

POINT OF VIEW

OPTIMISING THE RISK- RETURN OF ILLIQUID ASSETS

November 2018



EXECUTIVE SUMMARY

Illiquid assets can provide strong yields to insurers in an otherwise low-return investment environment. These yields are typically 150-200 basis points above the risk-free rate. In addition to the benefit of higher returns, illiquid assets can offer a significant solvency benefit through matching with long-dated liabilities.

As a result of these economic returns and potential solvency benefits, insurers are increasing their investment in illiquid assets. Yet despite the superior returns and the potential solvency benefits, the overall allocation to illiquid assets remains proportionally low.

There are several key reasons why most insurers have not fully taken advantage of the benefits of illiquid assets: The difficulty in identifying attractive assets, a lack of knowledge and skills in relation to an area perceived as high-risk, and increasing regulatory scrutiny of non-bank lending. This must change if insurers are to secure assets with appropriate characteristics to match their liabilities.

Based on our fieldwork, some insurers have proved that these challenges are surmountable and are reaping the rewards. These rewards include higher yields, fewer defaults, and greater solvency benefits under the matching adjustment (MA) measures. The continuous success of these insurers depends on actions prior to investment and also the ongoing management of risk through its lifecycle.

Prior to investment, these insurers conduct thorough due diligence. This includes assessment of the asset class and associated risks, operational due diligence of the internal organisational readiness, as well as external investment manager arrangements where outsourced providers are used. The critical step of onboarding must also be meticulously designed, in order to ensure a smooth transition to business as usual.

Their ongoing management of risk and capability to scale-up relies upon the implementation of a robust operating model. This includes the governance and culture of the firm; its manifestation through the alignment of risk appetite and business strategy; the people and organisational structure that enable the execution of deals; and the internal risk management processes including rating models, systems and data that ensure these deals are indeed within the stated risk appetite.

At Parker Fitzgerald, we have worked with numerous firms of varying levels of maturity, and used our proprietary frameworks and tools to assist those contemplating investment in new assets, along with firms requiring review and remediation of their existing credit risk management operating model.

Through our integral role in the design and build of a framework that is currently being used by the regulators to assess firms with material investments in illiquid assets, we are well-equipped to support your initiatives to optimise the risk-return of illiquid assets, at any stage of your investment journey.

THE BUSINESS CASE FOR INVESTMENT IN ILLIQUID ASSETS

The term 'illiquid asset' typically relates to non-traded assets where there is no clear primary or secondary market, meaning that it cannot be easily exchanged or offloaded without a substantial loss in value. Illiquid assets are usually accessed by providing debt financing, investing in equity, or purchasing an asset in its entirety.

Examples of illiquid assets include:



Property backed

Commercial real estate, housing associations, equity release mortgages (packaged)



Asset backed

Auto loans, aircraft leasing, agricultural backed mortgage securities and commodity trade finance



Project backed

Infrastructure, renewables, oil and gas



Private placements

Higher education loans, corporate bonds

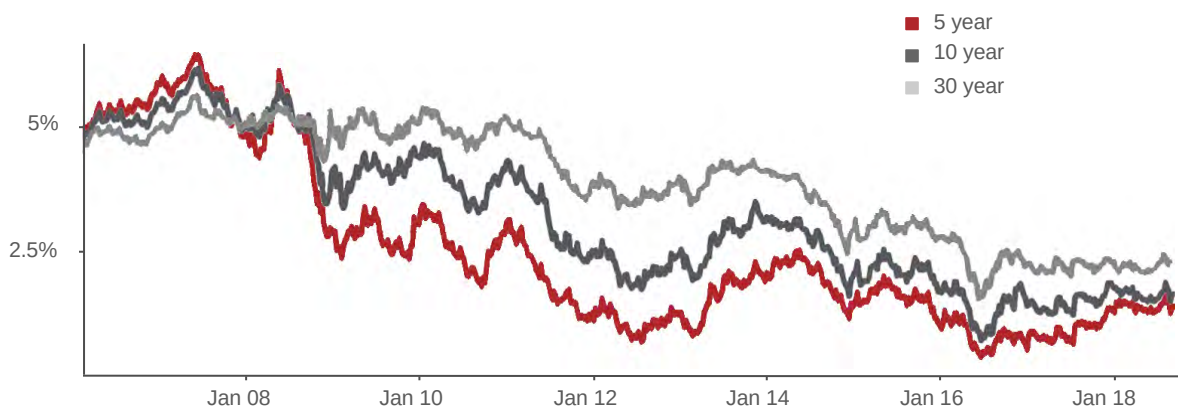
These categories are for example purposes only, and are a non-exhaustive list.

There are three main reasons for the attractiveness of illiquid assets: spread, asset-liability matching, and solvency benefits.

Spread

The first, and most straightforward, reason for the increase in investment in illiquid assets is the increased level of return versus traditional assets. Since the financial crisis, returns on traditional assets such as government backed bonds, have been disappointing. For example, a UK 5Y gilt was trading at over 5% in mid-2008, yet in 2018 has rarely exceeded 1.2%. The 10Y and 30Y gilts, timescales which are applicable for some of the long-tail liabilities of insurers, have fared slightly better, but have still seen returns more than halved over the same period.

UK Gilt Yields (5, 10 and 30 year)

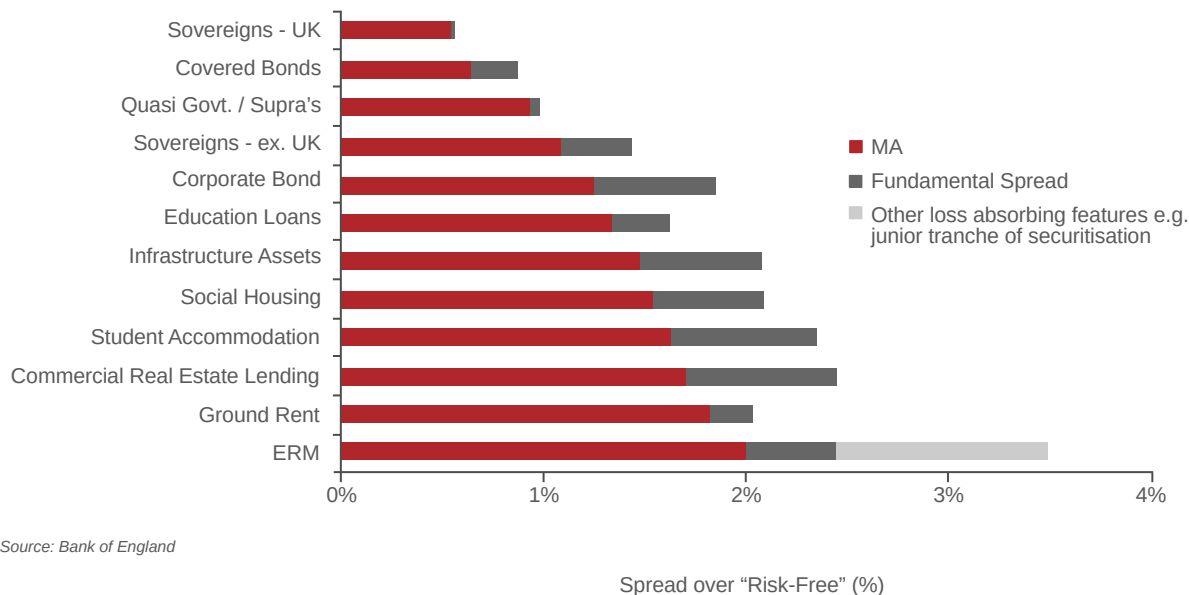


Source: MarketWatch

In contrast, illiquid assets have been providing investors with a significantly better return over the risk-free rate, mainly due to pricing in the acceptance of liquidity risk by the lender. The

Bank of England data (see chart below) shows the average matching adjustment (MA) across many of the common illiquid asset classes. This demonstrates returns between 50 and 250 basis points above the risk-free rate.

Average Matching Adjustment by Asset Class



Asset-Liability matching

Due to the nature of their business, insurers are attracted to long-dated investments. Specifically, the median duration of life insurance technical provisions (not including unit-linked) within the EU is 11.9 years, and 3.9 years for non-life.¹ Therefore, investments in illiquid assets provide an attractive natural matching for these long-dated liabilities.

Since most of these assets are held to maturity, an additional benefit is the removal of the volatility associated with market valuations through their lifecycle.

Solvency benefits

Long-term asset-liability matching can have significant solvency benefits through the application of the Solency II MA measures.

The MA benefit is predicated on the assets meeting prescribed eligibility criteria and is subject to regulatory approval. The key requirement is that the insurer will hold the assets in an MA portfolio (MAP) to maturity. As a result, the MAP is free of liquidity risk. Therefore when discounting liabilities the MA benefit can be added to the risk-free rate, resulting in a lower net present value of liabilities, and a subsequent increase in available own-funds. In addition, the lower net present value of technical provisions results in a lower solvency capital requirement (SCR), which leads to a markedly higher solvency ratio.

The demand for illiquid assets

At first sight, it might appear that the demand for illiquid assets is being driven primarily by life insurers, searching for the cashflow matching of long-dated liabilities and the associated MA benefit. Life insurers in the UK are in a period of high bulk annuity activity, with the eight largest underwriters averaging £14.9bn in transfers between 2014 and 2017.² This year is set to eclipse these figures – the single deal between Rothesay Life and Prudential in March saw Rothesay acquiring a £12bn annuity portfolio covering c.400,000 policyholders.³

Whilst life insurance is the primary demand driver for illiquid assets, both general insurance (GI) and re-insurance firms can take advantage of the higher spreads available from illiquids. The key to this is for GI and re-insurance firms to create subsets within their portfolios and to better match the longer-dated liabilities within their balance sheets; for example firms that have casualty business will have liabilities extending over multiple years.

¹ Asset exposure statistics, EIOPA, September 2018.

² A record breaking year for the bulk annuity market, Hymans Robertson, 6 July 2018.

³ Rothesay life to purchase £12bn annuity portfolio from Prudential plc, Rothesay life, 14 March 2018.

THE CHALLENGES OF INVESTING IN ILLIQUID ASSETS

As the industry realises the attractiveness of the illiquid assets, the amount invested in these assets will increase. In absolute figures, these investments are already significant, European Insurance and Occupational Pensions Authority (EIOPA) data shows that insurers allocated €386bn to illiquid assets (€134bn in the UK), however the percentage allocation, in comparison to the total investment portfolio, remains low at 5.5% in the EU (6% in the UK).⁴ This relatively low allocation can be explained by the challenges associated with investments in illiquid assets:

- A lack of knowledge and skills in relation to an area perceived as high risk
- The difficulty in identifying attractive assets
- Regulatory scrutiny of non-bank lending

Lack of knowledge and skillset

There has long been a trend for insurers to outsource their investment operations to third party asset managers, or to a lesser extent to other group subsidiaries, mainly driven by cost efficiencies. There has also been a trend for investments to focus on liquid assets, mainly driven by outdated prudential requirements. These trends have resulted in a depletion of in-house expertise related to illiquid assets, and a reduction of investment activities to accounting processing and reporting.

As insurers look to fill the lending gap created by bank retrenchment post financial crisis, they face the acute challenge of hiring staff with appropriate experience to deal with the types of risks associated with illiquid assets, risks that even vary within asset classes due to the idiosyncratic nature of the investments. There has been a limited number of credit risk analysts with illiquid asset experience transferring from banks to insurers.

In many cases, this lack of knowledge and skillsets with regard to illiquid assets is not limited to investment teams and rating activities, but extends throughout the organisation and the governance structure.

Identification of attractive assets

Accessing attractive assets depends upon reliable origination channels, adequate deal structures, and manageable risks.

Although the market is experiencing an increase in demand, driven in part by demographics and public and private balance sheet de-risking, the supply of quality assets remains constrained by multiple factors including slow economic growth. These conditions can trigger a “race to the bottom”, in which insurers accept disproportionate risks at inadequate premia, packaged through complex structures reminiscent of the conditions preceding the financial crisis.

As such, there is pressure on insurers to carry out robust due diligence including risk identification and assessment, to avoid the blind faith in market valuations, e.g. property markets and AAA rated RMBS. This is all the more important given the low-data, low-default nature of many illiquid assets, and the lack of a reliable credit rating from an external credit assessment institution (ECAI – more commonly known as a Rating Agency).

The risks associated with illiquid assets are becoming more pronounced as the credit cycle turns. Some of the recent events that have already affected illiquid asset classes are as follows:

- Commercial Real Estate: the impact of high profile retailer difficulties (e.g. House of Fraser; BHS; Toys R'Us; Maplin)
- Infrastructure and project finance: the impact of deteriorating credit quality of suppliers (e.g. Carillion; Capita) or severe project delays and cost over-runs (High Speed 2, 'The Pinnacle' - now 22 Bishopsgate)
- Social Housing: the cost of replacing cladding post Grenfell

BHS – A double-edged sword

Whilst the woes of the high street are causing issues for lenders backing commercial real estate, they also present opportunities for some insurers to acquire new books of pension liabilities. Pension Insurance Corporation, one of the leaders in the bulk annuity purchase market, hit the news over summer for their buyout of £800m worth of BHS2 pension scheme liabilities.⁵

According to market analysts, these trends are set to continue. As an example, aircraft leasing will be impacted due to potential changes to airline rights as part of a 'No Deal' Brexit scenario. This asset class is also exposed to social and political pressures related to emissions, as are auto-finance and shipping.

Regulatory scrutiny

The risks associated with illiquid assets have drawn the attention of regulators. This is due to the concern that insurers are repeating the mistakes of banks ahead of the financial crisis, in which the risks of assets were poorly understood. A second factor specific to a smaller number of firms, is to ensure that internal credit ratings are not being used to 'game' the MA benefit under Solvency II.

The overarching regulatory drive effectively links to the Prudent Person Principle (Article 132) of Solvency II:

“With respect to the whole portfolio of assets, insurance and reinsurance undertakings shall only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report, and appropriately take into account in the assessment of its overall solvency needs”.⁶

In the case of the MA benefit, the insurer is expected to calculate the fundamental spread (i.e. credit risk). This gives insurers the ability to reduce their overall capital requirements through overestimating the credit quality of illiquid assets using their internal rating models.

In the UK, these concerns were the focus of the PRA Supervisory Statement (SS) 3/17, which required firms to ensure full recognition of the extent of credit risk to which they are exposed. David Rule, Executive Director of Insurance Supervision of the Bank of England, reiterated this point in a speech from April this year, when stating – “the Matching Adjustment must not include the Fundamental Spread, reflecting the risk retained by the insurance or reinsurance undertaking”.⁷ The PRA has followed up with in-depth reviews of the credit risk management practices of illiquid assets.

The scrutiny placed on illiquid assets also extends to the wider EU, where EIOPA has initiated a project to analyse the liquidity of insurers' liabilities and information on the asset management of insurers.

⁵ PIC fully insures BHS2 pension scheme in £800 million buyout, Pension Corporation, 12 August 2018.

⁶ Prudent person principle (Article 132) of Solvency 2, European Union, November 2009.

⁷ David Rule; 'An annuity is a very serious business', Bank of England, 26 April 2018.

EXTRACTING THE VALUE OF ILLIQUID ASSET INVESTMENTS

Despite the challenges noted, investments in illiquid assets can produce attractive returns whilst having manageable downside risks.

Insurers are advised to develop the necessary tools to secure the risk-return, by focusing on two areas.

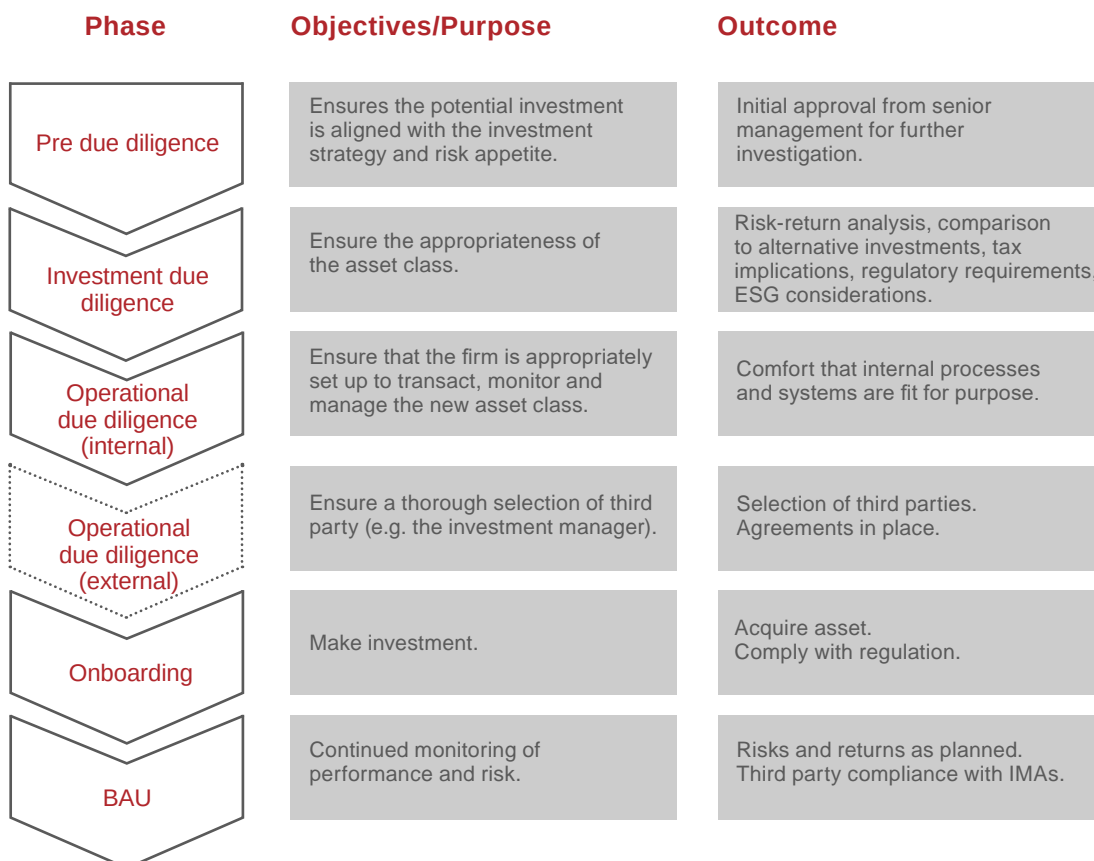
1. Due diligence prior to the investment decision; and
2. A robust operating model for ongoing risk management.

Due diligence

The first step to ensure appropriate origination and structuring of investments is to conduct a thorough due diligence process.

As part of this process, the insurer should be comfortable with the appropriateness of the asset class from both a risk and a return perspective. This involves identifying an attractive investment, determining all risks, building an appropriate internal rating model, and developing an exit as well as a workout strategy for the asset taking into consideration its illiquid nature.

Parker Fitzgerald have developed a framework for use by insurers, to ensure that an appropriate level of due diligence takes place. The high-level steps in this framework are outlined below:



..... Only applicable if insurer is utilising third party investment managers

Insurers' exposure to mortgages

Mortgages constitute 31% of all illiquid assets held by European insurers, based on Q4 2017 valuations.⁸ Mortgages and structured mortgage products, however, do present challenges in risk assessment, which should be identified through due diligence. For example equity release mortgages (ERMs) have attracted the attention of the UK regulators, through the consultation paper (CP) 13/18. This requires insurers to review their current approach to the non-negative equity guarantee (NNEG), and consider making changes to the structure, valuation or rating of restructured ERMs to ensure that they are able to calculate their MA benefit accurately.

Based on our experience working with the industry, there has been an overemphasis on the investment due diligence, and where relevant the operational due diligence of the external third parties. In contrast, insufficient attention has been paid to the alignment of the investment under consideration with the business strategy and risk appetite, as well as the operational readiness of the firm. In some cases, this review of operational readiness only took place after onboarding occurred. We have also observed a lack of formal arrangements in cases where outsourcing takes place within a group structure, which has attracted regulatory scrutiny as it may give rise to conflicts of interest and/or undue influence situations.

Operating model

Effective investment management goes hand-in-hand with a robust and well-defined operating model. No matter how thorough the due diligence process is, if the insurer does not have the experience in managing the asset class, it is likely that the necessary risk identification and rating exercises will not be completed correctly.

The operating model can be broken down into five components, which are listed below:

Operating model component	Target state
Governance and culture	Credit risk management is embedded in decision-making with a well-developed framework, an adequately staffed independent function and active board oversight.
Risk appetite and strategy	The insurer has a defined credit risk appetite linked directly to its investment strategy and decision making.
People and organisation	The insurer employs highly qualified staff, provides continuous development and uses supportive compensation, closely linked to risk metrics.
Rating methodology and process	There is a clear understanding of the risks associated with each asset class, with a well-documented and validated methodology.
Systems and data	The data is of high quality (complete, accurate and appropriate) and systems to capture and rate credit exposures operate in a controlled environment.

As previously mentioned, one of the challenges that insurers face relates to implementing an efficient organisational structure, and staffing this with sufficiently skilled individuals. While approaches vary, industry leaders stand out in terms of their progress in building a solid base on which to scale up illiquid investments. The same can be said for the governance and culture, and risk appetite and strategy components.

On the other hand, a key component of the operating model that can be significantly improved is the rating methodology and process. Many insurers have designed and built internal credit rating models that are closely aligned to ECAI methodologies. Due to the poor quality of documentation, however, these firms struggled to demonstrate a comprehensive understanding of the risks involved and provide rationale in cases where adjustments were made to either the rating model or its outputs. In addition, the insufficient quality and frequency of ongoing validation gave further cause for concern.

⁸ Asset exposure statistics, EIOPA, September 2018.

In terms of systems and data, there is a wider industry shortcoming related to the lack of developed applications and controls supporting the rating process, along with limited data quality management.

A key differentiator of the leading firms is the future-proofing of their operating models. This is carried out through a scanning of the regulatory horizon, and identification of dependencies. There are a number of upcoming industry changes that must be taken into account, such as the transition away from LIBOR or the implementation of IFRS 17.

The challenge of “model” governance

Throughout our work with the industry we have seen a high degree of uncertainty, when we use the term “internal rating model” for the “spreadsheets” or “scorecards” used in the credit rating of illiquid assets. To many industry actors, these do not qualify as models. Underpinning this perception is the industry’s fear of “internal model” (i.e. internal capital model) scope creep that may result in the application of stringent Solvency II standards to these spreadsheets or scorecards. Consequently, there has been a persistent trend to downplay the definition and the role of internal rating models. An unintended consequence of this has been the weakening of the operating model around model governance, documentation and validation.

In our view, addressing this perception and clearly defining internal rating models is of critical importance to the robustness of the internal credit rating process. An internal rating model is based on quantitative and qualitative methods that take into account statistical, economic, financial, or sectoral experience and assumptions to process input data into ratings. As defined, rating models have three core components:

- Inputs which deliver data and information in relation to the asset
- A processor or calculation engine which transforms inputs into scores
- An output which converts the scores into a rating

Insurers must ensure the spreadsheets or scorecards used in the internal credit rating process are functioning as they should and producing accurate and consistent ratings. Every spreadsheet or scorecard used in the internal credit rating process must, therefore, meet clear operating standards including having up-to-date documentation and regular validation, regardless of whether it is deemed a model or not. More specifically, the internal rating model validation framework should cover three core aspects:

- Evaluation of conceptual soundness, including methodological evidence
- Ongoing monitoring, including rating performance tracking and rating process reviews
- Outcomes analysis, including back-testing

CONCLUSION AND LOOK AHEAD

Investments in illiquid assets will continue to grow significantly, due to their risk-return attractiveness, material solvency benefits, and tangible contribution to national economies. This is a view shared by regulators and encouraged by policymakers.

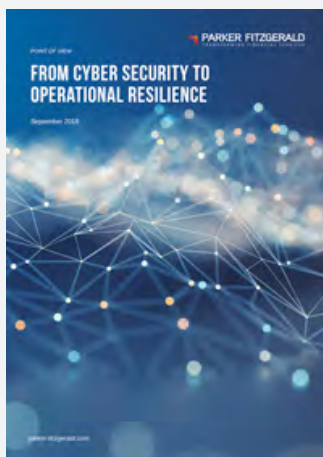
To be able to take full advantage of the benefits of illiquid assets, and play their key role in the national economies as investors as well as risk takers, insurers have to ramp up their operations. Specifically, this covers two key elements:

1. Thorough due diligence prior to investment, including assessment of the asset class and associated risks, as well as operational readiness of the firm. This element ensures viability of the investment and contingencies if expectations are not met.
2. A robust operating model, to enable the ongoing risk management of illiquid assets through their lifecycles. This element ensures scalability of the investment activities, and delivery of the risk-return expectations.

In addition, these two elements have to pass current regulatory scrutiny, and withstand future developments such as cycle turn, valuation standard changes, and new solvency requirements.

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Christian is a senior manager in Parker Fitzgerald's insurance practice, specialising in the provision of advisory and project delivery work across the insurance sector.

Christian has an in-depth knowledge of the risk and regulatory requirements for insurers, and was instrumental in the design and build of the illiquid assets credit risk assessment framework for the PRA in 2017. He has subsequently lead Parker Fitzgerald's illiquid asset reviews for a number of leading life insurers, and simultaneously developed a framework for the due diligence over new asset classes, which has been utilised by multiple clients through 2018.

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