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# FUND & ASSET MANAGEMENT TECHNOLOGY, EUROPE

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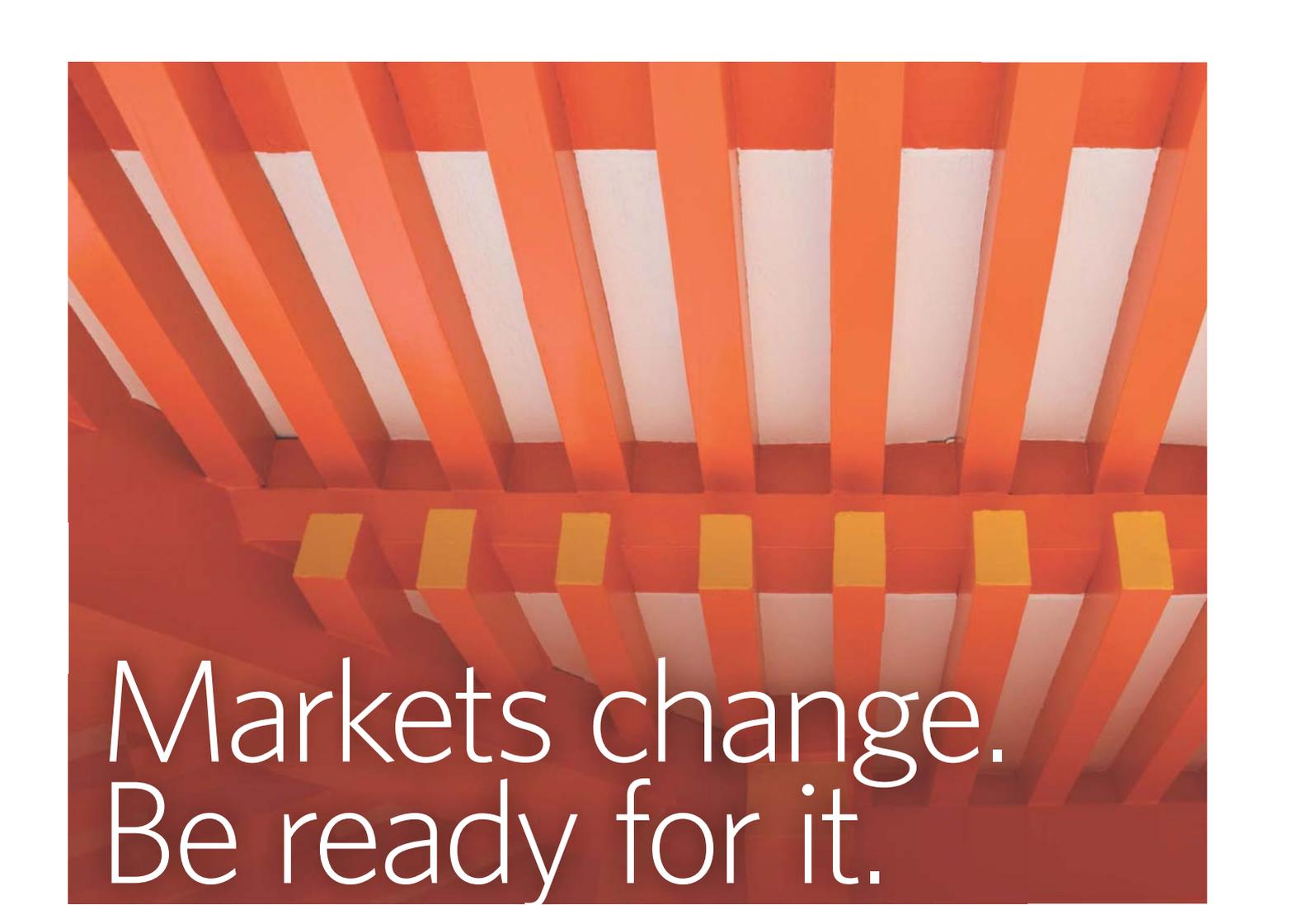
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## WHITE PAPER

# THE EVOLVING ROLE OF ENTERPRISE DATA MANAGEMENT



**JEREMY SKALING**  
Head of Product  
Management  
*Eagle Investment Systems*

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## Employing your Data Management Strategy to Ensure Long-term Success of Your Middle-office Outsourcing Program

### DATA MANAGEMENT AS THE KEY TO RETAINING INDEPENDENCE

Data management challenges in the year 2012 carry common themes that have challenged the investment industry for the past 20 years. Many companies continue to struggle with data silos, systems integration, and generating reliable data to efficiently manage the business and report to all stakeholders. However, in the twenty-tens, companies are faced with increasingly hungry data consumers, sophisticated clients, complex investment strategies, diverse global operations, and ever increasing global regulators. While the themes of aggregation and validation remain consistent, the needs to support rapid deployment, complex investment strategies, self-service data consumption, and flexible business models are increasing. Does your company have a solution to manage the challenges of today? Are you prepared to efficiently grow your business despite the unknown challenges that lurk behind the next acquisition, outsource or third-party relationship, or geopolitical event?

### ENTERPRISE DATA MANAGEMENT (EDM)

The front and middle-office require an array of data types and connectivity with key operational systems to keep trades, security reference and pricing data consistently feeding the investment business process throughout the day. These front and middle-office users—portfolio managers, traders, investment operations, risk and compliance staff, other investment staff, and marketing personnel—require consistent access to this data, often in combination with sales or client data, with little or no wait time. Key business data challenges such as quality, consolidation, accessibility and business intelligence (BI) for the middle and front offices are often magnified by the lack of an enterprise data management strategy and a data management technology solution.

Data management can be viewed almost as a commodity for security reference data and market data. A true EDM solution extends beyond reference data and must represent the full spectrum of data across the investment management landscape, allowing for integration of all investment data in a central warehouse—leveraging a proven model that is well defined, is open and flexible and can adapt with the company's business. Inflexible EDM solutions lead to challenges with data access and data expansion. Additionally, subject-specific toolkits risk the long-term expense of managing what may become an unruly collection of well-intended point-to-point solutions.

### COMPLEX INVESTMENT STRATEGIES

Today's investment managers are forced to manage increasingly complex portfolio structures and investment strategies. This could include relationships with specialty advisors to gain exposure to global markets or specific investment strategies. An EDM solution must provide the intelligence to manage these complex investments as well as the ability to properly maintain increasingly complex portfolio structures. These portfolio structures often include the need to represent the manager of third-party assets, ability to roll up to a legal entity level, or drill down to analyse the exposure of a specific investment decision.

For global investment managers, these structures and strategies require equally complex investment analysis. This analysis often includes the need to enrich data coming from a host of systems, such as internal back-office platforms or external custodians and third-party administrators. For example, valid accounting records need to be augmented to get a true economic exposure analysis and reflect why a position may exist or what hidden risk may be lurking in a derivative product.

Additionally, many investment teams/front offices are reliant on an accounting-based record (ABOR), which often does not provide the view the investment team requires. A robust data management platform facilitates an investment book of record that can be augmented/enriched to meet not only investment-team needs, but also serve as the validated gold record to feed performance and risk calculations, with the advantage of storing an ABOR for period-end and client reporting requirements.

### SUPPORTING THE CONTINUUM OF OPERATING MODELS

With cost and efficiency pressures increasing the use of hosting and outsourcing strategies, companies have begun to understand both the needs and the benefits of a solid EDM strategy deployed on an investment data management platform. While these EDM challenges have always been with the company, they are viewed through a different lens and measured against the service provider in an outsource scenario. Finding a service provider that understands the investment management business and its data management complexities is key to overcoming these longstanding issues and realizing the potential value of an outsource strategy.

Data access for purpose-built systems, such as risk, compliance, BI and reporting, is a prime challenge to a successful hosting or outsourcing model. The company must feel that "their" data and the related systems are close and offer flexibility that borders on

# THE EVOLVING ROLE OF ENTERPRISE DATA MANAGEMENT

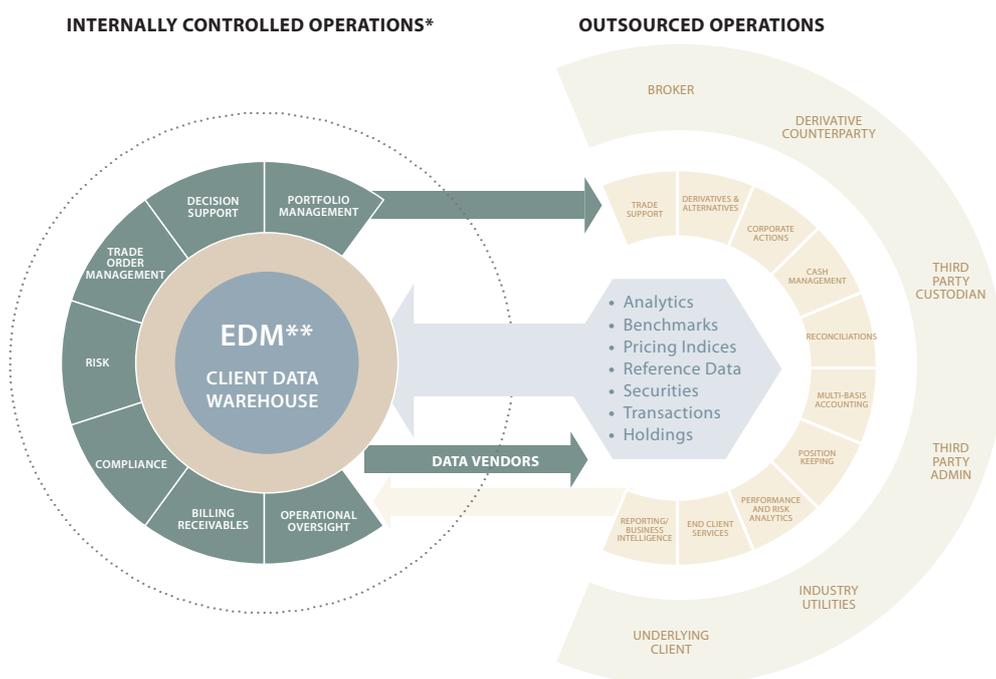
self-service. Data is the DNA and can be a differentiator that sets a company apart from its competitors. The optimal scenario is an open, extensible data model versus a proprietary black box that requires a new service contract for every new query or report. Today's savvy investment managers realise that they don't have to give up the control of their data, and outsourcing models must adapt to address this need. However, there are few solutions available that achieve this. The model must support investment-specific views of the data, such as entity view, statutory view, risk view, portfolio manager view, all with operational integrity for different metrics and reports by persona: operations, marketing, CIO, CFO.

Business users, with some training, want to be able to use the reporting and BI solutions themselves to explore their data and meet their day-to-day challenges. Again, the breadth of data, the variety of views and the output formats required by the front to middle-office are formidable. The ability to provide the right data consistently for each business purpose can represent unique DNA for the company. The optimal situation is a world class EDM solution integrated with a world-class reporting and BI solution. The latter have changed exponentially in the last five years, so taking advantage means the business takes on the task of implementing the best services internally or finding a service provider that is innovative and flexible enough to be constantly evolving vendor relationships.

Enterprise data management is crucial to the success of middle-office outsourcing. It is not required to revamp all operational systems in order to recognise the benefits of working with a service provider. Data management in the continuum of outsourcing services should be viewed as an "insulation layer" that supports activities with multiple service providers while

leaving the necessary operations intact. A data management strategy that "insulates" you from the middle-office outsourcing partner, gives you autonomy and doesn't bind you to the back-office systems of your middle-office outsource provider. Internal decision making systems, investment analysis, marketing, or client reporting platforms can be "insulated" from the middle to back-office services of your outsource provider. A well-established data management platform should allow an asset manager to let go of operational components while maintaining and even progressing their market advantage by their ability to quickly address market changes, make more informed business decisions and adhere to regulatory requirements. A common challenge that investment managers face is being dictated to by the outsource provider and losing control over data that is critical to the operations of the business. A robust insulation layer (data management platform) should allow for the investment team to manage data themselves, do more with the data, bring in specialist providers, and provide the flexibility to adapt and grow the business.

Through the decades, no matter the market challenge—the investment manager's business challenge always comes back to data. When looking to align with a service provider, you need to find a solution that can help your business grow in today's highly competitive and rapidly changing environment. The best service providers can adapt and help you grow your business, while allowing the necessary level of control of the data and reporting functions to best be positioned for the future both in terms of cost and operational efficiencies. The industry is moving in this direction and those who take advantage of this opportunity now will be that much faster in being able to make investment decisions, adhere to regulation and start realizing a faster return on investment. Are you prepared to efficiently manage and grow your assets?



\* The company's internally controlled operations comprise Enterprise Data Management (EDM), also referred to as the unique DNA of a company.  
 \*\* Companies that retain control of their data, while outsourcing other parts of their operations, have a distinct market advantage.

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## INTERVIEW

# Analysing the Value-Add Of Utilising Shared Platforms between Different Office Locations

### INTERVIEWER:



**CHIDO TAGARIRA**  
Publisher  
Clear Path Analysis

### INTERVIEWEE:



**MATTHEW OAKELEY**  
Head of Group IT  
Schroders

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**CHIDO TAGARIRA:** It is probably best to commence with a brief introduction to your role within Schroders.

**MATTHEW OAKELEY:** Schroders is a fund management company operating in roughly 31 different locations across the globe. This creates a whole series of challenges regarding how much we try and share systems between the different locations versus all having their own local solutions. Whilst we are a global business, a lot of our offices are local businesses servicing the market place that they are in, and therefore, they have very specific needs. One of the considerations that we have when talking about shared platforms is around the extent to which a global platform forces you to have a single global workflow, and whether that actually harms your local businesses. It is important to find the right balance and be clear when it is right to have a shared platform.

**CHIDO:** How do you decide when it is right to use a shared platform?

**MATTHEW:** Firstly, people tend to assume that shared platforms must be more cost effective, however, a global platform is much more expensive and complicated to maintain than local platforms are. For us, the balance is sometimes optimised by using regional platforms rather than global platforms. If you operate within a single time zone, then single teams of people can service multiple locations within their normal operating day. When you move into different time zones, you need to start thinking about 24 hour support models, as well as how knowledge is managed between different

shift patterns and locations. The actual physics of platforms also becomes more complicated, for example, if you have someone in Sydney who wants to access data that is hosted in London, then there are challenges in how they acquire the appropriate speed of access. This means that the complexity level goes up fast when you have to manage a 24/7 system and not only from the operating side, but also the user experience which has to make them feel like it is still local to them. We have IT hubs in London, Singapore, Luxembourg, New York, Sydney, as well as slightly smaller IT capabilities in some of the other offices. All of the global platforms are run from London and generally distributed by Citrix, although we do also have a few which are web delivered. These applications are generally internally hosted in our own data centres in London, although we do have a few that are externally hosted or cloud-hosted such as Salesforce.com. Overall, we try to create an application eco-system which allows some tools to be local and others to be global platforms. Ideally, we will go further with the global platforms. Local legislation and regulation can also be a deciding factor in whether a global solution is appropriate.

**CHIDO:** How does that work?

**MATTHEW:** We have split our back-office operations into two so that Singapore is the operations hub for all of Asia Pacific, and London is the operations hub for Europe and the Americas. We feel there are a lot of benefits to be had from global systems, but we also feel that they are quite expensive and people tend to forget the business process

needed to make these work, as well as the IT support process. The complexities of communication also become much harder and users find it harder to get what they want as there isn't someone just down the corridor who you can ask for help.

This means that the various relationship layers of management, stakeholder management, and change management actually get much larger as they have to be able to cope with a disparate community around the globe. Further globalisation would depend on the business case in the round – not just the logistics of the IT component.

**CHIDO:** What benefits have you found in utilising the shared platforms?

**MATTHEW:** The ability to centralise some functions into hub functions is a key element. If every location has to fend for itself, you end up re-inventing everything in every location. As soon as you can manage a function in a central location, then you have the opportunities for not only improving cost effectiveness, but also scalability and throughput. If you have lots of little offices, all of whom have their own little IT team, there is a certain scale and way of doing things that you never get past. Whereas if you build something purposefully to be scalable and multi-locational, then you start off in a different mindset and you can achieve a lot more. For a growing business, centralising is often the way to enable that scale – without this you get mired in trying to interface to every office's individual systems in order to make changes. This starts to make

global process change impossible. We have increasing numbers of Investment products where a fund manager in one location co-manages the same portfolio with a fund manager in another location, which of course means that they must be able to look at the same system and data. This kind of workflow is incompatible with local system approaches.

**CHIDO:** I suppose this is where the cost effectiveness comes in?

**MATTHEW:** It is more expensive to run those systems, but growing the business brings the revenue that pays for them. When growing the business adds a lot more value than the cost to the business, then it pays off.

**CHIDO:** When did you start using shared platforms?

**MATTHEW:** Our trading system, Charles River, started in 2002 and that was our first global system. Around the same time, we also implemented an electronic trade confirmation (ETC) and matching system and it clearly made sense that if the trading system was going to be global then the ETC system should be global too. Since then, we have added more global systems so that we now have global systems for our performance measurement, custodian reconciliation, data scrubbing and some of our front office decision support tools.

**CHIDO:** How difficult is the implementation of this?

**MATTHEW:** We have an already established architecture for how to deliver these systems so that when adding new systems we can make use of this. As all of our systems are run from London, it gives us the added benefit that the systems are all local to each other. This is beneficial because one of the biggest problems with systems over distance is moving data between them. If we did have a large global system based

in Sydney and one in London that had to talk to each other in any volume, it would significantly increase technical complexity. We still have hurdles to cross in regards to the knowledge-base needed to support global systems. In general, to support systems properly, part of your day job needs to be actually working on that system as it is hard to do anything other than first line support without on-going experience of 'getting your hands dirty' in the system. Therefore, our next step is continual improvements in how best to globalise the delivery and development teams who work on change in these systems.

*“...it is business needs that drive things forward and as we globalise more of our products, we will need to globalise our IT to go with it.”*

**CHIDO:** Is it about utilising one type of training system across the different locations?

**MATTHEW:** No, it is actually about creating global-functional teams and putting people in the various locations who are line managed as single global teams.

**CHIDO:** Has the cost in the implementation of these platforms been prohibitively expensive in the past, and was it a key factor in your decision to start this process now?

**MATTHEW:** It is actually more passive than that. Global systems tend to come from global business needs rather than any IT 'dogma' about globalisation. Those global business needs may be driven by budgets or cost control, but usually they are driven by product and client requirements. Therefore, it is business needs that drive things forward and as we globalise more of our products, we will need to globalise our IT to go with it. It doesn't tend to be cost and complexity

which stop you doing things; it is just that they become a consideration in how you do things.

**CHIDO:** You mentioned your use of the cloud, is that something that you have looked at specifically?

**MATTHEW:** You start with a business need and then you figure out a solution for that business need. We don't have any principles that say whether solutions should or should not be in the Cloud and we don't currently see the cloud as 'an objective'. If we feel that the best CRM system is Salesforce then we will buy Salesforce, and if it happens to be delivered via the cloud, then provided other angles of security, service and quality are met, this is fine with us, but we don't look at it because it is a cloud service.

People are getting cloud and outsourcing confused. Outsourcing your infrastructure means that someone else is managing it whilst cloud is about multi-tenanted, on-demand access to capability where multiple clients are all sharing the same hardware. This is quite different to just having someone else host and maintain the service for you. With true cloud-delivered services, you have to be careful because not every location has the same regulatory views as to whether they are happy with the cloud-delivered services. When you are working with global systems, you have to think about legal and regulatory issues as there are a number of jurisdictions around the world that are unhappy with data and key functions being based, as they see it, 'offshore'.

**CHIDO:** We can conclude there. Thank you for taking the time to share your views on this subject.

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## INTERVIEW

# UTILISING TECHNOLOGY TO LOWER COSTS FOR THE END CONSUMER AND INCREASE ENGAGEMENT

### INTERVIEWER:



**CHIDO TAGARIRA**  
Publisher  
Clear Path Analysis

### INTERVIEWEE:



**CHRISTOPHER SIER**  
Director  
Financial Services  
Knowledge Transfer  
Network

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**CHIDO TAGARIRA:** How big is the problem of the erosion of returns for end consumers as a result of lack of operational efficiency in the asset management industry?

**CHRISTOPHER SIER:** I will come at this from the perspective that finance firms, including Investment Managers, are generally pretty inefficient as they have a lot of technology issues, suffer from a lack of integration of strategic systems, and parts of their technology work independently from other parts (so, for example, derivative operations often work as a separate silo that is integrated at the beginning and at the end, but operates independently along the way). In the last few years, I have been looking at it from a top-down point of view which is that, as a consumer sitting at the end of a long value chain, you have to consider that all of the elements of that value chain are profitable and therefore all take cost (=performance) away from you. The fundamental problem with the industry is that it is extremely complex and to disaggregate that value chain into its component parts so that you can think strategically about which parts can be consolidated or made more efficient is a very hard task. Nevertheless, it is worth doing given the potential benefits to the consumer. One must also consider though that just because savings and efficiency (and risk reduction) are made a point in the value chain does not mean those savings will be passed onto the consumer. More often than not such savings are captured as corporate profitable to adjacent value-chain participants and not passed across the length of the chain.

There is a lot of controversy surrounding this question of how much money this value chain makes. My opinion comes

from a bottom-up point of view where I'm trying to calculate all the value that the component parts extract from the consumers money. However it can also be estimated from the top-down. In the UK, there are roughly £2-3 trillion worth of assets under management that face the UK consumer. If you think about how many people service that figure, then work out a fully loaded cost for each of those individuals, you will come up with a very big number. Given this calculation, the cost to a consumer of all of that value chain components servicing your assets, this could be as high as 5% of your money each year being eaten up in costs. The argument that financial services firms (read asset managers) will give is that these are the costs that are necessary in order to give you the return that you are getting; but returns in the past few years have not been stellar. However, the industry still wants to sustain this amount of revenue and one of the ways to do that is to generate the same amount of money using the same number of employees but over a larger asset total which means that you need to sell more, but at lower cost.

**CHIDO:** How does that work?

**CHRIS:** There are two parts of the equation here; one is you need to do the same job across a wider asset base, coupled with a reduction in unit cost if you are still going to maintain your margins, i.e. same total amount of earnings but in a more efficient way across a wider asset base. This means that you need to produce more products that are more available to a wider range of consumers, and you need to make yourself more efficient. We are talking today about the second part-cost and efficiency. But another important part is risk. By restructuring what is an extremely

complicated value chain, you can actually reduce risk. It is a reasonable assumption that when you have lots of people and intermediaries in the value chain there is information shrinkage, information loss and operational risk, which is introduced into the system by having a large number of handoffs, and a large number of participants in the value chain. If you acknowledge that regardless of where you are in the value chain, you are working for one group of people-the consumers-then it makes it much more difficult to utilise the savings from operational efficiency for your company's benefit, and more likely to pass that value on to the consumer at the end of the value chain. Although this is what should be happening, in actual fact what is happening is that any extra that is saved through operational efficiency goes to the employers.

John Kay has recently released his review of the financial markets in the UK and he made this exact point when talking about the fiduciary responsibility that members of the value chain, no matter how far away from the consumer, have towards the consumer.

**CHIDO:** How can fund and asset managers go about reducing the costs? And do lower costs for the end consumer mean higher costs for the fund and asset managers?

Part of the way of shortening the value chain has to be through technology. There are interesting ideas out there about using strategic systems that operate in the cloud. For example, if you are two organisations that are merging together and integrating, one of the considerations has to be that there are two different core banking platforms or fund accounting

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## UTILISING TECHNOLOGY TO LOWER COSTS FOR THE END CONSUMER AND INCREASE ENGAGEMENT

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systems which need to merge together. Historically, when people have merged less attention has been paid to the merging of the systems. A well-known retail or full service bank in the UK has been operating three independent systems effectively since a merger in the past decade, and has never got to the bottom of integrating the data, and therefore it operates with separate core and data systems. This is an incredibly difficult way to operate. Technology vendors offer a bespoke service to a bank or asset manager, but of course if this bank merges with a company that also has a bespoke system, at least one company is going to have to change yet nobody wants to. However, there is an alternative to this as we live in a world where cloud is slowly becoming ubiquitous. Why not take that core system, stick it in the cloud and tell people that the system isn't customised to them, they link to the system. Feeds are customised but the same system is used.

**CHIDO:** In order to ultimately achieve these lower costs, will there be substantial upfront costs in using this method?

**CHRIS:** Yes there are risks as well as costs. It also potentially destroys the model of consulting firms who implement the large IT programmes. With the new system, you get multiple organisations using exactly the same version of the same system at the same time, and one upgrade rolls out to all the clients simultaneously because there is only one system that is sitting in the cloud. So when you merge with someone else, one of the considerations would have to be are you using this system? This is going to be a cultural change. Part of the difficulty will be in getting data right - what data to keep inside, and what data they can afford to put outside the walls. Of course this will bring up issues of responsibility and ultimately, and where you draw the line between data inside versus outside your own company systems.

**CHIDO:** Given the current regulatory pressures and economic uncertainty, is it realistic to expect fund and asset managers to address their operational inefficiencies at the moment?

**CHRIS:** I started this job in the Knowledge Transfer Network with the assumption that asset managers and banks spent a lot on technology and that this is a well-funded sector. I am now of the opinion that this is not the case. They do spend a lot of money but it is a fraction of what they should spend and could spend because they are spending most of their money on people. It is always said that the financial markets are a people business but I don't feel it is. Financial markets these days are a technology business, but it is one that is still spending most of its money on people and that is why the employee compensation ratio in these organisations is anywhere between 30-60% of revenue and the technology spend is much lower. That lower figure is still billions of pounds, but it is not enough. Would technology have prevented the financial crisis or the fall of Lehman's? Possibly so. If people had been more aware of where their money was and what it was doing, the chances are that they might have made decisions differently. Personally, I feel they should pay people less and invest in technology more to make things more visible and transparent. Anyone who does benchmarking is alright in my book because they are forcing transparency into a space where there is currently no transparency. If this data can be used to identify weak links in the data chain so that improvements can occur, it is a good thing. Of course there is capital investment that is going to be needed, but I feel that it will pay for itself in the long term because it will reduce costs and risks overall.

**CHIDO:** So it's down to thinking more long term, rather than focusing too much on the short term?

**CHRIS:** There isn't an asset or fund manager out there who at some point doesn't decide that they need to cut costs. The problem is that the costs are often cut in a tactical fashion - i.e. to impact P/L in the short term. There are too many firms that think about cost cutting, risk reduction and efficient from their own point of view and not from the market point of view. This means that in that industry-wide risk and cost reduction initiatives rarely get off the ground. And

such initiatives are what are really needed. Unfortunately, such strategic initiatives often mean that some participants will go out of business because their services are no longer be needed, but if it ultimately benefit the consumer, then this is not a bad thing.

**CHIDO:** How can fund and asset managers try to highlight and improve the engagement of their end consumer so that they know where their money is?

**CHRIS:** It comes down to data management but I can't give you the exact technological requirements that would be needed. When you ask a hedge fund manager what they worry about they all answer that one worry is "what trade that hasn't been captured", leaving them exposed or unhedged. This all of this comes down to data and information and better technology. It's all about figuring out the best way to handle it, organise it, and manage it. As for consumer value - would you buy a product if you didn't know exactly how much it cost and the benefits of that product could only be described in terms of historical performance, no guarantees about future performance, and the characteristics and mechanism of that product might change over time? No, certainly not. Yet that is exactly the situation we are in with funds. Cost is incompletely described (AMC and TER are only incomplete measures of cost); performance is based on history (there is a disclaimer that says past performance is no guarantee of future performance, etc.); and the 'star' individual who actually manages the historically high-performing fund you are about to buy may change at short notice, as might the company fronting that individual. It amazes me that anyone buys funds under that kind of regime. The answer, of course, is adroit marketing (trust us we are professionals, etc.) and tax benefits. These days I think these as reasons just aren't enough and the place to start is by explaining the costs and risks of owning funds much more clearly.

**CHIDO:** Thank you for sharing your thoughts on this.



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