FINBOURNE

Future - Proofing Retirement Funds

Blueprint for Amplifying Returns and Streamlining Operations

Executive Summary

Retirement funds are some of the most important institutions in our economy. Responsible for the livelihoods of millions, the investments they make in businesses and the wider community are key to ensuring our future prosperity.

But in an increasingly unpredictable economic climate, guaranteeing that your fund is able to meet its commitments is becoming more challenging.

Not long ago, many funds were contending with the impact of an extended period of extremely low interest rates. With alarming speed, this has been turned completely on its head, and funds are **dramatically adjusting their strategies** to hedge the risks of a more muscular monetary policy and the increasingly potent threat posed by inflation.

Unsurprisingly, Chief Investment Officers (CIOs) and Executive Directors (EDs) are constantly on the lookout for ways to ensure that their funds are robust and can deliver the best value and service possible for their members.

For CIOs, the best way to achieve this is by squeezing every drop of value out of the business. In a bid to diversify their portfolios, many are looking to augment their traditional fixed income and equity holdings with lucrative alternative investments. CIOs are also looking to increase the control they have over investment decisions and the efficiency of the funds themselves by bringing more portfolio management in-house - a move that is set to save them millions of dollars in fees alone.

However, CIOs across the globe tell us that their ambitions are **being constrained by technology**. The tools needed to manage a portfolio with the size and complexity of a retirement fund have traditionally only been available to the largest institutions. Bringing more of the portfolio's management in-house often seems too complex and costly to consider. What's more, many CIOs find that their current systems lack the ability to onboard complex alternative investment products. They are forced to either implement complicated manual workarounds, or disregard lucrative opportunities entirely.

But technology isn't just constraining operations and opportunity. EDs are finding that they lack the capabilities needed to manage their members and meet their regulatory obligations.

Stakeholders are increasingly interested in how and where their money is being invested. Funds are often asked to supply, at extremely short notice, **a comprehensive breakdown** of the assets they hold. Dramatic market moves, geopolitical uncertainty, and the 24-hour news cycle have increased the pressure and regularity of these requests, and there's no sign that these demands will slow down soon.

Again, almost every ED we have spoken to has told us that their attempts to get hold of the information they need are **hampered by technology**. Inaccessible data and siloed operational processes make it almost impossible for funds to rapidly gather and present exact, up to date reporting. This creates needless compliance and reputation al risks and can put those who work in member services in an extremely difficult position.

On the face of it, these issues appear diffuse and unconnected, but look deeper and you'll find an underlying cause: data - specifically the ability to access and use it to solve business problems.

Funds lack the ability to turn their data into the type of information that will help them make informed decisions about their investments. They lack the tools needed to put that information into the hands of a decision maker, and they lack the ability to arm their external facing teams with the information they need to manage members and regulators.

The solution to the data problem is not to rip and replace existing systems, but to invest in a foundational data platform that will deliver value far into the future. If retirement funds can get the technical fundamentals right, they can put data at the forefront of their business and use it to generate better returns, reduce operational costs, and provide a more compelling investment service for their members.

In this white paper, we explore:

- The **challenges** that pension and retirement funds face
- How advanced technologies can help **overcome** these challenges
- And, how a modern financial data stack can set funds up for **success** far into the future

Unparalleled Opportunities

Alternatives and the promise of greater returns

The sheer size of the global market has opened savvy investors up to a vast number of opportunities. From commodities, energy, to real estate, there is a market for almost everything. If managed wisely in a diversified portfolio, the returns available from investing in alternatives can be significant. The most recent bi-annual "Food Fight" publication by JPMorgan found that Private Equity has outperformed the SNP 500 by up to 5% year on year since 2009, a rate of return that many look at with envy.

Unfortunately, the complexity of alternatives makes integrating them into a retirement funds holdings extremely difficult.

Before they can commit, portfolio managers must put in a huge amount of effort into understanding the product, benchmarking it against the market, and ensuring that it won't compromise their ability to meet their commitments to members and regulators.

This is no mean feat. Often, the data available on an alternative investment is not compatible with existing systems and processes. Analysing a real estate investment is entirely different to picking a stock. Similarly, asking a system designed to manage equities to process rental income is like **telling a helicopter to dig a hole.** The result is that funds either have to disregard alternatives, or create risky, labor-intensive manual workarounds to accommodate them.

Neither choice presents a good outcome. Either funds miss lucrative investment opportunities, or they burden themselves with additional bespoke systems to manage their alternative investments. Not only do these extra systems come with added maintenance and admin costs, they also can't communicate with, or be reconciled against a funds public market technology. This means that many funds can only look at their asset classes in isolation, making it almost impossible for them to understand their true exposure and risk across their entire portfolio.

Reducing cost by bringing trading in-house

To ensure that their operations are as lean as possible, many retirement funds have outsourced part of their portfolio management to institutional asset managers. Whilst this simplifies the investment process, it can be expensive. Some asset managers charge funds **as much as 2% per year** - cash that could be put to far better use.

Outsourcing also reduces the control that funds have over their portfolios. Were investment decisions brought in house, the fund could be far more discerning about how, why, and when it invests, giving the CIO the control they need to ensure that the portfolio is truly working for its members.

But bringing even a small proportion of the portfolio's management in-house can be extremely challenging. Managing a retirement fund is complicated. Without robust infrastructure and technology, funds cannot expect reliable performance. However, the high-end technology that funds need often comes with a bank grade price tag and has only been viable for the largest players.

Overcoming the limitations of technology

It's clear that the technology that retirement funds have access to is not delivering everything they need.

A lack of flexibility prevents many funds from intelligently managing a broader range of assets, and the limited functionality of existing systems and processes acts as a barrier to bringing more of the fund's portfolio management in house. What's more, the need to support multiple technologies and data hosting solutions eats up capital that could be put towards generating returns.

But how can retirement funds get hold of the technical dynamism they require, at an affordable price, without undertaking a risky redesign of their technology stack?

Making data an enabler

The advancements in data management technology offered by FINBOURNE give funds the ability to revolutionize how they do business.

In the past, organizations have had to contend with multiple data stores feeding a dizzying array of systems and processes. FINBOURNE's LUSID platform provides retirement funds with both a centralized repository for **all** their critical data, as well as the tools front, middle, and back-office users need to take advantage of this data.

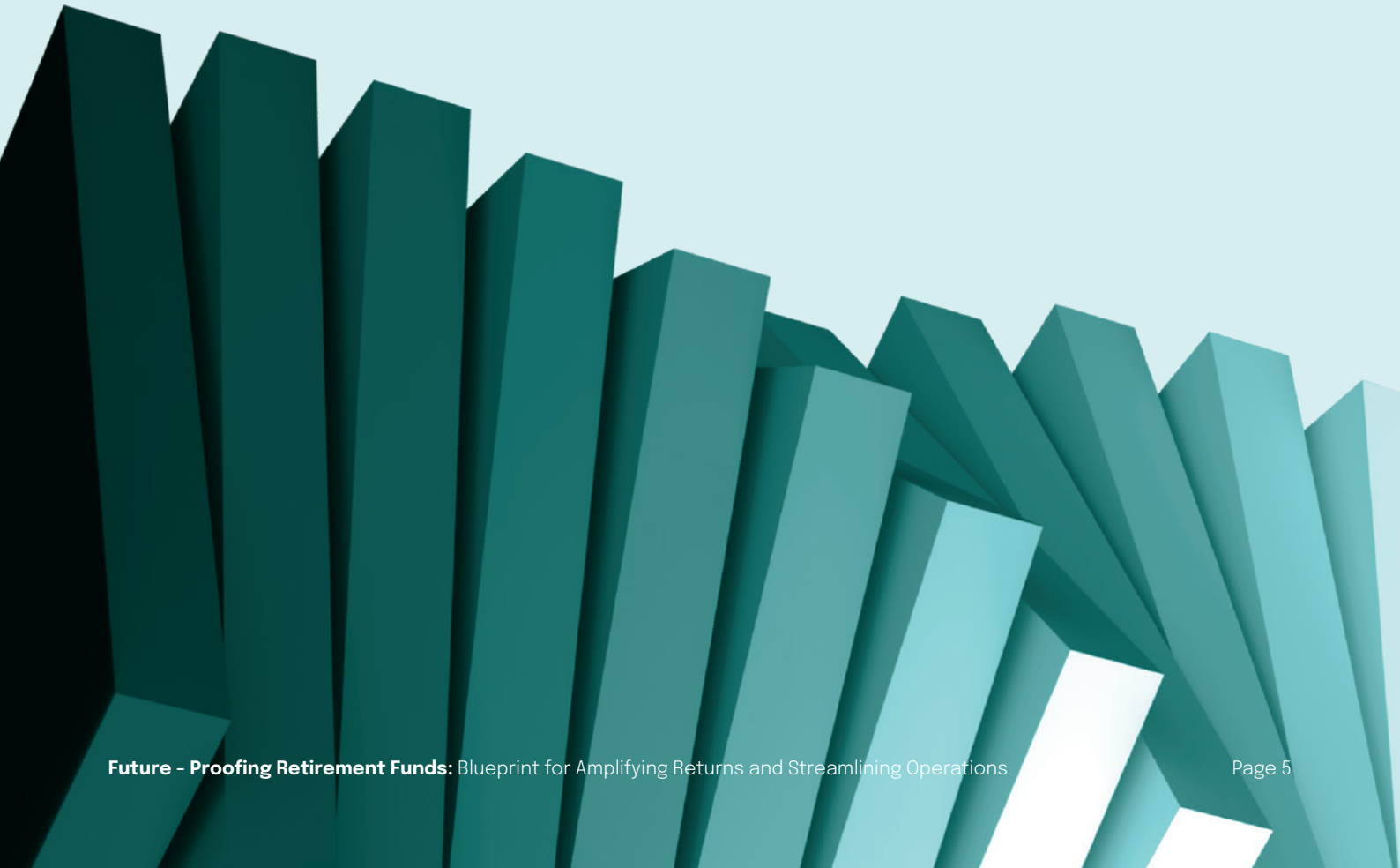
How does it work?

First, LUSID's Operational Data Store (ODS) consolidates, validates, and normalizes your data. LUSID then makes this information available to any user or system that needs it, in real-time, whilst retaining historic data for future analysis and audit. Finally, LUSID provides end users with this information via API, or with it's out of the box Investment Book of Record (IBOR) and Account Book of Record (ABOR).

To illustrate, let's say a portfolio manager wants to use LUSID to manage their investments. They have a large exposure to TechCo, and they need to know how much their holdings are worth.

They ask LUSID to ingest information from their market data provider, giving them a live feed of TechCo's share price. They then combine this price information with the data that tracks how many TechCo shares they hold, and LUSID calculates the total value of all their TechCo stock in real time. This information is presented to the Portfolio Manager by LUSID's out of the box IBOR, but it could be integrated into any IBOR the portfolio manager wants.

The portfolio manager notices that, due to an emerging story about a potential data breach, there has been a sudden drop in TechCo's share price. They use LUSID to present data on TechCo's liquidity, which has been collected from an exchange, allowing the Portfolio Manager to understand how easy it would be to buy or sell their TechCo holdings.



Before deciding to change their position, the portfolio manager uses LUSID to conduct an analysis of TechCo's past performance. They ask LUSID to retrieve information on TechCo's price over the last 5 years, and then they compare it with that of a major index like the S&P 500. They find that TechCo tends to do better in a bear market, like the one they expect to encounter soon. They decide that, rather than sell at a loss, they are going to use this likely temporary decrease in TechCo's share price to buy up TechCo stock at minimal cost.

All this is achieved in one platform with a few clicks of a mouse.

But it's not just the Portfolio Manager that benefits from LUSID's data. Middle office, back office, and even the funds leadership can take advantage of this easily accessible single source of truth.

Order data created by the portfolio manager and trader can be used to ensure that the new position won't compromise the fund's rules. When stock is bought or sold, teams can use the date and price information generated to ensure that trades have been executed accurately, and CIOs can pull a full overview of the fund's holdings and performance whenever they want.

Contrast this with the current system, where funds would have a series of data stores from several vendors, which are then connected to different portfolio management, settlement, and risk assessments systems, and the benefits are significant. The information provided to everyone is the same: it's accurate, current, and holistic, it does not require any manual effort to compile, and is almost immune from error.

This is all good in theory but how does that open up alternative investments and bring portfolio management in-house?

Data to unlock returns

We previously found that retirement funds lack both the technical flexibility they need to onboard the wider array of investment products available, and the capabilities portfolio managers need to make the best investment decisions possible.

LUSID solves these problems by bringing two key attributes to the table, **innate financial intelligence**, and an **extensible data model**. These attributes allow funds to quickly manipulate the data they have, take advantage of advanced analytical capabilities to support their investment decisions, and ensure they have the technical flexibility to onboard and manage any type of product.

Innate **financial intelligence** allows LUSID to not only ingest and store all a fund's data, but also make sense of it.

LUSID can understand almost every instrument that is being used in the financial services industry. It understands the difference between asset data and transactional data. It understands what characteristics an asset, such as a bond, should have (its issuer, maturity date, face value etc...) and it understands what process it should undertake to ensure the information provided is complete and correct.

This confers three key advantages. Firstly, it removes the need to configure LUSID's operational data store to handle financial services data, saving hundreds and thousands in professional services fees. Secondly, it provides a common standard that allows funds to generate combined reports across every asset type they hold. Finally, it allows teams to quickly pull information into their systems and use that information to perform calculations and bespoke analysis.

A portfolio manager can for instance, use the LUSID IBOR for 'what if' style analysis. With a few clicks of a mouse, they can get a thorough overview of how a change in the exchange rate, a drop in the value of a stock, or indeed almost any scenario they can think of,would affect their positions. Portfolio managers then use this information to ensure that their fund can withstand any challenge the market can throw at it. The LUSID IBOR also helps portfolio managers plan and execute changes to their positions. LUSID can combine real time market data with information about a fund's holdings, it can calculate the cost of buying a security, as well as the impact that making a move will have on the funds cash flow, and risk profile.

The second unique attribute LUSID brings to the table is an extensible data model that allows a fund to deal with the full range of investment products.

An extensible data model allows data fields to be added or changed without any adjustments to the existing data structure. This means that any information on any asset class that currently exists, or ever will exist in the future, can be added to LUSID quickly, easily and efficiently.

Funds can use this capability to add data that is unique to a particular asset class whilst keeping fields that are consistent across an entire portfolio. For example, if a fund were to invest in real estate, fields covering rental income, location, and occupancy rates can easily be joined with the more usual fields covering the assets valuation. All the data is captured in one place, and when joined together, it gives a complete overview of the asset's characteristics.

This data can then be analyzed with existing tools and processes. There is no need to onboard a new technology or re-engineer an existing system to manage an alternative investment. LUSID's IBOR can help a portfolio manager assess even the most exotic investments viability, understand its effect on the wider portfolio, and get a real time overview of every asset they hold.

Democratizing portfolio management

To achieve the level of data connectivity that LUSI D provides, organizations have previously had to create bespoke systems in multi-million-dollar, multi-year tech projects, and hire armies of data engineers to keep them operational. FINBOURNE's innovative solution achieves a far better output at a fraction of the cost, with a set up time that is measured in days - or sometimes even hours.

LUSID sits on top of your existing data structure, pulling in data from any source, and then making it available to your teams and systems.

The key benefit of this approach is that it is cost effective and easy to deploy. Organizations can start realizing the value of LUSID, without spending time or money changing their fundamental data architecture, or creating complex data hierarchies, connections, and processes. Just sign up for a software license and allow LUSID to ingest your data, and the complete process is managed for you.

Another benefit of this approach is that it is low risk. LUSID can be deployed into your technology stack with almost no disruption to business operations. Data can be fed or migrated into LUSID incrementally, without the need for a single 'big bang' style deployment, making the migration process simple and safe.

CIOs find that LUSID provides them with a portfolio management capability that exceeds that of institutional asset managers, at a fraction of the cost.

A Day in the life of the LUSID Portfolio Manager

Jack, a Portfolio Manager at Titanic Pensions, is looking to diversify into alternatives. He wants to join a consortium looking to take ownership of the Star of the Sea, a cargo ship that operates in the North Atlantic. LUSID helps him assess and onboard this investment.

Collect and consolidate data

Taking advantage of its extensible data model, LUSID ingests data on the Star of the Sea's cargo rates and storage utilization from an excel spread sheet. Jack also stores important referential data such as the ship's nation of registration from the investment prospectus for future reference. To enhance his understanding of the market Jack also uses LUSID to gather real time north Atlantic freight rates from a third-party provider.

Investment analysis

Jack uses this data to understand the Star of the Sea's profitability, cash flow, and risk characteristics. He then compares this with Titanic's other bond and equity holdings to understand how the investment compares and how integrating it will affect the portfolio.

Scenario analysis

Jack then uses LUSID's out of the box what if analysis tools to understand how Titanic's entire portfolio would be affected if GBP were to lose value against the USD. Jack can understand the effect this would have both on the cash yield of the Star of the Sea, whose contracts are brokered in USD, and on the relative value of Titanic's holdings in the UK. Jack likes what he sees and decides to invest.

Monitoring and reporting

After onboarding, LUSID monitors the ongoing performance of the entire portfolio, providing real time updates in one place, as well as periodic reports for the CIO and other stakeholders. Jack can analyze the performance of his investment in the Star of the Sea in isolation, and against those of his equity and bond holdings, and Titanic's middle and back-office teams can access data on the investment whenever they need it.

Managing members and the regulator

Generating returns isn't the only challenge that retirement funds face. Many are finding that the digital era has brought reputational, compliance and governance risks that they have never had to contend with before.

Ours is an era of transparency. Members, the regulator, and even the public want detailed information about a fund's holdings, investment decisions, and approach. As economies become more connected, and the world becomes less stable, the demands for information placed on funds will only increase, and the consequences for not providing it quickly will only get worse.

Geopolitics and major news stories

The world is significantly more volatile now than it has been in recent memory. Political tensions between major nations mean that retirement funds need to understand their exposure to any country, its major industries, institutions, and exports, at the drop of a hat. They need to be prepared to supply detailed information to internal compliance teams and the regulator whenever they want it, and they need to have a strategy to divest quickly.

But it's not just geopolitics that funds need to react to.

Unexpected market movements and fast-moving domestic political stories can force a fund to evaluate its holdings at short notice. These dramatic events often come with urgent requests from members, regulators, and media outlets looking to understand if the fund holds a particular security, how their exposure to it will affect its members, and what the fund intends to do with it in the future.

The challenges of managing stakeholders

Frustratingly, gaining an accurate, up to date view of a funds' holdings can be extremely difficult, if not impossible.

The complex corporate structures of multi-national organizations, and the intricate makeup of many financial products like Index Funds can make it extremely hard for organizations to understand where their cash is being invested.

The information on the fund's composition is often held in many different systems and documents. A holistic view of the fund's holdings will only be compiled and communicated a couple of times a year. Gaining a real-time, accurate understanding of exposure, in one place, on demand, is, for many funds, completely impossible.

This leaves retirement funds with a serious problem. When a regulator, or a sizable portion of the fund's membership demands information on a fund's composition, they are likely to become extremely agitated if a fund can't provide them with the information requested in sufficient time and detail. Particularly when an investment is caught up in a fast-moving news story, and the information requested is needed to help stakeholders understand the risks of holding it, and the impacts of divesting from it.

Ultimately, by not having instantaneous access to this information, funds leave themselves open to compliance breaches, fines, and reputational damage, all of which have the potential to massively affect their bottom line.

But why is this information so hard to get hold of and can funds ensure that they are set up to gain access to it in the future?

Stakeholder management problems are data problems

In much the same way that a retirement funds' existing technology is constraining their investment decisions, a lack of access to prompt, accurate data is hampering their efforts to manage their members and the regulator.

The data that funds need to answer urgent questions exists. The funds' positions are documented, and their obligations are known. It's just that the technology that funds use is unable to give this information to the right people, in the right format, at the right time.

But how can this data be put into the hands of the people that need it?

Turning data into information

Data virtualization technology provides the bridge that those working at retirement funds need to access data that has previously been out of their reach.

Data virtualization tools, like FINBOURNE's Luminesce, allow users to access and manipulate every single datum the organization holds, without having to physically move or replicate it. Data can then be presented to users via an easy-to-use UI or consumed by systems programmatically.

Compare this with the way that organizations currently manage their data, and the advantages are immense.

In most organizations, if a team wants to get access to data, they must request it from an analyst or data engineer, who will then use their intimate knowledge of the funds data architecture to find and pull the information the end user is looking for.

This can be a slow process. Even simple operations will have to go into a queue, and it might take days before the request is actioned. Miscommunication between team members is also common. It's not unusual for end users to go back to the data team many times to clarify their requirements.

There is also the risk that the information that end users are provided with will be inaccurate. Sometimes, by the time the data gets to the person who requested it, it has gone out of date. Other times, teams will find that the data that they have been given is incomplete and does not represent all the information that an organization holds.

But by using FINBOURNE's Luminesce data virtualization tool, end users can access all the data they need at will, without specialist data engineering skills.

User-friendly and accessible to non-technical audiences, users can ask Luminesce to help them design queries in SQL with limited knowledge of how the language works. They can be sure that the data provided is accurate, complete, and up to date because it comes right from the funds' central source of truth. The data retrieved can be manipulated in whatever way the user sees fit, with export functions to Excel and integrations to visualization tools like tableau and Power BI supported out of the box.

Extremely secure, the fund's system administrators can restrict access to data and other resources on a granular level. This prevents deliberate, or unintentional data leaks, and unauthorized access to sensitive information by those using the tool.

Ultimately, the combination of the LUSID and the Luminesce data virtualization tool makes it easy for EDs and member services teams to answer whatever question regulators and members throw at them, in record time, and with unparalleled accuracy. The result is a fund that is compliant, protected against reputational risk, and can develop an outstanding relationship with its members, the regulator and any other stakeholder.

A Day in the life of the LUSID Executive Directors Office

A regional conflict has broken out and Rose, who works in the office of the executive director of Titanic Pensions, has been asked by her regulator to provide information on Titanic's exposure to the conflict.

She uses the Luminesce Data Virtualization tool to help her understand the risk and communicate her findings with the regulator.

Composing the question

All data on Titanic's holdings is held in LUSID. Due to her role, Rose's has a high level of access to Titanic's information and can see almost everything. She uses Luminesces query designer tool to help her create the command she needs to retrieve information on Titanic's exposure to countries involved in the conflict.

Retrieve the data

The query is sent to LUSID. As it is being retrieved, the data is 'virtualized' by Luminesce. This ensures that Rose cannot compromise, delete, or change the underlying data as she works with it, leaving her free to manipulate it however she wants.

Generate insights

With the data retrieved, Rose is able to use any tool, including excel, PowerBI or tableau to present the information in a visual and accessible format.

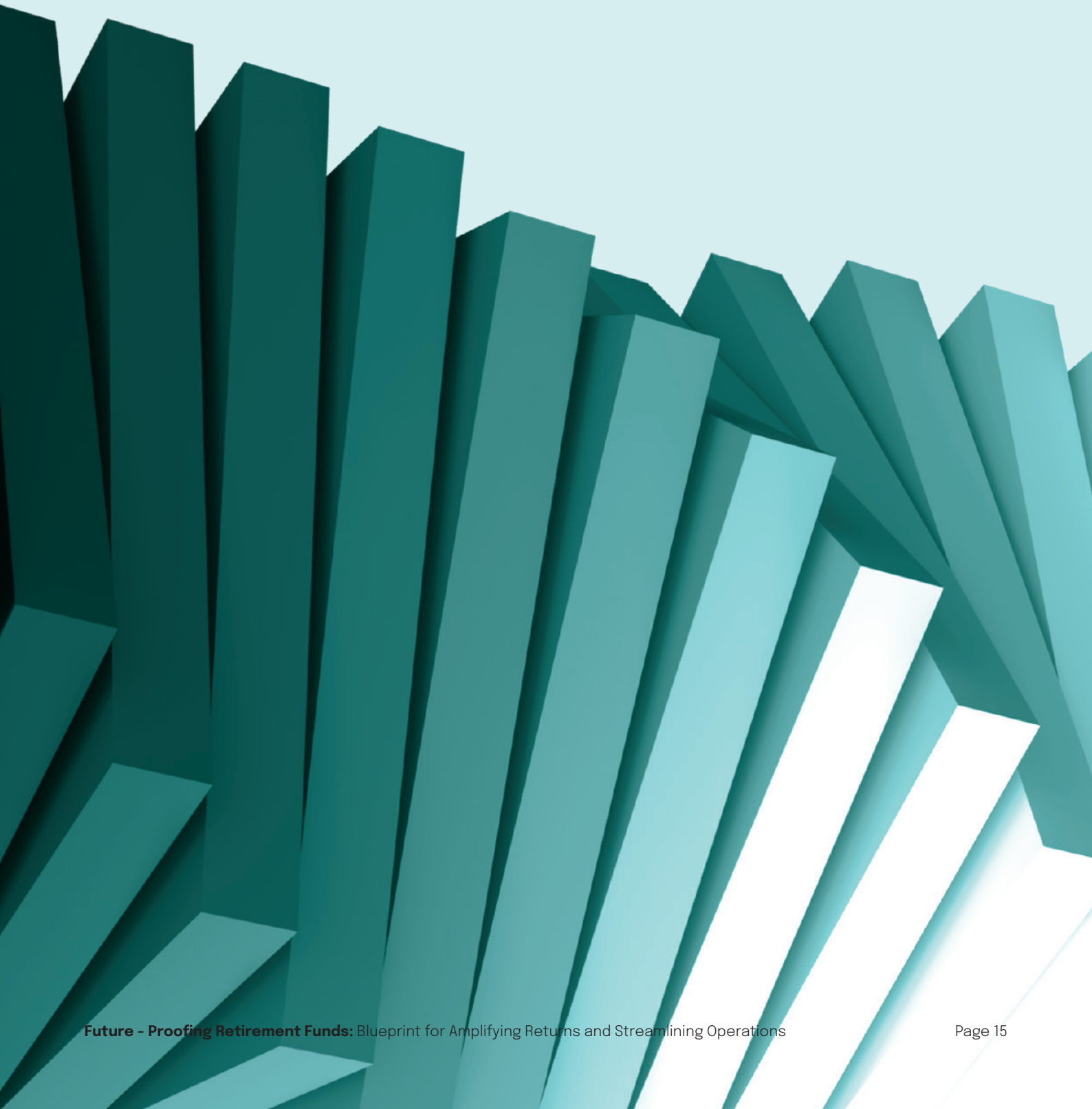
Communicate with the regulator

Equipped with these insights, Rose formulates a comprehensive response to the regulator's question. She presents a full overview of Titanic's exposure to the conflict in an excel spread sheet. She is also able to work with her colleague Jack, a Portfolio Manager, to understand how quickly, and at what cost, Titanic can divest from the countries involved.

Liberate, simplify, connect

For too long organizations have been unable to unlock the potential of data. Technical limitations and siloed thinking have stifled innovation and entrenched inefficiencies that should have been banished years ago.

With FINBOURNE you can be confident that your data is being used to make your business as efficient and effective as possible. We help you make informed; market beating decisions, run efficient operations, and gain the flexibility needed to face any challenge you meet in the future.



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About

FINBOURNE's solutions deliver an interconnected network of functionality and data that enables the investment community to better serve clients in a constantly evolving market.

Its investment management solutions and cloud-native data management platform ensure that investment and operations teams can increase revenue, reduce costs, and better manage risk across the investment life cycle.

Get in touch

To discover more about FINBOURNE and learn how our solutions can drive growth, increase control and improve data access, contact us below

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