InteDelta
Risk Management Consultants

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Trading, Risk & Technology Market Specialists

The Asian Asset Management Industry in 2018:

Time for an overhaul in Strategy & Technology

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Why is the time ripe for change?

A majority of the larger Asian pension funds are constructed as defined benefit (DB) pay-as-you-go systems which were created more than 40 years ago. In the current sphere, the twin challenges in Asia of ageing populations and longer life expectancies are putting strain on government finances and their ability to meet these liabilities.

There has been a gradual awakening in Asia's asset management industry with institutions increasingly looking at changing their conservative investment mandates and moving beyond the legacy asset classes of government bonds and local fixed income assets that have traditionally dominated portfolios of asset managers in this region.

Much of the above sentiment can be attributed to today's challenging investment climate, especially in the fixed income world where yields are still relatively low even as implied rates are projected to increase while, on the equity side of the markets, valuations are at historic highs with recent increases in volatility. In addition, over-concentration in US dollar denominated portfolios is making regional asset managers nervous resulting in dollar diversification strategies and a search for stable and higher rated Asian denominated bonds.

In addition to the challenges of low yield fixed income markets, sporadic volatility, over-valued equity markets and nervousness around the US dollar, Asian asset management institutions also have to worry about ensuring that longer term liabilities are appropriately matched with existing instruments in local markets. The inability to match long term liability with suitable long dated instruments has been a challenge that carries a risk for asset managers in the region particularly life insurance companies and government pension funds. Having historically allocated a large percentage of its portfolios towards local market instruments, where maturity tenors are limited both in terms of issuance and liquidity, pension funds and other longer-term asset managers in the region are recognizing this risk and are taking steps towards moving beyond their own local market instruments with a focus on diversifying across both asset classes and jurisdictions.

Moreover, in Asia the retirement provision for current and future generations also presents a number of challenges. A majority of the larger Asian pension funds are constructed as defined benefit (DB) pay-as-you-go systems which were created more than 40 years ago. In the current sphere, the twin challenges in Asia of ageing populations and longer life expectancies are putting strain on government finances and their ability to meet these liabilities. Eamon Keavey Adjunct Professor at NUS Business School acknowledges this challenge and further mentions that "one strategy to combat this is to diversify into other alpha generating investments or to make harder choices by reforming their pension systems by lowering benefits or raising the retirement age. Given the latter choice is unpalatable and would be deeply unpopular, it emphasizes the importance of widening the asset allocation universe for pension funds in the region."

The above shift in trend is clearly captured in State Street's 2018 Fund Strategy Survey where the selected Asia Pacific asset managers have responded that they are looking to expand their product range to include more complex asset classes over the next five years with 88 percent planning to offer multi-strategy funds (an 18 percent increase from today) including more fixed income and equity asset classes and with 94 percent planning to offer private equity funds (a 24 percent rise from today).

How will investment strategy change?

Two key areas of interest have recently come under consideration as suitable instruments for such asset managers. First, bond issuances in local Asian markets are on the rise offering healthy yields. However, to date, most of these issuances are being bought by domestic funds as a 'held to maturity' portfolio allocation strategy while cross border or intra-regional trading for these instruments still remains very low.

Michael Levin, Head of Credit Suisse Asset Management (CSAM) in Asia Pacific mentions in the Hubbis May 2018 report that "within Asia, one must look at India and China (who are) offering yields above 6% with relatively short duration and limited credit risk. The primary risk that you're taking is currency exposure, and you may benefit by diversifying away from the dollar."

Thomas McMahon, CEO of PACE adds on this point "As bond issuances across the emerging Asian markets pick up, the real question on cross border trading will not be based on just the returns and performances of these assets. It will more likely be whether regional fund managers have the support of systems that can cater to the bespoke static data, pricing and settlement of these instruments".

The other area is the use of derivatives instruments. Trevor Persaud, Head of Insurance Asia at Standard Chartered observes that "increasingly the more sophisticated institutions in the region are turning to derivatives instruments as they enable the fund managers to obtain synthetic exposures to longer term offshore asset classes while minimizing the currency risk." He furthermore mentions that it's not so much the structured or exotic derivatives products that are being used by the asset managers but more of the vanilla derivatives. "A typical example of using derivatives for gaining synthetic exposure is to purchase a long-term foreign bond and then hedge its currency exposure through the use of a cross currency swap" notes Mr. Persaud.

The challenge of using derivatives not only arises from the valuation of long term swaps which requires finding daily end of day prices for longer term Asian tenors but also understanding and factoring in the capital costs that banks charge based on Basel 3's Risk Weighted Assets for both credit and market risk, which today are embedded in the price of derivatives.

Hence, the key for Asian managers in successfully migrating towards more diverse investment strategies and instruments is to really have the ability to understand all the costs associated with these instruments both on a pre-trade, trading and post trading basis. On the fixed income side, we note that the majority of the banks are pricing in non-trading costs into the bid offer spread of most fixed income and derivatives instruments. Hence, given the low yield environment impacting their return, it is essential for fund managers to be cost sensitive and have a clear and accurate view of these costs, such as:

a. Cost of access (clearing and brokerage costs)
b. Cost of liquidity
c. Cost of capital charged by banks (market risk capital, counterparty credit risk capital, CVA capital)
d. Banks' internal XVA costs (CVA, FVA, etc)
e. Transaction and custody costs

Given buyside firms in Asia have limited understanding and clarity on how the above costs are being calculated means that portfolio returns and performance attributions may not represent actual market valuation and this brings unintended risks to the portfolio.

Technology today is still viewed as a cost amongst most of the regional fund managers who fear any significant investment towards better infrastructure and solutions will only lead to lower returns.

In short, the good news is that an awakening in Asia's asset management industry has come about with regional institutions realizing the importance of moving away from conservative and static investment strategies towards more sophisticated strategies with complex instruments and incorporating wider asset classes. Unfortunately, most of these institutions are still not aware that before any change in investment policy and strategy is done, the key ingredient is to look at transforming technology. Technology today is still viewed as a cost amongst most of the regional fund managers who fear any significant investment towards better infrastructure and solutions will only lead to lower returns. It is key that fund managers in this region realize that technology investment is not just a cost. In today's technology environment we are seeing tremendous innovation of platforms and solutions, which if implemented and applied correctly, can lead to better investment outcomes and higher returns.

Transforming Technology Part 1: Understanding Data

The goal of technology in today's asset management institutions is to help transfer accurate data in a timely fashion to the key stakeholders in front office, risk, operations and management to enable them to make the right decisions. In this respect, there are 4 sets of data that are essential:

a. Real time data
b. Historic data
c. Pricing data
d. Aggregated data

Real time data is essential for both traders and fund managers to make optimal decisions, especially when applied on a pre-trade basis. Fund managers and traders today need to know the impact of adding instruments to their portfolio even before execution. With the right tools, a trader would know how his overall returns and performance will be impacted and will have the flexibility to compare returns to multiple benchmarks along with having full transparency on risk measures such as market or credit risk metrics. Another important application for real time data is to marry the compliance policies with trading strategy by ensuring that even as a trader enters the proposed position in the order management system (OMS) prior to execution, all necessary compliance breaches (e.g. concentration limits, credit limits, duration, PV01 constraints) are flagged out on a pre-deal basis.

Historic data is equally important to both the front and risk divisions. Fund managers increasingly are using historic data for fixed income instruments such as bonds to analyse historic price movements and applying this to generate forward looking scenarios. Most large fund managers today use internal models that use historic data of instruments to generate multiple scenario analyses and therefore data quality is essential. Before any internal models can be used, backtesting of the data is required to validate the model and thus it is vital that accurate historic yields, duration and spreads are used to generate the right inputs required key metrics, such as VaR based analysis.

Pricing data for fixed income and other derivatives instruments is conceivably the most challenging element for buyside firms in Asia. Banks today that act as brokers to many buy-side firms have severe regulatory constraints consisting of CCP clearing, capital charges, other internal risk charges (e.g. XVA charges), custody and settlement costs all of which are priced in and passed back to the client wherever possible. Failure for buyside firms to precisely understand the cost attributes have a direct impact on their own portfolio returns.

Finally, aggregated data on a timely basis is essential for institutions with multiple external and internal fund managers. In Asia, the majority of institutions are unable to view their holdings, exposures and risk in a consolidated form on a daily basis. Instead they rely on their custodians to first validate all the trading done by external fund managers which is then usually sent in the next working day in the form of reports to the asset manager. The inability to view consolidated risk and holdings on a daily basis is a risk especially when it comes any adverse market movement or the onset of a crisis where management would need to make key decisions on liquidating positions, unwinding trades or even issuing pre-emptive margin calls to certain high-risk counterparties.

Transforming Technology Part 2: Buy side vs. Sell side Technology

Having access to a broader range of instruments is also an emerging demand for players who wish to diversify on different markets.

Following the financial crises of 2008-09, we have seen a strong investment by banking vendors to incorporate risk capabilities in front office banking modules. Global banks today have implemented risk solutions for traders in the front office who have sophisticated capabilities such as running VaR based calculations on the fly (real time on demand) or performing sophisticated Monte Carlo simulations across hundreds of portfolios using a variety of macro and financial scenarios.

Over the past few years, we have seen an increased appetite for buy-side institutions to adopt such sell-side vendor technology. Murex, for example, have lately developed various functionalities for one of their buy-side clients.

Murex's perspective is that, in an increasingly complex global regulatory context, investors - and clients more generally - are demanding more transparency and new risk management approaches, while buy-side firms are facing pressure on their fees and revenue. VaR and other sensitivity measures are now typical risk metrics which portfolio managers expect as part of their standard dashboards. Having access to a broader range of instruments is also an emerging demand for players who wish to diversify on different markets. This creates a sustained wave of IT systems consolidation. The enforcement of bilateral margining and the Libor reforms are another two upcoming and significant changes that will only add up to the ongoing transformation.

Mohamed Turki, head of the investment management practice at Murex, says: "We believe that the convergence of portfolio management, order management, compliance and risk management, in a single platform, for a broad range of instruments, will become a must. Our real-time portfolio management and pre-trade capabilities have been enhanced to combine portfolio management with order management and compliance. Portfolio dashboards provide a broad range of analytics and risk measures such as VaR, benchmarked VaR, stress tests and performance attribution that rely on the same source of positions as the Front office. We have also developed a packaged offer for bilateral margining calculation and management. This helps Murex clients comply with the changing regulatory environment, eliminate complex reconciliation processes, and reduce CAPEX and OPEX by rationalizing the IT landscape".

On the other hand, the more traditional buy-side vendors have not been sitting around and have also been heavily investing in their capabilities.

While the offerings between sell-side and buy-side market segments have traditionally been very different, they are starting to converge in today's environment.

SimCorp, one of the largest global investment management technology providers based out of Copenhagen, is a case in point. The company has recently introduced the next generation Alternatives solution as part of its integrated front to back platform, to address this region's intensifying search for yield and increased focus on this asset class.

More generally, the company has been advising a holistic approach to the buy-side challenge and they feel that Asia is embracing the concept of a consolidated investment management platform to tackle the increasing market complexity. Replacing a patchwork of legacy solutions (which require multiple reconciliations, interfaces and suboptimal data flows) is highly desired, but firms show caution on how this can be executed successfully.

The debate of single integrated platform vs. a best of breed technology solutions architecture is a prevalent one today amongst Asian asset managers and is being heavily evaluated. SimCorp feels that today's vendors are increasingly moving to a single integrated platform that allows for the offering of multiple front to back solutions using a single platform and database.

"There has been a significant drive in our industry towards achieving operational efficiency by managing all assets on a consolidated investment platform architecture and utilizing increased automation. This is not just an effort to attain economies of scale and realize strategies for growth across geographies and capabilities; it is also a key component in risk mitigation, error reduction, and wider compliance," says Oliver Johnson, Managing Director AsiaPac, SimCorp.

We are entering a new phase in global markets where both sell side and buy-side technology vendors are competing head-to-head for asset managers, pension funds, central banks and hedge funds. While the offerings between sell-side and buy-side market segments have traditionally been very different, they are starting to converge in today's environment. In fact, it is increasingly difficult to find distinctions between sell-side and buy-side technology in functional areas such as ex-ante risk analysis, stress testing and many aspects of compliance management. Buy-side vendors though still have a slight edge when it comes to the more complex advanced fixed income attribution models. However, the key ingredients that will distinguish vendors is most likely investment into solutions that can be applied to the changing landscape of investment and risk management. Furthermore, vendors that can display strong non-functional attributes such as an integrated architecture, grid computing that optimizes computational power for complex calculations, server load balancing through advanced algorithms and cloud services that allow institutions to be leaner on premise, may see an edge over the rest.

Transforming Technology Part 3: Considering Fintech solutions?

Unlike retail banking and consumer banking which has seen adoption of mobile banking, A.I, P2P platforms and some early blockchain applications, investment and asset management in Asia is still an industry which is reliant on traditional enterprise technology.

There is however a move by a lot of small to mid-sized funds to make in-house technology leaner through the adoption of cloud technology. Some of the more operational functionalities like reconciliation or affirmation matching has already been adopted by fund managers using cloud solutions. Other more complex functionalities such as calculation of pre-trade 'what if' analysis and complex risk calculations would be well served by use of cloud capabilities due to the High Performance Computing demand. However, while institutions in Asia feel comfortable with market data being on cloud, they are more keen on having firm-wide exposures and inventory on premise. Therefore, leveraging cloud computing to achieve high performance at low cost requires careful analysis of the portfolio calculations to ensure that data is only sent to the cloud in line with internal security policies. An increasingly common approach is to use the cloud for scenario generation and then bring the results back onsite for the final risk aggregation.

Implementing Technology: Building the right vision and roadmap for change

The previous section alluded to the importance of investing in technology prior to changing any investment policy or strategy. This section will look at the importance of having the right technology vision combined with a structured selection and implementation strategy.

A technology vision is translated into what business transformation consultants today call a "Target Operating Model" or TOM.

Our approach is to help clients who are managing domestic and global investments to build the right TOM and then choose the best-fit technology infrastructure to support this model.

The InteDelta-Deriv Asia TOM approach is therefore a highly structured approach designed specifically for change within capital markets and investment management.

Why the Target Operating Model is essential before vendor selection is made?

If the business and architectural vision is not fully thought through prior to selecting systems, the risk of selecting a 'bad match' is high.

Selecting and implementing technology will only be successful if the strategic vision and objectives are well understood in advance. The 'right' system for a given organization is not simply a matter of satisfying a checklist of business and technical requirements. These are clearly important, but equally as critical is to ensure that the way that the system is built, designed, integrated and supported is aligned to the business and architectural objectives of the organization.

The business objectives need to be forward looking. As a new system can be expected to be in place for 10 years+, it is important that any systems choice considers the future business strategy. We provide our expertise on global and regional industry / regulatory developments to support this strategic thinking.

The support and service objectives also need to be designed with these future business objectives in mind. This will require deciding between many types of system offerings providing combinations of on-premise software, managed business services, cloud computing, continuous / annual / on-demand upgrades, high performance computing, agile / waterfall delivery methods, out-of-the-box vs extensible features, etc. All of these factors will have a different impact on the future business agility of the organization. Different systems will therefore suit different organizational strategies.

If the business and architectural vision is not fully thought through prior to selecting systems, the risk of selecting a 'bad match' is high. This is the reason that designing the TOM at the outset needs to be a priority.

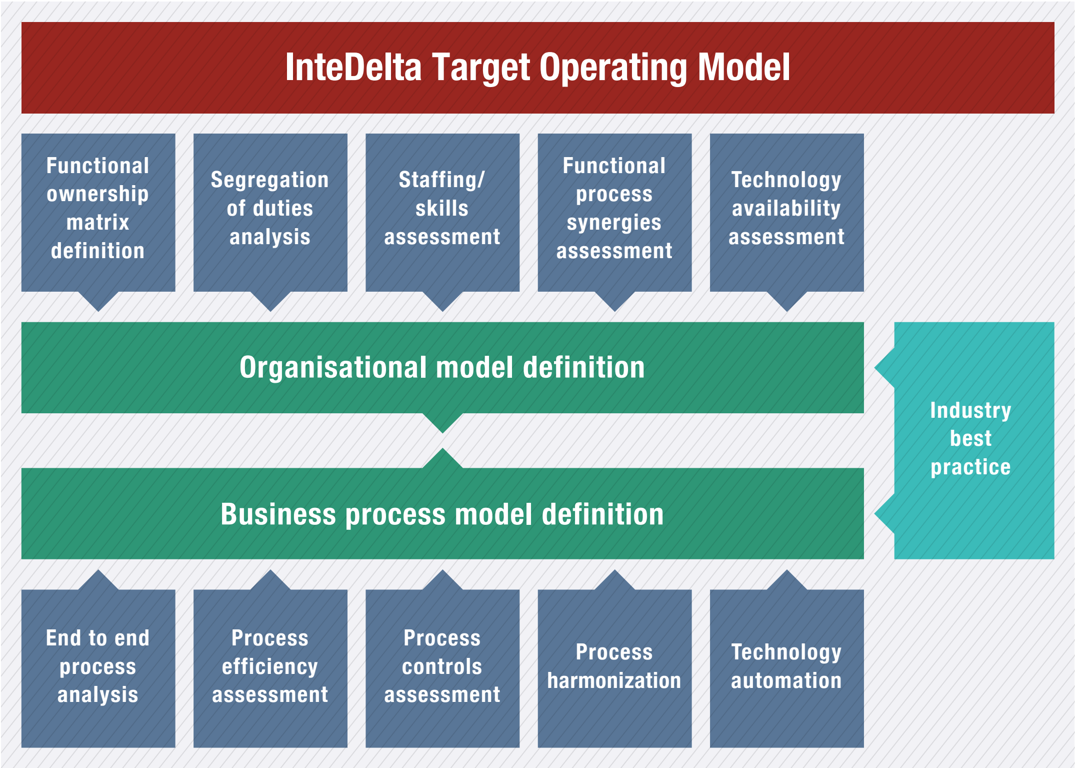
Implementing Technology: The Target Operating Model

The Target Operating Model's (TOM) steps are as follows:

a) Undertake a deep dive assessment of current organization, processes, current architecture, connectivity and issues
b) Determine future requirements based on internal strategy, regulatory change and industry trends
c) Design the future organization and process model
d) Overlay the future target technology vision and non-functional requirements
e) Set out the Future Solutions Architecture

The first step outlined above is to undertake deep dive analysis workshops from front to back to determine current gaps and challenges in process and systems. The output of these workshops will be a current end to end workflow process map and a gap analysis detailing critical issues. We then create proposed future requirements and a 'Future Process Model" which will incorporate regulatory recommendations and best practices in global markets. To the extent that new activities are required, we help the client to understand the required organization and headcount change.

The diagram below provides a visual depiction of the organizational and process assessment approach.



Finally, we use the future process model and requirements gathered to create the ideal architectural model. At this stage, we analyze the pros and cons of different architectural options such as a single integrated platform versus a best of breed vendor mix in order to determine the best approach for the specific client situation. We take into account the client's preferred technology standards and technology vision, assess the complexity of integration and factor in other variables such as future growth plans, scalability and performance requirements. The output of this stage is the Solutions Architecture.

Implementing Technology: Selecting the Right Vendor

Vendor selection is only the final step after the foundations for the technology transformation has been laid in the form of the TOM.

The InteDelta-Deriv Asia vendor selection process consists of the following steps:

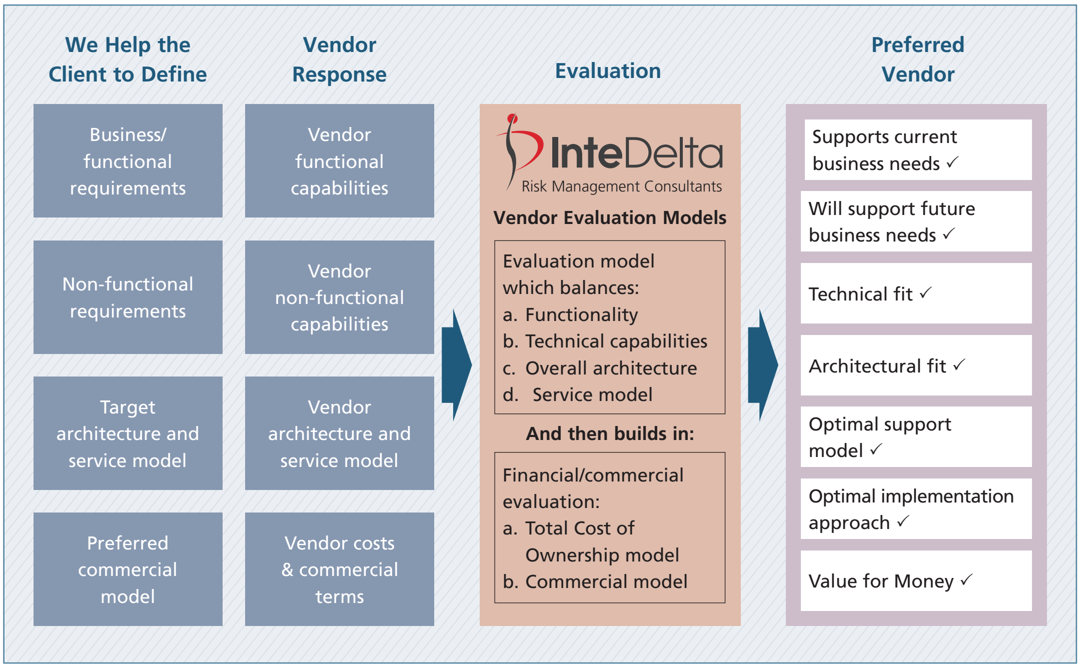
1. We use the TOM to create the RFP document which will detail all the requirements. These requirements are fully prioritized to support vendor scoring
2. We use our Vendor Intelligence Database create a shortlist of vendors which can meet the client's strategic architectural model and requirements (see breakout box for further details)
3. We create an optimal quantitative scoring model that will balance between competing priorities
4. We create structured onsite system demonstrations and proof of concept sessions for the candidate vendors once the RFP has been submitted

Our Vendor Intelligence
We regularly undertake system selection and implementation projects for clients across the financial sector. Additionally, we maintain an on-going dialogue with all leading system vendors and their clients to fully understand latest developments.

This enables us to maintain a significant and up-to-date database of intelligence on vendor capabilities.

Using this intelligence, we can quickly and efficiently prepare an initial market assessment and shortlist recommendation for our clients.

The diagram below illustrates how the different components of the vendor evaluation approach.



Conclusion:

Transforming firm wide technology is not the role of the technology department nor front office nor the risk departments in isolation – it is a cross-organizational challenge.

There is little doubt that most buy-side institutions in Asia, whether asset management companies, sovereign funds or pension funds are increasingly recognizing the importance of broadening their investment strategies, and expanding into more sophisticated investment products and currencies. This enthusiasm is not yet matched when it comes to undertaking the necessary overhaul and investment in sophisticated technology. Anything technology related is still often viewed as non-revenue generating and not adding to the overall investment return and consequently not as a top priority, particularly by front office management. In most circumstances, the drivers of technology change have been either risk, operations or technology.

This view is both flawed and detrimental to the overall institution. As we have described, technology not only leads to better investment outcomes and higher returns but is also crucial to ensure that during times of market stress or crises, the management has the necessary data to make swift decisions on counterparties, inventory and positions to avoid any material losses to its funds and investors.

The Asian asset management industry is now starting to waken and confront a new and more challenging macro environment, and realizing that the only way to remain profitable and have sustainable returns is to invest in the right technology not just for front office but a holistic solution that will connect front, risk and back to ensure full connectivity, straight through processing and the availability of real time data across the firm.

Transforming firm wide technology is not the role of the technology department nor front office nor the risk departments in isolation – it is a cross-organizational challenge. It requires a well-articulated strategic vision, plan and structured road map endorsed from the top of the organization. If Asian institutions adopt such a structured and well-planned approach by ensuring the fundamental ground work is done ahead of changing their investment strategy, they will be able to evolve into sophisticated institutions armed with the necessary tools to seek the right investment opportunities in the world's fastest growing region. Eventually this will encourage and support strong capital inflows and sustain growth in this region over the next few decades.

About the Authors

Sam Ahmed
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Sam Ahmed has 18 years of capital markets experience in top tier banks in Asia such as Lehman Brothers, Merrill Lynch and Citi along with 4 years of consultancy with banks and buyside clients. He is a recognized expert in the region for derivatives products, regulations, risk mgmt & collateral mgmt, asset management and investment solutions. Sam also has extensive knowledge on banking and exchange technology architecture and software.

Sam's clients are banks, central banks, exchanges and buyside firms in the region. Sam's role is to provide expertise on new products and services development, implement regulatory change, advice on risk management frameworks and finally assist with technology change, selection and implementation.

Nicholas Newport
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Nick has been a Managing Director of InteDelta for 14 years. He specialises in organisation, process and technology change in commercial banks, central banks and asset managers. Nick is a recognised industry thought leader in these sectors across trading, market risk, credit risk and operational transformation. His consulting engagements include major global institutions on both the buy-side and the sell-side. Prior to founding InteDelta, Nick worked for ING in London / Amsterdam, where he was responsible for ING's global credit risk management technology programme for financial markets, covering both banking and investment management activities. Nick started his career at Standard Chartered in London and Asia in a variety of market risk management roles.

About InteDelta-Deriv Asia

InteDelta and Deriv Asia are partner companies headquartered in London and Singapore respectively. InteDelta-Deriv Asia's asset management practice specialises in:

- Investment risk management policies, methodologies and models
- Implementing organisational change for regulatory, risk and technology initiatives
- Vendor selection, implementation and Target Operating Model
- Market intelligence, benchmarking & white papers
- New business development for products and services
- Exchange & CCP architecture, risk methodology & margining solutions

Further Information

If you would like to discuss any of the issues addressed in this report, please contact:

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