Unlocking Long-Term Guaranteed Income in Australia

Apollo Global Management

1. **Introduction**

1.1.   Apollo Global Management, Inc. (**Apollo**) appreciates the opportunity to submit responses to the Australian Prudential Regulation Authority (**APRA**) consultation paper released on June 12, 2025 (**Consultation Paper**) regarding the Australian annuities market. Apollo is a global investor specializing in retirement services and investment-grade private credit, with approximately $785B in assets under management as of March 31, 2025, across several businesses.

1.2.   In **Athene**, our retirement services business, we are deeply committed to helping our policyholders achieve safe, long-term retirement income. Athene's asset portfolio is comprised of approximately 95% fixed income or cash; 97% of "Available for Sale" (**AFS**) Fixed Maturity Securities on Athene's balance sheet are investment-grade as of March 31, 2025.[1] Taken together, our businesses are centered around (i) the consistent origination of safe, investment-grade credit, supported by broad access to global capital sources, and (ii) providing consistent and safe incremental yield per unit of risk to our clients and policyholders.

1.3.   Apollo's (and Athene's) business model is centered on the consistent origination of safe, investment-grade credit, supported by broad access to global capital sources, and delivering incremental yield per unit of risk to clients and policyholders. Australia is one of Apollo's key markets, with a dedicated local presence since 2018. We recently submitted a response to ASIC's discussion paper on dynamics between public and private markets that provides additional perspectives and can be accessed [HERE](#)[2].

1.4.   Apollo, through Athene, is the largest seller of annuities products in the United States, holding the number one market share position in U.S. retail annuity sales in both 2023 and 2024.[3]

2. **Background**

2.1.   We are grateful to share our perspectives on retirement income and in the specific context of annuities for APRA's consideration, drawing on our experience across global markets and within Australia. In our view, annuities offer a compelling means of bolstering retirement savings and facilitating efficient decumulation.

2.2.   While the Australian superannuation system is globally recognized for its success in driving retirement asset formation, with superannuation assets now exceeding A$4T,[4] new obligations and challenges arise for the decumulation phase, as private superannuation balances become a central source of retirement income (other than government pensions).

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[1] Athene holds ~$31B regulatory capital as of December 31, 2024, and is A1 / A+ / A+ / A+ rated by Moody's, S&P, Fitch, and AM Best, respectively.

[2] https://download.asic.gov.au/media/z15po5ya/ok-redacted_apollo-response-to-asic-discussion-paper-on-australia-s-evolving-capital-markets-vfinal_redacted.pdf

[3] Year-to-date total U.S. annuity market industry ranking per LIMRA as of December 31, 2023, and December 31, 2024, respectively.

[4] APRA, "APRA releases superannuation statistics for March 2025," ([Link](#))

2.3. Based on our experience in both defined contribution (**DC**) and defined benefit (**DB**) systems across global jurisdictions, we have a deep understanding of the impact that insurance capital frameworks have on the availability of retirement products like annuities that facilitate decumulation. We observe the following:

(a) In the U.S., the U.S. RBC framework has facilitated the growth of long-duration products like indexed annuities (e.g., Registered Index-Linked Annuities), which have greatly expanded the availability of guaranteed income. Similarly, prudential regulatory frameworks in Bermuda and Hong Kong have supported the growth of long-duration products by applying tailored discounting and matching adjustments, aligning capital requirements with actual economic risk and liability liquidity profiles.

(b) In the UK, regulatory reform such as the matching adjustment regime has likewise enabled insurers to offer attractive long-term guarantees by recognizing the economic value of asset-liability matching and illiquidity premiums.

(c) By contrast, the base Solvency II regime has constrained the ability of insurers to offer attractive long-dated guaranteed income products. With Solvency II's restrictive treatment of long-dated credit and insufficient recognition of illiquidity premia, the retirement income market in Europe has, post-Solvency II, experienced a significant contraction in the supply of guaranteed products (**Exhibit 1**).

2.4. In our view, updates to Australia's LAGIC regime in line with mark-to-market regime best practices will expand the availability of guaranteed income products provided by insurers, accelerating innovation and better supporting retirement outcomes.

3. **Perspectives on Australian Retirement Market and Decumulation**

The Australian Retirement Landscape

3.1. The Australian superannuation system has been a global benchmark for best practices in the accumulation phase. This success has been driven by:

(a) **Mandatory and voluntary contributions:** The Australian superannuation system has a balanced combination of mandatory and tax-effective voluntary contributions, which has enabled a constant flow of retirement capital for the last 30 years.[5]

(b) **Institutionally managed default investment products:**

a. Superannuation products have helpfully bridged the transition from DB to DC models by providing managed investment solutions, helping individual members manage market risk and assume greater responsibility for their retirement savings decisions.

b. Funds have provided variety in their offerings to enable members to access products that offer appropriate levels of upside potential and downside protection, allowing

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[5] The Superannuation Guarantee, requiring employers to contribute a fixed percentage (12%) of employees' earnings, coupled with tax incentives for voluntary contributions including for spouses' retirement accounts, have been the driver of such capital flows and enabled a robust and equitable retirement savings and investment environment.

members to have the right level of risk/return exposure depending on their risk appetite and life stage.[6]

(c) Increased allocations to private assets: Increased allocations to private assets by Australian superannuation funds have provided an advantage at times of public market volatility, enhanced long-term returns, and better aligned investment outcomes with member needs.

    a. Public markets have experienced more volatility and increased correlation, particularly during periods of macroeconomic stress. For retirees or members close to retirement, this heightened volatility introduces sequencing risk, where large drawdowns early in the decumulation phase can irreparably damage retirement outcomes. By contrast, private markets tend to provide more diversification with less volatility, helping to cushion portfolios during periods of public market dislocation.

    b. Private assets—including credit, infrastructure, real estate, and equity strategies—offer superannuation funds access to durable excess return and diversification that is harder to achieve in public markets, where efficiency and competition for capital have eroded excess returns. Over long-term horizons, the illiquidity premia inherent in these assets can significantly enhance risk-adjusted returns during the accumulation phase, benefiting members with decades-long investment timeframes.

3.2. The result of the above is a A$4T+ pool of well-diversified retirement assets. Having achieved this scale, the system now confronts a different task: turning those balances into sustainable income streams. As superannuation increasingly becomes the dominant source of retirement funding in Australia, the focus necessarily shifts from growing capital to managing orderly decumulation.

3.3. We observe that in externally managed superannuation, most members at the point of retirement transition into account-based pensions (**ABPs**). ABPs, while pensions in name, do not provide explicit protection against the key risks facing retirees like longevity risk, inflation risk, and market risk like traditional pensions.

3.4. At the same time, the private insurance sector is constrained by current capital settings and limited access to global balance sheet providers, restricting the development and delivery of guaranteed income products such as annuities that could help Australia better address its decumulation needs. In this regard, we applaud APRA for acknowledging this issue.

<u>Rethinking the applicable framework and the importance of annuities-style products</u>

3.5. The superannuation system is fundamentally like a compulsory DC model. As superannuation funds do not possess an equity capital balance sheet like DB schemes, super funds cannot directly provide members with guaranteed income streams or longevity protection. Private insurance markets offer a scalable pathway to address this by enabling DB-like protection within

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[6] The success has however been mitigated by the default offerings, with the regulatory focus on minimizing fees and performance tests in the Australian superannuation system, which has led many funds to adopt low-cost, passive investment strategies that track benchmark indices ("benchmark-hugging"). This discourages investment in higher-fee / higher upside strategies, thereby limiting the potential for net return outperformance and reducing portfolio resilience.

DC portfolios, such as downside protection, stable income, and diversification inherent to DB plans.

3.6. A review of the prudential framework for retirement income is critical in this context. Prudential regulatory settings should enable access to annuity-style deferred investment products that can be adapted to changing circumstances of risk, inflation and market movements. In our view, products should target three key objectives: sufficiency of income, certainty and stability of income, and flexible access to capital by policyholders.

3.7. Deferred income products will become increasingly important in this context, particularly in Australia. Annuities and similar guaranteed income products in particular are essential for transforming accumulated wealth into stable income streams, supporting retirees in the decumulation phase while allowing the management of longevity and market risks. Insurers, when enabled by appropriate capital and reserving frameworks, can provide stability and downside protection for retirees, complementing the superannuation system, facilitating spending, and reducing long-term fiscal pressures on government.

3.8. Insurers' ability to offer attractive retirement solutions is heavily influenced by the capital and reserving framework in which they operate. Currently, the Australian insurance landscape is concentrated in group life, as capital settings make attractive guaranteed income products challenging. In addition, there is only a single dominant provider of such products, with only limited competition or innovation. Scale exists mainly in shorter-term or fixed-term annuities, rather than long-term or lifetime guaranteed products.

Challenges with Existing Capital Framework

3.9. Below we highlight some of the challenges existing capital settings under the LAGIC regime create for insurers in Australia. At the same time, we recognize that the LAGIC regime was largely ahead of its time when implemented in 2013, and subsequent economic-based capital regimes have benefited from broader precedent and market developments. We agree that best practices could be incorporated as the Australian retirement landscape evolves.

(a) **New Business Strain on Guaranteed Products**

New business strain, on a simplified basis, arises when the yield an insurer promises to its policyholders is in excess of the rate with which it is able to discount this projected liability cash flow stream. This results in the insurer's Best Estimate Liability (**BEL**) or Reserve being greater than the premium received on the product. To fund this delta the insurer must inject additional assets (capital), which creates *strain* and lowers the expected Return on Equity (**ROE**) of the business. As duration increases, this impact is compounded, making longer-duration guarantees less attractive to write.

In the below example, we have assumed a simplified guaranteed product that offers a fixed coupon and a repayment of principal at maturity. We have ignored frictional costs and have excluded the additional capital requirements that arise from other elements of the capital framework beyond discounting (e.g., credit risk, market risk, etc.).

As illustrated in **Exhibit 2**, we assume that liabilities are issued at a 100bps spread to Government Bonds Yield versus a prevailing Illiquidity Premium of 31bps as of May 2025. As

demonstrated on the righthand side, while increasing the multiplier on the 'A' Corporate Spread used in the Illiquidity Premium calculation from 33% to 66% reduces strain, it does not eliminate it.

(b) **Surplus Volatility on Guaranteed Products**

Insurers must carefully manage surplus levels to ensure their capitalization remains appropriate and that policyholders are protected. In a market value regime, like LAGIC, both liabilities and assets are affected by market movements in items including rates, spreads, etc.   The impact of these movements on the asset portfolio is largely straightforward, as the market value of assets is often directly observable and reflects the full impact of changing macroeconomic factors.   The impact on liabilities is more nuanced – while the risk-free component flows through the discount rate "one-for-one," the spread component is dependent on the Illiquidity Premium or Matching Adjustment framework (if available).

Under the LAGIC regime, there is a meaningful asymmetry in the impact of asset spread movements on the asset side of the balance sheet versus the liability side. This asymmetry results in uneconomic surplus volatility for insurers, forcing them to take short-term action on portfolios that are meant to be managed in a buy-and-maintain manner backing long-term illiquid liabilities.

Exhibit 3 highlights the impact of a severe spread widening stress on the net surplus position of a life insurer.   While fundamentally the insurer is matched from a dollar duration perspective, there is effectively a CS01 mismatch driven by the discount framework that results in material erosion of surplus. While insurers could stay short CS01, it would mean investing more heavily in risk-free assets, effectively eroding the value proposition for policyholders.

(c) **Application Period for Full Illiquidity Premium**

The illiquidity premium applies in full for a 10-year period before stepping down to a long-term illiquidity premium of 20bps with no grading period. This differs from most global capital regimes, where the illiquidity premium (or matching adjustment) applies in full up to the Last Liquid Point (**LLP**) which is often 20 or 30 years.

The short application period results in lower credit spread sensitivity for longer duration liabilities (e.g., those beyond 10-years) which can create both new business strain as well as greater surplus volatility.

The left side of the Exhibit 4 highlights the decreasing sensitivity of liability discount rate to a 100bps widening of the illiquidity premium by tenor. This decreasing sensitivity is driven by the fact that the long-term illiquidity premium remains fixed beyond 10-years, thus limiting the transmission of a credit spread shock to the longer end of the curve. On the right side, we assume that the insurer has 110 units of Assets against 100 units of Liabilities (10 of surplus) in the base scenario, and then the asset spread and short-term illiquidity premium will increase by the same amount in a stressed scenario. Even in this ideal case, there is material

surplus volatility for longer duration liabilities driven by the fixed long-term illiquidity premium.

(d) **Fundamental Credit Spread Adjustment**

Economic capital regimes typically seek to remove the fundamental cost of default from the illiquidity premium or matching adjustment available to insurers. Sometimes this is accomplished with a flat factor (e.g., 33% in Australia) while other times with a schedule that varies by rating or other factors.

Under the LAGIC framework, insurers are able to take into account 33% of the 'A' Corporate Non-Financials spread when deriving the illiquidity premium. This implicitly assumes that 66% of this spread is comprised of fundamental default cost. Using historical data from both the Australian Market and the Global Market, we have done a simplified back test to assess the true cost of default embedded in Australian Corporate Spreads covering the period from January 2005 to May 2025, where we have also embedded several layers of conservatism:

- Used actual default experience of the global corporate bond market, which has worse historical default experience than the Australian bond market for bonds rated from 'AAA' to 'BB.'

- Derived portfolio-level actual default experience based on assumed weights of 25% 'A', 50% 'BBB', and 25% 'BB', which we view as conservative when compared to typical insurance portfolios which are predominantly investment grade.

- Assumed 0% recovery when deriving the cost of default.

Based on this analysis (**Exhibit 5**), the cycle average cost of default is ~20bps or 14% of the Australian IG Corporate Bond Index spread over the prevailing period. This results in an implied Credit Risk Premium of 124bps versus the average illiquidity premium over the same time from of 41bps.

3.10. In addition to the discount rate considerations above, we also observe two other challenges within the Australian capital settings:

(a) **Uniform credit spread shocks by tenor:** The current framework applies uniform credit spread shocks for all tenors. This approach does not reflect the economic reality that spreads are typically mean reverting in the long-term. **Exhibit 6** compares the spread stress and resulting risk factors for an 'A' rated corporate bond under the LAGIC regime versus other global regimes.

(b) **Alternatives capital underpinned by mismatched proxy assumption:** The capital charge for Alternatives (e.g., private equity) is derived from the prevailing ASX 200 dividend yield. This was meant to add an element of counter-cyclicality as dividend yields typically increase when market values fall which would result in lower capital intensity on Alternatives. While this is the case immediately after a stress event, in historical events like COVID we also observed companies cut their dividends, resulting in dividend yield decreasing and capital charges increasing (**Exhibit 7**).

3.11.   The above can lead to excessive swings in insurers' reported surplus and capital ratios, which may not reflect the true risk profile of insurers' portfolios. The procyclical nature of the above capital settings can force insurers to hold more capital or de-risk portfolios during market stress, potentially amplifying market volatility and reducing the availability of long-term retirement solutions.

This in turn impacts the ability of insurers to offer competitive yields on annuity and longevity products, as insurers are forced to accept lower returns on equity or offer lower yields to consumers, making annuities less attractive relative to other investment options.
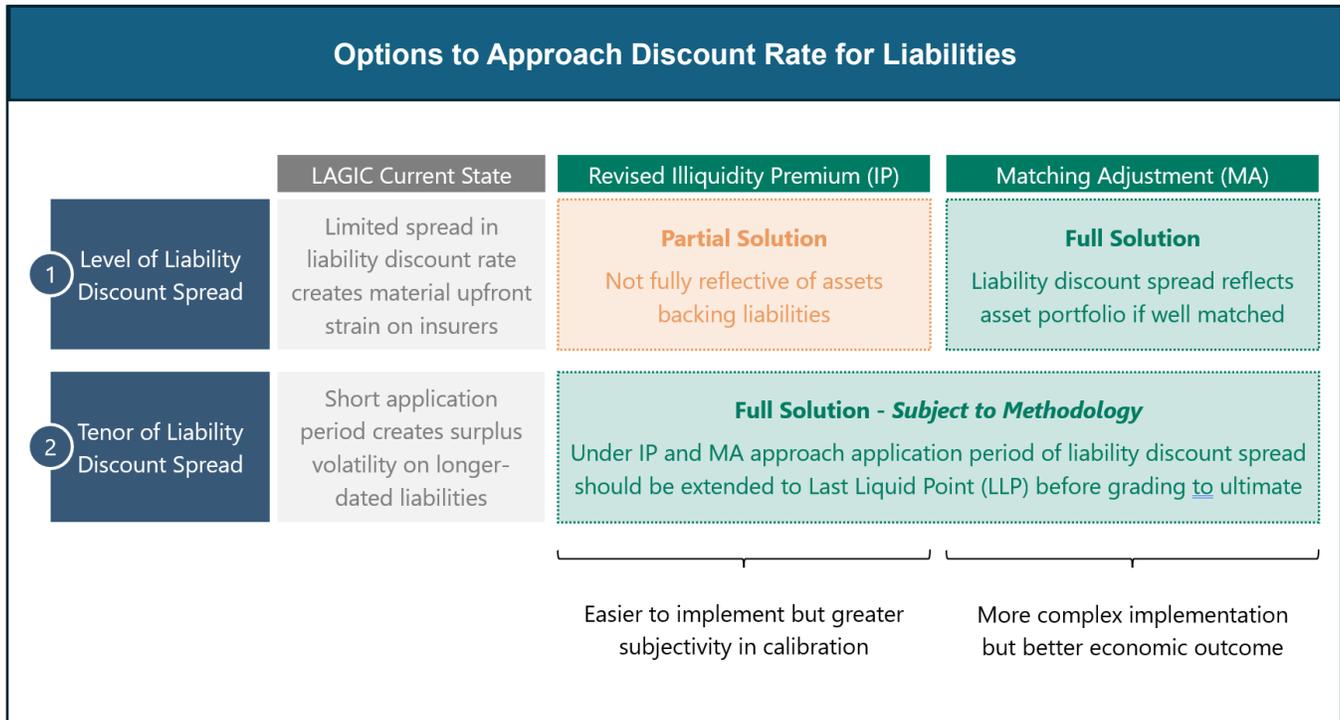
(a)   This means that, at any given yield level, Australian insurers cannot compete with private investment options, ABPs or direct public markets investments, which do not face the same capital constraints.

(b)   This strain is particularly acute in the current market environment, where public market yields are volatile and the demand for stable, guaranteed income is rising. The inability to fully reflect the value of illiquidity in the capital framework (for both near-term and long-term assets) means that insurers cannot efficiently transform the "illiquidity premium" embedded in private credit, infrastructure, or other private assets into higher annuity rates for consumers.

3.12.   In overseas jurisdictions seeking to incentivize solutions for retirees, capital regimes typically adjust the liability discount rate for matched asset portfolios. Relative to the UK, Hong Kong, Singapore, and ICS, the Australia capital regime is less conducive to guaranteed yield products (see **Exhibit 8** for comparison along key dimensions).

4. **Optimal Capital Setting**

Section Overview

4.1.   While the U.S. RBC regime has proven an effective model to facilitate the broad-based provision of guaranteed income within a rigorous prudential framework, under its current mark-to-market regime APRA has two options by which to approach the discount rate for liabilities:

- Illiquidity premium
- Matching adjustment

4.2.   In our view, a matching adjustment framework would be optimal for Australia. By focusing on the actual asset-liability matching achieved by individual insurers, rather than relying solely on market-based reference portfolios, the matching adjustment approach offers a practical solution to some of Australia's constraints (see below table).

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Options to Approach Discount Rate for Liabilities

	LAGIC Current State	Revised Illiquidity Premium (IP)	Matching Adjustment (MA)
1 Level of Liability Discount Spread	Limited spread in liability discount rate creates material upfront strain on insurers	**Partial Solution** Not fully reflective of assets backing liabilities	**Full Solution** Liability discount spread reflects asset portfolio if well matched
2 Tenor of Liability Discount Spread	Short application period creates surplus volatility on longer-dated liabilities	**Full Solution - *Subject to Methodology*** Under IP and MA approach application period of liability discount spread should be extended to Last Liquid Point (LLP) before grading to ultimate	

Easier to implement but greater subjectivity in calibration

More complex implementation but better economic outcome

4.3. We understand, however, that APRA is not currently considering a matching adjustment framework. Given that lens, we outline below specific feedback on how to improve the current illiquidity premium methodology.

4.4. For reference, we conclude by laying out considerations around matching adjustment framework design based on our global experience.

Core Tenets for Optimal Capital Settings

4.5. In our view, the core tenets of optimal capital settings embody three key principles:

(a) **Balance Policyholder Protection with Policyholder Value:** The capital framework for longevity products must strike a deliberate balance between robust policyholder protection and the delivery of meaningful value to retirees. Overly conservative or non-economic capital requirements risk rendering annuity products uncompetitive and unattractive.

(b) **"Equal Capital for Equal Risk," grounded in Long-Term Data and Transparent Modelling**: Capital requirements should be proportionate to the underlying economic risks and grounded in long-term data as well as transparent modelling. This is essential for ensuring that capital charges reflect the actual risk profile of both liabilities and the assets backing them.

(c) **Liability Discount Rate Reflects Spread of Assets Subject to Appropriate ALM:** The discount rate used to value liabilities should take into account the liquidity characteristics of liabilities and how well-matched asset holdings are. As recognized in the APRA Consultation Paper, where insurers can demonstrate robust asset-liability management (e.g., by matching long-term liabilities with similarly long-dated assets), they should be rewarded with a higher discount rate via an appropriate illiquidity premium or matching adjustment. This approach incentivizes prudent risk management and supports the provision of long-term guarantees.

Two Approaches for Setting Discount Rate under Mark-to-Market Regime

4.6.   There are two primary approaches for deriving a liability discount rate under global mark-to-market capital regimes.

(a) **Illiquidity Premium / Volatility Adjustment (VA):** As APRA is aware, the illiquidity premium recognizes that insurers investing in assets well-matched to long-term liabilities should be compensated for the additional yield these assets provide. The premium should be calibrated to reflect asset spreads while adjusting for the embedded fundamental default experience of each asset class and rating. This ensures that the discount rate reflects an appropriate risk-adjusted asset return which supports a competitive pricing environment for annuity products while maintaining prudential integrity. Note that in addition to the illiquidity premium, it is important to recognize that other sources of return are relevant when assessing the appropriate discount rate for long-term liabilities. Sophisticated structuring and market segmentation, for example, should be considered alongside the illiquidity premium to ensure that the discount rate accurately captures the true risk-adjusted return available to insurers.[7]

(b) **Matching Adjustment (MA):** While it is noted in the APRA Consultation Paper that a Solvency II-style MA framework is not under consideration given Australian capital markets, in our view an MA framework can be particularly effective for long-dated, illiquid liabilities (such as annuities) given it rewards prudent investment and risk management practices.[8] This also has the advantage of not requiring a representative portfolio to calibrate, as it is based on insurers' actual portfolios subject to meeting the requirements of the MA regime. With appropriate calibration to reflect the predictable nature of liabilities and the long investment horizon of retirement income products, an MA framework can enable a more direct link between the risk profile of the liability and the assets backing it, supporting both policyholder protection and product innovation. Insurers could therefore offer products that reflect the full value of long-term assets (e.g. infrastructure, private credit) in their liability discounting.

Specific Challenges in the Australian Market to Consider in Determining the Appropriate Illiquidity Premium

4.7.   There are two characteristics in the Australian market which present challenges to adopting a revised discount rate method.

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[7] For example, AAA-rated CLO tranches can offer spreads comparable to those of BBB-rated corporate bonds, despite exhibiting significantly lower historical default rates (in many cases, zero defaults) and demonstrating robust liquidity characteristics.

[8] As we note below, the HKRBC regime allows for a more flexible approach, including the use of listed equities in certain circumstances (though it is arguable whether this may be too permissive for the Australian context).

(a) **Limited Depth in Local Capital Markets:** Australia's capital markets, particularly for long-dated government and corporate bonds, are relatively shallow compared to other jurisdictions. This makes it challenging to construct a meaningful proxy portfolio to calibrate the illiquidity premium. As a result, there is a risk that capital settings may not fully reflect the economic reality faced by insurers, potentially leading to excessive conservatism or unintended risk exposures. In addition, Australian insurers routinely invest in high-quality, long-dated assets outside of the domestic market, accessing deeper and more diversified pools of capital globally.

(b) **Absence of a Representative Portfolio and Limited Market Participation:** With only one insurer actively writing significant volumes of long-duration annuity business, there is insufficient domestic data to inform robust, market-sensitive modelling. This constraint necessitates a pragmatic approach that draws on global data and best practice, while remaining sensitive to the unique features of the Australian market.

Illiquidity Premium Structuring – Suggestions for APRA

4.8.   Our suggestions for structuring the illiquidity premium are as follows:

(a) **Calibrate the Adjustment Factor to Reflect Fundamental Default Experience:** The current adjustment factor (of 33%) applied to credit spreads in the illiquidity premium formula is not sufficiently aligned to the applicable risk. To improve risk alignment, the adjustment factor should be calibrated based on the fundamental default and loss experience of each asset class and rating. This would ensure that the illiquidity premium more accurately compensates for the risks insurers bear (thereby avoiding an inadvertent penalty to high-quality, long-dated assets that are well-matched to annuity liabilities).

(b) **Use Global Data to Reflect a Broader Sourcing Universe:** The use of 3-year Australian corporate bond spreads as the reference point for the illiquidity premium is not optimal for long-term liabilities. The reference portfolio should be constructed using global spread data, encompassing a broader universe of IG assets with tenors of 10 years or longer. This would better reflect the investment actually available to Australian insurers, particularly as global capital markets are increasingly accessed to back long-dated guarantees. It would also mitigate the risk of the illiquidity premium being artificially constrained by short-term, local market dynamics.

(c) **Apply the Illiquidity Premium to the Last Liquid Point, Then Grade to Long-Term**: The illiquidity premium should be applied up to the last observable liquid point in the relevant credit markets, after which it should be graded down to a long-term average. This ensures the discount rate used for liability valuation reflects the extent of the reliable data, while providing a stable basis for longer durations where market data may be limited. If the illiquidity premium is set using longer tenor spreads (and not limited to the shorter 10-year term as is currently the case), the transition at (and beyond) the last liquid point to the long-term rate will be more gradated.

(d) **Calibrate the Long-Term Illiquidity Premium Based on Through-the-Cycle Spreads:** For durations beyond the last liquid point, the long-term illiquidity premium should be set based on through-the-cycle spreads, recognizing that insurers naturally take on reinvestment risk and should be able to earn a minimum level of spread over the risk-free rate in the long run.

Matching Adjustment: Broader Considerations for Capital Framework Design

4.9.   Given Australian context, a matching adjustment framework may be preferable. By focusing on the actual asset-liability matching achieved by individual insurers, rather than relying solely on market-based reference portfolios, the matching adjustment approach offers a practical solution.

4.10.   While APRA is not considering a matching adjustment framework at this time, we wish to nevertheless share our observations on matching adjustment frameworks based on our global experience.

Dimension	Description
Enforce ALM, Not Arbitrary Asset Restrictions	International best practice is moving toward risk-based, ALM-focused frameworks. MA frameworks should focus on the quality of cashflow matching between assets and liabilities, rather than a prescriptive list of eligible assets
Reflect Illiquid Nature of Liabilities and Long Investment Horizon	MA frameworks should recognize the illiquid and long-term nature of annuity liabilities, enabling investment in higher-yielding, less-liquid assets that are well-matched to obligations (like in the UK)
Calibrate Fundamental Default to Reflect Asset Class Experience	Asset class-specific default and loss assumptions (as is the framework in Bermuda and ICS) should be used in capital calibration, ensuring that MA frameworks and capital charges are proportionate to the actual economic risk of the assets backing annuity liabilities
Include Spread Widening Offset in Capital Calibration	To avoid procyclicality, the capital framework should allow for an offset to spread widening in required capital, recognizing that well-matched, hold-to-maturity portfolios are less exposed to forced sales in stressed markets.
Ring-Fence MA Assets in Defined Statutory Funds	Assets benefiting from the MA should be ring-fenced within statutory funds (as in the UK framework), ensuring transparency and protection from unrelated business risks. The statutory fund structure is already established in Australia and can be leveraged for this purpose.

5. Closing observations

5.1. Apollo believes that the proposed changes by APRA to the capital framework requirements have the potential to benefit the market as a whole, including consumers and superannuation funds. The Australian market for annuities has the potential to be scaled up significantly, and we believe the proposed changes will have an impact in supporting the annuities products market in Australia and enable superannuation funds to also consider innovative product strategies.

5.2. We consider that APRA's proposal, and our suggestions outlined above, would not require significant changes to the current regulatory regime (save updates to the relevant prudential standards). We do not expect that there would need to be any significant impact on applicable legislation concerning life insurance, superannuation products and annuities.

5.3. Apollo has recently provided input to ASIC regarding the potential for private markets in Australia to contribute to the market for retirement income in both the accumulation and decumulation phases. Apollo would be delighted to engage with APRA in a similar manner to share our experience, our suggestions regarding APRA's proposals and the approach to implement such suggestions, having regard to the relevant prudential standards.
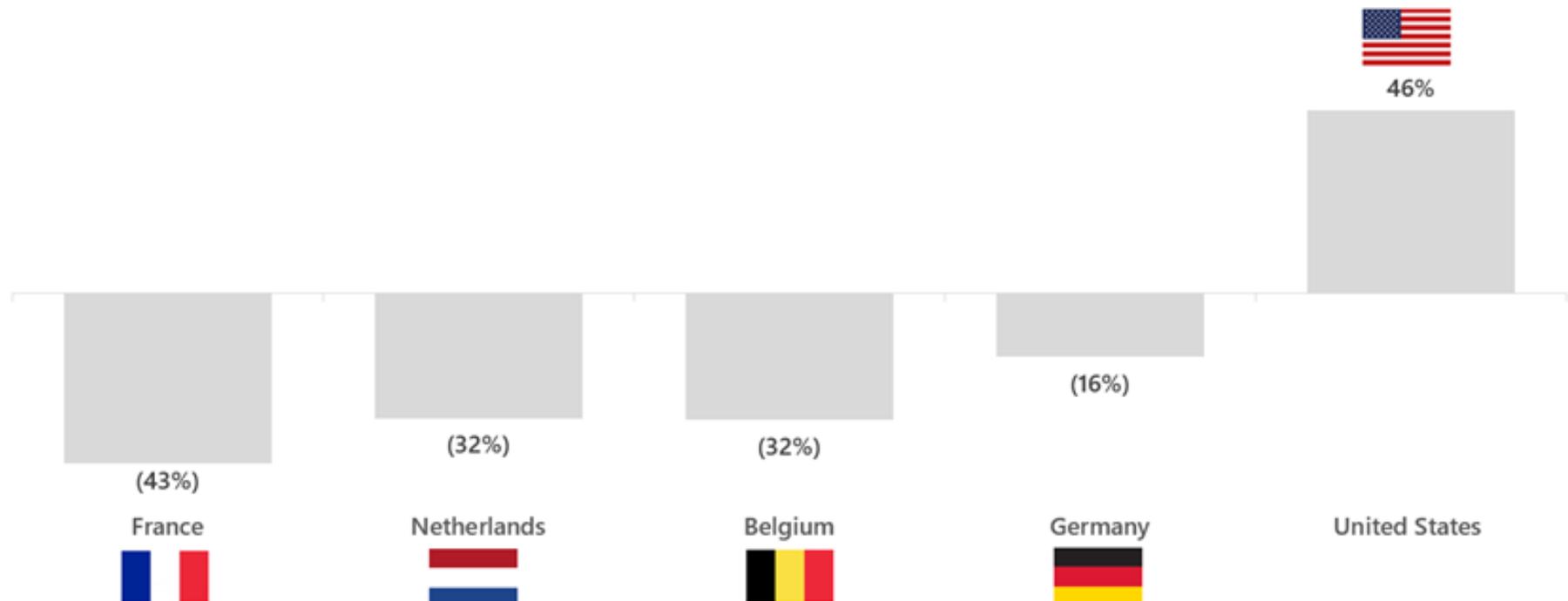
Appendix Tables

Exhibit 1: Significant Reduction in Availability of Guaranteed Income in Europe

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Significant Reduction in Availability of Guaranteed Retirement in Europe

Growth Rates in Long-Term Guarantee Products by Jurisdiction (2010-2020)[1]

France	Netherlands	Belgium	Germany	United States
(43%)	(32%)	(32%)	(16%)	46%

1. Sources included German Insurance Association Statistical Yearbook, French Insurance Federation Annual Reports, The Netherlands Bank "Vision for the Future of the Dutch Insurance Sector," LIMRA, and JP Morgan Market Share Bible. Premiums converted from local currency at spot exchange rate as of July 29th, 2022. Data for Netherlands based on change in GWP between 2013-2018. Data for Germany based on change in GWP between 2010-2018. US includes fixed and fixed index annuity sales

Private and Confidential   1

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Exhibit 2: Insufficient Illiquidity Premium Can Create New Business Strain

Insufficient Illiquidity Premium Can Create Meaningful New Business Strain

Overview of New Business Strain

(70bps) * Liability Duration = Strain

Target Spread 1.0%

Illiquidity Premium 0.3%

Government Bond Yield 4.3%

"Risk free" component is shared

Government Bond Yield 4.3%

Policy Holder Crediting Rate

Liability Discount Rate

New Business Strain by Tenor

■ Current Regime ■ Proposed 66% IP

Strain and resulting RoE pressure increases by liability duration

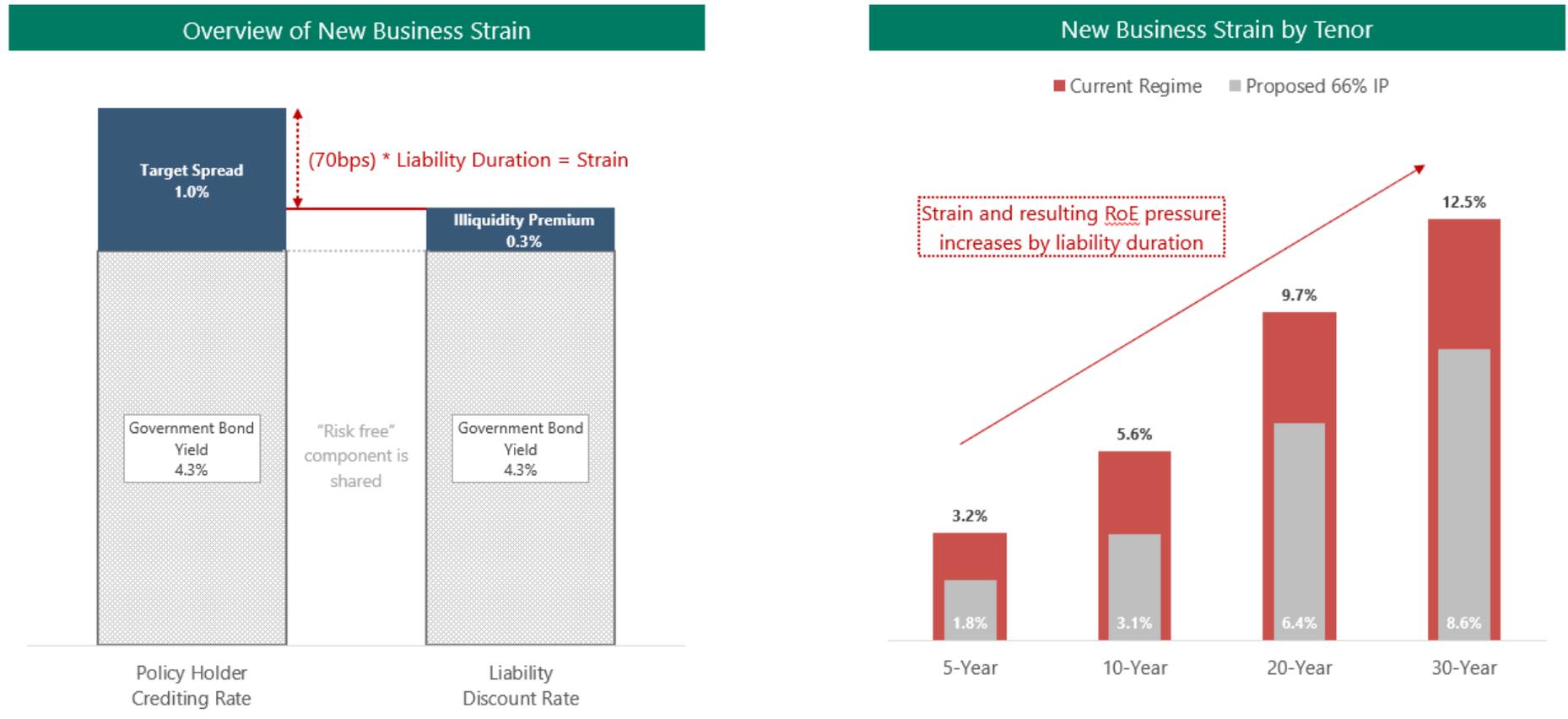| Tenor	Current Regime	Proposed 66% IP
5-Year	3.2%	1.8%
10-Year	5.6%	3.1%
20-Year	9.7%	6.4%
30-Year	12.5%	8.6%

14

Exhibit 3: Illiquidity Premium Construction Creates Surplus Volatility in Stress

# Illiquidity Premium Construction Creates Surplus Volatility in Stress

Stylized Stress Impact
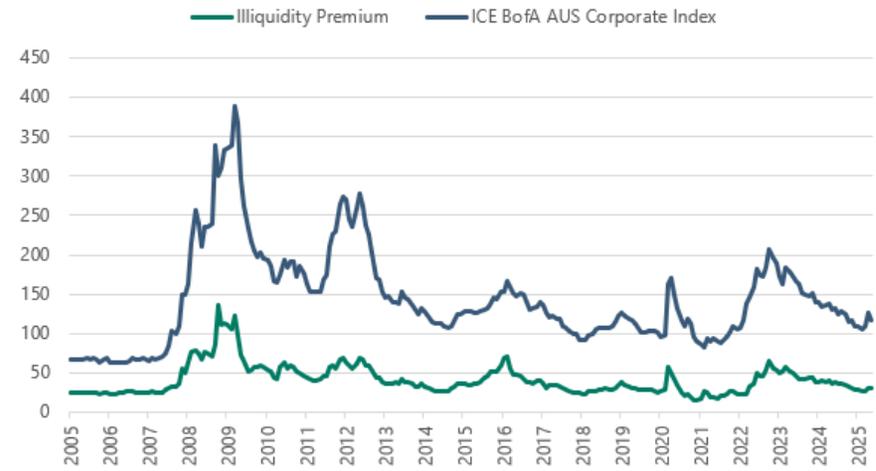
+300bps spread widening on IG assets

	IG Bond Spread	Illiquidity Premium	
Base Spread	100 bps	33 bps	--33% included
(+) Stress Impact	+300 bps	+100 bps	--33% included
Stressed Spread	400 bps	133 bps	

	Asset	(-) Liability	(=) Net
Starting Balance	$110	$100	$10
(+) Stress Impact	($22)	($8)	($14)
Ending Balance	$88	$92	($4)
memo: Duration	7.3y	8.0y	

Pre-Stress

10% Surplus → **Post-Stress**

(4%) Surplus

Requiring capital injection
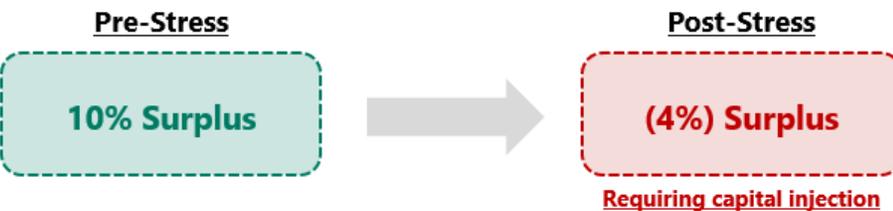
Corporate Spread vs Illiquidity Premium (bps)

Legend: Illiquidity Premium — ICE BofA AUS Corporate Index

Spread Differential | By Percentile

92.5%	95.0%	97.5%	99.5%	99.9%
178 bps	197 bps	220 bps	263 bps	270 bps

Material widening of spread basis in stressed markets

Exhibit 4: Asymmetry of Discount Spread Creates Uneconomic Outcomes

Asymmetry of Discount Spread Creates Uneconomic Outcomes

Spread Stress Impact on Discount Rates

+100bps spread widening on illiquidity premium

Increase in Discount Rate

Effect of spread widening on illiquidity premium reduces beyond 10th year

Asymmetry of Discount Spread and Surplus Volatility

Assuming +100bps spread widening on asset and liability spreads

Reduction in Surplus for Products of Different Tenors

	5y annuity	10y annuity	15y annuity	20y annuity	30y annuity
	0.6%	1.8%	9.5%	20.8%	42.6%

■ Starting Surplus ■ Ending Surplus ▨ (-) Effect of Spread Stress
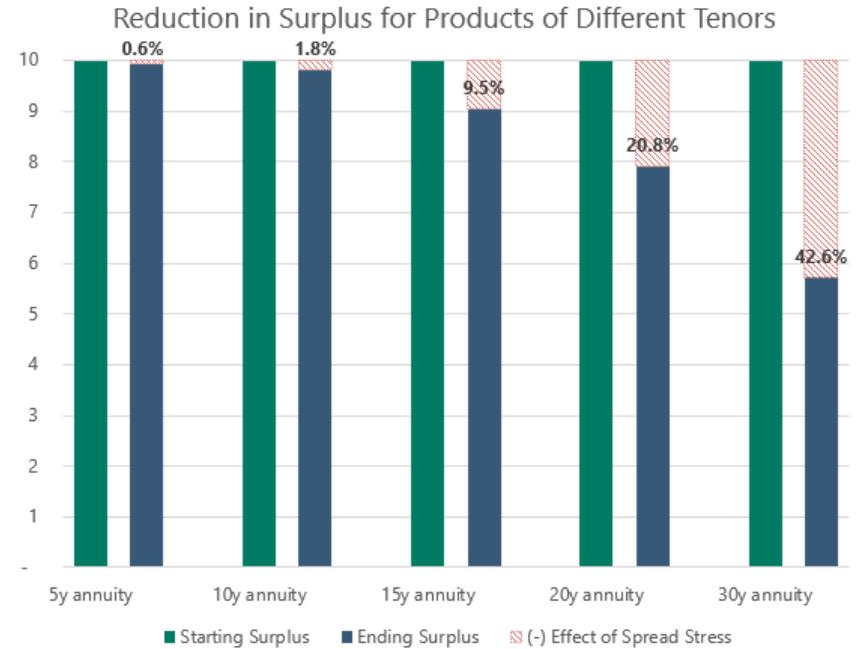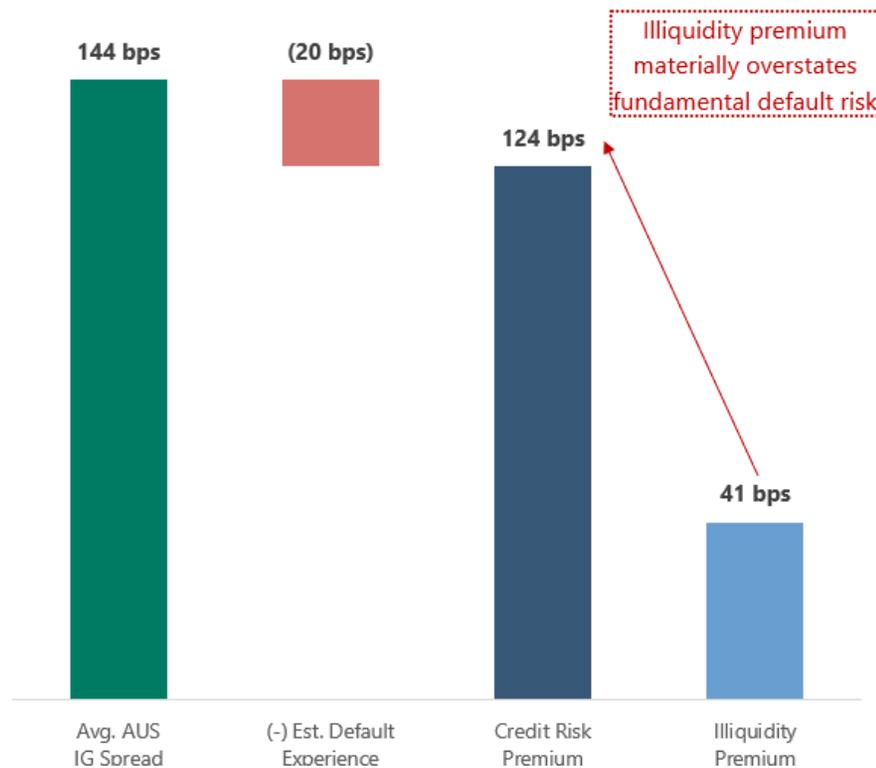
Exhibit 5: Adjustment to Public Spreads Should Reflect Embedded Fundamental Risk

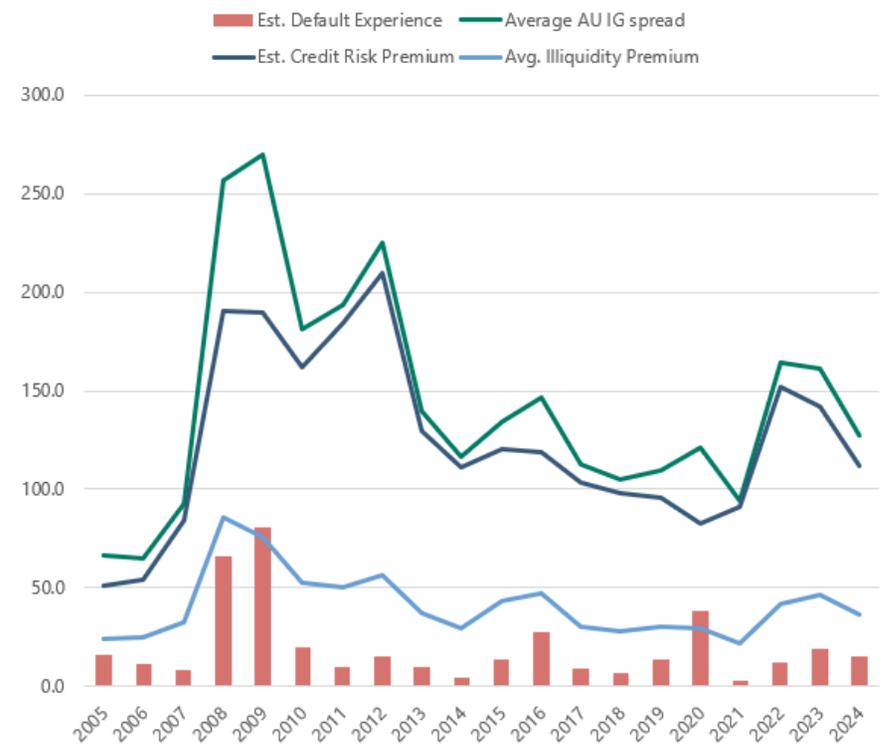Adjustment to Public Spreads Should Reflect Embedded Fundamental Credit Risk
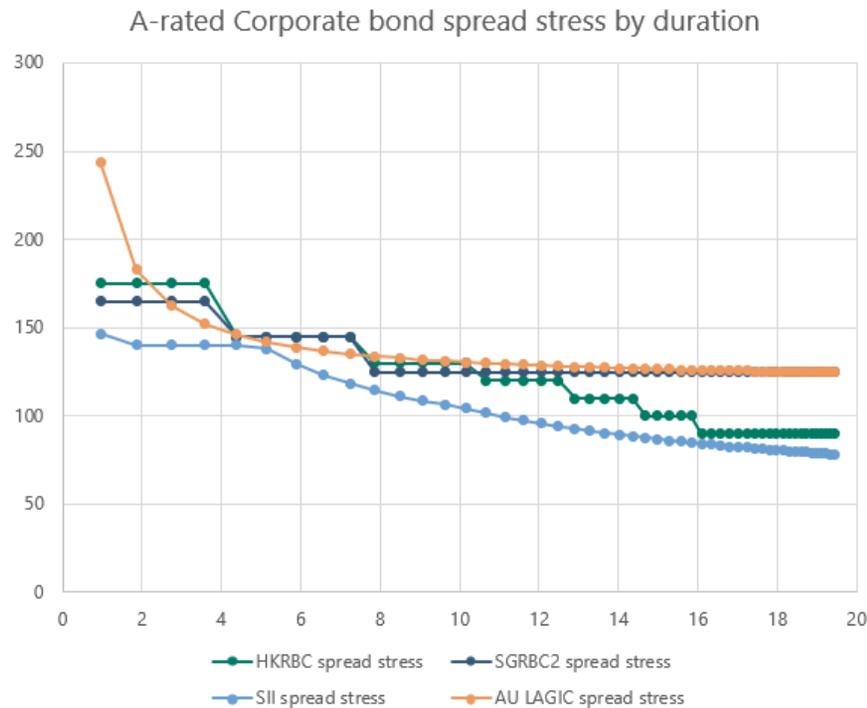
Exhibit 6: Corporate Bond Factors by Duration Across Capital Regimes

Corporate Bond Factors By Duration Across Capital Regimes

Credit Spread Stress by Duration

A-rated Corporate bond spread stress by duration

Legend: HKRBC spread stress, SGRBC2 spread stress, SII spread stress, AU LAGIC spread stress

Credit Spread Risk Factor by Duration

A-rated Corporate bond spread risk factor by duration

Legend: HKRBC spread risk factor, SGRBC2 spread risk factor, SII spread risk factor, LAGIC spread risk factor
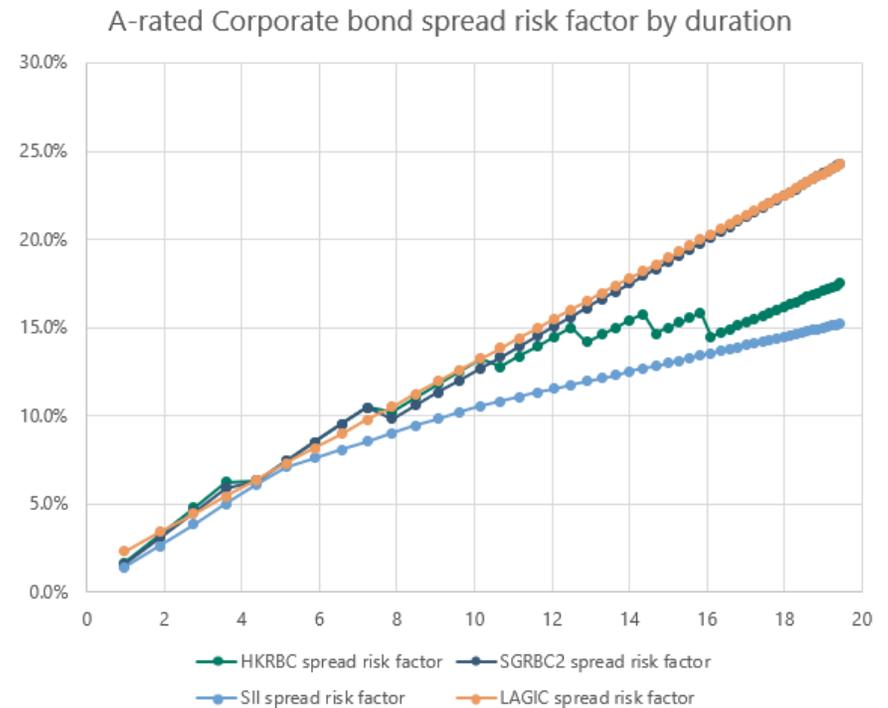
Exhibit 7: Alternatives Capital Underpinned by Mismatched Proxy Assumption

Calibration of Alts Capital Factor in Australia

- Alternatives capital charge is **set in reference to the ASX 200 dividend yield**

$$Alternatives\ Charge = 1 - \frac{ASX\ Dividend\ Yield}{ASX\ Dividend\ Yield + 2.5\%}$$

- Regulator's stated intention was for Alternatives capital factors as a % of market value to decrease as market prices fall

- The core assumption was that dividend yield would increase in stress (e.g., market value decreases and dividend stays constant); this was true during early COVID. However, the ASX dividend yield ultimately fell materially as companies cut dividends over the course of 2020
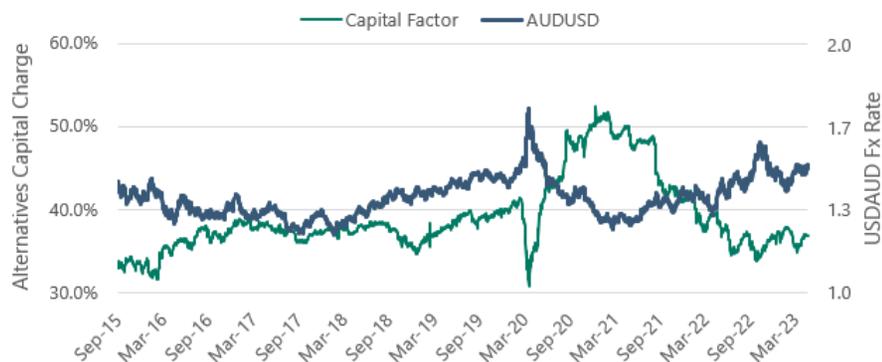
Illustrative Impact of COVID Stress on Alts Capital[2]

	Pre-Covid Avg. [1]	COVID Mar. 2020	COVID Dec. 2020
US$ Alts Investment	100	100	100
(x) FX Rate	1.36	1.69	1.31
A$ Alts Investment	**136**	**169**	**131**
(x) Alternatives Capital Charge	37%	32%	52%
A$ Alts Capital	**50**	**53** ①	**69** ②
memo: delta to pre-covid		+3	+19
memo: delta to pre-covid (w/ FX hedge)		(7)	+21 ③
memo: ASX dividend yield	4.3%	5.6%	2.3%

① In early COVID, market values decreased driving ASX dividend yield up and decreasing the Alternatives capital charge; this was partially offset by the countercyclicality of the Australian dollar driving unhedged value higher

② As COVID wore on companies cut dividends driving the dividend yield down while AUD FX rates simultaneously recovered driving higher capital requirements on Alternatives

③ FX hedging would soften the impact of AUD countercyclicality in early COVID but exacerbate the amount of required capital in Dec. 2020

Exhibit 8: Global Capital Regimes Side by Side Comparison

Capital Regime	HK RBC	SG RBC2	Solvency UK	ICS	AU LAGIC
Matching Adjustment	✔	✔	✔	✔	✖
Eligible Liabilities	Long-term portfolios of life insurers	Direct life insurance business in participating and non-participating funds, SGD and USD only	Life (re)insurance obligations with no future premium payments and only subject to selected underwriting risks (highly predictable)	Life insurance business	N/A
Eligible Asset	Broad range of fixed income instruments including asset-backed	Sovereign bonds, corporate bonds Fixed cashflow only	Bonds or other assets with similar cashflow characteristics (highly predictable cashflows)	Broad range of fixed income instruments	N/A
Cash Flow Matching Test	Yes, reflected via a duration factor and a predictability factor	Yes, accumulated cashflow shortfall less than 15% of accumulated liability cashflows	Yes, PRA matching test 1-5	Yes, reflected in Total Observed Matching (TOM) ratio	N/A
MA Spread Calculation	Adjusted spread based on MA portfolio asset spread reduced by risk correction factor. Long-term adjustment (LTA) for equities applicable to participating life or universal life	Asset IRR less liability IRR less cost of default and other haircuts, floored by Illiquidity Premium	Asset spread reduced by the fundamental default cost	Top bucket (MA) - asset spread adjusted by risk correction for credit risk and other risks Middle bucket (partial MA) - insurer allocations with public spread and haircut	N/A
Application Period	Full term	Full up to LLP (20 years for SGD, 30 years for USD), grading to 10bps over the course of 10 years after the LLP	Full term	Top bucket - full term Middle bucket - up to last maturity at which cash flows are well matched	N/A
Illiquidity Premium	✖	✔	✔	✔	✔
Calibration Approach	N/A	Based on a prescribed proportion of a reference Corporate bond spread. Published by MAS annually. Combined with insurer's SAA to obtain fund-level Illiquidity Premium	Representative industry fixed income portfolio. Based on 65% of the risk-corrected spreads	General Bucket - representative industry fixed income portfolio. Based on 80% of the risk-corrected spreads	Non-financial, A-rated corporates index Based on 33% of the index spreads
Tenor of Reference Portfolio	N/A	Not publicly available	~7-10 years	~7-10 years	3 years
Application Period	N/A	Full up to LLP (20 years for SGD, 30 years for USD), grading to 10bps over the course of 10 years after the LLP	Full up to LLP (30 years for GBP), grading afterwards as a result of Smith-Wilson extrapolation	Full up to LLP (30 years for USD), grading in Segments 2 and 3 as a result of extrapolation	Up to 10 years, step change to 20bps afterwards

The U.S. Risk Based Capital regime is a "book value" framework which inherently limits surplus volatility and is therefore not included in the comparison above