The Challenges of Alternative Assets for Institutional Investment Managers

July 2015
## Contents

1  Introduction ............................................................................................................................................... 3  
   1.1  scope .............................................................................................................................................. 3  
   1.2  methodology and sources ............................................................................................................... 4  
   1.3  direct versus indirect investments in alternatives ................................................................. 6  
2  Challenges ................................................................................................................................................ 7  
   2.1  organisational challenges .............................................................................................................. 8  
   2.2  operational challenges .................................................................................................................... 9  
   2.3  systems challenges ...................................................................................................................... 10  
   2.4  data challenges ............................................................................................................................ 10  
3  A Little Bit of History Repeated ............................................................................................................... 14  
4  The Way Forward ................................................................................................................................... 16  
   Appendix A: Characteristics of Alternative Assets ............................................................................ 20  
   Appendix B: Other Characteristics of Alternative Assets .................................................................... 23  
   Appendix C: Data Challenges .............................................................................................................. 24
1 Introduction

Following the global economic crisis, the investment industry began to focus on investment strategies that could better diversify risk while sustaining returns. The economic crisis exposed just how tight the correlation was among traditional asset types. Although the concept of portfolio diversification is certainly not new, investment managers are now placing greater emphasis on diversification.

This quest for diversification has been a major catalyst for firms to use alternative asset types; however investing in these assets is exposing limitations in knowledge, processing, data and in managers’ core platforms and operating models.

Throughout the last ten years investments in alternatives assets have significantly increased. This period has also seen a rapid growth in multi-asset products, which often blend mainstream investments with alternative assets.

Our 2012 research paper (“Building your Business Efficiently”) showed that adding a new asset class is one of the largest impacts on an investment business. Alternative assets are likely to factor heavily in most firms’ strategies and when they appear they will have a major effect on the business. Operations, data management and IT will be expected to deliver solutions to keep the firm competitive.

1.1 Scope

This study will focus on the following areas:
- Operational and system challenges when managing alternative assets.
- The data management impact following a previous Investit research study focused on operational and system impacts pertaining to multi-asset investing.2

We have considered the following institutional quality alternative types, that is, alternative investments acquired with an informed evaluation of risks and returns.
- Real Assets,
- Hedge funds,
- Private equity, and
- Structured products.

We have excluded from this study:
- A detailed functional assessment of the systems and solutions used to support alternative assets or multi-asset products.

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1 Building your Business Efficiently – Investit Intelligence 2012
2 Supporting Multi-Asset Investing – Investit Intelligence 2014

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UK pension scheme exposure to alternatives has grown from 3% in 2003 to 14% in 2014

Towers Perrin, “Global Pension Study 2014”

67% of managers cited multi-asset solutions will contribute most to business growth over the next 3 years


Investment in alternatives has doubled in size since 2005

1.2 methodology and sources

Information was gathered from heads of data, fund managers, heads of business change and senior operational personnel by structured face-to-face or telephone interviews covering the following:

- The investment use of alternative assets,
- Operational and data constraints,
- Data governance and architecture,
- Multi-asset products.

The firms interviewed represented those that had significant operations and investment teams in either or both the UK and US. These firms were interviewed as part of this work and who have allowed us to identify them:

- Schroders, *
- F&C,
- T Rowe Price, *
- Talliance,
- Trinova Real Estate, and
- Investec Asset Management.

In addition, information was gathered from recent information collected from the Investit Intelligence community. The firms listed below have contributed to other relevant Investit research that has been used as part of this report:

Aberdeen Asset Management§; Aegon*; American Century; AMP Capital Investors; Artemis; Aviva Investors§; AXA Investment Managers§; Baillie Gifford & Co; Baring Asset Management; Citi Investor Services; Challenger; Chuo Mitsui International; Fidelity*; First State Investments; F&C; Henderson Global Investors§; HSBC Global Asset*; ING Investment Management; Insight Investments*; Janus Capital; JP Morgan Asset Management; Jupiter Asset Management; Legal & General Investment Management*; Man Investments§; Newton Investment Management; Nomura Asset Management; Old Mutual Global Investors; QIC; Schroder Investment Management; Standard Life Investments; Threadneedle Investments; T Rowe Price*; UBS Global Asset Management§; Western Asset Management.

*Firm is in the top 50 asset managers globally by AUM in 2014

§ Firm is in the top 100 alternative asset managers globally by AUM in 2014

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3 Investment & Pensions Europe www.ipe.com
4 Towers Watson Global Alternatives Survey 2014
Investit’s preferred methodology is to structure the interviews so that it is possible to gather data and provide relevant analytics. This approach requires the interviews to be relatively standardised throughout the process. However, this was not possible in this case for several reasons. The first was that we initially approached the data management function within investment management firms but we soon found that we needed to also include investment operations and the investment teams to obtain a broader description of the story. This had the result of varying the structures of the conversations, providing richer colour and depth to the information that we discovered but making it less applicable to an analytical study.

A second reason was that the definition of what constituted an alternative asset varied depending on who we spoke to (both in terms of function and investment firm). As a result, conversations needed to be more “free-form” than we originally planned. This took the research into areas that we had not envisaged but were none-the-less interesting to our target readers.

One conclusion that could be inferred, as a result of needing to talk to multiple areas to get the full picture, is that this could be evidence of a lack of ownership for the problem when trying to incorporate alternatives into the existing operating and governance model for an institutional investment manager. Indeed, you will read later in this report that many investment firms address this, and other issues, by creating different operating models for alternatives and keeping their businesses effectively separated from each other.
1.3 direct versus indirect investments in alternatives

Investment managers have different approaches for gaining exposure to alternative investments. Some managers directly invest in alternatives such as private equity and real assets whilst others choose to invest indirectly through funds or financial instruments (such as REITS). Direct investment in alternatives is more typical of pension funds, endowments, and boutiques. However, institutional asset managers have increasingly begun to invest directly in alternatives and this investment approach is expected to continue over the next few years.

The diagram below highlights the differences in investing in real estate directly and indirectly. The direct investment manager will develop investment vehicles which can be offered to indirect investors as tradable units. The indirect investor will be collaborating with other investors to spread their investment through multiple real estate properties. Indirect investments are often a more viable solution for institutional asset managers seeking exposure to these asset types because they can manage them within their core operational models.

Figure 1 Direct vs Indirect investing in Real Estate
2 Challenges

We have identified four core areas that present challenges for institutional asset managers investing in alternative assets. The study will discuss where these challenges differ between indirect or direct investment strategies.

A common goal for investment managers is to develop an operating model that is efficient, scalable, flexible, and cost effective. Investit has done extensive research on what constitutes an efficient investment management firm. Our 2012 report “Building your Business Efficiently”\(^5\) identified three types of investment management firm:

- efficient,
- complex,
- boutique.

Many traditional firms are ‘efficient’, meaning that they have a scalable cost-effective platform for their products and can pass on low fees to their clients whilst retaining a good profit margin.

Adding alternatives to the mix will turn an efficient firm into a complex firm, where they are likely to have multiple and diverse product lines (running sub-scale). Complex firms are typically run as multi-boutiques with separate operating models and our interviews in our 2007 research\(^6\) highlighted the polarised opinion to this approach. This remains the same eight years later.

“It helps us manage egos we don’t want to integrate.”

These issues have a direct impact on the [lack of] data integration of the alternatives operations into the efficient operating model.

“I hate it! It blunts your operational leverage.”

We will examine the impact of incorporating alternatives into the operating model by splitting the topic into sections, finally examining the impact on the data operation in the light of the other areas.

<table>
<thead>
<tr>
<th>Table 1: Four core challenge areas for supporting alternative assets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td>Organisational</td>
</tr>
<tr>
<td>Operations</td>
</tr>
<tr>
<td>Systems</td>
</tr>
<tr>
<td>Data</td>
</tr>
</tbody>
</table>

\(^5\) Building your Business Efficiently – Investit Intelligence 2012  
\(^6\) Managing an Investment Firm – Investit Intelligence 2007
2.1 organisational challenges

The direct management of the various alternative asset types requires a variety of specialised skill-sets. Whilst alternatives may share characteristics, specifics exist within each alternative asset type.

These specialised teams are typically separated from the investment and operational personnel supporting traditional assets as well as other alternative assets types. Although specialisation is not inherently a problem, challenges may arise when incorporating separate groups into institutional asset managers that historically managed traditional assets and the investment firm moves from an efficient operating model to a multi-boutique or complex one.

Cultural differences

Having worked extensively with institutional asset managers for many years, Investit observes that firms recruit specialists from boutique companies and these incoming specialists are often unfamiliar with the more rigorously controlled environment of an institutional asset manager. Additionally, new personnel may feel the need to prove themselves in larger companies, focusing on returns and taking risks not normally taken by institutional managers. Moreover, because these groups generally exist outside of the ‘normal’ organisational structure institutional managers find it difficult to manage these groups and incorporate them into the broader corporate culture. These cultural differences should not be underestimated and can ultimately cause the new desk or fund to fail. The sales and marketing effort around the new processes will be less mature and will be less effective. It will not be possible to rely on the standard operating model as much as the traditional business does and, as a result, personalities may dominate process change and issue resolution.

Potential barriers to entry

Simply finding the right resources was cited throughout our interviews as a potential barrier for entry into direct investments. This becomes increasingly apparent in more remote geographic areas outside of the global economic centres. Once found, these people can be expensive. The market for obtaining the necessary people may lack depth and higher than expected expenses may be incurred by the firm at a point where they are already committed to the strategy.

Segregation of duties

Unlike an institutional manager’s core operational group that are generally well staffed and responsibilities are delegated according to skill-sets, direct investments are supported with minimal staff numbers each sharing a variety of responsibilities. For example, the same person responsible for making the investment decisions may also be spending an inordinate amount of time gathering data. Systematic errors can manifest, including incorrect investment model assumptions, which are not detected when there is a lack of rigorous peer review. The impact of these could cause a fund pricing re-statement or investment error.
Key man risk

As noted small staff sizes sharing a variety of responsibilities is typically how institutional asset managers support direct investments in alternatives. Only a small group of people are knowledgeable of the day-to-day operations and have the skill-sets necessary to understand fully all the nuances and characteristics of these specialised asset types. Coupled with a disproportionate number of manual tasks and a heavy reliance on spreadsheets in relation to managing traditional asset types, many asset managers are exposed to significant key man risk. It is important to identify the key man risks and manage them, including a plan for potential departures (such as appropriate notice periods and restrictive covenants). Care is needed when incentivising key personnel so that they are retained without paying too much of a premium.

2.2 operational challenges

Traditional operating platforms are not capable of supporting alternative assets. Our 2014 study “Supporting Multi-Asset Investing” found that the challenges of supporting a diverse set of asset types in a single portfolio or fund extend beyond the capabilities of most buy-side applications.

To get around this issue, most firms will create a separate operating model specific for each alternative asset type. Whilst this has benefits in getting an offering up and running very quickly it creates strategic problems.

Transaction operational processes for alternatives often carry an element of investment risk, which is not something that is found in traditional investments. Separate alternative operating models are often ‘smaller’ and involve less people. The need for operations staff to be involved with the transactions further pushes the operating model to be separate from the scalable traditional platform.

At this stage, the firm will have turned itself into a complex operating model and is likely to be sub-optimal. Our report in 2012 “Building your Business Efficiently” highlighted two areas that firms needed to improve on were operational efficiency and the reduction of excessive business complexity. A firm adding alternative assets has just done the opposite to that. Additional management effort is needed to manage the additional operating models and also the interdependencies between them. Costs will have risen but the fund is unlikely to have increased its fees. At best, the firm is experiencing lower margins in the short term due to the more complex operating structure.

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1 Supporting Multi-Asset Investing – Investit Intelligence 2013
2 Building your Business Efficiently – Investit Intelligence 2012
2.3 systems challenges

The requirement for separate, specialised systems specific to an asset type can create a variety of challenges for asset managers. A limited selection of available systems can mean higher prices, more integration puts pressure on already stretched IT departments, additional business continuity requirements and hiring of specialist support staff. Selecting a specialist system effectively requires specialist expertise. There is less opportunity to fast-track the selection process compared to a traditional system selection, which will increase the costs of selection and implementation and external expertise will need to be sought, such as consultancies.

2.4 data challenges

Data has often been described as the lifeblood of an investment management business. Adding alternatives into the product offering creates a series of challenges that the firm must overcome if it wishes to become more efficient as a business.

Separate alternative and traditional operating models create data challenges at the enterprise level. Asset managers may need to aggregate data across all asset types for functional and operational tasks such as risk management, compliance, regulatory reporting and management information. Data is stored in multiple systems and spreadsheets and merging these incoherent data sets can be difficult, often manually intensive, costly and subject to risk.

"Alternatives are bespoke in nature and data issues are an ongoing challenge. The evolving nature of alternatives means there is no scale with respect to automation and operational processing. This leads to information or data illiquidity. Coupled with a limited purchasing universe, data presents a market bottleneck. The alternatives market will remain illiquid as long as data is difficult to obtain and to use."

Teams directly investing in alternatives face data challenges unique to the management of their specific asset types. Data illiquidity and bias are day-to-day challenges that investment teams wrestle with. A low number of transactions in many alternative markets make performance measurement and pricing difficult to gauge. Data is difficult to get, difficult to use, and often those responsible for managing the data are the same people making the investment decisions.
### Table 2 Typical Data Challenges with Alternatives

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing</strong></td>
<td>The data for some alternative assets may not be available at the same frequency as the traditional investments within the fund, or even mismatched to the valuation frequency of the investment vehicle. This could cause pricing anomalies that could affect the investor, directly or indirectly.</td>
</tr>
<tr>
<td><strong>Identifiers</strong></td>
<td>A data challenge for alternative managers is the lack of identifiers. Most alternative investments do not use security identifiers, unlike traditional assets that use security identifiers such as ISINs or SEDOLs. Without identifiers, it is difficult for alternative managers to both classify and compare their investments.</td>
</tr>
<tr>
<td><strong>Disparate Sources</strong></td>
<td>Another issue for alternatives managers is that data lacks standardisation. For example, private equity fund managers require valuations from a variety of sources and this data tends to be provided by different means (email, fax, pdf) and in different formats. As such, highly skilled and compensated professionals are gathering and aggregating their required data. Moreover, this data can be difficult to acquire and managers spend a great deal of time chasing people for information.</td>
</tr>
<tr>
<td><strong>Bias</strong></td>
<td>Traditional investments often have centralised markets for clearing. Data provision is one of the facilities provided by these structures with data production and delivery methodologies that have been scrutinised and tested. Many alternative investments do not have such centralised structures and the data is typically sourced from an interested, and potentially biased, party. For example, a challenge for real estate investors is obtaining accurate valuation or yield estimates from property agents. Because the agents are interested in convincing the parties to transact, the agent’s estimates may be biased and need to be normalised using the investor’s subjective view so that comparison between different properties (and investment opportunities) can be made.</td>
</tr>
<tr>
<td><strong>Expertise</strong></td>
<td>As previously discussed, specialised groups are the norm when managing alternative assets. As such relatively small teams are involved in the day to day management and this includes managing the required data. Valuing these asset types requires unique skill sets as does identifying any anomalies in the data.</td>
</tr>
<tr>
<td><strong>Data Illiquidity</strong></td>
<td>A common issue with direct investments in alternatives is a lack of scale. A low number of transactions in these illiquid asset types make performance measurement and pricing difficult to gauge in a daily pricing universe. Moreover, as there are a low number of investors in direct alternatives there is inherently a lack of volume on which to build a data distribution business.</td>
</tr>
</tbody>
</table>
IFRS13 – Fair Valuation Measurement

Two of the challenges described above, data illiquidity and bias, are elements that IFRS13 has set out to address. The standard provides a hierarchy of pricing levels for arriving at a fair value of a security, with Level 1 being the preferable method where available:

- **Level 1** - Unadjusted quoted prices for identical assets and liabilities in active markets.
- **Level 2** - Other observable inputs for the asset or liability such as quoted prices in active markets for similar assets or liabilities or quoted prices for identical assets or liabilities in markets which are not active.
- **Level 3** - Unobservable inputs developed by an entity using the best information available where there is little or no market activity for the asset or liability at the measurement date.

The nature of many alternatives means that the markets are generally not liquid, meaning that the highest available level of fair valuation is level 2. This also applies to OTC derivatives, where level 2 equates to a counterparty valuation.

IFRS13 does not preclude level 3 independent valuations and using both levels in tandem giving an indication of where the valuation would be for an asset should the investment manager exit the position.

The sourcing of valuations from multiple sources in multiple formats and data layouts is difficult, time consuming and often sits outside a firm’s core operations and data governance structure.

Indirect Alternative Holdings

Many firms first enter the alternative’s market via indirect investments, such as ETFs or other collective investment schemes. A significant number of the operational and system issues are solved with this approach but there are still data issues in the front office that should not be ignored. Investment teams receive information in many formats and then need to make subjective decisions in order to consolidate that data into a form that can be used to run their portfolios. It is difficult to centralise this process because of the expertise needed to make the decisions and because of this, investment critical data is left outside of the data governance process.

“I spend a significant proportion of my time re-typing information from reports into Excel”

Monitoring the risk of indirect alternatives is difficult. The multi-manager can find it difficult to look through to the holdings, and if they did then they would not have the specialised risk tools to monitor risk adequately. Our 2009 paper “Changes within Investment Management”9 showed that products built with illiquid underlying investments, in a liquid wrapper, resulted in deep stress when coping with client departures. A property investment manager interviewed as part of this report stated that some parts of the property market is being driven by fund managers having to compromise returns for liquidity, so that when the expected market correction occurs they will have assets that are easier to sell and can provide cash for fund outflow.

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9 Changes within Investment Management - Investit Intelligence 2009
Multi-Asset Investing

Throughout this study, we have detailed the challenges typical to both direct and indirect investments in alternative assets. However, a key contributor to the growth of alternative investments is the growth in multi-asset products that include either direct or indirect investments in alternative assets.

Investments in direct alternative assets are typically managed in operating models separate to traditional investments but the recent growth in multi-asset products has begun to bridge this gap and driven greater interaction between the operational groups managing traditional assets and alternatives. In short, these specialised groups are now having to work closer together to support products consisting of very different asset types.

Although the majority of multi-asset products gain exposure to alternatives indirectly through funds or financial instruments that can be managed on core operational platforms, it is increasingly common for institutional multi-asset products to include direct investments in alternatives. An important component to managing multi-asset products is the ability to aggregate data for analysis, decision support and reporting. Therefore, it is necessary that the groups responsible for and knowledgeable about their respective data sets work closer together to ensure that portfolio managers have access to all the information they require to make informed investment decisions.

Portfolio managers require an accurate view of their portfolios when assessing risk, evaluating market opportunities and making investment decisions on their clients’ behalf. Throughout the day, they need to understand how portfolios have been influenced by trading activity, corporate actions and collateral management events and require a clear understanding of exposures for compliance and risk. They also require an accurate view of current cash positions, investible cash for the day, cash flows and forecast balances. In addition, accurate end-of-day positions are required to support accounting principles and performance calculations.

Multi-Asset, Systems and Data

With multi-asset investment strategies, the challenge of providing accurate data to support the investment decision process is considerably more difficult. There is no ideal operating platform that seamlessly integrates all asset types for processing throughout the trade lifecycle. The best-of-breed model by definition uses many different systems, typically divided by asset type and/or business function. The integrated platforms support a broad range of asset types and functional areas, but no one system supports everything, requiring additional best-of-breed platforms to supplement limitations. The same is true with outsourcing services, which do not cover all asset types, business functions or investment strategies and usually require either multiple outsourcing services or additional internal support. Asset managers require an internal data layer that aggregates all positions of the multi-asset strategy. Unless all of the asset classes within the strategy are supported on a single application, most firms use other data management tools to aggregate data. These tools include data warehouses, such as Markit’s EDM, Goldensource or VistaOne’s vData.

The result of this is an operating model that has additional layers and components, creating complexity that is more difficult to oversee and does not fit into the traditional model that already exists within the form.
3 A Little Bit of History Repeated

In the 1990’s, OTC derivatives were considered alternative investments. No central market or market reporting existed and processing required specialised staff and systems. Moreover, there was the potential for significant illiquidity in certain circumstances and a lack of specific regulations. This is typical to many alternative assets today.

The dramatic growth in the OTC derivatives usage was driven in part by market innovation and greater standardisation. Examples include the creation of the Markit RED database for CDS, the introduction of electronic affirmation and confirmation and ISDA documentation. Each of these new innovations made it easier for participants to enter the OTC derivatives market and as a result drove up volumes exponentially.

By 2006, OTC derivatives, while still alternative in character, were starting to show some of the characteristics of traditional investments. There was more liquidity, and tradable units were now within scope of smaller participants.

The larger volumes caught the attention of the regulators but it was the collapse of AIG and Lehman’s in 2008 that caused the regulators and governments to accelerate regulation specific to OTC derivatives. Legislation such as Dodd-Frank in the US and EMIR in Europe are changing the OTC landscape. Under Dodd-Frank, the vast majority of trades will need to be executed on electronic venues, also known as swap execution facilities (SEFs). Where electronic execution is expected to promote price transparency, regulators want to remove some of the risk from the financial system by requiring market participants to clear through central counterparties (CCPs) such as LCH.Clearnet and CME.

OTC derivatives have been on a long journey since 1990. They were highly exotic, difficult to trade investments which are now traded electronically, affirmed and confirmed electronically and settled using off-the-shelf packages. The experience needed to support these instruments is now widespread, driving down costs and reducing key-man-risk. There is still a long way to go for them, and it has taken a global crash, but many OTC derivatives are considered traditional investments by
many institutions that have incorporated them into their standard operating models. There are many more providers of services and data for OTC derivatives now than 25 years ago allowing institutions to increase their capacity quickly.

Could history repeat itself for other alternative investment types and see direct investments become more accessible to traditional investors? For some alternative instrument types this is likely and, if so, market innovation is likely to be the catalyst. Data and improvements in data management processes, standardisation and usability of data were the driving force behind OTC derivatives becoming more mainstream and data is again the most likely catalyst for some of today’s alternatives.

Another factor that is driving operating models together is regulation, such as MiFIR and MiFID II. The proposed legislation, at time of writing, includes:

- Transaction Reporting,
- Suitability or appropriateness,
- Best execution, and
- Disclosure of costs & charges.

Some or all of these will apply, depending on the type of alternative.
4 The Way Forward

Summary

Institutional investment managers have recognised the value of investing in alternative assets. The global economic crisis exposed the negative effects of correlation and institutional asset managers value greater diversification.

Institutional investment managers investing in or considering alternative assets will need to address the challenges presented within this study. The use of alternative assets can mitigate investment risk and generate strong returns; however, the cost of supporting these assets can outweigh the benefits if the operating model is not planned and implemented well.

Most alternative assets have unique characteristics and it is likely that the challenges presented in this study will remain the norm in the near future. Investment managers will require specialised staff and operating models specific to the alternative asset type in question. As specific alternative asset types become more institutionalised this may change; however, this likely to take time.

Whereas organisational, operational and system challenges may persist, institutional managers can improve efficiencies by addressing the data challenges. Viable options to address these issues are currently available, such as including alternative assets’ data into existing data governance frameworks. The rest of this section of the report will discuss making improvements to the current in-house capability or using a managed data service.

Scalable operating models

Table 3 Volume driven system and data models

<table>
<thead>
<tr>
<th>Small Volume</th>
<th>Medium Volume</th>
<th>Large Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems</td>
<td>Data</td>
<td>Rationale</td>
</tr>
<tr>
<td>Excel</td>
<td>Manual Processing</td>
<td>Low volume: risk is manageable. Low additional cost</td>
</tr>
<tr>
<td>Application Service Provision</td>
<td>Managed Data Services</td>
<td>Risk associated with manual process is not acceptable Volume does not permit centralised solutions</td>
</tr>
<tr>
<td>Dedicated Server (in-house or hosted)</td>
<td>Managed Data Services / Centralised processing (in-house or outsourced)</td>
<td>High volume supports best-of-breed solution Cost-model makes sense</td>
</tr>
</tbody>
</table>

Scalability

Scalable downwards only  Scalable upwards and downwards  Scalable upwards only
The most appropriate operating model will depend on the scale or volume of the expected investments. In the past, investment management firms were often limited to a manual solution or purchasing a specialist system. However, there is now available a middle group of suppliers of managed service provision. This assists the investment manager when the risk or effort of manual entry is not acceptable but the investment in a centralised service is not economically viable.

The risk for the investment firm is that they end up with a complex operational structure that is expensive and difficult to manage, and does not generate the fees to justify the additional expense and effort. Working with relevant providers will enable the firm to create an appropriate operating model that will flex (upwards and downwards) in line with the needs of the business, controlling costs and management effort.

**Improve in-house capability**

When processing data internally, a first logical step to improving data used when investing in alternatives is to bring the data into the firm’s data governance structure. As shown by our paper, “The Importance of Data Management,” this will allow the firm to appreciate the changes required to process the data in-house (cultural, procedural or technological).

> “First governance, then processing”

Once under the governance structure, the firm can apply its procurement and compliance processes to ensure that the data is being source efficiently and the firm is not breaching any restrictions that are being imposed on it.

However the challenge for alternative data is not only governance but data processing that does not fit well into the centralised processing function. The firm will need to agree an operating model that is palatable to its architectural principles, while recognising that it is likely to be changing or amending these principles as a result of incorporating alternatives into its offering. The resultant operating model will need to be scalable and match the firm’s investment plans.

The next step is to identify the systems and skills needed to process alternative data. There may be opportunities to provide training for existing staff but the most likely route is to hire specialists. A series of projects will take the operating model from the drawing board to actualisation.

The reality is that many of the actions described above will run in parallel. Even so, the change needed is likely to take a relatively long time and prior planning and lead-time analysis will go a long way to making this a successful approach.

**Managed data services**

An alternative to improving the in-house data processing capability is to use a managed data service for some or all of the process. Using a managed data service will not remove the need for data governance but it should be noted that managed data services can provide tools to assist data governance.

> “When you confront a problem you begin to solve it”

Rudy Giuliani

82% % asset managers considering the use of managed data services in the next 1-2 years

*Source: Investit Intelligence 2015*

10 The Importance of Data Management – Investit Intelligence 2007
What is a managed data service?

Managed Data Services have been defined as “the practice of outsourcing day-to-day management of data responsibilities and functions as a strategic method for improving operations and cutting expenses” according to our 2015 study on Managed Data Services. A Managed Data Service can take on the tasks associated with capturing, validating, remediating, transforming, customising and distributing data, simplifying access to critical information required for investment processing. The providers of these services deliver value to clients by providing expertise, customisation, simplification of data acquisition and transparency of data quality metrics, along with a scalable operation.

How can a managed data service help?

The emergence of managed data services and the growing interest in leveraging their capabilities is creating an industry debate on the efficiency and benefits of their services. For firms that voice concerns over “outsourcing data management”, the issues focus on cost, control and responsiveness; for firms inclined to leverage managed data services, the benefits of efficiency, risk reduction, and opportunity costs are most frequently cited.

A move into alternative asset types can require specific data management expertise and this expertise and capability may not exist in an institutional investment firm. This situation can be the catalyst for assessing the current operating models to determine how to meet the business demands and ensure the firm is positioned for future growth.

Figure 3: Options for engaging a managed data service

42% of firms do not have a flexible data infrastructure to support new data types

Source: Investit Intelligence 2015

11 Managed Data Services – Investit Intelligence 2015
From our discussions with both managers and providers in our 2015 study on Managed Data Services, we discovered the specific challenges when adopting a managed data service. The key challenge for alternatives is that many managers recognise the difficulty of hiring skilled resources with deep industry knowledge, especially in competitive markets where such resources are in high demand. As business requirements become more complex, firms expect that this will become a greater challenge for providers of managed data services.

The benefits of a managed data service can include the following:
- Reduced costs of technology,
- Improved data quality with consistent and auditable processes,
- Ability to leverage provider’s subject matter expertise,
- Leverages economies of scale,
- Improves time to market for new initiatives and strategies, and
- Shifts efforts from core data management processes to value-add data analysis.

Conclusion

The use of alternatives by institutional investment managers is on the increase and the trend is likely to continue. This will create demands that will be a challenge for existing operating models but data and data management are areas that can be addressed. It has been shown that the issues can be resolved internally but there is opportunity to use a managed data service to provide a cost-effective approach that is scalable and improves the time to market for new investment strategies.
Appendix A: Characteristics of Alternative Assets

All investments can be characterised by five structures:

- Regulations,
- Securitisation,
- Investment Strategy,
- Compensation, and
- Market Structure

Different alternative classes will be influenced by the different structures in different ways and it is useful to consider the aspects of each specific alternative asset class that separate it from a mainstream asset. Some alternatives may have certain characteristics that are similar to a traditional investment but will behave differently in others.

**Regulation**

This characteristic is specific to the role of local governments and includes regulations and any taxable implications that may influence the nature of the investment.

**Securitisation**

The transformation of the asset ownership into tradable units - e.g. indirect investments.

**Investment Strategy**

The investment strategy for many alternatives is distinguishable from traditional assets.

**Compensation**

Conflicts of interest often arise around alternative assets due to the way the various parties are compensated.

**Market Structure**

This characteristic is in reference to the financial markets specific to a particular alternative asset - e.g. OTC vs ETD
### Table 1: Application of alternative structures to different alternative types

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Important Structures</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Assets (dominated by Real Estate)</td>
<td>Securitisation</td>
<td>REITs have converted real estate into tradable units that are accessible by institutional and retail investors without the need for specialist systems or staff. Direct property is not securitised as buildings can only be bought and sold in their entirety.</td>
</tr>
<tr>
<td></td>
<td>Market Structure</td>
<td>There is no central market for real estate. Property inventory is accessed via agents or through contacts. Transactions are typically reported to a central agency and/or tax authority but publicly available data can be several months in arrears.</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>Real-estate investment managers may have a performance-related element to their fees. Agencies are paid on a successful transaction and so are motivated to bias the information they provide.</td>
</tr>
<tr>
<td>Hedge Funds</td>
<td>Investment Strategy</td>
<td>Many hedge funds will take advantage of a lower regulatory requirement to create investment strategies that are not accessible to traditional collective investments. Hedge funds are defined by their investment strategy.</td>
</tr>
<tr>
<td></td>
<td>Regulation</td>
<td>Hedge funds have significantly less regulation than traditional-pooled vehicles that provide them flexibility in their investments and operations. However, this places more emphasis on the investor for initial and ongoing due diligence.</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>Hedge fund managers typically have a performance element to their fees. Investors should take care that the performance element has parity with their investment objectives. Traditional investment collective schemes are more regulated in this area.</td>
</tr>
<tr>
<td>Commodities</td>
<td>Securitisation</td>
<td>Commodities are usually traded by exchange traded futures contracts, meaning that they are often not considered as an alternative investment.</td>
</tr>
<tr>
<td>Private Equity</td>
<td>Market Structure</td>
<td>Private equity capital is not publically traded via central counterparties or clearers but instead is buyer to buyer.</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>The parties to a transaction are often compensated based on elements of the transaction for which they have a vested interest.</td>
</tr>
<tr>
<td></td>
<td>Securitisation</td>
<td>Securitisation can have an effect on the debt characteristics by being large or having specific lots with specific characteristics and as a result that are significantly different from traditional investments.</td>
</tr>
<tr>
<td></td>
<td>Investment Strategy</td>
<td>The investment strategy around a private equity deal is often different to listed equities or bonds and can focus on providing business support to a business in order to achieve the investment objectives.</td>
</tr>
</tbody>
</table>
# Appendix A: Characteristics of Alternative Assets

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Important Structures</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structured Products</strong></td>
<td>Securitisation</td>
<td>Structured products are typically constructed to meet a specific investment purpose with custom attributes such as par size or payment structures.</td>
</tr>
<tr>
<td></td>
<td>Market Structure</td>
<td>Structured products may be listed for price discovery purposes but are typically an asymmetric bilateral contract rather than traded via a central market.</td>
</tr>
<tr>
<td></td>
<td>Regulation</td>
<td>Structured products can be developed to alleviate specific regulatory constraints experienced by traditional investments.</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>The parties involved with some structured products can be compensated based on a transaction or aspect of the behaviour of the asset.</td>
</tr>
</tbody>
</table>
Appendix B: Other Characteristics of Alternative Assets

Return

Some managers refer to the return characteristics of an alternative asset type as the primary way of describing alternative assets due to the way that they enhance return and reduce risk.

For these managers, investment opportunities that are substantially distinct from the returns of traditional stocks and bonds will be viewed as alternative investments. The attraction is the potential lack of correlation to traditional instruments and the ability to generate absolute returns rather than relative returns to traditional investments.

Illiquidity

Traditional investments are frequently traded in financial markets with substantial volume and a high number of participants. Even illiquid traditional assets have characteristics that are well understood in the industry with the majority of participants agreeing on valuation methodology even if the market is not providing a liquid price. Some alternative assets by their very nature are illiquid with too few investment participants or access to the assets to trade and without a consistent valuation methodology.

Inefficiency

The prices of most traditional investments are determined in markets with a high degree of competition and efficiency. Efficiency in this case refers to the tendency of the market price to reflect all available information. Inefficiency can be from the timing of the information or from the quality of the information (such as valuations). Some alternative assets rely on information from interested parties which may be inaccurate or biased and it is up to the individual investors to place more or less reliance on such information.
## Appendix C: Data Challenges

### Table 2: Data challenges and how they affect consumers

<table>
<thead>
<tr>
<th>Consumer</th>
<th>Data Challenges</th>
<th>Comments</th>
</tr>
</thead>
</table>
| **Investment Desks**   | Backtesting                    | Backtesting is used to examine the success of hypothetical trades after the fact. Backtesting applies user-defined entry and exit criteria to historical data and execute simulated trades to gather P&L statistics. Backtesting for direct investment in alternatives can be a challenge because:  
  - Little or no historical data exists and if so it is often inconsistent  
  - Data often fits badly into existing backtesting methodologies and new ones will then need to be developed. |
| **Independent data**   |                                | Data is often gathered from sources where compensation is influenced by the investments being made. The investment desk will need to take a view on how the data needs to be manipulated to obtain a neutral view. |
| **Comparative data**   |                                | There are not always benchmarks, or relevant benchmarks, that can be used to compare investment performance.                                                                                           |
| **Investment Risk Teams** | Lack of Historical Data | Ex-post risk controls can often rely on historical data to generate a risk profile. This is difficult if the data is not available or is not relevant. Proxy data may need to be used which can cause incorrect risk assumptions.  
As an alternative asset matures as a market then it may start to correlate with traditional assets. Historic data may imply that asset classes are not correlated when they do in the short term. |
| **Coherence with traditional data** |                                | Traditional assets typically have data that is coherent – it has the same timing and treatment and can be aggregated in a meaningful fashion. This may not be the case when alternative assets are included within a portfolio. Data aggregation may be inconsistent, causing inaccurate assumptions. |
### Consumer Data Challenges

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Illiquidity</strong></td>
<td>Illiquid data will require the risk team to interpolate or enhance data sets so that risk models can be applied across the organisation with any sort of meaning. However, the assumptions that are being applied are subtle and interpretation of the results needs to be made considering these assumptions.</td>
</tr>
</tbody>
</table>

### Operations

| Identifiers | Operations teams often need to communicate with third parties and a lack of industry identifiers can increase the risk of confusion or delay during these communications. Operational teams often agree informal ways of identifying investments which can carry risk when individuals are away from the operational desk. |

| Standardisation | The lack of standardisation of data makes it difficult for operational teams to store relevant information together and hampers the creation of standardised processes. This directly increases the cost and risk of operations for alternative assets. |

### Senior Management

| Bias | Management reports will tend to show traditional assets next to alternative assets and it is difficult to highlight or quantify any bias in the data. This bias, if material, could cause senior management to incorrectly act, or not act. |

| Timing | Management reporting summarising different data sets can be incoherent if the data relates to different timings. The lack of data liquidity or delay on obtaining data for alternative investments can, if material, provide a misleading view for senior management. |