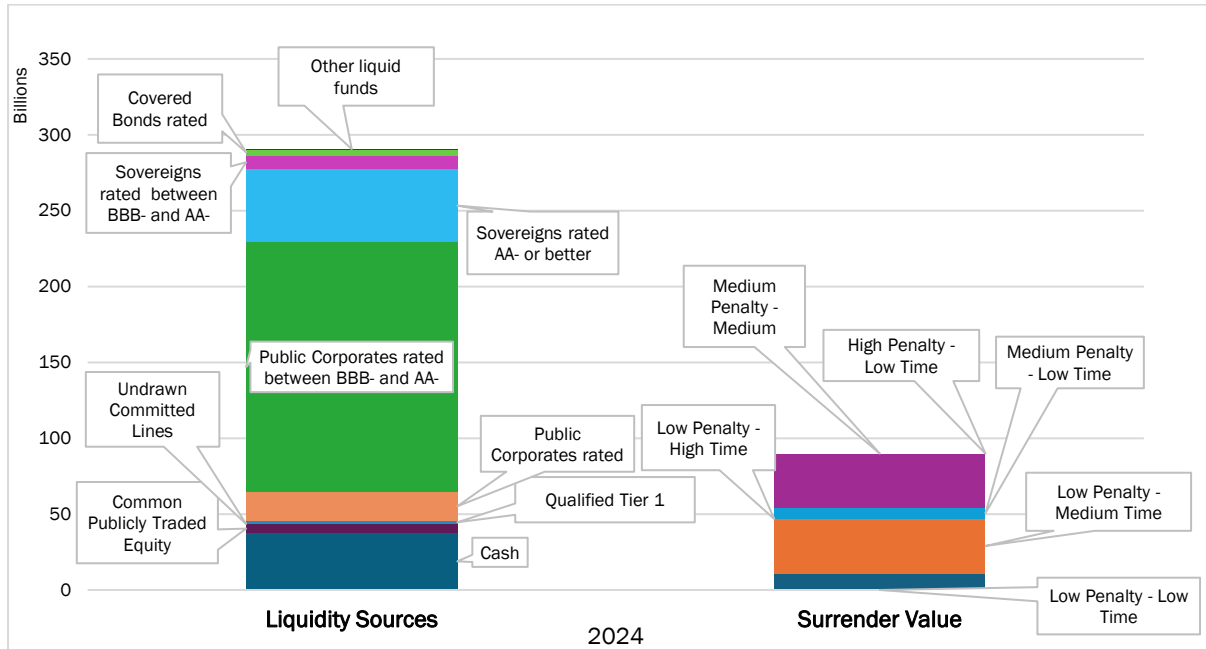
When applying these IAIS haircuts, the sector maintains strong coverage metrics:

- Median LCR of 350% (compared to 360% in 2023)
- Weighted average LCR of 582% (compared to 526% in 2023)

The LCR ratios from 2023 to 2024 show changes under both the BMA haircut methodology and the IAIS haircut methodology. In 2023, the BMA's weighted average was 527%, while the weighted average for IAIS was 526%. Several factors contributed to these movements: reporting adjustments in the 2024 Bermuda Solvency Capital Requirement (BSCR) template for cash outflow calculations to increase consistency, evolving asset allocations

across the sector that are treated differently under the two haircut methodologies, and improved data quality in submissions following the BMA's feedback on prior-year filings.

Chart 4.7: Liquidity sources versus potential surrender value - post IAIS haircuts (amounts in USD billions)



When comparing haircut-adjusted liquidity sources to potential surrender values weighted by IAIS factors, several notable trends emerge:

- The share of categories for both weighted liquidity sources and surrender values remained relatively stable year-over-year
- Among liquidity sources, there has been an increase in cash and qualified tier 1 liquid mutual funds and money market funds, offset by a decrease in public corporates rated between BBB- and AA-
- Within surrender values, low penalty-medium time products have increased, while medium penalty-medium time balances have decreased

The quantitative analysis of available liquidity sources against potential surrender values under the IAIS methodology reveals a substantial liquidity buffer across the sector. Even after applying the conservative IAIS haircuts to available assets and factoring in surrender value outflows, the sector maintains an aggregate liquidity position that significantly exceeds potential demands.

5. Conclusions

The analysis of 2024 liquidity risk data in the Bermuda long-term insurance market demonstrates the sector's continued resilience and adaptability amid evolving market conditions. Building on last year's comprehensive assessment, this current report has focused on liquidity risk management practices outlined in the 2024 CISSA reports, liquidity sources and liquidity stress-testing results, revealing several important developments.

The examination of investment allocations shows that Bermuda's long-term insurers maintain a prudent investment strategy, with 57% of assets held in cash, sovereign bonds and corporate bonds. The analysis of liquidity sources demonstrates that investment-grade corporate bonds remain the primary liquidity buffer, with a slight shift in composition toward higher-quality sovereign bonds and cash holdings.

The liability profile of Bermuda's long-term insurers has evolved favourably from a liquidity risk perspective, with the percentage of BEL exposed to lapse decreasing from 78% in 2023 to 72% in 2024. Additionally, the increased proportion of products with medium economic penalties for early surrender provides stronger disincentives against opportunistic lapses, further enhancing the sector's resilience to surrender-driven liquidity stresses.

The stress testing results show the median LCR under the 1-in-200 stress scenario increasing to 471% in 2024 from 418% in 2023. This improvement, coupled with the increase in the LCR under the IAIS haircut methodology, confirms that Bermuda's long-term insurers maintain substantial liquidity buffers well in excess of regulatory requirements.

The review of the 2024 CISSA submissions has provided valuable insights into the maturity of liquidity risk management practices across the sector. While there is a solid foundation of risk management capabilities, the varying levels of sophistication observed suggest opportunities for continued enhancement. Following the publication of the report in 2024, the BMA provided targeted feedback to individual insurers, resulting in observable improvements in liquidity risk reporting and management practices across the sector. The Authority expects insurers to continue developing their approaches by drawing on the best practices identified in this report, while applying principles of proportionality based on their size, complexity and risk profile.

BMA Supervisory Expectations

Building on the findings from this year's review, the BMA has identified liquidity risk management as a key supervisory priority for the upcoming filing cycle. The Authority expects insurers to strengthen their frameworks in several specific areas:

- **Enhanced Governance and Controls:** Insurers should ensure that liquidity risk governance structures are robust, with clear roles and responsibilities across the three lines of defence. This includes regular board-level review of liquidity positions, stress test results and risk appetite compliance

- **Validation and Model Risk Management:** The methodologies, assumptions and models used to measure liquidity risk and conduct stress tests should be subject to appropriate independent validation. Insurers should document their validation processes and address any identified weaknesses in a timely manner
- **Stress Testing Sophistication:** While stress testing is widely practised, the BMA expects continued development of scenario design to ensure relevance to each insurer's specific risk profile. This includes the appropriate use of reverse stress testing and integrated scenarios that capture the interplay between liquidity, capital and market risks
- **Contingency Planning:** Contingency Liquidity Plans should be comprehensive, regularly tested and updated to reflect current market conditions and the firm's evolving risk profile. Plans should clearly articulate triggers, escalation procedures, and specific actions to be taken under various stress scenarios

The Authority will assess progress in these areas through ongoing supervisory dialogue, detailed reviews of CISSA submissions and, where appropriate, targeted on-site inspections.

Looking Ahead

Looking ahead, the BMA will continue to promote the adoption of advanced liquidity risk management practices through regulatory dialogue, thematic reviews and targeted feedback on CISSA submissions. The Authority recognises that effective liquidity risk management requires continuous evolution to address emerging challenges in the global financial landscape. It is our goal to collaborate with industry and the global regulatory community to further strengthen the sector's resilience.

In conclusion, the analysis of the 2024 CISSA data confirms that Bermuda's long-term insurance sector remains well-positioned to withstand liquidity challenges. Insurers within the sector have multiple layers of protection against potential liquidity stresses. This is due to a combination of prudent liquidity management, evolving product features with enhanced surrender disincentives, robust liquidity buffers and increasingly sophisticated risk management practices. As the market continues to evolve, the BMA remains committed to maintaining and further strengthening this resilience through effective regulation and supervision.

Appendix

Glossary of Terms

- **Account value:** The account value of the policy groups as reported under local Generally Accepted Accounting principles (GAAPs)
- **ALM:** Asset Liability Management
- **Cash surrender value:** Defined as the amount that would be paid out if a policy were surrendered immediately in the event of a mass lapse shock, i.e., the cash surrender value includes the impact of surrender charges and Market Value Adjustments (MVAs) where applicable. This includes all products that are exposed to lapse risk, i.e., all lapse-sensitive and lapse-supported products
- **CISSA:** Commercial Insurer's Solvency Self-Assessment, which is required on an individual insurer basis
- **Economic penalty:** Only includes contractual penalties (e.g., surrender charges) imposed by the insurer on policyholders that surrender early. It does not include MVAs, as these can encourage surrenders depending on circumstances. It also does not include penalties imposed by third parties or not explicitly quantified in the contract, such as the economic value of foregone benefits (e.g., tax penalties or other tax implications)
- **ECR:** Enhanced Capital Requirements
- **GSSA:** Group Solvency Self-Assessment and is on a group basis, where the BMA is the Group Supervisor
- **IAIS:** International Association of Insurance Supervisors
- **ICS:** Insurance Capital Standard
- **Institutional policies:** Policies where the policyholder is not a retail customer (e.g., a corporation or institution). In the case of reinsurance, the classification of a policy as retail or institutional should be based on the original policyholder (the one holding the policy issued by the direct writer), not on the cedent. As such, reinsurance contracts are not automatically classified as institutional contracts
- **LCR:** Liquidity Coverage Ratio, which is liquidity sources divided by the potential surrender value as a result of a mass lapse scenario
- **MVA:** Market Value Adjustments
- **Retail policies:** Policies where the policyholder is a retail customer
- **Time restraints:** Restraints that are based on the average time between the request by a policyholder and the settlement under the normal course of business

BMA and IAIS LCR Asset Haircuts

BMA LCR Asset Haircuts⁷

Liquidity Source Type	Haircut	1 in 20 yield shock	1 in 200 yield shock
Cash	0%		
Common Publicly Traded Equity	65%		
Tier 1 Certificates of Deposit	5%		
Tier 2 Certificates of Deposit	10%		
Tier 3 Certificates of Deposit	60%		
Undrawn Committed Lines	90%		
Qualified Tier 1 Liquid Mutual and MMFs	15%		
Qualified Tier 2 Liquid Mutual and MMFs	40%		
Qualified Tier 3 Liquid Mutual and MMFs	85%		
Investment funds: Liquid ETFs	90%		
All Other Potential Liquidity Sources	100%		
Public Corporates rated AA- or better		1.20%	2.90%
Public Corporates rated between BBB- and AA-		1.30%	3.00%
Sovereigns rated AA- or better		0.60%	1.20%
Sovereigns rated between BBB- and AA-		1.20%	2.40%
Covered Bonds rated BBB- or better		1.20%	2.65%
Mortgage Based Securities rated AAA		1.70%	3.10%
Other Structured Securities rated AAA		2.00%	3.80%

⁷ See 2023 BSCR reporting Class C, D and E Models on www.bma.bm/document-centre/reporting-forms-and-guidelines-insurance

IAIS Insurance Liquidity Ratio (ILR) Liquidity Sources – Factors 2022 for one-year (1Y) and three-month (3M) time horizons⁸

Factors 3M time horizon	Factors 1Y time horizon	Liquidity Sources
100%	100%	Cash
95%	100%	Sovereigns rated AA- and above
95%	100%	Sovereigns in local currency
75%	85%	Sovereigns rated A- and above
60%	70%	Sovereigns rated BBB- and above
75%	85%	GSE securities senior to preferred shares rated above A-
50%	70%	Investment-grade covered bonds
60%	70%	Investment-grade PSE debt
50%	70%	Non-financials: Investment-grade corporate debt securities
40%	50%	Non-financials: Common equity
40%	50%	Financials: Investment-grade corporate debt securities
30%	40%	Financials: Common equity
40%	50%	Certificates of Deposit
10%	10%	Undrawn committed lines
15%	25%	Investment funds: Liquid mutual and MMFs
10%	25%	Investment funds: Liquid ETFs
20%	85%	Non-life net earned premiums in the last year

⁸ IAIS Liquidity Metrics as an ancillary indicator, 18 November 2022