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NOTES

Private Equity and Life Insurers

Fabio Cortes, Mohamed Diaby, and Peter Windsor

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Prepared by Fabio Cortes, Mohamed Diaby, and Peter Windsor

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Abbreviations

ABS .... asset-backed securities
AUM .... assets under management
BMA........... Bermuda Monetary Authority
GFSN .... Global Financial Stability Note
LBO .... leveraged buyout
NAIC .... National Association of Insurance Commissioners
PE .... private equity
PPF .... public pension fund
RBC .... risk-based capital (NAIC)
SBA........... scenario-based approach (optional approach for valuing liabilities for certain life insurers in Bermuda)

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Introduction

The traditional life insurance industry has faced a challenging macroeconomic environment in the past two decades because of prolonged low interest rates. This has put pressure on the viability of life insurers offering guaranteed rates of return on their products and has made these products less attractive to policyholders as investment returns declined. Economic valuation and economic capital requirements posed additional challenges to life insurers in this low interest rate environment by exposing the high capital intensity of traditional, guaranteed return life insurance products for which the insurer bears the brunt of investment, mortality, and longevity risks.

The long period of extraordinarily low interest rates after the global financial crisis pushed life insurers to change their business models. Many large insurance groups are altering their business strategies to pivot away from capital-intensive business lines toward capital-light business such as unit-linked products, which leave much of the investment risk with policyholders.

Private equity (PE) companies seized the opportunity to acquire and gain exposure to the long-term, capital-intensive liabilities on life insurers' balance sheets that the latter are trying to exit. In this way, new private capital is deployed to support these products for which the originators (that is, traditional life insurers) no longer see a future. From this perspective, PE investments can be seen as reinvigorating the life insurance sector and bringing the continued benefit of the traditional fixed annuity products for consumers who are planning for retirement by managing their longevity and investment risks.

However, life insurers owned by PE companies are also changing their balance sheets and risk profiles. Those insurers increased illiquid investments in complex structured products used to fund leverage in other sectors of the economy. Reinsurance is actively used alongside to reduce the longevity risks and long-term liabilities, which releases more capital to invest in riskier assets.

This Global Financial Stability Note (GFSN) studies this growing trend of PE investments into the life insurance industry. PE companies' investments in life insurers are integral to their strategic growth as PE firms evolve beyond the traditional leveraged buyout (LBO) transaction to acquire diverse businesses across private credit, structured credit, private real estate funds, and private infrastructure funds. This note reviews the growth in PE investments through the lens of the diverse acquisition incentives and strategies, the consequent changes to asset allocation and investment strategies of the acquired life businesses, and potential prudential and policy implications.

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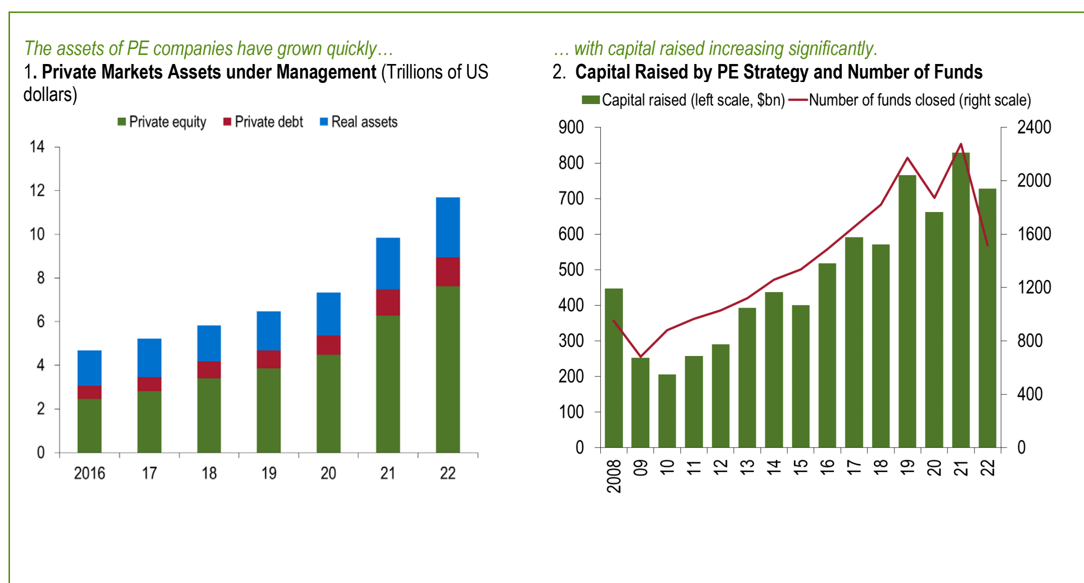
I. The Growth of Private Equity and Private Debt

PE has grown rapidly since the global financial crisis. Assets under management of PE companies have almost tripled during 2016–22, reaching close to $12 trillion as of mid-year 2022 (Figure 1, panel 1). A PE company relies on frequent fundraising for its operations, with typical tenor of funds raised ranging from 5 to 10 years. The annual capital raised for PE strategies and the number of funds have increased by more than 60 percent between 2008 and 2022. Funds raised during this period had significant volatility, with a trough in 2010 (with only $205 billion) and a peak in 2021 ($830 billion; Figure 1, panel 2).

The PE sector is led by US companies and exhibits significant concentration. As of the end of 2022, the top 10 PE companies accounted for 31 percent of the global assets under management (AUM), with the top three companies (Blackstone, Apollo, and KKR) representing 19 percent of the worldwide AUM (Figure 1, panel 3). Geographic concentration is also high. The PE industry is US-centric, with US companies accounting for about half of all PE companies and more than 70 percent of the global assets under management, and 7 of the top 10 global PE companies based in the United States.[1]

PE expansion has been fueled by investors and limited partners looking for higher yields. These limited partners, mostly constituting public and private pension funds, insurers, endowment funds, and sovereign wealth funds, have increased their portfolio allocations to PE over the past five years (Figure 1, panel 4). For example, sovereign wealth funds increased their portfolio allocation to PE from 10 percent to 17 percent during 2017–22. In the context of search for yield, alternative investments, such as PE or venture capital, were able to attract more funds and higher allocation thanks to comparatively higher yields in relation to other asset classes—PE index returns outperformed other asset classes (such as natural resources, real estate, or S&P 500) after 2015 (Figure 1, panel 5).

Figure 1. The Growth of Private Equity since the Global Financial Crisis



[1] According to S&P Capital IQ Pro, as of the end of 2022, about 1,094 PE companies exist globally, with AUM more than $1 million. Of these, 534 are based in the United States.

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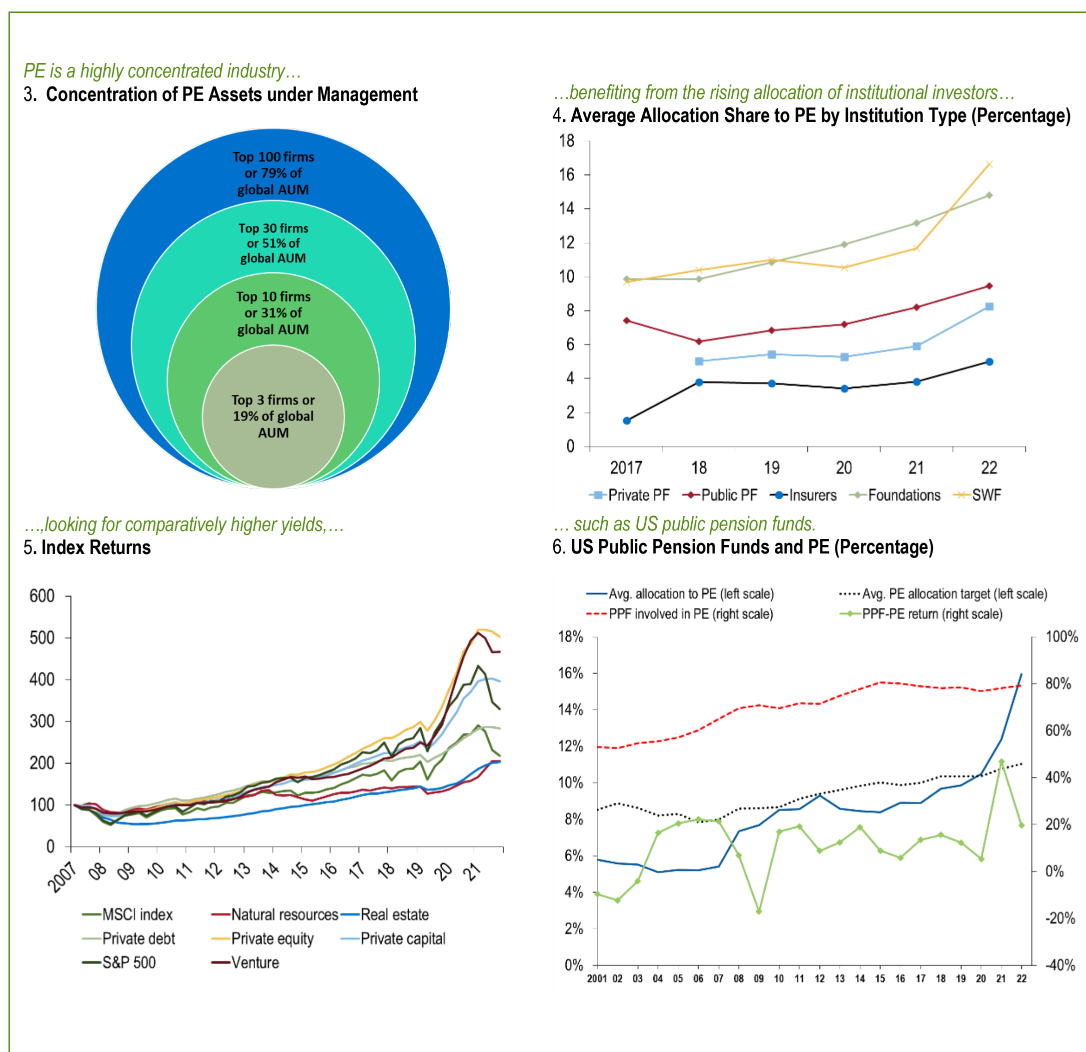

Sources: McKinsey; Preqin; Private Equity international; Public Plans Data; S&P Capital IQ Pro; and IMF staff calculations. In panel 1, each bar represents the AUM as of the middle (H1) of each corresponding year. In panel 3, each circle represents the share of the global amount of assets under management (AUM) run by a specific number of private market firms. AUM include private equity, private debt, real estate, infrastructure, and so on. We list 1,094 private market firms with AUM higher than $1 million. In panel 4, the calculations are based only on available data. For privacy and confidentiality, several institutions do not report their portfolio allocation. In panel 5, all index returns are indexed to 100 percent as of December 31 of the prior year. Subsequent returns are reported as of quarter end.

Note: PE = private equity; PF = pension fund; PPF = public pension fund; SWF = sovereign wealth fund; MSCI = Morgan Stanley Capital International.

US pension funds play an important role in PE expansion. The growth of US public pension funds (PPFs) in terms of investible capital over the past two decades has been remarkable. The average fund size soared from $14 billion in 2001 to almost $32 billion in 2022. In search of yield, especially during the low-rate environment, PPFs turned their attention to alternative investments such as PE. From 2001 to 2015, the percentage of PPFs with exposure to PE grew from 50 to 80 percent, before stabilizing. Meanwhile, the allocation level increased significantly, from about 6 percent of total assets in 2001 to 16 percent in 2022, accelerating over the past two years. Indeed, in 2021 and 2022, the PE allocation share

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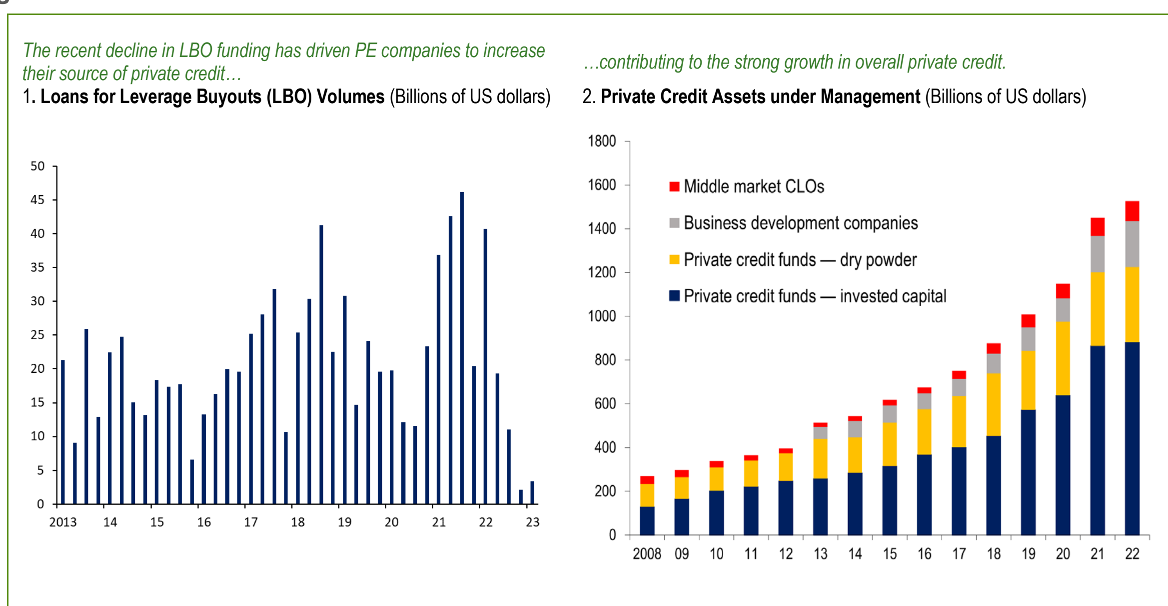
was well above the average allocation target of 10.5 and 11 percent, respectively (Figure 1, panel 6).[2] PPF PE portfolio average returns have been more volatile than other PPF asset classes and have exceeded other PPF portfolio assets classes such as fixed income, commodity, and real estate. In 2021, PPF PE portfolio annual returns peaked at about 45 percent before declining at 20 percent.

PE has experienced a slowdown in 2022 because of investors exceeding their allocation targets and fixed income becoming more attractive thanks to higher interest rates. With current PE allocations already above targets, higher interest rates that provide higher returns on other asset classes, rising uncertainty, and global risks tilted to the downside, PPF PE allocation might have peaked. The capital raised by PE decreased by 12 percent between 2021 and 2022, whereas the number of funds fell by more than one-third to 1,520 funds.

Figure 2. The Evolution of Private Credit



Sources: Goldman Sachs; PitchBook Leveraged Commentary and Data; Preqin; and IMF staff calculations.

Note: CLO = collateralized loan obligation.

PE companies are pivoting their strategy to private credit to address the fall in funding and banks' growing reluctance to fund their LBOs. Banks have become more hesitant to fund LBOs, and their financing of this activity has decreased significantly in 2022 (Figure 2, panel 1). As a result, private credit is on the rise as an investment option to compensate for this slowdown in traditional LBO (Figure 2, panel 2), and PE companies are actively growing the private credit side of their business by influencing the companies they control to help finance these operations. Life insurers are among these companies. For instance, KKR's acquisition of 60 percent of Global Atlantic (a US life insurer) in 2020 cost KKR approximately $3 billion. In KKR's Earnings Conference Call in February 2021, participants estimated that this transaction

[2] The reason for the above-target allocation shares in 2021 and 2022 is twofold. In 2021, it was due to low interest rates and the search for yield leading to the highest level of capital raised ($830 billion). In 2022, the above-target allocation is due to a combination of a moderate decline in capital raised, whereas all public market assets declined significantly in value (denominator effect).

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increased its fee-paying AUM by 48 percent, and it is expected to increase fee income by $200 million per year or more (KKR & Co. Inc. 2021). Presumably, this will occur through Global Atlantic allocating some of its investment portfolio to KKR managed assets.

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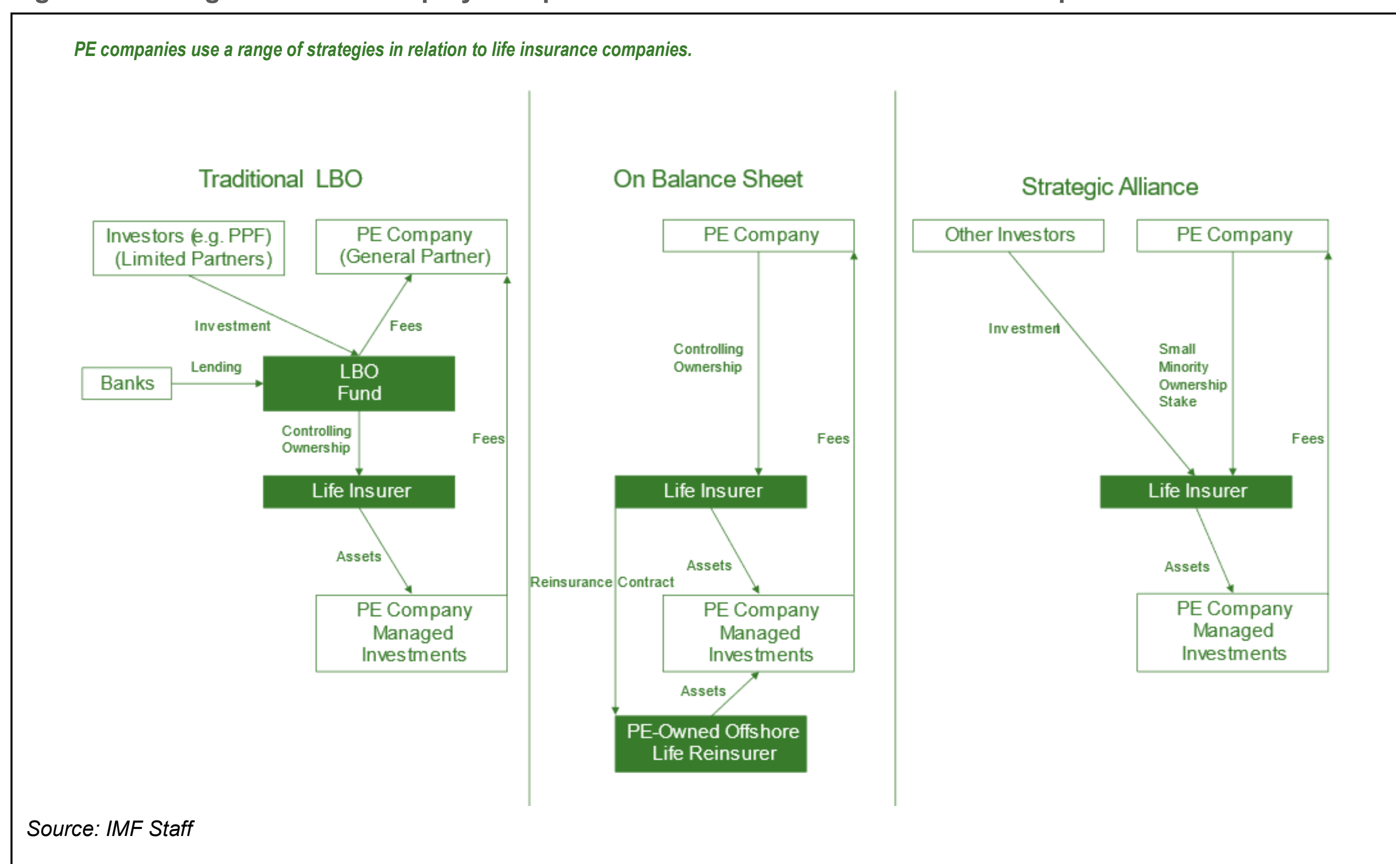
II. PE and Insurers

PE's involvement with the life insurance sector goes back to the 1980s, but activity has increased since the global financial crisis. Initially, life insurers were the target of traditional LBO transactions that are the funding base of the PE industry. The relationship with life insurers and PE is now much more complex, with a range of strategies employed by different PE companies:

- PE companies own a small strategic stake in a life insurer (often less than 10 percent) and provide specialist investment management services through managing their structured credit, private credit, private real estate, and private equity investments. These arrangements are sometimes described as strategic alliances.
- Life insurers are purchased and owned by LBO schemes arranged by PE funds—the traditional business model of PE companies.
- Full or majority ownership of life insurers held by PE companies on their balance sheets which are strategically important to the other activities of the PE companies.
- Life insurers are heavily using offshore life reinsurers owned by PE companies to reinsure life insurance portfolios and to strategically restructure their businesses.

Figure 3. Strategies of Private Equity Companies in Relation to Life Insurance Companies



Note: LBO = leveraged buyout; PE = private equity, PPF = public pension fund.

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The traditional LBO transaction involves the PE company raising capital from investors in a closed-end fund and then buying control of a life insurer with a combination of debt and equity financing (Figure 3). The general partner (or PE company) establishes a fund and seeks investments with investors known as limited partners. The investors are typically public and private pension funds, sovereign wealth funds, endowments, and insurance companies, as seen in the previous section. Once the target amount of investment is reached, the fund is closed and the invested funds (leveraged through significant debt raising) are used in buyouts. Some of the target companies for LBOs are life insurers, but the strategy is used across many sectors. Leveraged buyouts require leverage, which banks have usually provided or had been until late 2022. From late 2022 onward, banks have significantly reduced their funding of LBOs, thus leading to reduced LBO deal volumes and private credit funds filling the void either through direct funding of LBOs or through purchase of bank-originated LBO debt. The strategy is to find synergies and efficiencies often through using the initial life insurance investment as an aggregation platform and then finding a buyer for the business within a set time frame as expected by investors in the closed PE fund (typically within 10 years).[3]

The trend toward PE companies buying life insurers on their own balance sheet began around the time of the global financial crisis and has gained momentum from 2020 onward.[4] The strategy could be used to gain control of a life insurer and an offshore reinsurer with these companies used as a platform to acquire other life insurers or assets through transfers or reinsurance transactions (Figure 3). The use of offshore reinsurers to aggregate legacy books of business from other unrelated insurers is the fourth strategy mentioned at the beginning of this section. Bringing together smaller books of business into a larger business and deriving synergies and efficiencies through investment in technology is one aspect of the strategy.

PE companies are benefiting from the involvement through control and stable supply of long-term funding. The involvement gives the PE companies control and stable supply of a substantial long-term asset base to manage and derive fee income. As described in the next section, the investment allocation of PE-influenced[5] life insurers is skewed toward illiquid investments when compared to other life insurers.

Life insurers are also independently engaging the services of PE-influenced reinsurers for strategic realignment of their businesses. Other life insurers also engage the services of PE companies to de-risk their balance sheets through reinsurance transactions and to manage portions of their own portfolios to earn the illiquidity premiums on investments. See Box 1 for an example of such a transaction.

[3] An example of such transactions can be seen with Cinven's German life insurance consolidation platform Viridium Group and its Italian consolidation platform Eurovita Group, which Cinven formed through the merger of ERGO Previdenza, Old Mutual Wealth Italy, and Eurovita Assicurazioni (see policy considerations).

[4] The leader in this style of transaction was Apollo Global Management with its creation of Athene Life, with an initial transaction involving the takeover of an annuity book from American Equity Investment Life. Major US PE companies, such as KKR, Carlyle Group, and Brookfield, have all purchased stakes in insurers and reinsurers from 2020 onward using similar strategies.

[5] Note that the term "PE-influenced life insurers" generically refers to all four strategies mentioned on page 5.

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Box 1. Example of Unrelated Life Insurers Engaging the Services of PE-Influenced Reinsurers

An example of the trend of unrelated life insurers engaging the services of PE-influenced reinsurers for strategic realignment of their business can be found in the transaction announced on May 2, 2023, between Lincoln Financial Group (Lincoln) and Fortitude Reinsurance Ltd. This transaction is a $28 billion transaction (Lincoln Financial Group 2023) comprising approximately $9 billion of universal life with secondary guarantees statutory reserves (approximately 40 percent of Lincoln's total in-force universal life with secondary guarantees), close to $12 billion of universal life with long-term care rider statutory reserves (approximately 80 percent of Lincoln's total in-force universal life with long-term care rider) and close to $8 billion of fixed annuities statutory reserves (approximately 40 percent of Lincoln's total in-force fixed annuities). Lincoln's president and CEO Ellen Cooper provided the rationale for the transaction from Lincoln's perspective: "Today's transaction with Fortitude Re marks significant progress in our efforts to reduce our balance sheet risk, improve our capital position, and increase ongoing free cash flow." Lincoln will service and administer the policies it reinsured to Fortitude Re, so customers will see no change.

PE companies are also benefiting from fee income. Fee income can be substantial, with average annual management fees estimated to be 1.76 percent and performance fees averaging 20.3 percent in 2018 and 2019 (DeLuce and Keliuotis 2020).

Strategic alliances do not involve a significant balance sheet investment by the PE company. However, this may involve a small strategic stake in the life insurer, enough to secure a board seat or seats, and then entering into agreements to manage the alternative asset classes of those insurers (Figure 3). The stakes purchased tend to be below the 10 percent threshold usually applied by supervisors for an approval process of significant shareholders.

These different business models make it difficult to define what a PE-influenced life insurer is. Finding data on transactions that involve full takeovers of life insurers by PE companies, whether through PE buyout funds or on their own balance sheets, is possible, but such an endeavor is hampered by data quality in public databases. The transactions where PE companies buy less significant ownership stakes in conjunction with strategic alliance agreements are more difficult to find and understand through public data sources.

Annex 1 of this GFSN is an attempt to identify PE-influenced life insurers.[6] The list is likely incomplete due to such data quality issues, but it is a first attempt at a global list of PE-influenced life insurers. It aims to provide a basis for further discussions among insurance supervisors and the PE- influenced life insurers. A more definitive list may be developed to aid the study of a significant trend in the life insurance industry. In our research for this GFSN, we also found instances of health insurers and property and casualty insurers that have been purchased by PE companies and insurance intermediaries. This phenomenon is outside the scope of this GFSN, but it may be an avenue for further research.

[6] The list of PE-influenced life insurers in Annex 1 comes from two sources: AM Best and S&P Capital IQ. On the one hand, AM Best has its own list of PE-influenced life insurers. On the other hand, using the S&P Capital IQ Pro M&A transaction deals data set and industry classification from both the buyers' and the targets' side, we list life insurers that were acquired (fully or partly) by PE firms over the past two decades. We then thoroughly document (through news articles) and check each transaction to ensure that the insurers are still operating and that there was no exit from the PE firm as of March 2023. We also limit the list to the PE-influenced parent companies and do not include subsidiaries of those companies.

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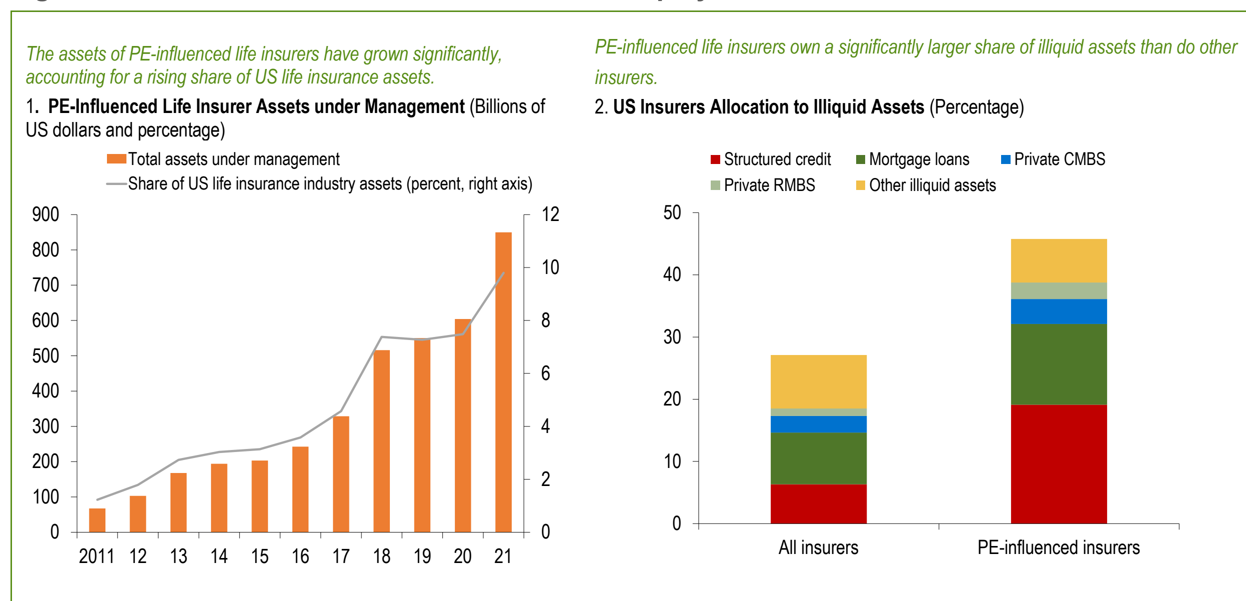
III. What Is Different about PE-Influenced Life Insurers?

Asset Allocation

The assets of PE-influenced life insurers have grown significantly in recent years. They account for a growing share of the assets of the insurance sector, particularly in the United States where they may be exceeding 10 percent of total industry assets (Figure 4, panel 1).

A key concern is that PE-influenced life insurers have fewer liquid investments than the aggregate of all insurers. Figure 4, panel 2 focuses on the United States where data are available on these exposures.[7] These exposures include structured credit such as collateralized loan obligations, mortgage loans, and private commercial and residential mortgage-backed securities. Greater investment in structured and private credit worsens liquidity mismatches between assets and liabilities, which could make liquidating portfolios more challenging if facing margin calls on derivatives or repurchase agreement contracts or policy surrenders should interest rates continue to rise rapidly.[8]

Figure 4. Growth and Asset Allocation of Private Equity–Influenced Life Insurers



Sources: A.M. Best; National Association of Insurance Commissioners; and IMF staff calculations.

Note: Panel 1 is only for US insurers, where data are available. Panel 2 is as of December 2021. PE = private equity. RMBS = residential mortgage-backed security. CMBS = Commercial mortgage-backed security.

[7] The National Association of Insurance Commissioners provides a detailed breakdown by asset class for PE insurers in the United States. Such a breakdown is not available in other jurisdictions.

[8] Policy surrenders (or lapses) from life insurance policies are more likely to occur during periods of rapid increases in interest rates (see Chapter 1 of the IMF October 2021 *Global Financial Stability Report*). This risk may in part be offset by better funded ratios at higher rates.

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A fundamental aspect of most PE transactions in the life sector is the expectation that the performance of life insurers can be transformed through the increased spread earned on illiquid investments and also the benefits to PE companies from the fees earned on managing these illiquid investments. Although difficult to prove because of the lack of data availability, this larger exposure on illiquid assets may be incentivized by their the provision of PE companies of specialist investment management services through managing their less liquid structured credit, private credit, private real estate, and PE investments in house.

As a result, PE-influenced life insurers are also more vulnerable to a potential adverse scenario of increases in corporate defaults and credit downgrades should the economy slow down because of higher interest rates. Such a scenario could force insurers to liquidate investments when faced with increasing regulatory capital charges (see Chapter 1 of the April 2019 *Global Financial Stability Report*). The severity of such a scenario could be aggravated by the embedded leverage in structured-credit investments, such as collateralized loan obligations. This also raises the question of whether the credit risk and loss-absorbing capacity of these illiquid exposures is measured appropriately. The National Association of Insurance Commissioners (NAIC) has found that an insurer that owns all the tranches of a collateralized loan obligation with underlying assets of B-rated loans would have a substantial beneficial regulatory capital arbitrage compared to holding directly the underlying B-rated loans based on existing risk-based capital (RBC) calculations for life insurers. NAIC is proposing to address this regulatory capital arbitrage by adding additional NAIC designation categories and relevant RBC factors (National Association of Insurance Commissioners Valuation of Securities [E] Task Force 2022). Life insurers typically have capital that represents about 10 percent of assets, which could be eroded much faster in a scenario of rapid increases in corporate defaults.

Other life insurers have also increased their exposure to illiquid investments in recent years, although to a lesser extent than PE-influenced life insurers. In their search for yield, insurers on aggregate have been subject to a so-called herding behavior, having doubled their illiquid investments over the past decade at a global level (see the share of Level III assets for a sample of 50 large insurers around the world in Figure 5, panel 1). These include rising exposures to structured-credit securities with returns boosted by embedded leverage and illiquid private credit (Figure 5, panel 2). Life insurers also make use of leverage to fund illiquid assets, as shown by the increase in nontraditional liabilities such as funding-agreement-backed securities (Figure 5, panel 2).[9]

[9] Funding-agreement-backed securities are financial instruments backed by a funding agreement, which is a deposit-type contract issued by life insurers, that promises a stream of predictable fixed payments over a specified period. Other nontraditional liabilities include Federal Home Loan Bank advances and cash received through repurchase agreements and securities lending transactions.

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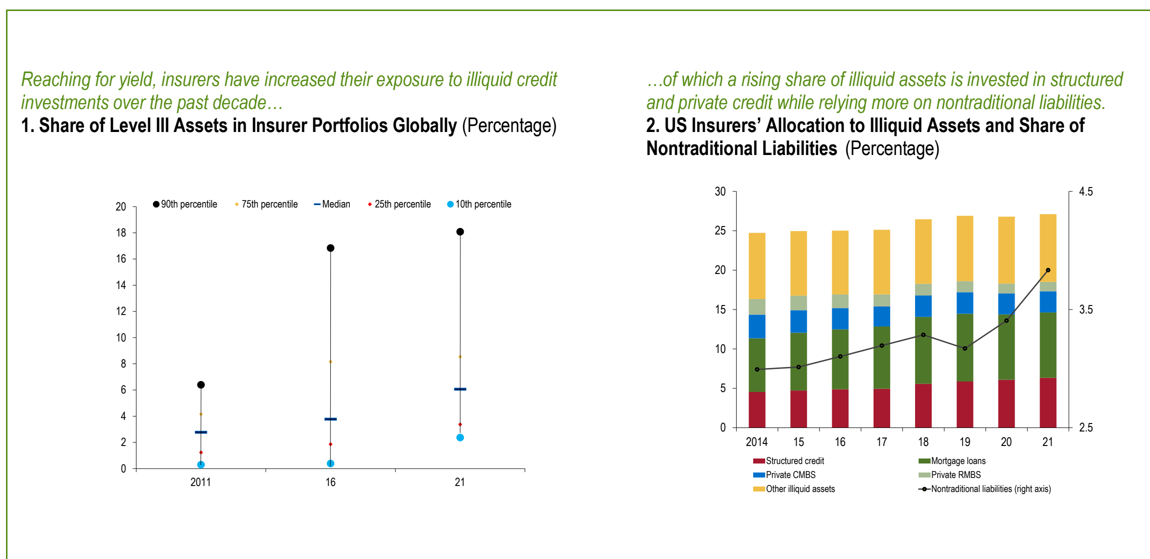
Figure 5. Rising Exposure of Insurers to Illiquid Assets



Sources: Haver; National Association of Insurance Commissioners; S&P Capital IQ; St. Louis Federal Reserve Bank; US Flow of Funds; and IMF staff calculations.
Note: Panel 1 includes a sample of 50 selected insurance groups from 18 jurisdictions across Europe, North America, Asia, and Australia. Level 3 assets are those considered the most illiquid and hardest to value. Their values are typically estimated using a combination of complex market prices, mathematical models, and subjective assumptions. The nontraditional liabilities estimate in panel 2 is calculated as the share of total liabilities for US life insurers. They include funding-agreement-backed securities, Federal Home Loan Bank advances, and cash received through repurchase agreements and securities lending transactions. RMBS = residential mortgage-backed security. CMBS = commercial mortgage-backed security.

When PE companies gain control of life insurers, evidence shows that they quickly make changes to the investment portfolios of life insurers and enter affiliated reinsurance transactions (Kirti and Sarin 2020). Kirti and Sarin demonstrate that once a takeover transaction is finalized, the investment portfolios of PE-influenced life insurers quickly move to riskier assets such as private asset–backed securities (ABS). Kirti and Sarin show that PE-influenced insurers decrease their share of corporate bonds by more than 7 percentage points and increase their private-label ABS holdings by more than 6 percentage points within a year. Kirti and Sarin note that PE-influenced life insurers more aggressively take advantage of a post-global financial crisis regulatory change by US state insurance regulators where external ratings of ABS, which were significantly downgraded after the global financial crisis, were replaced by a rating based on the difference between book value and modeled expected loss on the relevant ABS.[10] This process is through the NAIC's Securities Valuation Office where individual securities are assigned an NAIC designation used for determining capital charges in the US state regulators' RBC framework. This process led to declines in capital required to be held for ABS. For other securities, NAIC designations are mapped to rating agency ratings. Kirti and Sarin also demonstrate that the use of affiliated reinsurance transactions reduces the tax rates paid by these PE-influenced life insurers.

Higher asset allocation to private assets creates two material challenges—liquidity risk and valuation uncertainty. In addition, private debt transactions may be carried out with counterparties that are unable to

[10] At the time of this writing, the NAIC runs many projects that are considering the appropriate changes to the RBC framework for life insurers (National Association of Insurance Commissioners Financial Condition [E] Committee 2023).

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access bank funding or public debt transactions and so could have higher average credit risk than similar public assets like corporate bonds. Similarly, some private credit investments may be subject to default risk, particularly in the higher-yield environment given the existence of floating-rate loans. At any point, it is difficult to determine the value of many private assets, and published valuations do not respond to market or economic conditions as readily as traded assets. This increases the risk that price adjustments may be sharper and faster, once they occur, because the crystallized evidence of losses may force other investors to mark down their investments. Typically, a life insurer has capital that is 10 percent or less of the value of its assets. A large allocation to private assets with valuation uncertainty means that the quality of this capital is more uncertain. Private assets are not able to be readily liquidated, and any forced sale that is not planned and strategically managed is likely to cause a discount to the carrying value of that asset. This can be seen clearly in the secondary market for PE assets where transactions in 2021 were priced at 92 percent of net asset value, but in 2022, this fell to 81 percent of net asset value (Jeffries LLC 2023).

Reinsurance and Regulatory Arbitrage

In recent years, the large PE companies have established their own offshore-based reinsurers, primarily in Bermuda. They have bought or reinsured blocks of life insurance or annuity business from life insurers and have even purchased life and annuity companies through their Bermuda reinsurers (Table 1). This allows them to issue insurance products, reinsure them, and manage the premiums—limiting the ability of on-shore regulators to monitor these activities (Pechter 2021). For Bermuda-based reinsurers, since January 2023, the Bermuda Monetary Authority (BMA) requires approval of life reinsurance transactions before execution, and in this process requires a comprehensive set of information, which it discusses with the regulator of the cedant and approves transactions only with the nonobjection of the regulator of the cedant.[11] Note that not all supervisors may be in a position to approve all reinsurance transactions or have the power to stop certain transactions. Also, note that approval processes are on a transaction-by-transaction basis, not likely considering the cumulative impact of many transactions over time.

Table 1. Bermuda-Based PE-Influenced Reinsurers

In recent years, the big PE companies have established their own Bermuda-based life reinsurers.

PE Company	Reinsurance Company in Bermuda	Interest
Apollo Global Management Inc	Athene Life Re Ltd	Ownership
KKR	Global Atlantic Assurance	Ownership
Blackstone	Resolution Life	Strategic partnership
Brookfield Asset Management	Brookfield Reinsurance Ltd	Partial ownership, separately publicly listed
Carlyle	Fortitude Re	Ownership
Apollo Global Management	Athora	29.9 percent ownership

Sources: A.M. Best; Bermuda Monetary Authority individual company websites; and IMF staff calculations.

[11] Information on rationale, economics, and key features of the transaction; information on fit to business, strategy (underwriting and investment), expertise, and risk and capital management; information on governance, risk management, and asset liability management; reinsurance, collateral, and investment agreements; impact on solvency and stress testing; and total asset requirements (technical provisions plus capital requirements) is under both the BMA and cedent regulatory basis.

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These PE-influenced reinsurers have grown their assets in recent years. They account for about half of the assets of all long-term reinsurers in Bermuda. As of the latest available data in 2021, Bermuda long-term reinsurance assets, a proxy for life reinsurance, grew to more than $1 trillion, about 4 percent of total life insurance assets globally, doubling their share when compared to the previous four years. Interestingly, this increase has been of similar magnitude and contemporaneous to the growth in US PE-influenced life insurance assets (Figure 6, panel 1). Non–PE-influenced life insurers are also more attracted to shifting a portion of their businesses to Bermuda and, in some cases, using PE-influenced reinsurers to contribute to their asset growth.

Important differences exist in the Bermuda Economic Balance Sheet with respect to illiquid investments compared to corresponding prudential requirements in the United States and Europe. The Bermuda Economic Balance Sheet is the valuation basis of the Bermuda Solvency and Capital Requirement. The most significant impact is on the valuation of technical provisions due to allowance of a more generous discount rate. It appears possible to gain recognition for the premium earned on illiquid investments when determining the discount rate for valuing technical provisions more often than in other regimes.[12] This is through the scenario-based approach (SBA) for valuing liabilities that can be applied at the option of reinsurers in Bermuda (Bermuda Monetary Authority 2015). This allows the additional spread on the liabilities discount curve to result in upfront profits to be booked as capital.

This is particularly pertinent because Bermuda's commercial reinsurance regime has been deemed fully equivalent to Solvency II by the European Union and has been granted full reciprocal jurisdiction status by the NAIC in the United States. This has created incentives for life insurers to reinsure their portfolios to Bermuda-based insurers that back these portfolios with fewer liquid assets such as structured credit investments.

The BMA consults on changes that would require prior supervisory approval of the use of the SBA only for new reinsurers and for existing reinsurers not using the SBA.[13] The BMA also proposed changes to risk management and governance requirements for the use of the SBA and technical changes that would more accurately assess liquidity mismatches in assets and liabilities due to lapse risk. It appears that even if these reforms are implemented in full as proposed, there may still be circumstances where the use of the SBA will continue to provide a relative benefit to Bermuda long-term reinsurers compared to the direct writers in the cedant markets (Schroders 2023). The BMA consultation is ongoing, with a second consultation published in July 2023. The final shape of the BMA reforms is not yet known. The BMA has stated that discussions regarding the BMA reforms are ongoing with authorities, which regulate cedant insurers using the Bermuda long-term reinsurance market.

PE-influenced reinsurers have a significantly larger share of illiquid investments. Using Bermudan PE-influenced reinsurers as an example, they allocate about 20 percent of their investments into illiquid investments. This is much higher when compared to the median for global insurers (Figure 6, panel 2).

[12] Although there are similarities to the matching adjustment in Solvency II and the "top bucket" approach in the Global Insurance Capital Standard market-adjusted valuation, eligibility criteria for technical provisions to which the SBA may be applied appear more generous. Some safeguards are applied by the BMA in terms of asset and liability eligibility, and haircuts are applied for asset liability mismatch evaluated under several interest rate risk scenarios.

[13] In a change to the February proposal (Bermuda Monetary Authority 2023a) from the BMA, existing reinsurers currently using the SBA will not be subject to approval based on the content of the July consultation paper (Bermuda Monetary Authority 2023b). The BMA issued a stakeholder letter (2023c), which confirmed that most of the July consultation will be implemented with an additional five-year transition period for technical changes to the SBA. The enhancements are expected to be implemented on March 31, 2024.

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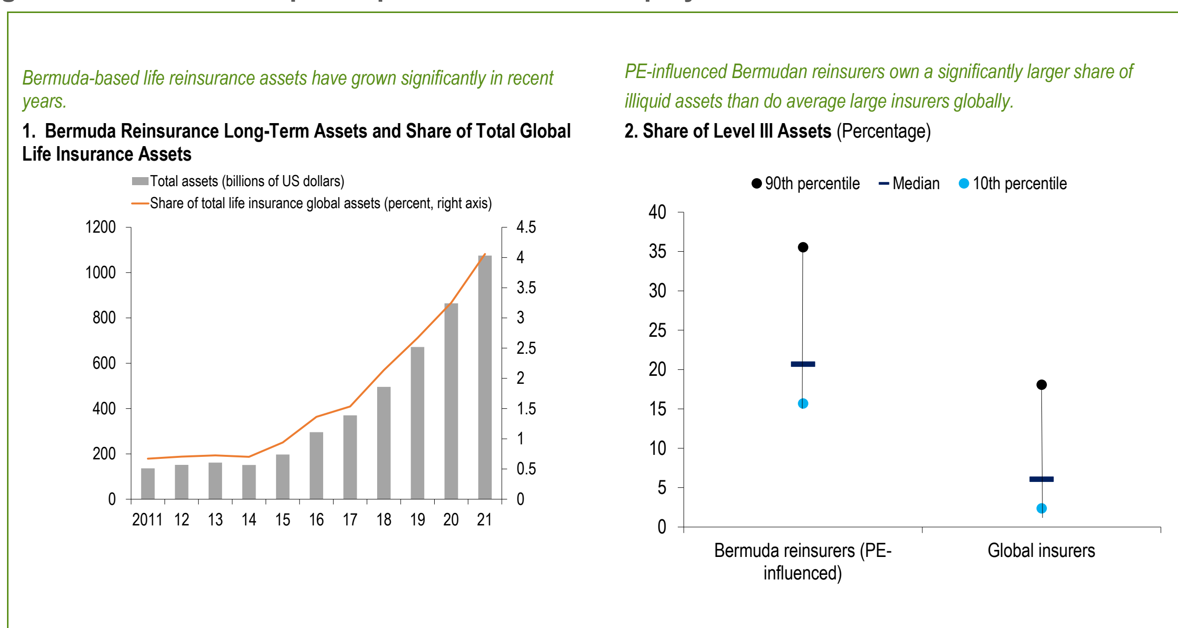
Also, many deals are more likely to involve "modified coinsurance" or "coinsurance with funds withheld" also known as asset-intensive reinsurance (Bermuda Monetary Authority 2023a and 2023b).[14] These are highly complex and less transparent deals between a life insurance company and an offshore (mostly Bermuda-based) reinsurer. These involve complex paper transactions that can produce accounting windfalls (Pechter 2021). Although these deals may in theory be transparent to those cedant supervisors who have the power to require sufficient information to be provided, supervisors also need the legal, actuarial, and accounting skills necessary to fully understand the ramifications of the transactions. These transactions are also not transparent to the public through general purpose financial reporting.

Figure 6. Growth and Illiquid Exposures of Private Equity–Influenced Reinsurers



Sources: Bermuda Monetary Authority; and IMF staff calculations.
Note: The Bermuda reinsurers series in panel 1 is based on the sample of six PE-influenced reinsurers in Table 1. The data in panel 2 are dated as of the latest available annual reports. The global insurers category in panel 2 includes a sample of 50 selected insurance groups from 18 jurisdictions across Europe, North America, Asia, and Australia. Level 3 assets are those considered to be the most illiquid and hardest to value. Their values are typically estimated using a combination of complex market prices, mathematical models, and subjective assumptions. PE = private equity.

In one case, a group of PE-influenced life insurers has already shown actual stresses. The Institute for the Supervision of Insurance (IVASS) in Italy identified a capital shortfall of €250 million in the midsize life insurer Eurovita. The owner, a PE, closed-end fund operated by Cinven, has been unable to meet IVASS's expectation for increasing capital. IVASS has replaced management of Eurovita with an administrator and has put a stop on policyholder redemptions initially until March 31, 2023 (Institute for the Supervision of Insurance 2023), but this has been extended many times until October 31, 2023, at the time of writing. These orders were in direct response to a surge in surrenders by policyholders when it became clear the

[14] A modified coinsurance arrangement involves the transfer of net policy liabilities to the reinsurer with the reinsurer required to indemnify the ceding insurer for the amount of the net policy liabilities, but assets necessary to support the reserve for the policies are maintained by the ceding insurer as are the reserves. The reserve is essentially a prepayment of the reinsurer's future obligation. Coinsurance with funds withheld transfers the reserves to the reinsurer but not the assets. The reinsurer usually wants some control over assets held on the ceding insurer's balance sheet in both these forms of coinsurance and may exercise that control through appointing an asset manager (which may be related to the reinsurer) for the identified portfolio of assets.

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closed-end fund would not meet the capital investment required by IVASS (Institute for the Supervision of Insurance 2023). The latest extension of orders related to a rescue deal for Eurovita announced on June 30 2023 involved five insurers and 25 banks. This episode may have wider ramifications because the press coverage of the Eurovita issue may encourage policyholders of other insurers to consider surrendering their life insurance policies in favor of other investments that now earn significantly higher returns than a year ago due to the rising interest rate environment (Fitch 2023).

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IV. Policy Considerations

Life insurers are adapting their business models for the current regulatory and macroeconomic environment. In Europe and the United States, traditional life insurers, particularly publicly listed life insurers, have retreated from traditional products that help consumers have protection against their investment risk and longevity risk. The fact that the growth in life insurance premiums has been far outstripped by GDP growth over the past 20 years demonstrates this decline (McKinsey and Company 2022). The PE companies help these traditional life insurers with their strategic pivot to capital light products by purchasing books of business and taking over life insurers in entirety. As this note indicates, the life insurance industry's risk profile is changing as a result.

Insurance supervisors are beginning to identify issues of concern with respect to PE influence in the life insurance sector and are working on regulatory or supervisory responses to address those concerns. Most advanced are the US state regulators, which, through the NAIC, announced a list of 13 considerations in relation to PE-influenced insurers (although the working group noted these considerations are not limited to PE-influenced life insurers) as developed by the NAIC's Macroprudential Working Group (National Association of Insurance Commissioners Macroprudential Working [E] Group 2023). The NAIC's concerns are with lack of transparency and additional risks inherent in the relationships between insurance companies and PE company owners and other contractual arrangements with PE companies. Their concerns include related party investments, structured securities, and other complex assets whose share has been increasing in insurers' portfolios. These considerations have led to the development of supervisory and regulatory policy by working groups within NAIC.

Insurance supervisors are encouraged to deepen their analysis of the trend in portfolio transfers and takeovers by PE-influenced insurers and reinsurers. The International Association of Insurance Supervisors recently published a section within its Global Insurance Market Report that provides some analysis of the trend (International Association of Insurance Supervisors 2022). The NAIC Capital Markets Department publishes an annual analysis of PE investments in the insurance sector (see, for example, National Association of Insurance Commissioners Capital Markets Bureau 2022). The European Insurance and Occupational Pensions Authority's December 2022 Financial Stability Report (European Insurance and Occupational Pensions Authority 2022) contained a section related to the role of PE companies in portfolio transfers from European life insurers. All supervisors should analyze this global trend and publish reports or contribute to reports by supranational bodies providing in-depth analysis of the trend to aid policy discussion.

Data quality and availability are a key constraint in analyzing the impact of PE ownership for the life insurance sector. Data availability leads to market-wide analysis, discussion, and openness about trends. The availability and timeliness of data about life insurers are a concern, with data lacking sufficient granularity and availability subject to long delays. Among insurance supervisors, US state regulators provide the best example of data availability albeit behind a pay wall.[15] Access to these data allows analysis of trends in the US life insurance sector as can be seen in analysis by ratings agencies, equity analysts, academics, journalists, and others. It is notable that such research does not appear to be undertaken to such an extent in other markets, and this is likely due to greater constraint on public availability of granular data about insurers' investment and liability portfolios. Some details may be able to be gleaned from general purpose financial reporting, but typically the granularity is not close to that provided in US regulatory returns.

[15] Regulatory return data of individual insurers can be purchased directly from NAIC or from data providers such as S&P Capital IQ Pro.

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Other supervisors around the world should aspire to reach or surpass the level of disclosure provided by US state regulators.

Actual or perceived opportunities for regulatory arbitrage should be addressed through widespread adoption of a globally consistent consolidated capital standard for the insurance sector. To the extent that regulatory arbitrage is driving cross-border reinsurance transactions from one jurisdiction to another, this opportunity could be addressed through convergence of capital standards. It is important that the valuation basis for assets and liabilities converge, as well as the amount of capital required to be carried for insurance risks and corresponding assets. A capital standard for consolidated groups supported by intensive supervision would address any regulatory arbitrage opportunities. The International Association of Insurance Supervisors is developing the global Insurance Capital Standard, and consistent implementation would address cross-border arbitrage.

Valuation uncertainty should be addressed by intrusive supervisory review of insurers' valuation process, supervisory review of audit processes, and asset quality review by the supervisor when necessary. Differences between carrying values of securities and current and stressed market value proxies will reveal the extent to which life insurers' capital is at risk. The significant increase in PE-influenced reinsurance transactions also suggests the importance of a robust valuation process for reinsurance technical provisions. It is notable that in February 2023 and July 2023, the BMA published consultations on reforms, which, in part, seek to address how the premium earned on illiquid investments can be recognized in the discounting applied to life reinsurer technical provisions. This is a positive development, but as noted by Schroders (2023), "Even if the proposed reforms are implemented in whole, including the more taxing additions to the scenario-based approach, Bermudan (re)insurers would still benefit from continued use of the scenario-based approach on blocks of business, which, in many cases, would not be eligible for similar treatment in the risks' originating countries." The impact and outcomes of the proposed consultation remain to be seen. A detailed holistic comparison of solvency frameworks is the only way of assessing the impact of different policy choices and is an inherently difficult process that may vary by transaction and business strategy. However, it is often said that the BMA regulatory requirements are closer to the economic view of management than other solvency systems, hence the preference for Bermuda. This implied difference in systems and perceived advantage of one system over another is a subject for intense supervisory dialogue.

Liquidity risk of PE-led insurers should be addressed by supervisors through enhanced liquidity monitoring and by conducting liquidity stress testing. Likely causes of liquidity stress, including derivatives positions and possible mass lapse events, can be modeled to see if the lower levels of liquid assets are likely to cause stress to the insurer or to certain markets. Reinsurance transactions and their collateral practices would also require additional liquidity. Insurers should establish risk management frameworks that allow them to monitor and manage their liquidity appropriately. Conducting a liquidity stress test would help ensure robust liquidity risk management.

Supervisors are encouraged to work closely with other authorities in charge of systemic risk to analyze the possible contagion to other parts of the financial system and in the real economy. Insurance supervisors should be attentive to the changing risk landscape in their macroprudential supervision. Being attentive to the risk does not necessarily mean that innovation created by PE companies in the life insurance sector should be diminished. However, supervisors should be attentive to these trends and their consequences. Insurance supervisors should work with other authorities involved in macroprudential oversight to understand the benefits and consequences of these trends, and this GFSN is intended to shed light on those issues.

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Annex 1. List of Life Insurance Companies or Groups with Private Equity influence

Life Insurers and Private Equity Sponsor

Company or Group name	**Group country**	**Private Equity Sponsor**
Global Atlantic Grp.	USA	KKR & Co. Inc.
Sammons Financial Grp.	USA	Sammons Enterprises, Inc.
Security Benefit Grp.	USA	NZC Capital LLC
Grp. 1001 Life & Annuity Grp. (Guggenheim)	USA	Grp. 1001 Insurance Holdings, LLC
Venerable Holdings Grp.	USA	VA Capital Co. LLC
Talcott Resolution Grp.	USA	Sixth Street Advisers, LLC
Everlake Life Grp.	USA	The Blackstone Group
EquiTrust Life Insurance Co.	USA	June Bug Lifetime Trust
Kuvare US Grp.	USA	Access Holdings LP, Altamont Capital
Nassau Insurance Cos.	USA	Golden Gate Capital
Calton Holdings Grp.	USA	Calton Holdings, LLC
Fortitude Re US Grp.	USA	The Carlyle Group
Prosperity Life Grp.	USA	Elliot Management Corp. (Bluejacket LP)
Advantage Capital Life Grp.	USA	Advantage Capital Partners, LLC
Oceanview Life & Annuity Co.	USA	Bayview Asset Management, LLC
Aquarian Insurance Grp.	USA	Aquarian Holdings LLC
Structured Annuity Reinsurance Co.	USA	Apollo Global Management, Inc.
Ability Insurance Co.	USA	Mount Logan Capital Inc.
Federal Life Insurance Co.	USA	Insurance Capital Grp., LLC
Life of the South Grp.	USA	Tiptree Inc.
Multinational Life Insurance Co.	USA	Ancon Investment Corporation
LifeShield National Insurance Grp.	USA	Homeshield Capital Co.
Old Surety Insurance Grp.	USA	Enterprise Investments, Inc.
Texas Republic Life Insurance Co.	USA	Texas Republic Capital Corporation
American Federated Life Insurance Co	USA	Prospect Capital Corporation
Aspida Life Insurance Co.	USA	Ares Management Corporation
Monitor Life Insurance Co of New York	USA	Fairfax Financial Holdings Ltd.
Financial American Life Insurance Co	USA	Arch Capital Grp. Ltd.
USA Insurance Co.	USA	InShares Capital Corporation
Corebridge Financial, Inc.	USA	The Blackstone Group
ClearView Wealth Limited	Australia	Crescent Capital Partners Management Pty Ltd.
Athene US Life Grp.	Bermuda	Apollo Global Management, Inc.
Resolution Life Group Holdings LP	Bermuda	The Blackstone Group
Brookfield Reinsurance Ltd	Bermuda	Brookfield Asset Management
GreatWall Life Insurance Co. Ltd.	China	China Minsheng Investment Group
Heidelberger Lebensversicherung AG (Viridium Holding AG)	Germany	Cinven Partners, LLP
UT Life Insurance Limited	Ghana	LeapFrog Investments
ICICI Prudential Life Insurance Company Limited	India	PremjiInvest
IndiaFirst Life Insurance Company Ltd. (Bank of Baroda)	India	Warburg Pincus LLC
Max Financial Services Limited	India	KKR & Co. Inc.
PNB MetLife India Insurance Company Ltd.	India	Oman-India Joint Investment Fund Management Company
Eurovita	Italy	Cinven Partners, LLP
Amevun N.V.	Netherlands	TPG Capital, L.P.
Singapore Life Holdings Pte. Ltd.	Singapore	TPG Capital, L.P.
Kdb Consus Value Ltd.	South Korea	JC Partners
Kyobo Life Insurance Company Limited	South Korea	BPEA EQT
Futur Pension Försäkringsaktiebolag	Sweden	Acathia Capital GmbH
The Canada Life Group (U.K.)	United Kingdom	TDR Capital LLP
Mobius Life Group Limited	United Kingdom	Phoenix Equity Partners Limited

Sources: A.M. Best; S&P Capital IQ Pro; and IMF staff compilation. This list is not exhaustive. It presents life insurers with partial or full private equity ownership, as of the first quarter of 2023. Life Insurers are listed by company or group or both (with group name in parentheses).

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