# Asia-Pacific Hedge Fund Guide

2012 Edition

Equities · Prime Services

NOMURA

## Nomura Prime Services

Welcome to the 6th edition of the Nomura Asia-Pacific Hedge Fund Guide

This guide is a comprehensive overview for hedge fund managers planning to launch a new fund or extend an existing US or European platform into Asia. It addresses legal, operational and regulatory considerations specific to Hong Kong, Singapore and Japan. In addition, we review market-leading service providers and vendor platforms that are critical to running a sustainable business

As in previous years, we have invited outside service providers to participate in this publication. We would like to show particular appreciation to Clifford Chance, Compliance Asia, Heidrick & Struggles, Management Plus Group, Miller Insurance, Northern Trust, PricewaterhouseCoopers, PTS Consulting, Sidley Austin and Sungard, who have contributed to this 2012 edition by submitting articles relevant to their particular areas of expertise

Increased regulatory requirements will continue to be a key theme in 2012. As investment banks reorganize themselves in order to comply with the Dodd-Frank Act and other forms of legistation, we expect to see a number of new, high-caliber hedge funds launches from former proprietary trading units. These startups will most likely be sizable in AUM, backed by industry veterans with established track records

As such, the importance of building an institutional-type operation with credible 3rd party service providers will once again be a key focus as investors look for day 1 opportunities. We believe this guide will serve as a high level overview as you continue to grow and develop your business.

The launch of the Cash Prime Brokerage platform for US onshore clients in September 2011 helped our global platform build-out. We are providing financing solutions, custody in over 40 markets, excellence in execution, and industry expertise to our clients around the world. Our state-of-the-art technology, built around security, flexibility, and transparency, is automated and scaled to handle large transaction volumes and complex trading strategies. All of which is supported by a diverse and talented team of professionals, who have collectively built a global Prime Brokerage business

We are extremely excited about the new opportunities that lie ahead in 2012. We believe this guide will serve as a high-level overview as you continue to grow and develop your business. Lastly, we look forward to working with you as your trusted partner throughout the lifecycle of your fund. For more detailed information and bespoke solutions, kindly contact your Nomura Prime Broker representative.

Sincerely

Christopher Antonelli

Global co-Head of Prime Services

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## Table of Contents

Nomura Prime Services

## Introduction

**Nomura Prime Services is a fully integrated platform offering global securities lending, innovative financing solutions, execution excellence, and industry expertise to our clients around the world**

WHY NOMURA PRIME SERVICES?

- The only full service global prime broker headquartered in Asia
- Flexible onshore and offshore platforms to suit clients' needs and risk profile
- Complements desks throughout the capital markets business, including relative value, cash, programs, electronic, and convertible bonds
- Strategic arrangements with 150+ institutional lenders and exclusive portfolios across global markets
- Home market advantage with over $700 bn in captive Asian assets
- Clear and concise legal documentation with complete transparency around PB liabilities and rehypothecated assets
- Competitive advantage with Asian and Australian investors; unparalleled access to Japanese retail distribution
- New technology without the challenges of updating legacy systems for enhanced processing and reporting
- Fully integrated execution platform; #1 in volume on TSE and LSE
- Gateway to the firm; unrivaled access to Japanese capital markets and research

**Financing Products**

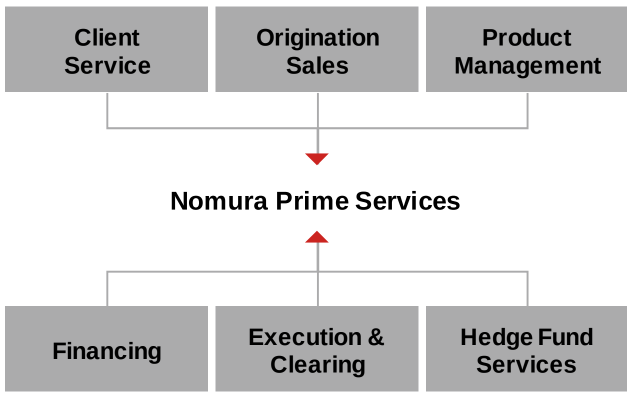
- Cash Prime Brokerage
- Delta One

**Execution & Clearing Products**

- Futures & Options
- Quantitative Prime Services

**Hedge Fund Services**

- Capital Introductions
- Hedge Fund Consulting



## Financing Products

### CASH PRIME BROKERAGE

- Multiple account structures based on asset protection and financing requirements
- Account structures include segregated fully-paid-for and margin accounts
- Flexibility ensures ease of movement between account structures
- Detailed reporting suite, providing transparency around activity, position, margin, rehypothecation, dividends, interest, and asset based financing
- Dedicated client service teams with extensive industry knowledge and product expertise in equities, fixed income, derivatives, futures, FX, and corporate actions
- Provides the gateway to the firm

### SECURITIES LENDING

- Access to $700+bn Asian inventory, including Japanese retail base and exclusives
- Strategic arrangements with 150+ institutional lenders and exclusive portfolios across global markets
- Multi-asset class lending via margin, synthetic, and repo

### FINANCING

- Leveraging a single, integrated (multi-asset class) financing platform for both Cash Prime Brokerage and Delta One
- Margin solutions encompassing grid based, risk based and cross netting facilities
- Risk based portfolio margin for multi-asset portfolios to provide margin offset for diversification benefits under a scenario and stress based framework

### DELTA ONE

- Synthetic exposure to restricted markets via TRS, Portfolio Swap, CIB, P-notes, Certificates
- Real time risk pricing for long and short exposure to all major sectors and indices throughout Asia
- Customized portfolio hedging solutions and ability to gain exposure to Nomura thematic research ideas
- Access to dividend swaps across most main Asian indices

## Execution & Clearing Products

### FUTURES & OPTIONS

- Connectivity to all major global futures exchanges with multiple trade execution methods (Voice, Electronic, Care)
- Low latency infrastructure and algorithmic trading via NXT
- Automated allocation and reconciliation services

### QUANTITATIVE PRIME SERVICES

- State of the art DMA technology with ultra low latency
- Robust hosting, co-location, and market data solutions
- Providing quantitative models, market color, and execution consultancy services
- Fully integrated execution platform; #1 in volume on TSE and LSE

## Hedge Fund Services

### CAPITAL INTRODUCTION

- In-depth research and insight into Asian investor appetite, trends, and allocations; competitive edge in Japan and Australia
- Targeted investor access via strategic road shows, pan-Asia quarterly events and access to Nomura distribution channels
- Quarterly activity reports on investor interactions including detailed investor feedback

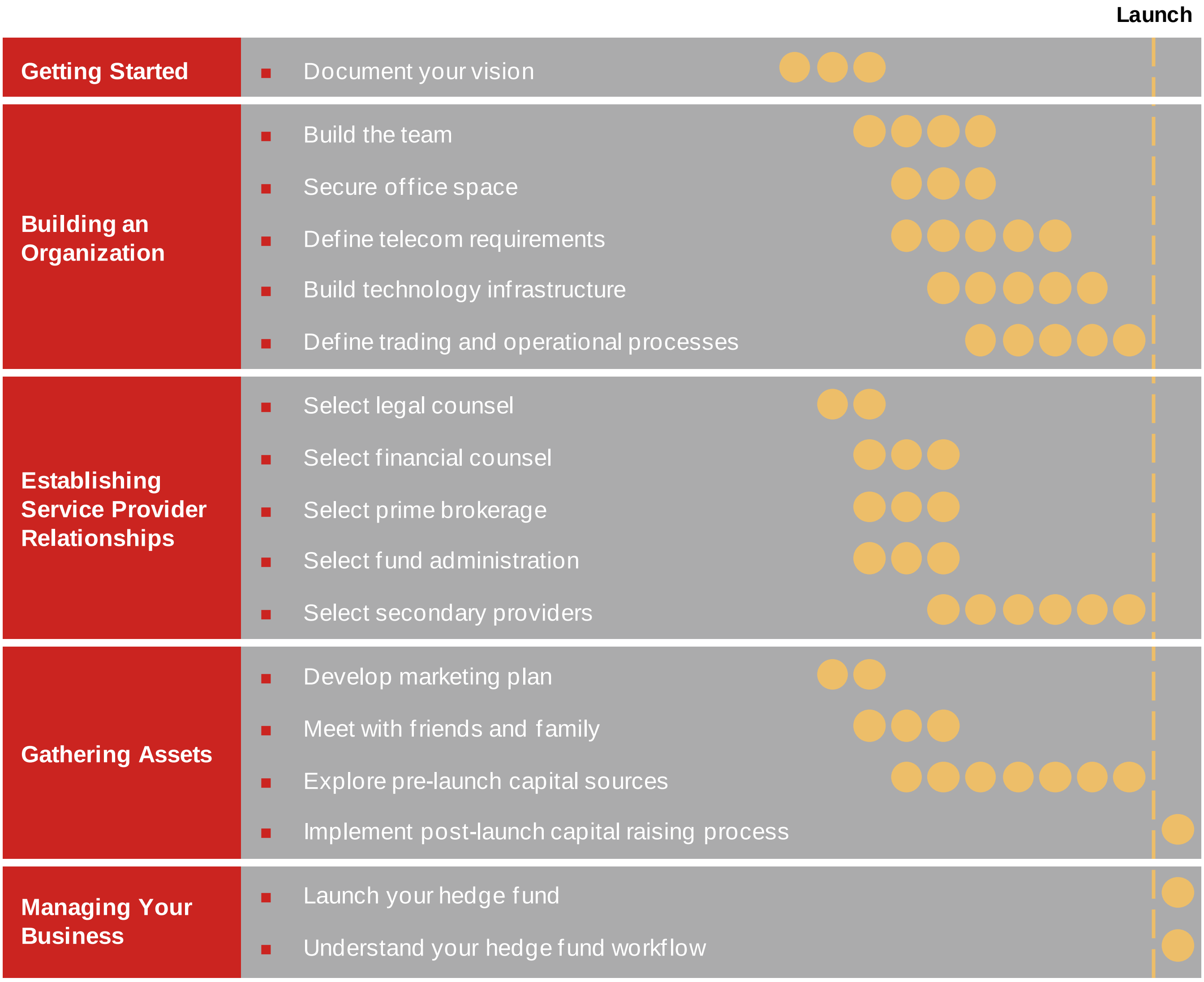
### HEDGE FUND CONSULTING

- Guidance on strategic business issues, including best practices, fund operations, and introduction to service providers
- Annual publication of the Nomura Asia Hedge Fund Guide – a comprehensive roadmap for managers setting up or extending operations in Asia-Pacific

# Planning and Logistics

## Timeline

Starting a hedge fund requires undertaking a number of relatively complex tasks, many of which run on parallel paths. We've found that grouping these tasks into core building blocks with actionable deliverables is paramount as you begin to create your hedge fund



## Documenting Your Vision

Your business plan should detail your investment philosophy, organizational plans and economic projections over a five year period. This is your key marketing material, which should tell a clear and memorable narrative to your prospective investors and partners

1. **INTRODUCTION**
   - On a single slide, list three to five bullet points that provide a brief background on the franchise. This is your "executive summary"
   - Include biographies of your main partners and chronologically detail your start-up efforts to date. This is your "organizational overview"
2. **INVESTMENT STRATEGY**
   - Discuss overall strategy. For example "We are an international long/short equity hedge fund. We use a combination of technical and fundamental analysis." Specifically articulate your strengths in the marketplace
   - Determine market and product coverage; and decide return and volatility targets
3. **ORGANIZATION CHART**
4. **INVESTMENT PROCESS**
   - Use flow charts to illustrate how you transition from your universe of securities to placing individual securities in your portfolio. Explaining security analysis is key. What factors, technical trends, etc. do you consider in your evaluation? Remember demonstrate a disciplined and repeatable process
   - Include a section on your technical platforms throughout each section
5. **PORTFOLIO CONSTRUCTION**
   - Where possible, describe your portfolio in numeric terms. The number of positions, exposure viewed several ways, market cap, turnover, geography, etc. Be specific, but not to issue level, as to how the portfolio will look
6. **RISK MANAGEMENT**
   - Explain exposure data, gross, net, beta, geographical exposure, stop loss, stress testing, risk analytics, etc. available to investors. Screen snapshots from risk management software may also be helpful
7. **TRADE EXAMPLES**
   - Provide examples of trade life cycles. At the end of this section, the investor should conclude, "This team is highly skilled and is going to make money for us."
   - Take them through the entire process of how you discovered the security, your valuation of the security, and your trading in and out of it. If they have to ask "What is your edge?" then you have not been successful in demonstrating it. Again remember you must show a disciplined and repeatable process
8. **SUMMARY OF TERMS**
   - Define fees, high water marks, hurdle rate, investment size, lock-up, etc
9. **SERVICE PROVIDERS (WHEN APPLICABLE)**
10. **CONCLUSION**
    - Recap key points, state your competitive edge and ask subtly for the business

## 11. APPENDICES

- The appendix is not part of the formal presentation. Its purpose is to provide additional materials to support the key points of your plan. It is an opportunity to respond in detail to any outstanding questions the investor may have and to demonstrate that you have thought through all the issues thoroughly. You should also include important information such as detailed biographies of your management team in this section

## Roles/Responsibilities/Base Salary Ranges

### RECRUITMENT AND COMPENSATION FOR HEDGE FUNDS IN ASIA

HEIDRICK & STRUGGLES

Lisa Wong – Heidrick & Struggles

### INTRODUCTION

As foreign investors continue to buy into the Asia growth story and some big-name stars arrive to cash in on the resurgence in activity, the recruitment picture for hedge funds in the region is becoming more interesting

After a spurt of activity post-global financial crisis, funds are taking a more discreet and subtle approach to seeking talent. They are building their teams steadily and carefully. At the same time, candidates are not rushing in, either. Many are preferring stability over career excitement and volatility

Everyone is more careful and thoughtful. Candidates are looking for different criteria and funds themselves are being more choosy about the sort of people they want

Despite all of that, we believe there are more options available today than during more turbulent times. Some good people have become available as their funds face capital challenges. Others are ready to strike out on their own, given the success of recent ‘second generation’ fund launches. And of course there will always be the up-and-comers who dream of being Asia’s Warren Buffett and who will want to make the leap into hedge funds

Over the past quarter, Heidrick & Struggles has reviewed the new landscape to draw out some points of interest to firms wanting to set up in the region

After an objective study of the dynamics at play, we believe that the best way to minimize risk and capture rewards is to put stellar teams in place

In order to achieve this, three points need to be borne in mind

1) Global funds operating in Asia need to build a sizable team to attract and retain the best players. Rising stars need to feel supported and nurtured, or they will quickly become falling stars

2) The number of high performers in Asia is small and efforts to identify and hire the best people must take a consistent approach across multiple geographies, including China, Hong Kong, Singapore, Japan, Australia, the US and Europe. The key here is a professional approach and depth in different markets. Discretion is paramount

3) Hiring in Asia calls for flexibility and creativity. You can’t just operate from a fixed list of pedigree candidates. A more nuanced approach is needed

Finding your team members is obviously the biggest part of your investment. The most successful funds will be those which achieve the right mix of star-power and stability. The best teams are built from good initial selection, as well as compensation and other rewards, and cultural “fit”

During the global recession, we heard the phrase “less is more”. Organizations learned to assign multiple tasks to ever-diminishing teams. But with hedge funds in Asia today, the theme is “more is more”. Putting in a “one or two man band” is simply not an option

Hedge funds need to demonstrate to the market that they are committed. Small operations won't get the attention they deserve from investors. Funds need a reasonably large team to capture all the opportunities available. They also need to demonstrate "presence" to the stars they are chasing to join them. Size matters

High-performers prefer to work in an environment where they can bounce ideas off each other. It may also be valuable for them to learn from the more experienced members of the team – particularly if they have offshore experience. It is also important to have immediate support from on-the-ground staff who understand the Asian framework

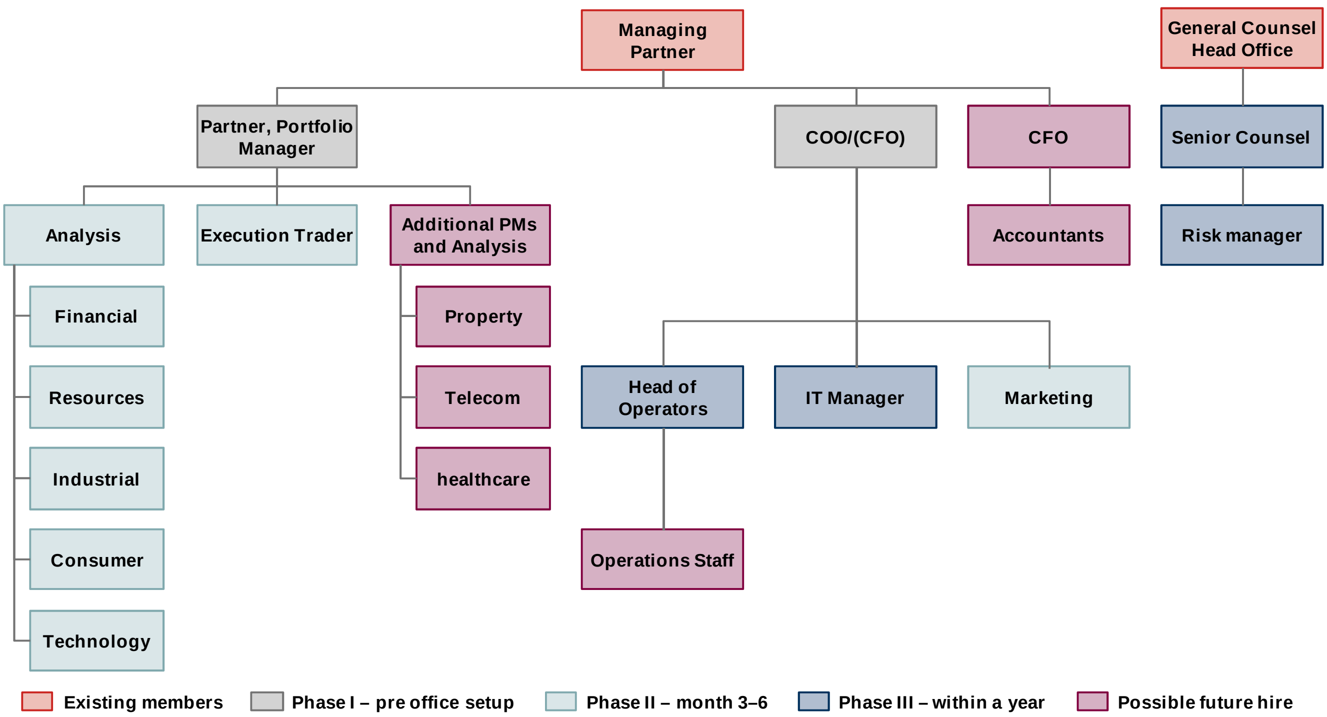
### BUILDING FOR SUCCESS – ORGANIZATION MODELS

There are a variety of options available for firms wanting to move to Asia. Here are some models popular with global funds

Level of effectiveness

| | |
|---|---|
| **Full Asian branch (best practice)** | ■ Can be costlier but a full presence means being able to deal with all manners of opportunities<br>■ Commitment and level of investment attracts the attention of quality investors, brokers and service providers<br>■ Easier to attract and maintain top talent |
| **Research center** | ■ Investment Research<br>■ Quantitative Research<br>■ All support functions are outsourced. Some prime brokerages provides this service and some of the funds are re-shaping themselves as a service platform and provider |
| **Execution and marketing** | ■ Execution Desk with one or two traders<br>■ Sales & Marketing with one or two marketing officers<br>■ Simplest of the models, this is merely a window into the Asian market |

## BUILDING FOR SUCCESS – SAMPLE ORGANIZATION CHART




## BUILDING FOR SUCCESS

### Portfolio Manager

We recommend a local hire to ensure strong local connectivity. He or she will have a deep understanding of the landscape and credibility with the community in Asia. Portfolio managers should also be in charge of recruiting and building the investment team as well as running the portfolio once the fund is established

#### Key Requirements

- More than ten years in the industry and no fewer than five years from a purely proprietary environment
- Solid experience in managing a portfolio including idea-generation, asset allocation, risk management and direct responsibility over P&L
- Proven and consistent personal P&L record of no less than $US5 m to $US10 m (medium) fund and more than $US10 m (top-tier fund)
- Comfortable running a sizable book of around $US100 m to $US300 m (medium) and $US300 m to $US500 m (top-tier fund)
- P&L expectations once they join the fund are $US10 m for junior Portfolio Managers, $US10 to $20 m for senior Portfolio Managers and over $20 m at the Managing Director/Partner level

#### Trends and Challenges

Only a small number of senior portfolio managers moved between the second half of 2008 and the first half of 2010. Hiring at this level is now accelerating. New entrants are moving more aggressively and existing houses are adding at the senior level to existing talent

Due to shortage of senior talent and inconsistent recruitment approaches, some of these hires take an average of nine months to a year or longer to complete

Overseas-based Asian portfolio managers, founders and senior members at smaller funds are a good alternative source. We also recommend senior flow traders from top-tier investment banks (which do not rely on customer business)

Costs

**Portfolio managers (US$'000)**

| | |
|---|---|
| Base[1], partners | +300 |
| Base[1], all levels | 150–250 |
| Pay-Out ratio[2] | 12.5%–15% |

1. *Base salaries are generally treated as a cost to be deducted from the P&L once capital allocation is more than $US100m. Transparency is important when it comes to cost. Expenses vary from firm to firm. Above-the-line expenses are typically cost of capital and cost of running the business (monitors, data services, travel).*
   *Below-the-line are salaries (sometimes including analysts) and bonuses.*
2. *Payouts are mainly formulaic and a range of 12.5 to 15% is the norm (around 10 percent after cost). Outliers include large funds with significant partner capital (16–20 percent) and proprietary trading desks (5–10 percent).*

**Portfolio Manager**

We recommend that you initially hire four to five analysts, focusing on sectors such as finance, resources, industrial, consumer and technology. At least half of the team – ideally the resources, industrial and consumer sector analysts – should be Mandarin speakers and local hires. The rest should speak other Asian languages such as Japanese and Korean

Trends and Challenges

One of the most actively sought-after roles post-global recession is that of Research Analyst

The biggest challenge in finding the right junior candidate is that quality varies hugely and it takes time to fully map or screen the market. But there are plenty of hunting grounds from which to source good analysts

Private equity firms produce good candidates with fundamental research skills which are highly favored by value investors. Top M&A, corporate finance and ECM houses have talented people with great potential. Alternatively, sellside equity research, and asset management companies also have decent candidates

At the senior level, the challenge is to find a senior analyst who is still interested in being an analyst! Most are looking to the next step of managing their own portfolio

Key Requirements

- Two to four years relevant experience (with or without buy-side experience) for junior analysts and five to seven years for seniors, with no fewer than two years in an investing environment
- Strong analytical and numeric skills (CAIA has become increasingly more popular an indicator than CFA and MBA)
- Fluency in written and spoken Mandarin is a pre-requisite for most of these positions
- While there's no particular specification on industry focus for junior positions, there is a strong demand on banks, oil and gas, mining and metals, consumer, industrial and technology analysts and a lesser demand in property, telecommunications and health care analysts (see table below)

Sector, Demand and Language Requirements

**Sector specialists – by demand in descending order**

| Sector | Mandarin |
|---|---|
| Financial (banks) | Ideally |
| Resources (oil & gas, metals & mining) | Must have |
| Industrials | Must have |
| Consumer | Must have |
| Technology (China internet) | Must have |
| Property | Ideally |
| Energy (utilities) | Not necessary |
| Telecom | Not necessary |
| Health care (new and growing) | Not necessary |

Costs

**Investment analysts (US$'000)**

| | |
|---|---|
| **Senior analysts** | |
| Total Comp | 400–800 (average 500–600) |
| Base | 150–275 |
| **Junior analysts** | |
| Total Comp | 150–500 (average 300–400) |
| Base | 100–200 |

1. *On average, discretionary nalyst are paid between 3 and 5 percent of total P&L, depending on autonomy and level of seniority. Typical payouts are based on their quality of idea-generation and analysis, progression potential and replacement cost.*
2. *When suppoting a portfolio manager with a carve-out, payout is at the discretion of the portfolio manager.*

### Execution Traders

We recommend hiring a junior to mid-ranked trader. He should be a local hire with great street contacts. Language is not important

Key Requirements

- Traders with electronic trading experience, as well as Asian markets exposure especially in Hong Kong, Japan, Korea and Australia

- Strong derivatives knowledge is a plus, even for cash-only portfolios. Experience in trading multi-asset classes is also an advantage
- The trader will need to have an extensive network with sell-side brokers which translates firmly into good information flow

### Trends and Challenges

Candidates in this segment are hired mainly to replace people who leave

The only challenge here is to hire a senior-level trader who wants to remain as a pure execution trader, because at that level, their aspiration may be to run their own portfolio

We recommend hiring senior associate to vice president-level traders from the sell side, particularly in areas that have been inactive and less well-paid – including program traders for equity funds, equity derivatives traders for momentum trading funds and FX & rates traders for macro funds

### Costs

**Execution traders[1] (US$'000)**

| | |
|---|---|
| Senior trader | 500–800 |
| Middle ranked, trader | 250–500 |
| Junior trader | 150–200 |
| Base | 80–150 |

*1. Pure execution trader without P&L responsibility.*

## Marketing

We recommend hiring a mid-ranked marketing executive. He will work closely with management who will take the lead for Marketing. The marketing officer will focus on administration and database oversight

### Trends and Challenges

Marketing is another active space. Candidates who have strong relationships with local investors are in demand. Building a dedicated marketing team is essential, as quality Asian investors (mainly Australian and Japanese) have multiplied and more investors are directly allocating to hedge funds rather than via fund of hedge funds

Currently, there is a shortage of senior marketing and distribution talents in Asia because for many funds, this function was previously carried out by the Chief Marketing Officer from head office via prime brokers

It can be difficult to find someone with strong relationships as well as product knowledge. The quality of candidates also varies

Institutional sales, senior members of small hedge funds, fund of fund sales are motivated and experienced at opening door and closing deals. Capital introduction professionals will have an excellent rolodex but less experience in closing deals (as restricted by their mandate & compliance requirements). Private equity firms have good talent, but have a different fund-raising cycle. Other sources include third-party marketing teams and seeding platforms

### Key Requirements

- Candidates with strong relationships with Asian (China, Singapore, Japan and Australia) sovereign wealth funds and institutional investors are in highest demand

- Language requirement depends on the investor focus and is a critical for Japan & Korea in particular
- The ability to open doors and close deals
- Strong product knowledge, client focus, attention to detail and intellectual acumen
- New startup or medium-sized firms are tending to prefer junior marketers who focus on coordination and administration

Costs

**Marketing (US$'000)**

| | |
|---|---|
| Managing Director | 1,000–1,500 |
| Director | 600–1,000 |
| Vice President | 415–850 |
| Associate | 170–500 |

*Previously, bonuses were 100 percent dependant upon assets gathered, but post-2008, bonuses are split between assets gathered and the fund performance.*

### Operations & Finance

COOs & CFOs We recommend a combined role before the fund matures. The role would cover the build-out, office space, finance and selection of service providers

Head of Operations We recommend that a fund employ a Head of Operations and one to two staff

Key Requirements

- Familiar with the regulatory framework of the Asian markets, particularly Hong Kong and China
- Ability to speak regularly to investors and maintain relationship with key external stakeholders
- Broad skill sets, as in Asia many functions are often combined into the one role. For example, the COO/CFO and COO/Head of Operations roles may be carried out by the same person. IT and Marketing may report to this role
- Because the role is no longer a back office function, it calls for a leader who is proactive and client-facing, with an outgoing personality

Trends and Challenges

There has been a lot of movement in this space driven by the 'merry-go-round' effect as global hedge funds and large start-ups look to upgrade their business infrastructure. They have increased the significance they attach to business management and infrastructure roles. This has created some competition for top talent

Large hedge funds are the main funds hiring now. Recent new launches from top funds are focusing on the COO, CFO and Head of Operations roles as separate and unique functions

It is a challenge to find a candidate with the right combination of operational experience and with the right personality to be the face of the firm, as well as the ability to deal in a frontline manner with investors. The executive also needs to suit the hedge fund culture – in other words, to have the ability to operate in a fast-paced, dynamic environment

Costs

**COO & CFO (US$'000)**

| | |
|---|---|
| Total compensation | 400–700 |
| Base | 200–350 |
| Equity (with or without) | 2%–7% |

*Compensation largely depends on the size of the fund. We have come COOs raging from a senior operations background, to heavy-hitters who are the founding COOs.*

**Head of operations (US$'000)**

| | |
|---|---|
| Total compensation | 300–500 |
| Base | 100–150 |

*A wide range of compensation packages is available, depending on candidates and the size of the fund.*

**Legal, Compliance and Risk**

We recommend that the Senior Counsel should be in charge of both legal and compliance, with their main liaison being with law firms and regulators. He will report directly to the General Counsel in head office. The risk role should be mid-ranked and will manage day-to-day controls and reporting and will work closely with the Chief Risk Officer in head office. Locally he will report to the Senior Counsel or to the COO

Key Requirements

Legal & Compliance

- Ideally a mandarin speaker who is familiar with the Hong Kong and China regulatory frameworks
- Combination of transactional and regulatory experience
- General corporate and hedge fund experience
- Dynamic personality with commercial acumen – a deal-maker, not a deal-breaker; business-oriented and not a "black letter" lawyer

Trends and Challenges

This is an active space, as hedge funds are looking to strengthen their local legal, compliance and risk management functions, for two key reasons

1) **Growth** – Funds are becoming more complex as they grow and growth needs to be managed closely

2) **Regulation** – Scrutiny of funds by regulators has increased and strong in-house legal and risk coverage is essential, so legal counsel and risk managers need to be dedicated to Asia, not just part of the global function

Although hiring law firm partners may be expensive ($US1m -plus), some of them may consider joining at a smaller package to pursue a role that will make an impact on the business

Major challenge for the compliance and risk roles is the lack of strong senior talent. Chief Compliance Officers and Chief Risk Officers are generally based overseas. We recommend hiring a junior to mid-ranked professional from an investment bank

**Legal lawyer (US$'000)**

| | |
|---|---|
| General Counsel, Partner | +1,000 |
| General Counsel | 750–1,000 |
| Senior Counsel | 500–750 |
| Counsel | 300–500 |
| Base | 200–350 |

*Legal & compliance are often a combined function and in this case the person filling the combined role would be on a US$200,000 base, with total compensation between US$500,000 and US$750,000*

**Compliance (US$'000)**

| | |
|---|---|
| Head of Compliance | 200–450 |
| Compliance Officer | 150–200 |
| Base | 100–150 |

**Risk Management (US$'000)**

| | |
|---|---|
| Junior Risk Manager | 300–350 |
| Base | 150–200 |

## APPENDIX BASE SALARY CHART FOR INVESTMENT BANKS

**Sell-Side base (US$'000)**

| | |
|---|---|
| Managing Director | 350–500 |
| Executive Director | 250–350 |
| Vice President | 200–275 |
| Associate, third year | 175–200 |
| Associate, second year | 165–185 |
| Associate, first year | 150–175 |
| Analyst, third year | 100–120 |
| Analyst, second year | 90–110 |
| Analyst, first year | 80–100 |

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**Hedge Fund Manager Start-up Checklist**

A. Getting started
- Document your vision
  - Investment strategy ❑
  - Organizational chart ❑
  - Investment process ❑
  - Portfolio construction and asset allocation ❑
  - Risk management ❑

B. Gathering assets
- Develop marketing plan ❑
- Explore pre-launch capital sources
  - Seeders ❑
  - Emerging manager programs ❑
  - Friends and family ❑
  - Other early stage investors ❑

C. Building an organization
- Build the team
  - Decide on the size of your team (critical members) ❑
    - Determine roles COO, CFO, Chief Compliance Officer, etc. ❑
- Secure office space
  - Define location requirements
    - City ❑
    - Growth requirements ❑
    - Building infrastructure ❑
  - Order furniture /select interior designer ❑
- Define telecom requirements ❑
- Build technology infrastructure
  - Define your network infrastructure
    - Hardware (servers, workstations, routers, firewalls) ❑
    - Software (productivity applications) ❑
  - Design a business continuity plan (disaster recovery) ❑
- Define trading and operational process
  - Select an order /execution management system ❑
  - Select a portfolio accounting software ❑
  - Select a risk management system ❑
  - Select a market data provider ❑

D. Establishing service provider relationships
- Hire legal counsel ❑
- Hire financial counsel ❑
- Hire fund administration ❑
- Hire prime brokerage ❑
- Hire secondary providers
  - HR /benefits provider ❑
  - Insurance broker ❑
  - Compliance advisor ❑

E. Managing your business
- Document your hedge fund workflow ❑
- Contingency plans ❑

# Licensing and Structure

## Licensing

### LICENSING ISSUES FOR FUND MANAGERS IN HONG KONG, SINGAPORE AND JAPAN

C L I F F O R D
C H A N C E

Mark Shipman and Helen Fok – Clifford Chance

#### HONG KONG

While the number of hedge funds managed by hedge fund managers licensed by the Hong Kong Securities and Futures Commission (the "**SFC**") slightly decreased in 2010, the assets under management by the hedge fund managers increased by 14% in 2010[1]

The SFC has been increasingly involved in the Hong Kong's hedge fund industry, through on-going dialogue and meetings with market participants, publication of circulars, co-operating with overseas regulators and as it deems necessary, taking enforcement actions. The section of this article provides an overview of the licensing issues for managers in Hong Kong and considers the actions taken by the SFC which are of relevance to the industry

A fund manager using Hong Kong as a platform to carry on asset management activities is generally required to apply to the SFC for a Type 9 (asset management) licence under the Securities and Futures Ordinance (the "**SFO**") as the available exemptions from the licensing requirement are very restrictive in scope. "Asset management" as defined in the SFO includes the management of a portfolio of securities or futures contracts for another person

Alternatively, a fund manager who does not wish to carry on full asset management activities in Hong Kong but instead only wishes to perform research and provide advice on securities and/or futures contracts need only apply for a Type 4 (advising on securities) or Type 5 (advising on futures contracts) licence, as the case requires

If such advice on securities and/or futures contracts is provided by a fund manager to any of its wholly owned subsidiaries, or holding company that wholly owns the fund manager or other wholly owned sister subsidiaries of its holding company, there is an exemption from a Type 4/Type 5 licence. For this exemption to apply the recipient of the advice and research – being the 100% group company - should assess the advice/research, and have the discretion to reject it, before issuing the material to its own clients in its own name. For further details, please refer to the section headed "exemption" below

With a Type 9 licence, the fund manager can also carry out wholly incidental dealing activities for its funds under management; this would include trading the funds assets as well as marketing its funds in or from Hong Kong. However, establishing a marketing office only in Hong Kong would likely trigger a Type 1 (dealing in securities) licensing requirement, a discussion of which is outside this paper

While the SFC licensing application procedures are relatively straightforward they can be time consuming, applicants often encounter difficulties in, in particular, (i) identifying responsible officers who fulfil the applicable competency requirements set out in the Guidelines on Competence; and (ii) ascertaining and disclosing the persons and entities that fall within the definition of substantial shareholders, and as such are required to be disclosed to and approved by the SFC. These issues may lead to delays in the licensing application process

In light of the foregoing, on 11 June 2007 the SFC issued a circular entitled "SFC Adopts a Pragmatic Approach to Licensing Fund Managers" (the "**Circular**") which helped to clarify the SFC's position on a number of issues including introducing an expedited application process in certain circumstances (i) where the fund manager is, or any of the parent companies of the applicant fund manager are, regulated by an overseas regulator such as the FSA in the United Kingdom or the SEC in the

1. *Source Report of the Survey on Hedge Fund Activities of SFC-licensed Managers/Advisers published by the SFC in March 2011.*

US, (ii) they have a good compliance record; and (iii) they only service "Professional Investors" as defined under Hong Kong law (the "**Criteria**")

In the case of applicants that satisfy the Criteria, the SFC may expedite the application process and adopt a more pragmatic and risk based approach on a case by case basis. In order to assess the level of scrutiny an application requires, the SFC encourages potential applicants to meet the SFC to discuss their Hong Kong business plans. No further details as to the nature (or indeed the timing) of the expedited licensing process are given in the Circular. That said, generally speaking it will currently take the SFC 8-10 weeks to approve a licensing application under the Circular, assuming that the responsible officers satisfy all of the relevant competency requirement (discussed below), the application being relatively straight forward and the SFC's workload. The Circular is predominantly aimed at overseas hedge fund managers wishing to establish operations in Hong Kong but the SFC acknowledge that the general guidelines in the Circular might apply to other fund managers; which has been our experience. We have also relied on the Guidelines for start ups in certain circumstances. However before significant time is spent on an application based on the Circular it will be important to meet and discuss with the SFC the business intention and to understand the SFC's view as to the applicability of the Circular

### Responsible officer requirements

A SFC licensed entity is required to have at least two responsible officers to directly supervise the conduct of each regulated activity. The SFC requires at least one of these responsible officers to be resident in Hong Kong and at least one responsible officer to be "immediately contactable" at all times. In our experience, satisfying the SFC as to the two competent responsible officer requirement can be one of the more difficult hurdles to overcome

An individual applicant who seeks to be approved as a responsible officer for Type 9 (asset management) regulated activity will normally need to demonstrate to the SFC that, amongst other things, he (i) possesses at least three years of "relevant industry experience" over the six years immediately prior to the date of application; (ii) possesses at least two years of management experience; and (iii) passes the relevant local regulatory framework papers (i.e., Hong Kong Securities Institute Licensing Examination Paper 1 entitled "Fundamentals of Securities and Futures Regulation" and Paper 6 entitled "Regulation of Asset Management") unless an exemption is available

The above requirements also apply to an individual applicant seeking to be approved as a responsible officer for Type 4 (advising on securities) and/or Type 5 (advising on futures contracts) regulated activities although the individual applicant for Type 4 regulated activity will need to pass Paper 1 and Paper 2 entitled "Regulation of Securities" and for Type 5 regulated activity, Paper 1 and Paper 3 entitled "Regulation of Derivatives"

In respect of the requirement for responsible officer applicants to demonstrate that they possess the requisite experience, the SFC have in the past adopted a very narrow interpretation of "relevant industry experience" in respect of individuals seeking to be approved as responsible officers for Type 9 (asset management) activity and have often required them to demonstrate that they have at least three years of experience in managing portfolios of securities and/or futures for third parties. Consequently in some circumstances it was particularly difficult for an individual applicant, even if possessing extensive experience in the securities and futures industry, to persuade the SFC that requisite "relevant industry experience" was satisfied

However following the release of the Circular, where the Criteria are satisfied the SFC will, on a case by case basis, accept that the relevant industry experience of a responsible officer may be acquired by an individual from a broad range of activities and investment strategies, including asset management proprietary trading, research, private equity, special situations, as well as experience in dealing with other alternative investments. Nevertheless, the SFC will consider how "relevant" the experience actually is. Further, the SFC will also consider as acceptable experience for a second responsible officer where experience is acquired from sales, marketing or risk management. In this case a "non - sole" condition will be imposed on the license under which the individual must, when actively participating in or when directly supervising the business for which the firm is licensed, do so under the advice of another responsible officer who is not subject to the "non-sole" condition

In respect of the requirement for responsible officer applicants to pass the relevant local regulatory framework papers, under certain circumstances, the SFC may consider granting the individual applicant in question an exemption from the requirement to pass the relevant local regulatory framework papers if he possesses substantial relevant related industry experience. The Circular adds an additional exemption (largely based on the substantial relevant related experience) but broadens the requirements for applicants who will be responsible officers for firms that only service professional investors (or the relevant individual holds a senior position within the group) and who are licensed elsewhere in UK or US for investment management or advisory business or have over 8 years of industry experience, and who take a post-licensing refresher course

The applicant firm should also be able to confirm that regulatory and compliance support will be provided to the relevant responsible officer. If all the requirements are satisfied the relevant applicant responsible officer will not be required to take the local regulatory framework exam[2]. In practice, the SFC generally would not accept a licence application from an applicant firm unless such firm has at least one responsible officer that satisfies all the relevant criteria - including passing the relevant local regulatory framework papers. The SFC's view in this regard should be sought at a pre application meeting

It is also worth noting that the SFC are showing an increase reluctance to approve internal counsel or compliance officers as responsible offices unless they are actually involved in the actual day to day business of the firm's regulated activities, which in turn raises questions as to how independent of the business they are as legal/compliance

### Proper use of SFC licences

In a circular headed "Circular clarifying the licensing obligations of corporations and individuals and more particularly those conducting business outside Hong Kong" dated 1 April 2010, the SFC clarified the licensing obligations of corporations and individuals and in particular licensed persons based outside Hong Kong. This should be specifically noted by offshore responsible officers and their licensed Hong Kong based hedge fund managers. It is not sufficient to be a brass plate responsible officer; there must be a genuine role for such persons in relation to the onshore regulated activity. For those applying for a licence albeit largely based outside of Hong Kong, it will be necessary to explain the regulated function that will be conducted for the Hong Kong corporate applicant

The SFC have also expressed concern that persons based outside Hong Kong holding a licence from the SFC might, through reliance on the licence offshore, mislead others as to the extent of the SFC's supervision, which is "very restricted" outside Hong Kong. The above circular reminded licensed corporations that they are responsible for the conduct of overseas SFC licensed representatives (including responsible officers), persons and improper conduct by such licensed persons may reflect on the fitness and properness of the Hong Kong licensed corporation

Whilst not specifically noted in the circular, responsible officers have various legal and regulatory obligations and responsibilities, which if they fail to discharge could result in not only disciplinary action but also legal action pursuant to the SFO

### Disclosure of substantial shareholders

As the SFC has a statutory responsibility to ensure that substantial shareholders of every SFC licensed entity are fit and proper, it is necessary for each person and entity (including their directors) that falls within the definition of "substantial shareholder" in the applicant company's ownership chain to make disclosures to the SFC for the purposes of seeking the SFC's approval to become the applicant company's substantial shareholders

In brief, a person and an entity will be treated as a substantial shareholder if (i) such person or entity, either alone or with its associates, controls 10% or more of the voting rights of the SFC licensed entity; or (ii) such person or entity, either alone or with its associates, holds 35% or more of the shares in any other corporation which itself holds 10% or more of the shares of the SFC licensed entity. There is a 35% shareholding look up through intermediate companies in the ownership structure

2. *Local regulatory framework exams are set by the Hong Kong Securities Institute ("**HKSI**").*

For an applicant company with a multi-layer ownership structure or where interests in the voting shares of such applicant are held by a trust or limited partnership, the requirement to identify and disclose each substantial shareholder in the ownership chain often gives rise to practical difficulties. In particular, some substantial shareholders may be reluctant to make disclosures on the basis that they will not be involved in the daily operations of the applicant company and their connections with the applicant company are too remote to justify disclosure

### Financial resources requirement

One of the key on-going obligations applicable to all SFC licensed corporation is the requirement to maintain the adequate financial resources pursuant to the SFO and the Securities and Futures (Financial Resources) Rules (the "**FRR**"). The minimum capital requirements vary depending on the type of regulated activities for which a corporation is licensed

There are two elements to the minimum capital requirements under the FRR (i) paid-up share capital; and (ii) "required liquid capital" requirements. As most Hong Kong fund managers and investment advisory entities will not hold clients' assets in conducting their business, (i) is not applicable, i.e., there is no minimum paid-up share capital requirement. In respect of (ii), the Hong Kong entity will be required to hold a minimum liquid capital of the higher of (i) a monetary floor of HK$100,000 – plus a 20% margin; and its "variable required liquid capital". This figure will vary depending on the size of the business undertaking of the Hong Kong entity in question but it is likely to be 5% of the "adjusted liability" as defined under the FRR (which essentially includes on-balance sheet liabilities including provisions made for contingent liabilities). For the sake of comparison, if a Type 1 licence is required, the minimum share capital will be HK$5 m and the monetary floor for the liquid capital will be HK$3 m – plus a 20% margin. For this reason many fund managers, particularly in start up, prefer to avoid having to obtain a Type 1 licence if they can

### Exemption

Fund managers who (i) wish to establish their investment management capability in Hong Kong at an incremental pace; or (ii) wish to carry on certain advisory activities, such as providing investment advice to offshore investment managers whilst in the process of applying to the SFC for a licence to conduct asset management activities may find the "intra-group" exemption to be of particular relevance

### "Intra-Group Exemption"

In summary, a Hong Kong entity will be able to avail itself of the exception to the licensing requirement of "advising on securities" (and if relevant, "advising on futures contracts") if it provides investment advice only to its 100% group companies, i.e., (i) any of the Hong Kong entity's 100% wholly owned subsidiaries, (ii) the Hong Kong entity's holding company which holds 100% of its issued shares; or (iii) other 100% wholly owned subsidiaries of that holding company (each a "**Group Company**"). However, following the SFC's guidance as to the applicability of the "intra-group" exception (discussed below), such exemption will only be available in very narrow circumstances and the Hong Kong entity's advising activities would need to be structured carefully so as to fall within the exemption

The SFC provided on 16 June 2003 and updated on 10 March 2004, in its "Frequently Asked Questions" ("FAQ"), guidance as to when such an exception might apply. The SFC's view is that the exception in the SFO should not be read as applying to a Hong Kong entity advising its Group Company, in respect of that Group Company's client (as opposed to proprietary) assets. It is interesting to note that the SFO does not itself make the distinction between proprietary and client assets in the application of the "intra-group" exemption. However, the FAQ also provides that where the investment advice and/or related research reports are provided to the Group Company for its own consumption, notwithstanding that the Group Company may rely, in whole or in part, on such advice/research reports to service its clients (e.g. the funds), the exception will still apply if the advice/research reports are issued to clients by the Group Company in its own name and that Group Company has assessed the Hong Kong entity's input before issuing such advice/research reports

In other words, in order to take advantage of the "intra-group" exemption, the Hong Kong entity (i) must only provide investment advice/research reports directly to its Group Companies; and (ii) that the investment advice must in no way be binding upon the Group Companies (i.e., the Group Companies must have the discretion to accept/reject the investment advice/research reports provided by the Hong Kong entity)

From a practical standpoint, whilst it may be relatively easy for a Hong Kong entity to comply with the above restrictions during its start up phase, it may gradually become more difficult to adhere to the above restrictions as the business of the Hong Kong entity expands. We therefore believe that the "intra-group" exemption, if relevant to the factual circumstances can be relied on in the shorter term but should not be relied upon in the long term as it inevitably will restrain the growth of the business

### SFC's approach on risk management and control

In addition to complying with the requirements under the FRRs, a fund manager is also required to put in place a risk management and control system which is appropriate in light of its size and scale of operations. In this regard, the SFC has issued a circular entitled "Circular to All Licensed Corporations Engaged in Hedge Funds Management Business" on 27 October 2009 which sets out specific instances of management oversight and information disclosures issues concerning the hedge fund industry. The circular aims to provide guidance on the level of information which it expects a fund manager to disclose to the ultimate investors (for example, disclosure of factual data and information in newsletters and side letter arrangements to the ultimate investors in the funds under manager). The circular also sets out a list of factors which the SFC believes a fund manager needs to critically assess before setting up side pocket arrangements

Although much of what the SFC has to say in the circular will not be new to hedge fund managers, what is significant, however, is the SFC's approach or expectation that the local hedge fund manager is in the position of control from a legal and regulatory standpoint. The Hong Kong fund manager is unlikely to have a direct relationship with the ultimate investor in the funds under management. The SFC only regulates licensed entities in Hong Kong and a number of the points it makes speak to responsibilities at the fund as opposed to the fund manager level. It remains to be seen how far the SFC may attempt to extend its regulatory reach beyond Hong Kong in order to enforce compliance with its recommendations

### Enforcement Actions

The SFC has exercised its statutory enforcement powers confidently and aggressively over the last three years, with increasing recourse to the civil and criminal courts. But there are series of recent decisions in which the judiciary have censured the SFC and/or limited the scope of its statutory powers in two important respects. The first concerns injunctions under section 213 of the SFO and whether these can be obtained as free-standing orders or only as interim orders pending determination by the Market Misconduct Tribunal ("**MMT**") or the criminal courts. The SFC was criticized by the Court of Final Appeal by over-reaching in their case against Kayden Limited (6 December 2010) and faces jurisdictional resistance in relation to their cases against Hontex International Holdings Company Limited and Tiger Asia Management LLC ("**Tiger Asia**") (both presently before the courts). In Tiger Asia, the Court of First Instance ruled that the court did not have jurisdiction under section 213 of the SFO to determine a contravention of the market misconduct provisions found in both Parts XIII and XIV of the SFO without the matters having been determined in a criminal court or the MMT first and subsequently struck out the SFC’s case. The SFC has appealed this decision to the Court of Appeal and the appeal will be heard on 7 February 2012. Secondly, on 14 June 2011, the Court of Appeal emphatically rejected the SFC's submission that the Securities and Futures Appeal Tribunal ("**SFAT**") should show deference to the disciplinary decisions reached by the SFC and interfere only where the decision is shown to be clearly wrong. The result of this landmark decision is that the SFAT will henceforth operate more broadly and robustly as a "full merits review", restoring the safeguard intended by the legislation

Last but not least, final managers will also need to consider the implications of the Dodd-Frank Act (in particular, the registration requirement) and the Alternative Investment Fund Managers Directive

## SINGAPORE

Fund management is a regulated activity under the Singapore Securities and Futures Act ("**SFA**") and a Singapore-based investment manager is generally required to apply to the Monetary Authority of Singapore (the "**MAS**") for a capital markets services ("**CMS**") licence for fund management

In order to attract more fund managers to use Singapore as a platform to perform fund management activities, the MAS introduced a licensing exemption, which is commonly relied upon by hedge fund managers who wish to establish their businesses in Singapore

Broadly, a licensing exemption is available for a Singapore-based investment manager which undertakes fund management for not more than 30 "*qualified investors*". A "*qualified investor*" includes a fund (e.g., a hedge fund) which is offered in Singapore only to accredited investors (being an individual with net assets exceeding S$2 m or whose income in the preceding year is not less than S$300,000; or a corporation with net assets exceeding S$10m ) and offered elsewhere other than in Singapore to only accredited investors or investors in an equivalent class under the laws of the country or territory in which the offer is made

While the MAS does not prescribe any minimum capital requirements for an exempt fund manager it is generally expected that an exempt fund manager should (i) maintain positive shareholders' equity at all times and (ii) be financially sound and sufficiently capitalised to cover six months of its operating expenses. Where it is intended that foreign persons be engaged by the exempt fund manager as employees of the Singapore office (and very often this would include the principals or individual hedge fund managers), local immigration requirements and policy require a minimum capitalisation amount in order for the exempt fund manager to sponsor the work permit applications of these foreign persons

Notwithstanding being exempt from the need to hold a CMS licence under the SFA, an exempt fund manager is however subject to certain laws, regulations and minimum compliance requirements. The following is a list of relevant laws and regulations applicable to fund managers carrying on business as exempt fund managers in Singapore

- Relevant sections of the Securities and Futures Act
- Relevant regulations of the Securities and Futures (Licensing and Conduct of Business) Regulations ("SFR")
- Guidelines on Fit and Proper Criteria (Guideline No. FSG-G01) issued by the MAS on 7 September 2007 and last updated on 26 November 2010 (the "Guidelines")
- Notice on Prevention of Money Laundering and Countering the Financing of Terrorism – Capital Markets Services Licensees and Exempted Persons (Notice No. SFA 04-N02) issued by the MAS and last updated on 29 December 2009 and Guidelines to MAS Notice SFA 04-N02 on Prevention of Money Laundering and Countering the Financing of Terrorism and last updated on 29 December 2009
- Notice on Prohibited Representations by Exempt Financial Institutions under the Second Schedule to the SFR (Notice No. SFA 04-N07) issued by the MAS on 5 September 2005; and
- Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act, Chapter 65A of Singapore ("CDSA"); and
- FAQs on Exempt Persons, issued by the MAS and last updated on 26 November 2010

The MAS will require an exempt fund manager to have substantive fund management activities in Singapore. This means that at the minimum, the MAS will require an exempt fund manager to have

- At least two individual fund managers or investment professionals, each with at least five years of relevant work experience in reputable jurisdictions, to be physically based in Singapore
- At least one CEO or an executive director based in Singapore; and
- A physical office in Singapore

An exempt fund manager is expected to take reasonable measures to verify that the persons on behalf of whom he carries on business in fund management are qualified investors and ensure that proper records are kept of any document evidencing the status of such persons

The above licensing exemption is invoked by submitting a Form 22 to the MAS. This Form 22 is a notification to the MAS of the commencement of business as an exempt fund manager undertaking fund management for not more than 30 "qualified investors", and the MAS will send an acknowledgement of receipt of the Form 22 after they have reviewed the Form 22 and are satisfied that the requirements for the exempt fund manager have been complied with. This Form 22 also contains a declaration required to be made by the exempt fund manager, that the exempt fund manager, its shareholders, key officers and representatives are fit and proper based on the criteria stated in the Guidelines

In 2010, the MAS proposed various changes to the fund management regime. In April 2010, the MAS issued a public consultation paper[3] (CP) to setting out the proposed changes to the regulatory framework. The new framework envisages three categories of fund management companies (FMCs) as follows

- Registered FMCs (previously referred to as the "Notified FMCs") –FMCs whose assets under management are not more than S$250m and who serve not more than 30 qualified investors (of which not more than 15 may be funds)
- Licensed A/I FMCs–licensed FMCs who serve only accredited and/or institutional investors; and
- Licensed Retail FMCs–licensed FMCs who serve retail (i.e., non-accredited and non-institutional) investors

In addition, the MAS has also proposed changes to the minimum admission criteria and ongoing compliance requirements for the new Registered FMC and Licensed A/I FMC categories and highlighted certain changes to the existing Licensed Retail FMC category

In September 2011, the MAS issued a further public consultation paper titled "Proposed Enhancements and Draft Legislative Amendments to Give Effect to the Regulatory Regime for Fund Management Companies" seeking public comments on the proposed legislative amendments to give effect to the revised regime for FMCs and further enhancements to the regulatory regime for FMCs. The proposed changes do not yet have force of law and the MAS has indicated that following this consultation, they will issue the legislative amendments and implement the new fund management regime in early 2012

Finally, the MAS proposal provides existing exempt fund managers with a transitional period of six months after the effective date of the new legislation to meet the revised admission criteria, after such legislation is finalised and effective

The following table summarises the requirements proposed in the abovementioned MAS consultations and responses in respect of Registered FMCs and Licensed A/I FMCs

3 *The Monetary Authority of Singapore, Consultation Paper, "Review of the Regulatory Regime for Fund Management Companies and Exempt Financial Intermediaries", 27 April 2010. The MAS has since also published a response to feedback received on this consultation paper . Please see the Monetary Authority of Singapore, Response Paper, "Response to Feedback Received – Consultation on Review of the Regulatory Regime for Fund Management Companies and Exempt Financial Intermediaries", 28 September 2010 (Response Paper). The description of the proposed changes in this section are based on the CP and the Response Paper taken together*

The following table summarises the requirements proposed in the abovementioned MAS consultations and responses in respect of Registered FMCs and Licensed A/I FMCs.

| | **Registered FMC** | **Licensed A/I FMC** |
|---|---|---|
| Presence in Singapore | Personnel and physical office presence in Singapore required | |
| Number of directors | Minimum 2 directors, one of whom must be a Singapore resident executive director | |
| Personnel requirements | Minimum two Singapore resident representatives (can be directors as well), each with minimum 5 years of relevant experience<br>Not required to pass CMFAS exams | |
| History/track record | Not required | |
| Ranking | Not required | |
| Regulatory supervision | Not required | |
| Base capital requirement | Base capital S$250,000 | |
| Risk based capital requirement | None | Operational Risk Requirement (ORR) computed as 10% of 3-year average of gross income and subject to minimum floor of the higher of S$100,000 or 5% of the 3-year average gross income |
| AUM requirement | Maximum of S$250m | No minimum AUM requirement |
| Clientele | Maximum of 30 "qualified investors", with not more than 15 funds | Unlimited number of accredited investors or institutional investors |
| Type of approval | Notification only, no MAS approval required | Licence application process, MAS approval required |
| Professional Indemnity Insurance | Strongly encouraged but not mandatory | |
| Risk based capital requirements | None | Subject to risk-based capital requirements |
| Compliance function | No requirement for compliance to be independent or dedicated | Compliance function must be independent from front office, and managers with S$1bn AUM must have independent and dedicated compliance function |
| Custodial arrangements for customers' monies and Assets | Customers' monies and assets to be placed with a licensed custodian in jurisdiction where the monies or assets are held (possible to have a global custodian so long as global and sub-custodians are licensed in home jurisdiction) | |
| Fund administration | Ensure independence/ segregation between fund management and fund administration functions | |
| Client disclosure | Provide adequate disclosure to investors on issues such as<br>■ Custodial and fund administration arrangements<br>■ Compliance arrangements, conflicts of interest<br>■ PII arrangements | |
| Risk management framework | Have in place formalised risk management framework for fund management operations. The risk management framework should be suited to the size and scale of the FMC's operations, and be able to effectively identify, manage and monitor risks | |
| Independent annual audits | Appoint independent auditor to audit financial statements and provide to MAS an audit report on the FMC's compliance with the criteria and requirements application to their regulatory status | Appoint independent auditor to audit financial statements and provide an auditor's report to MAS on compliance with key licensing and business conduct requirements on an annual basis |

In the interim, pending the release of details of the new licensing criteria and finalisation of such legislation, the exempt fund management regime remains available and Form 22 notifications may still be made to the MAS for exempt status. In our experience, however, the MAS is becoming more stringent in their review of new Form 22 submissions, and they expect fund managers to comply in substance with the forthcoming changes. From a practical stand point, therefore, fund managers who are submitting Form 22 notifications should be prepared to comply with the proposed higher standards for Licensed A/I FMCs and expect a longer waiting period for acknowledgement by the MAS of such exempt fund manager status. It is also advisable for such fund managers to wait until they receive the MAS acknowledgment of exempt fund manager status before commencing fund management business

### Guidelines on Fit and Proper Criteria

Under the SFR, a person exempt from holding a CMS licence (in this case, the hedge fund manager entity in Singapore) is required to ensure that it and its representatives (in this case, the directors and employees of the hedge fund manager) are fit and proper persons in relation to the carrying out of the regulated activity for which it is exempted (in this case, fund management), and its substantial shareholders are fit and proper persons to control or own the exempt fund manager. Further, the exempt fund manager must have in place appropriate recruitment policies, adequate internal control systems and procedures that would reasonably ensure that the person that it employs, authorises or appoints to act on its behalf, in relation to fund management, is a fit and proper person

The Guidelines set out the fit and proper criteria applicable to licensed and exempt persons (including exempt fund managers) (each a **"relevant person"**). The Guidelines provide general guidance, and should be read in conjunction with the provisions of the relevant legislation, the subsidiary legislation made under the relevant legislation, as well as written directions, notices, codes and other guidelines issued by MAS

The MAS expects a relevant person to be competent, honest, to have integrity and to be of sound financial standing. This provides the MAS with the assurance that the relevant person is willing and able to fulfil its or his obligations under any written law. This also underpins the MAS' requirements that the relevant person performs the activities regulated under the relevant legislation efficiently, honestly, fairly and acts in the best interests of its or his stakeholders and customers

### Notice on Prohibited Representations by Exempt Financial Institutions under the Second Schedule to the SFR

Under this Notice, an exempt financial institution (and this includes the hedge fund manager) is not permitted to represent itself, nor cause to be represented, as being licensed, regulated, supervised or registered by the MAS, whether verbally or in writing

### Anti-Money Laundering and Countering the Financing of Terrorism

To prevent terrorist and criminal funds from abusing the financial system and damaging Singapore's status as a financial centre, the MAS has strict regulations and rules against money laundering and terrorist financing which meet the Financial Action Task Force standards

In addition, the MAS carries out regular offsite reviews and onsite inspections of financial institutions to monitor compliance with anti-money laundering and combating the financing of terrorism regulations. Financial institutions are also required to report suspicious transactions to the Commercial Affairs Department. Financial Institutions include hedge fund managers operating in the "exempt fund manager" regime in Singapore

**Notice on Prevention of Money Laundering and Countering the Financing of Terrorism – Capital Markets Services Licensees and Exempted Persons and Guidelines to MAS Notice on Prevention of Money Laundering and Countering the Financing of Terrorism**

This Notice was implemented for the preservation, both nationally and internationally of the good name of the financial advisory industry in Singapore and to prevent the financial system from being used in furtherance of money laundering activities arising from or in connection with drug trafficking and criminal conduct

This Notice sets out the measures that should be taken by holders of a CMS licence and persons exempt from such licensing (including an exempt fund manager) to combat money-laundering and financing of terrorism and the relevant standards that should be followed

The Guidelines are issued to provide guidance to this Notice

**CDSA**

If any suspicious transactions are encountered, an exempt fund manager is required to file a suspicious transaction report ("**STR**") with the Suspicious Transaction Reporting Office of the Commercial Affairs Department pursuant to the CDSA

## JAPAN

Fund management is a regulated activity under the Financial Instruments and Exchange Law ("**FIEL**") which came into force on 30 September 2007, and which has a significant impact on the regulation of investment advisors in Japan. Clients who are considering establishing investment advisory services in Japan, or making changes to existing investment advisory services, should therefore contact us to ensure compliance with the FIEL and its related regulations

Under the FIEL, fund managers wishing to provide investment advice to Japan residents may either

- Register with the Financial Services Agency (the "**FSA**") as an investment advisor ("**IA Registration**");
- Register with the FSA as an investment manager ("**IM Registration**"); or
- Register with the FSA as an investment manager for qualified investors ("**QIIM Registration**")
  - IA Registration

IA Registration is required when a manager provides investment advice with respect to securities to clients. An IA Registration does not confer on the manager the authority to make discretionary investment decisions on behalf of clients

Generally speaking, an application may take three to four months or more, although the length of process may vary depending on circumstances. The application fee is currently JPY 150,000. No physical presence in Japan is required in order to obtain IA Registration and there are no minimum capital requirements, however, they must deposit JPY 5,000,000 as a business security deposit (*eigyo-hoshokin*) if they will conduct only IA business. No FSA notification or approval is required under the FIEL for an IA registered entity to engage in other business (such as making loans, which is, however, subject to the Money Lending Business Law) in terms of the "side-business regulations" as described below

  - IM Registration

IM Registration is required when a manager provides discretionary investment management services with respect to securities in Japan and/or for Japanese clients

Applicants for an IM Registration can apply directly for such registration rather than having to first obtain IA Registration, however, the requirements and the applicable regulations are considerably more stringent for IM Registration (than IA Registration)

Generally speaking, an application process may take four to six months or more, although the length of process may vary depending on circumstances. The application fee is also JPY 150,000. IM Registration applicants are not required to have a physical presence in Japan

An application for registration will be rejected if the FSA considers that the applicant does not have adequate/sufficient human resources to carry out its investment management business (the "**Human Resource Requirements**"). Please refer to the section below on a discussion of the Human Resources Requirements

The applicant must be a corporation similar to a Japanese common joint stock corporation (*kabushiki kaisha*), which must have a minimum share capital of JPY 50m , minimum net assets of JPY 50 m and a board of directors. Foreign corporate applicants are also required to have confirmation from the relevant foreign authority that the major shareholder of the applicant does not give rise to concerns with regard to the applicant's operation as a Financial Instruments Firm under the FIEL. An IM registered entity is subject to "side-business-regulations" and thus, required in many cases, to notify or seek approval from the FSA if it wishes to carry out non-IM activities (such as making loans). The Japanese regulations relating to disclosure of substantial shareholdings are applicable to IM registered domestic entities, and reports must be made to the FSA of persons holding, in principle, 20% or more of the voting rights in such an IM registered entity

- QIIM Registration

The amendment to FIEL has introduced a new category of investment manager - QIIM – which still requires investment managers to be registered, but the registration requirements are relaxed in comparison to normal IM Registration. "QI IMB" is investment management business which (a) is targeted at Qualified Investors (*tekikaku-tohshika*) ("QI") only which is broader than the QII (i.e., QI includes QII and certain other professional investors such as a company listed on Japanese exchanges, a *kabushiki-kaisha* having capital of JPY 500 m or more and a *tokutei-mokuteki-kaisha*) under the QII Exemption; and (b) relates to funds with assets under management that total JPY 20bn (20,000,000,000) or less. Further, the QIIM relaxed requirements cover not only self-management business (*jiko-unyo-gyohmu*) but also discretionary investment management business (*toshi-ichinin-gyohmu*)

The amendment to FIEL enables a QIIM to offer interests in funds (which are Type 1 Securities) managed by themselves to Qualified Investors without being registered as a Type 1 financial instrument business operator. Such business will be deemed Type 2 financial instrument business and fund managers will only be required to hold a Type 2 licence to conduct the same

The introduction of QIIM will take effect from April 2012.

Please refer to the Comparative Table which shows the major differences among the IA, IM and QIIM Registrations

**Comparative Table on IA/IM/QIIM Registration**

| | IA Registration | IM Registration | QIIM Registration |
|---|---|---|---|
| Application Fee (*touroku menkyo zei*) | JPY 150,000- | JPY 150,000- | Not Determined Yet |
| Physical Presence in Japan | Not Required | Not Required | Not Required |
| Type of Corporation | Not Applicable | Must be a Corporation Similar to a Japanese Common Joint Stock Corporation (*kabushiki kaisha*) | Must be a Corporation similar to a Japanese Common Joint Stock Corporation (*kabushiki kaisha*) |
| Minimum Share Capital Requirement | Not Required | JPY 50m | JPY10 m or more |
| Minimum Net Assets | Not Required | JPY 50m | JPY10 m or more |
| Required Organ of Applicant | Not Applicable | Board of Directors | One director and one statutory auditor |
| Business Security Deposit (*eigyo hosho kin*) | JPY 5,000,000 if IA Business only | Not Applicable | Not Applicable |
| Human Resource Requirements | Applicable | Applicable | Applicable |
| Shareholder | | Applicable to non-Japanese applicant only, Confirmation from the relevant non-Japanese authority that the major shareholder of the applicant does not give rise to concerns with regard to the applicant's operation | Applicable to non-Japanese applicant only, Confirmation from the relevant non-Japanese authority that the major shareholder of the applicant does not give rise to concerns with regard to the applicant's operation |
| Side Business Regulation | Not Applicable | To notify or seek approval from the FSA when it wishes to carry out non-IM business | To notify or seek approval from the FSA when it wishes to carry out non-QIIM business |
| Carry Out Discretionary Investment Management Services | No | Yes | Yes |
| Disclosure of major Shareholders | | Applicable to IM registered Japanese entities, reports must be made to the FSA of persons holding, in principle, 20% or more of the voting rights in such an IM registered entity | Applicable to QIIM registered Japanese entities, reports must be made to the FSA of persons holding, in principle, 20% or more of the voting rights in such an QIIM registered entity |

## Human Resources Requirements under the FIEL and the relevant ordinance and guideline

### 1. FIEL

Under Article 29-4, Paragraph 1, Item 1 (*ni*) of the FIEL, an application for registration will be rejected if the FSA considers that the applicant does not meet the Human Resources Requirements. The criteria for the examination of the applications is set out in Article 13 of the Cabinet Office Ordinance regarding Financial Instruments Business, etc. ("**FIB Cabinet Ordinance**"), the relevant part of which are explained in 2 below. Please note that the Human Resources Requirements for IA will also be added with effect from April 2012 and the table above has already reflected such amendment in April 2012

### 2. FIB CABINET ORDINANCE

An applicant must satisfy the following requirements

(A) The applicant must be able to perform the business appropriately in light of the organizational structure and the directors' or employees' knowledge and experience in the relevant business

(B) The applicant must not be in danger of causing a loss of trust in its business due to the fact its directors or employees have relationships with undesirable organisations or members of such organisations

### 3. FSA GUIDELINES

Set out below is a summary of the FSA Guidelines for the HR Requirements under the FIEL

(A) The management is capable of, in light of its experience and capability, performing its business fairly and appropriately

(B) Directors engaged in the operation of its business have sufficient knowledge and experience to understand and carry out the management of the business as indicated under the FIEL, relevant laws and regulations and Guidelines and they have knowledge and experience with regard to the compliance and risk management to perform its business fairly and adequately

(C-1) (IM/QIIM Registration) Persons, who have knowledge and experience with regard to the assets to be managed, are properly employed

(C-2) (IA Registration) Persons, who have knowledge and experience with regard to the securities or financial instruments to be advised, are properly employed

(D-1) (IM/QIIM Registration) A compliance department (or a person in charge of compliance) is established independently from the investment management department and those who have sufficient knowledge and experience as the compliance officers are properly employed

(D-2) (IA Registration) Persons who have sufficient knowledge and experience as the compliance officers are properly employed

(E) In addition to (A) through (D) above, human resources are allocated to each department to adequately carry out the business intended to be performed, there is appropriate internal management of those human resources

(F) With respect to the business intended to be engaged, sufficient human resources are maintained in order to perform the following functions

(i) Control of books and reports

(ii) Disclosure

(iii) (IM/QIIM Registration) segregation of the assets under management

(iv) Risk management

(v) Computer systems

(vi) (IM/QIIM Registration) management of trading and management of clients /(IA Registration) management of clients

(vii) (IM/QIIM Registration) control of investments and clients

(viii) (IM/QIIM Registration) control of insider related information

(ix) Advertisement review

(x) Control of client information

(xi) Claims and trouble shooting

(xii) (IM/QIIM Registration) execution of investment management by the Investment Management department

(xiii) Internal controls

(xiv) (IM/QIIM Registration) calculation and review of investment trust (applicable to trust businesses only)

## LICENCE EXEMPTION ON IA REGISTRATION

Pursuant to Article 61, Paragraph 1 of the FIEL, a fund manager is exempted from IA Registration if all of the conditions below are satisfied;

(A) If it is a corporation incorporated outside Japan or an individual domiciled outside of Japan;

(B) If it (excluding persons registered under FIEL) engages in investment advisory business outside of Japan; and

(C) If it provides investment advisory service only to registered investment management business operator or registered financial institutions engaging in investment management business

## LICENCE EXEMPTIONS ON IM REGISTRATION

Under the FIEL, a fund manager of a collective investment scheme (such as limited partnership) is exempted from the IM Registration requirement if any of the exemptions below are satisfied.

### 1. FOREIGN INVESTMENT MANAGEMENT EXEMPTION REGARDING DISCRETIONARY INVESTMENT MANAGEMENT

Pursuant to Article 61, Paragraph 2 of the FIEL, a fund manager is exempted from the requirement for an IM Registration if all of the following conditions are satisfied

(A) It is a company incorporated outside Japan

(B) If it (excluding persons registered under FIEL) engages in discretionary investment management business outside Japan; and

(C) If it provides investment management service only to the investment management business operator or registered financial institutions engaging in the investment management Business

## 2. FOREIGN IM EXEMPTION ON QII

A fund manager is exempted from the requirement to obtain on IM Registration if all of the following conditions are satisfied

(A) All of the Japanese direct/indirect investors of such non-Japanese collective investment scheme are qualified institutional investors as defined under the FIEL (such as banks, securities firms, insurance companies and investment managers) ("**QIIs**") and the relevant QII business operator has submitted a filing to FSA;

(B) The number of the QIIs is less than 10; and

(C) The total amount of investments by Japanese investors is one third or less of the total amount of investments in the fund

If non-Japanese investors redeem and as a result Japanese investors' investment constitute more than one third of the fund, this exemption is not applicable anymore. Hence, it would be advisable and incorporate certain restriction on redemption or transfer by non-Japanese investors so that the one-third ratio is always maintained.

## 3. QII EXEMPTION

A fund manager is exempted from the requirement to obtain an IM Registration if all of the following conditions are satisfied

(A) There is at least one QII among Japanese investors and there are 49 or less non-QII investors among Japanese investors

(B) An investor does not fall under a certain type or investor (such as general partner or a special purpose company with a partner or a member who is a non-QII)

(C) The limited partnership agreement contains appropriate transfer selling restrictions (i.e., prohibition on transfer from a QII to non-QII and prohibition on partial transfer by non-QII); and

(D) A fund manager submits certain notifications to the FSA

## 4 FULL DELEGATION EXEMPTION

A fund manager is exempted from the requirement to obtain an IM Registration if all of the following conditions are satisfied

(A) A fund manager delegates all investment management functions to a third party which holds an IM Registration (for the avoidance of doubt, excluding a third party who is exempted from IM Registration)

(B) The general outline of such delegation is set out in an agreement between the fund manager and investors (such as limited partnership agreement)

(C) Tthe duty of loyalty and the fiduciary duty which an IM Registration holder owes to each investor are provided in the limited partnership agreement and the discretionary investment management agreement between the fund manager and the IM Registration holder

(D) Tthe IM Registration holder supervises the fund manager in order to ensure that the fund manager segregates the fund assets from its proprietary assets; and

(E) Tthe IM Registration holder notifies the Japanese authority of certain information (e.g., trade name, capital amount or total amount of the investment, name of the officer, name of the compliance officer of the fund manager) before the execution of the investment agreement

## FINAL COMMENTS

Of course, what the industry is trying to predict going forward is the regulatory reaction to the current financial turmoil and how far the pendulum may swing to more regulation. There are no concrete answers to this question at this time, but it is fair to say we can expect more regulation of the hedge fund industry in the future.


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## WEATHERING THE REGULATORY WINDS OF CHANGE

Effie Vasilopoulos – Sidley Austin

The continued fallout from the global financial crisis, failing financial institutions, collapsing stock markets, unrelenting market volatility and an unprecedented Government response have all been major factors in driving the regulatory winds of change in many key global markets. Some of the key regulatory changes that are underway or impending at the time of writing are summarised below

### THE EU DIRECTIVE ON ALTERNATIVE INVESTMENT FUND MANAGERS

On 1 July 2011, the European Union (**"EU"**) Directive on Alternative Investment Fund Managers (the **"Directive"**) was published in the Official Journal of the EU. The Directive is required to become law in EU Member States by 22 July 2013 and will have a significant effect on Asian managers of alternative investment funds (**"AIFs"**) who offer their AIFs to European investors

The Directive regulates managers of an AIF but not the AIF itself, although certain provisions of the Directive will have a direct impact on the operations and administration of the AIF offered to EU investors (including where the manager is based outside the EU). In particular, the Directive contains various conduct of business requirements for managers, such as provisions on conflicts of interest, liquidity management, remuneration policies, valuation requirements and leverage limits. The Directive also sets out a range of disclosure and transparency requirements. Managers will be required to report to EU regulators on, among other things, leverage employed by their AIF and controlling stakes in unlisted companies and provide investors with detailed disclosures about strategy, valuation procedures, side letters, illiquid assets and "side pockets". Other notable provisions of the Directive deal with depositary requirements (including defining the scope of liability of depositaries and prime brokers) and delegation of the manager's and depositary's functions

The Directive will apply to those Asian managers who (i) manage AIFs domiciled in the EU; or (ii) market AIFs to investors in the EU, "marketing" being a direct or indirect offering or placement of units or shares in an AIF at the initiative of the manager, or on behalf of the manager. The Directive establishes a dual regime for marketing AIFs in the EU (i) marketing in accordance with national private placement regimes, provided that the relevant EU Member State allows it (several key EU jurisdictions do not currently have a private placement regime in place for AIFs); or (ii) an EU-wide "passport" regime

In principle, the "passport" regime would allow a manager to market its AIFs throughout the EU with no barriers allowed to be placed at individual Member State level. However, the "passport" regime would only become available to non-EU managers two years after the implementation of the Directive (that is, no sooner than 2015), and only if the European Commission considers it appropriate to "activate" such a regime following a recommendation from the new pan-European regulator, the European Securities and Markets Authority (ESMA). The Directive further provides that national private placement regimes may be abolished five years after the implementation of the Directive (that is, in 2018)

In order to take advantage of the national private placement regime, fund managers will be required to comply with the disclosure and transparency provisions of the Directive, as well as any additional requirements which may be imposed by the local regulator. Cooperation agreements must also be in place between the relevant EU Member State regulator and the regulator of the home jurisdiction of each of the manager **and** the AIF

To take advantage of the passport regime (assuming this becomes available in 2015), the non-EU manager would need to seek authorisation from an EU Member State regulator and comply with all provisions of the Directive. As with the national private placement regimes, cooperation agreements would need to be in place between the regulators

The Directive is a "framework" or "Level 1" document which is in the process of being supplemented by various secondary legislation issued by the European Commission under a "Level 2" process. On 16 November 2011, ESMA published its technical advice to the European Commission on possible implementing measures of the Directive (the **"ESMA Advice"**). As part of the "Level 2" process, secondary legislation will be adopted by the European Commission based on the ESMA Advice. In addition, ESMA will in due course, as part of a "Level 3" process designed to ensure consistent application of EU law and regulation in Member States, consult on and publish further detailed guidance. The investment funds industry will need to continue to monitor ESMA's consultations closely to ensure that the industry's concerns are appropriately voiced and taken into accoun.

### REGULATORY REFORMS IN THE US

In the US, there has been an unrelenting stream of new regulation and proposals for further change, most notably in respect of the following

### DODD-FRANK LEGISLATION AND THE US INVESTMENT ADVISERS ACT

The Dodd-Frank Wall Street Reform and Consumer Protection Act (**"Dodd-Frank Act"**), including the Private Fund Investment Advisers Registration Act of 2010 (**"Act"**), which, among other things, amended provisions of the US Investment Advisers Act of 1940 (**"Advisers Act"**), was signed into law on 21 July 2010. The Act eliminated the "private adviser" exemption from registration for an adviser that has fewer than 15 clients (US clients, in the case of a non-US adviser) and does not "hold itself out as an investment adviser" to the US public. Although the Act provides new, limited exemptions from registration for eligible foreign private advisers, private fund advisers and venture capital fund advisers, it likely will require many non-US resident investment advisers to private funds organized outside the US to register under the Advisers Act and/or meet new reporting and recordkeeping requirements, if those private funds are sold to US investors. Pursuant to the requirements of the Dodd-Frank Act, the US Securities and Exchange Commission (**"SEC"**) has promulgated rules to implement the Act. An adviser also may be subject to state registration, reporting or other obligations

Certain of the new exemptions, obligations and related considerations of particular interest to non-US advisers under the Act and related SEC rules are summarized briefly below

### NEW EXEMPTIONS

### 1. FOREIGN PRIVATE ADVISERS

Advisers that qualify as "foreign private advisers" are exempt from both Advisers Act registration and the new reporting/recordkeeping requirements imposed by the Act. A "foreign private adviser" is defined as any investment adviser that

(A) Has no place of business in the US

(B) Has, in total, fewer than 15 US clients and investors (including US tax-exempt investors) in private funds advised by the adviser

(C) Has aggregate regulatory assets under management ("AUM") attributable to US clients and to US investors (including not only US equity investors such as US tax-exempt investors but also US debt investors, among others) in private funds it advises of less than US$25m; and

(D) Neither holds itself out generally to the public in the US as an investment adviser, nor acts as a business development company or an investment adviser to a registered investment company

## 2. PRIVATE FUND ADVISERS WITH RAUM IN THE US UNDER US$150M

A “non-US adviser” (an adviser whose “principal office and place of business” is outside the US) should be able to rely on the private fund adviser exemption if, generally

(A) It has no US clients other than qualifying private funds (i.e., no US separately managed account clients or other US clients that are not qualifying private funds); and

(B) It has AUM managed at a place of business in the US of less than US$150m . A non-US adviser would be required to count only private fund assets it manages at a place of business in the US toward the US $150 m asset limit.

A “private fund” is defined as any issuer that would be an investment company under the US Investment Company Act of 1940 (**“Investment Company Act”**), but for the exceptions set forth in Section 3(c)(1) or 3(c)(7) of that Act (i.e., funds sold privately and either owned beneficially by fewer than 100 holders or owned exclusively by “qualified purchasers”). A “qualifying private fund” is a private fund that is not registered as an investment company under the Investment Company Act and has not elected to be treated as a “business development company” under that Act.

An adviser that is exempt from registration with the SEC under the “private fund adviser” exemption will, because it is an exempt reporting adviser, be required to file reports with the SEC on Form ADV, meet certain recordkeeping requirements and be subject to SEC examination, as described below under “Exempt Reporting Advisers.”

### EXEMPT REPORTING ADVISERS

The amendments to the Advisers Act that exempt from registration eligible venture capital fund advisers and eligible private fund advisers relying on the private fund adviser exemption (together, **“exempt reporting advisers”**) also provide that the SEC shall require such advisers to maintain records and submit reports “as the SEC determines necessary or appropriate in the public interest or for the protection of investors”

Exempt reporting advisers will be required to complete the following subset of Form ADV Part 1 items (along with the corresponding sections of Schedules A, B, C and D) that will provide the SEC and the public with basic information about the adviser and its business

- Items 1 (Identifying Information), 2.B. (SEC Reporting by Exempt Reporting Advisers), 3 (Form of Organization) and 10 (Control Persons) - To elicit basic identification details such as the name, address, contact information, form of organization and the adviser’s owner(s). Items 6 (Other Business Activities) and 7.A. (Financial Industry Affiliations)--to facilitate identification of possible conflicts of interests with the adviser’s clients
- Item 7.B. (Private Fund Reporting) and Schedule D Section 7.B. To require exempt reporting advisers to report information regarding the private funds they advise (amendments to Form ADV substantially expand the required information regarding private funds)
- Item 11 (Disclosure Information) would require disclosure of the disciplinary history of the adviser and its employees
- Exempt reporting advisers will not be required by the SEC to respond to other Form ADV Part 1 items or to prepare Form ADV Part 2

An exempt reporting adviser, like a registered adviser, will be required to amend its reports n Form ADV (a) at least annually, within 90 days of the adviser’s fiscal year end, and (b) more frequently, if required by the instructions to Form ADV. Exempt reporting advisers may file the initial report on Form ADV beginning 1 January, 2012 and must file the initial report no later than 30 March, 2012. After 30 March, 2012, a new adviser that is an exempt reporting adviser must submit its initial Form ADV report within 60 days of relying on the applicable exemption from registration. Existing advisers that are transitioning from status as an exempt reporting adviser to a registered adviser, or the reverse, must carefully observe various transition requirements

The Act does not exempt reporting advisers from US state registration or filing requirements to which they might otherwise be subject. Certain exempt reporting advisers, in addition to filing reports with the SEC, may ultimately be required to register with one or more states or meet other state regulatory obligations

#### CALCULATION OF REGULATORY ASSETS UNDER MANAGEMENT

For Form ADV and the new exemptions, as well as new Form PF (discussed below), an adviser must calculate its RAUM on a gross basis, without deduction of any outstanding indebtedness or other accrued but unpaid liabilities. RAUM must be calculated based on the current market value (or fair value where market value is unavailable, including with respect to illiquid or hard to value assets), determined using the same method used to report account values to clients or calculate fees for advisory services

### Private Fund Systemic Risk Reporting

#### FORM PF AND WHO REPORTS

Pursuant to a mandate in the Dodd-Frank Act, the SEC and Commodity Futures Trading Commission ("CFTC") have established new confidential information reporting requirements with respect to private funds, set forth in new Form PF. These requirements apply to investment advisers that

- Are registered (or required to be registered) with the SEC, and commodity pool operators ("CPOs") or commodity trading advisors ("CTAs") that are dually registered with the SEC and the CFTC; and
- Advise one or more private funds (i.e., funds that rely on the exclusion from the definition of an investment company provided by Section 3(c)(1) or 3(c)(7) of the Investment Company Act); and
- Collectively with related persons (other than related persons that are separately operated), have RAUM of $150 m or more attributable to private funds as of the end of the most recently completed fiscal year

Advisers that are exempt from registration with the SEC, including exempt reporting advisers, are not required to file Form PF.

The information collected on Form PF will be primarily for the use of the Financial Stability Oversight Council ("FSOC") in monitoring and assessing systemic risk in the US financial system. The information collected through Form PF by the SEC and used by FSOC generally is required to be kept confidential. Information filed on Form PF will supplement the information the SEC collects from registered investment advisers on the recently revised and expanded Form ADV

#### NON-US ADVISERS AND NON-US FUNDS

If the adviser's principal office and place of business is outside the US, the adviser may exclude for all purposes of Form PF any private fund that during the last fiscal year was neither a US person nor offered to, or beneficially owned by, any US person. A non-US fund advised by a non-US adviser that has never used US jurisdictional means in the offering of its securities is not a private fund and is not required to be reported on Form PF

#### CONTINUED APPLICABILITY OF THE "ADVISER LITE" REGIME TO CERTAIN NON-US ADVISERS

As a general matter, the SEC staff does not apply all of the substantive provisions of the Advisers Act to non-US investment advisers with respect to their non-US clients. Commonly referred to as "Adviser Lite," non-US advisers that are registered with the SEC are not subject to certain of the Advisers Act's requirements in connection with such clients, including code of ethics, custody, principal trade and cross transaction restrictions, advertising, cash solicitation restrictions, delivery of a disclosure brochure to clients, and some, but not all, of the books and records requirements

In connection with the adoption of the new rules, the SEC affirmed the SEC staff's position that most of the substantive provisions of the Advisers Act do not apply to the non-US clients of a non-US adviser registered with the SEC

## EXTRATERRITORIAL REACH OF THE US FEDERAL SECURITIES LAWS THE "CONDUCT AND EFFECTS" TEST

Effective 22 July 2010, the Dodd-Frank Act also amended the Advisers Act (and other US securities laws) to extend the SEC's extraterritorial jurisdiction by providing that the SEC shall have jurisdiction over an action it brings (or Federal prosecutors bring) if

- Conduct within the US constitutes significant steps in furtherance of the violation, even if the securities transaction occurs outside the US and involves only foreign investors; or
- Conduct occurring outside the US has a foreseeable substantial effect within the US.

## THE VOLCKER RULE

The Dodd-Frank Act added a new Section 13 to the Bank Holding Company Act of 1956 (the **"BHC Act"**), commonly referred to as the "Volcker Rule." On 11 October, 2011, the Board of Governors of the Federal Reserve System (the **"Board"**), the Office of the Comptroller of the Currency (the **"OCC"**) and the Federal Deposit Insurance Corporation (the **"FDIC"**) issued a proposed rule implementing the requirements of the Volcker Rule. The Volcker Rule (as proposed) generally prohibits "banking entities" from engaging in proprietary trading or from investing in, "sponsoring" or having certain other relationships with a "covered fund" (i.e., a privately-offered investment vehicle such as a hedge fund or private equity fund that is excluded from certain provisions of the Investment Company Act pursuant to Section 3(c)(1) or 3(c)(7) thereof)

- The term "banking entity" is defined as an insured depository institution (other than certain limited purpose trust institutions), any company that controls an insured depository institution, any company that is treated as a bank holding company for purposes of Section 8 of the International Banking Act of 1978 (including many non-US banks and non-US banking companies) and any subsidiaries of such institutions or companies (including broker-dealer and fund manager subsidiaries)
- "Proprietary trading" is defined as engaging as a principal for one's "trading account" in any transaction to purchase or sell, or otherwise acquire or dispose of, any security, derivative or futures contract, option on any such security, derivative or futures contract or any other security or financial instrument that the appropriate Federal banking agency, the SEC or the CFTC determines by regulation
- A "trading account" means any account used for acquiring or taking positions in securities and instruments principally for the purposes of selling in the near term such securities or instruments
- "Sponsoring" is defined as serving as a general partner, managing member or trustee of a covered fund; selecting or controlling a majority of the fund's directors, trustees or management; or sharing the same name or variation of the same name as the fund

The Volcker Rule will take effect on 21 July 2012. However, banking entities will not need to fully bring their activities, investments and relationships into compliance until 21 July 2014 and are permitted to retain certain investments for an even longer period of time pursuant to a conformance and extended transition period rule issued by the Board in February 2011. The commentary to the proposed rule states, however, that banking entities are required to begin complying with the proposed rule's reporting, recordkeeping and compliance requirements on the 21 July 2012 effective date, and that full conformance with the proposed rule should be completed "as soon as practicable"

The proposed Volcker Rule includes 383 questions that have been included to solicit comment from industry participants and other relevant parties. Comments on the proposed rule are due by 13 February 2012 (extended from 13 January 2012)

## EXCEPTIONS TO THE VOLCKER RULE

There are a range of exceptions to the Volcker Rule. These exceptions are intended to permit banking entities to continue to engage in underwriting, market-making and trading on behalf of clients. In addition, the proposed Volcker Rule permits a banking entity to organise and offer a covered fund, including acting as sponsor of the fund, if certain criteria are met

These criteria generally require that such organisation, offering and/or sponsorship be undertaken in connection with the banking entity providing bona fide trust, fiduciary, investment advisory, or commodity trading advisory services to persons that are customers of such services of the banking entity. Such services may be provided by the banking entity through the covered fund (i.e., there need not be a pre-existing trust, fiduciary, investment advisory or commodity trading advisory relationship between the banking entity and a customer who invests in a covered fund)

If a banking entity organises and offers a covered fund under the exception, the banking entity may make and retain an initial investment of any amount. This investment, however, is subject to an overall limit of 3% of the parent bank's Tier 1 capital. In addition, within one year after establishment of the covered fund, the investment must be reduced to 3% or less of total ownership interests in the covered fund and be immaterial to the banking entity. Such continuing investment is also subject to the overall limit of 3% of the parent bank's Tier 1 capital. Further, only directors or employees of the banking entity who are directly engaged in providing services to a covered fund may invest in such covered fund. Other provisions of the Volcker Rule prohibit a banking entity from investing any assets in third party funds. There is a divestiture period that provides for reasonable time frames to wind up investments that are prohibited under the Volcker Rule

There are exemptions from the proposed Volcker Rule for certain foreign banks that are otherwise subject to the Rule. In order to be eligible for the exemptions, such foreign banks must not be controlled (directly or indirectly) by a US-organised banking entity. In addition, foreign banks may continue to engage in proprietary trading if the trading occurs solely outside the US and does not involve a US person as counterparty, or any US resident employees of the bank (other than certain clerical and administrative personnel). Such foreign banks may invest in or sponsor covered funds solely outside the US, provided ownership interests in such funds are not sold or offered for sale to US residents

None of the exceptions apply if, as determined by regulation of the Federal banking agencies, the SEC and CFTC, an activity

- Involves or results in a material conflict of interest between the banking entity and its clients, customers or counterparties
- Results, directly or indirectly, in a material exposure by the banking entity to high-risk assets or high-risk trading strategies; or
- Poses a threat to the safety and soundness of such banking entity or to the financial stability of the US

As foreshadowed by many commentators to date, the Volcker Rule is likely to result in many banks having to unwind and spin out certain of their investment arms and other structures that do not fall within applicable exemptions. Yet others may re-evaluate core businesses as the financial model for many banks moves back to more conservative banking practices

## Other regulatory considerations and changes

### TITLE VII OF THE DODD-FRANK ACT AND ITS IMPACT ON DERIVATIVES

The provisions of the Dodd-Frank Act governing swaps and security-based swaps (**"SB swaps"**) do not generally apply to activities outside the US. Such provisions will apply to activities outside the US (1) with respect to swaps only, where the activity has a direct and significant connection with activities in, or effect on, commerce of the US; or (2) with respect to swaps and SB swaps, where such activity contravenes any respective CFTC or SEC anti-evasion rule. The CFTC and SEC are each empowered (but not required) to implement such rules as they deem necessary or appropriate to prevent evasion of any provision of the CEA or Exchange Act, respectively, added by Title VII of the Dodd-Frank Act

Title VII of the Dodd-Frank Act seeks to bring comprehensive regulation to the US over-the counter (**"OTC"**) derivatives markets, and eliminates virtually all exemptions from the Federal securities and commodities laws for OTC derivatives. Most provisions of Title VII were scheduled to become effective on 16 July 2011, however, both the SEC and CFTC have put in place temporary rules and orders that defer such effective dates until the completion of relevant rulemaking. Although both agencies have completed a substantial amount of the rulemaking necessary to implement Title VII, much work remains to be done. The agencies have busy regulatory calendars for 2012 as they complete their Dodd-Frank rulemaking. The Dodd-Frank Act also creates new regulatory regimes for "swap dealers," "security-based swap dealers," "major swap participants" and “major security-based swap participants.” These regimes are, in most respects, incomplete pending completion of relevant rulemaking

### HART-SCOTT-RODINO ANTITRUST IMPROVEMENTS ACT OF 1978, AS AMENDED (“HSR ACT”)

Under the HSR Act, any transaction that results in a foreign hedge fund, or a Group’s hedge funds collectively, holding an aggregate amount of the voting securities and assets of a US or non-US company, or interests in an unincorporated entity, valued in excess of the then current “size of transaction” threshold — which, as of 24 February 2011, was $66m , and which is subject to annual revision by the Federal Trade Commission (**“FTC”**) — may require prior notification to both the FTC and the Antitrust Division of the US Department of Justice

### ANTI-MONEY LAUNDERING

If it does business with US persons, a non-US based hedge fund manager and its subsidiaries may need to comply with all laws and regulations relating to combating money laundering activity, including the Bank Secrecy Act and the USA PATRIOT Act of 2001. In such circumstances, a comprehensive program must be adopted to avoid any involvement in money laundering and to monitor for and report suspicious activity when detected

### NEW ISSUES

To the extent that a hedge fund manager trades “new issues” within the meaning of Rule 5130 of the Financial Industry Regulatory Authority, Inc. (**“FINRA”**) (generally, initial public offerings of equity securities), the participation of investors deemed by Rule 5130 to be “restricted persons” in the “new issues” acquired by the hedge fund must be limited in accordance with the requirements of the Rule. “Restricted Persons” under Rule 5130 are, broadly, brokers, dealers, associated persons of broker dealers, and their family members and persons in a position to allocate “new issues”, such as investment fund managers. On 27 May 2011, FINRA Rule 5131, which establishes a new category of restricted persons for, among others, officers and directors of public companies, will become effective. As a result of the adoption of Rule 5131, hedge fund managers who wish to participate in new issues must affirmatively determine if any investors are restricted under Rule 5131 and decide among various alternatives for eliminating or limiting the participation in new issues of persons who are so restricted. In addition, new FINRA Rule 5131(b), which also becomes effective on 27 May 2011, would limit the participation of investors in new issues, acquired by the hedge fund, who are executive officers and/or directors, or materially supported persons of such executive officers or directors in accordance with the requirements of such rule

### FEDERAL RESERVE OVERSIGHT OF DESIGNATED COMPANIES

The FSOC is an interagency council created by the Dodd-Frank Act. The FSOC may, by a two-thirds vote of its members, designate a US or foreign nonbank financial company that poses a threat to the financial stability of the US in the event of its material financial distress (based on the nature, scope, size, scale, concentration, interconnectedness or mix of the company’s activities) for supervision by FSOC (each, a **“Designated Company”**). A Designated Company will be required to register with FSOC within 180 days of its designation and will be subject to heightened supervision and prudential requirements established by FSOC. Depending on the activities undertaken, a hedge fund manager may fall within the definition of a foreign nonbank financial company, potentially subjecting the manager to oversight by FSOC

In conclusion, it is clear that the increased regulation of fund managers and the substantially increased administrative burden placed on all participants in the industry, will significantly impact the growth potential of the global hedge fund industry. New start-up managers will need to carefully evaluate the impact of new regulation and whether exemptions from registration and other applicable regulatory developments are applicable. Related to this is the question of whether and how sufficient infrastructure exists to allow the manager to effectively and efficiently operate within the new regulatory regime. There is little doubt that the regulation of the hedge fund industry in the US and the European Union is going to continue to be a most influential driver of change during 2012 and beyond

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# Accounting and Fund Administration

## TAX CONSIDERATIONS FOR OFFSHORE HEDGE FUNDS

PRICEWATERHOUSECOOPERS

Amy Yeung, David Kan, Franziska Stilli – PricewaterhouseCoopers Limited

Hong Kong is a global financial hub and its dynamism, unique geographic location and stable socio-economic climate has helped it become Asia's leading hedge fund centre. Between March 2006 and March 2011, the total number of SFC-licensed hedge fund firms had grown by almost 180 per cent from 1,100 to 3,100. Recent industry figures show that in 1H 2011, USD2.1bn were raised by new hedge funds in Hong Kong, compared to US$1.89bn in 1H 2010

This article briefly discusses some of the key accounting and tax issues to be considered for setting up an operating base in Hong Kong

### ACCOUNTING

Hedge funds in Hong Kong commonly prepare their financial statements in accordance with International Financial Reporting Standards (IFRS) or in conformity with accounting principles generally accepted in the US of America (US GAAP). The choice of reporting framework depends on investor's needs. As part of the convergence efforts between the International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) to improve both IFRS and US GAAP, and ultimately make the standards fully compatible, both boards have proposed a number of exposure drafts (EDs) and amendments to current accounting standards in recent years. These key convergence projects will be finalised in the latter half of 2012. The few key recent accounting developments IFRS 10, IFRS 13 and revenue recognition ED, are identified to have high impact on fund managers. It is important that hedge fund manager understands these developments and considers their impact on its business

### IFRS 10

The IASB released IFRS 10, „Consolidated financial statements' on 12 May 2011, introducing new guidance on control and consolidation. The revised definition of control focuses on the need to have both power and variable returns before control is present. Power is the current ability to direct the activities that significantly influence returns. Return must vary and can be positive, negative or both. The new standard also includes guidance on agent/principal relationships. A fund manager (the agent) may be engaged to act on behalf of a single party or group of parties (the „principals‟), and certain power is delegated to the agent, i.e., to manage investments. If the fund manager also has exposures to variable returns from the fund, it may be considered a principal of the funds that it manages, and would have to consolidate those funds. The standard includes a number of factors to consider when determining whether the fund manager has control or is acting as an agent. The revised standard is effective for annual periods beginning on or after 1 January 2013 and generally requires full retrospective application; earlier application is permitted. IFRS preparer should consider whether IFRS 10 will affect their control decisions and consolidated financial statements

### IFRS 13

On 12 May 2011 the IASB issued new guidance on fair value measurement and disclosure requirements for IFRS – IFRS 13 "Fair Value Measurement", which defines fair value as "The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." IFRS 13 explains how to measure fair value where it is required by IFRS and aims to enhance fair value disclosure. The use of bid /offer prices is permitted if those prices are most representative of fair value in the circumstance, but not required. IFRS 13 will be effective for financial periods beginning on or after 1 January 2013. Earlier application is permitted

## REVENUE RECOGNITION RE-EXPOSED ED

FASB has released an ED on accounting for revenue recognition in contracts with customers. The proposals require entities to recognise revenue from customers more consistently regardless of the industry they operate in. The new revenue recognition model is a single, contract-based, asset and liability model. Revenue will be recognised upon the satisfaction of performance obligations, which occurs when control of an asset (whether a good or service) transfers to the customer. The objective of the converged standard is to increase the consistency of revenue recognition for similar contracts, regardless of industry. The tentative conclusions set forth below are subject to further interpretation and assessment based on the final standard. The effective date of the final standard has not been determined, but it is expected to be no earlier than 1 January 2015 with retrospective or limited retrospective application required. Early adoption is permitted under IFRS, whereas under US GAAP early adoption will not be permitted

Currently under IFRS and US GAAP, fund managers recognise revenue based on the transfer of risks and rewards of their services or based on the stage of completion of service. Under the proposed standard, revenue is recognised when the performance obligation is satisfied and the fund manager is reasonably assured it is entitled to the consideration

Common revenue streams in scope of the proposed standard are management fees, performance fees and upfront fees. The proposed standard also encompasses guidance relating to expense recognition, such as costs to secure and fulfil an asset management contract and so-called onerous performance obligations

## TAX

Principally, the tax exposures for hedge fund operations depend on the location of the fund's investments and the location of the investment management and advisory entities' operations (including their directors and staff). Whereas the locations in which a hedge fund invests create tax issues for the fund at source (e.g., withholding tax, stamp duty, etc.), permanent establishment (PE) risks and the availability of Safe Harbour rules for funds are critical in choosing a location for the investment management /advisory entities and their personnel. Transfer pricing issues and the tax treaty network a particular jurisdiction offers (these will impact the expense ratio and exit strategy of the hedge fund and the repatriation of capital) are also important considerations. The tax rules are complex and frequently change, so it is important to keep up to speed on the key issues in the jurisdictions relevant to your operations

## PE RISKS

A hedge fund's exposure to tax can vary widely across jurisdictions and typically depends on a combination of the source and nature of its income and whether it could be regarded as having a PE in a particular location. The PE risk in some jurisdictions depends on whether the fund has a "dependent" investment manager or advisor there. Hong Kong in general bases its test on whether a discretionary investment manager or advisor is located there

## SAFE HARBOUR

The „safe harbour‟ regime (i.e., tax exemption regime for funds) in Hong Kong has contributed significantly to its popularity as Asia's hedge fund operations base

In Hong Kong, there are three types of tax exemption available for funds. Offshore funds earning Hong Kong source income from certain "specified transactions" carried out through or arranged by "specified persons" (meaning authorised financial institutions registered with the Hong Kong Securities and Futures Commission (SFC) and entities holding any one of the licences issued by the SFC) will enjoy Hong Kong tax exemption on this income and "incidental income" subject to a de minimus rule under a tax exemption regime introduced in March 2006, notwithstanding the fact that they have an investment manager/advisor with discretionary power located there. Although a wide range of transactions qualify as "specified transactions", there are some specific exclusions - most notably investments in "private companies" as defined in the Hong Kong Companies Ordinance. Tax exemption is also available for funds (onshore and offshore) that are authorised under section 104 of the Securities and Futures Ordinance and finally, certain unauthorised funds may be able to claim tax exemption if they are “bona fide widely held” and supervised by an authority in an “acceptable regulatory regime”. There are no additional specific tax exemptions for Hong Kong resident funds

In December 2009, Hong Kong’s Inland Revenue Department (IRD) issued the much awaited Departmental Interpretation and Practice Notes (DIPN) 46 on transfer pricing. This practice note outlines the IRD’s views on the legislative framework for transfer pricing in Hong Kong, the methodologies that taxpayers may apply, the documentation that taxpayers should consider retaining to support their arrangements and some thoughts on transfer pricing related issues such as tax avoidance schemes. The IRD may make transfer pricing adjustments on related party transactions which it considers non-arm’s length or which were entered into for tax avoidance purposes. Such tax risk needs active assessing, managing and mitigating. Fund management groups which have traditionally booked all management and performance fees in their offshore (i.e., non-Hong Kong) fund managers and remunerate the Hong Kong sub-managers/advisors based on cost-plus are revisiting their remuneration arrangement and ascertaining whether the arrangement is at arm’s length based on the capital employed, risks assumed and functions undertaken by each entity. The IRD also plans to issue further transfer pricing guidance in regard to advance pricing agreements (APA) in the near future

## Other tax considerations

### TAX TREATY NETWORK

Hong Kong did not introduce any new tax incentives or schemes specifically for the funds industry in 2011. However, the expansion of Hong Kong’s tax treaty network is a welcome development and has enormously increased the attractiveness of Hong Kong as a location through which to invest into Japan and other jurisdictions

A comprehensive tax treaty network may be an important consideration for fund managers depending on the source and nature of the income they earn. In general, most hedge fund managers earn investment management and performance fee income which will be taxable in the location of the fund manager’s main operations. However, PE risks may also arise for fund managers with employees travelling to other jurisdictions. If a particular jurisdiction’s tax authorities regard the fund manager as having a PE in that location, the portion of the investment management and performance fee income attributable to that PE will be taxable there. A risk of double taxation therefore arises if a fund manager is deemed to have a PE in one or more other jurisdictions. Protection from double taxation may be available however if there is a tax treaty in place between the location of the fund manager’s main operations and the location with the PE. A particular jurisdiction’s tax treaty network may also influence the transfer pricing arrangements between entities in the larger hedge fund groups

In 2011 Hong Kong has continued to rapidly expand its tax treaty network. Up to 31 December 2011, Hong Kong has an effective tax treaty with Belgium, Thailand, China, Luxembourg and Vietnam and in addition 17 newly signed tax treaties with countries such as France, Ireland, Japan, Switzerland, the Netherlands and the United Kingdom. Most of Hong Kong’s newly signed tax treaties will become effective in 2012 and contain the article on exchange of information. The expended tax treaty network certainly strengthens Hong Kong attractiveness as a location for fund managers to receive income from other treaty jurisdictions

### TAX RATES

The Hong Kong profits tax rate are 16.5% for corporations and 15% for unincorporated business for the year of assessment 2011/12. Exemption is available for non-Hong Kong sourced profits and gains of capital nature

Dividends from Hong Kong companies are statutorily tax exempt. Dividends from offshore companies with operations outside Hong Kong are non-Hong Kong sourced and non-taxable

Income from certain qualifying dept instruments (QDIs) are either tax exempt or subject to a concessionary tax rate (i.e., 50% of the regular profits tax rate). A specific anti-avoidance provision came into effect in March 2011 whereby the concessionary tax rate/tax exemption does not apply to incomes derived from QDIs by a person who is an associate of the issuer of the QDIs

**WHAT NEXT?**

Hong Kong stands to gain from greater openness of Mainland China which will also continue to support Hong Kong's position as an offshore RMB business and international asset management centre and gateway of inbound and outbound investments into Mainland China. With its unique position and close ties to Mainland China, the outlook for the future of the Hong Kong hedge funds industry looks promising. Tax remains a key risk and must be considered, but it can be managed with proper planning and structuring. Hedge funds need at least a high level understanding of the tax systems in the jurisdictions in which they intend to operate and invest in and it is vital to ensure the right structure is in place for the types of investments to be made. Getting proper advice from professional tax advisors at the outset will help to avoid any unwelcome surprises when the operations are up and running. Regular contact with your advisor to keep up to speed with tax changes and developments will help to ensure that continues to be the case

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The materials contained in this article were assembled on 31 January 2012 and were based on the law enforceable and information available at that time

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## Fund Administration

### HEDGE FUND ADMINISTRATION – THE NEW PARADIGM

Northern Trust | HEDGE FUND SERVICES

**Alexis Fosler – Head of Regional Sales, Northern Trust Hedge Fund Services**

New regulatory requirements such as the Alternative Investment Fund Managers Directive (AIFMD) in Europe and the Foreign Account Tax Compliance Act (FATCA) in the US are imposing new and complex requirements on fund managers. Sweeping waves of regulatory reform and increased investor scrutiny means that hedge funds now face unprecedented transparency requirements and fiduciary responsibilities. Managers are under pressure to demonstrate controls and support sophisticated operational infrastructure, including robust technology and deep domain expertise with regard to processes, regulatory, and operational requirements. These demands, combined with the need for cost controls, are making the outsourcing of the middle and back office functions to sophisticated service providers the new norm

### TRADITIONAL ADMINISTRATION REQUIREMENTS

Historically, the role of the hedge fund administrator was typically restricted to a set of clearly defined operational activities, includingStriking the fund NAV

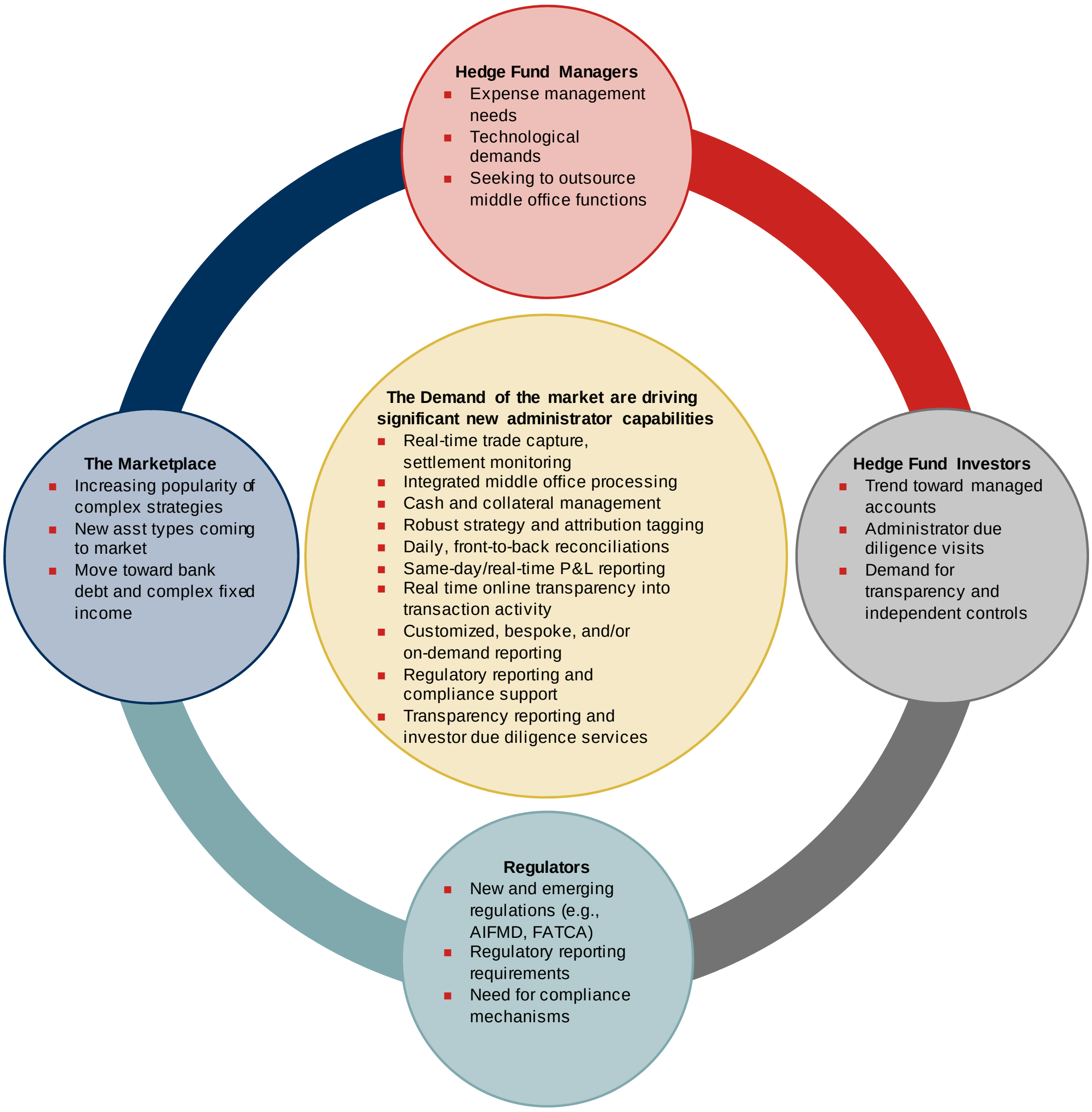
- Valuation services for assets held within the fund
- Trade reconciliations to the prime broker(s)
- Maintenance of accounts and financial records
- Liaison with Auditors and Tax Advisors to support the preparations of Financial Statements and year-end tax documentation
- Shareholder servicing, including investor allocations, management and performance fee calculations, and the distribution of investor statements and related documentation

As a standard service model, these operational activities are ably performed by any number of administration service providers and constitute the minimum operational framework to support a fund's daily activities

### THE NEW ADMINISTRATION PARADIGM

More recently, sophisticated providers have expanded their services to include a range of middle office activities that have historically been handled by the manager. Services such as trade matching, trade allocation and settlement monitoring, asset servicing activities (e.g. Corporate actions, interest/dividend posting), cash management functions, collateral management, daily P&L, and portfolio accounting activity are now commonplace; the expectation rather than the norm

Today's administrators adopt a number of approaches to providing these services, ranging from a modular, a la carte approach with specific systems and services (priced separately), to comprehensive, front-to-back solutions that capture and reconcile all data from trade execution through investor statements in a single operating model and fee structure




## REPORTING

Unprecedented demands for transparency around funds' investments, exposures, and vendor relationships has also led to increased reporting requirements on the part of administrators. Risk reporting, regulatory reporting, bespoke tax reporting, transparency and investor reporting is now a growing factor in administrator selection. Some administrators now offer self-service or "Real Time Reporting", and have additional systems in place to provide more complex reports on an ad hoc basis

## EXPANDED ASSET COVERAGE

In today's marketplace, administrators must have automated and scalable solutions for an increasing variety of complex asset types. A fund's ability to execute its strategy is directly tied to the administrator's ability to support that strategy. High frequency and statistical arbitrage strategies require scale and bandwidth to process thousands, or even tens of thousands, of transactions per day. Credit strategies featuring high concentrations of bank debt and highly complex fixed income instruments require systematic support

With an emphasis on controls and independent verification, Administrators are also expected to provide independent valuations for these assets through vended pricing feeds, modeling, or a combination of both

**FASTER TURNAROUNDS**

Technology has dramatically accelerated the rate at which information can be processed. Five years ago, the “typical” hedge fund administrator would deliver a monthly NAV on T+15 or later. Today, daily NAVs are quite common, and the turnaround on monthly or quarterly NAVs has shortened to T+ 7 for many strategies and as fast as T+4 for less sophisticated strategies such as long/short equity. Daily deliverables such as P&L reporting and holdings reports, previously delivered on a next-day basis, are now provided same-day, intra-day, or in some cases in real time

**FLEXIBILITY AND TRANSPARENCY**

As administrators take on a larger percentage of a fund’s operational requirements, managers require their administrators to have a higher degree of flexibility in reporting and data management. Dynamic, Real Time access to data is increasingly expected, and the tools to help analyse that data – sorting and filtering capabilities, drill-down functionality, and attribution and strategy tagging capabilities are of growing importance. Today’s online reporting systems extend beyond static reporting engines and feature real-time dashboard utilities and tools to manage cash movements, investor activity, price overrides and other functions directly in the system. In the new administration paradigm, technology has become the tool that answers managers’ and investors’ need for clear and immediate transparency

**PARTNERSHIP**

The dynamic of the hedge fund /administrator relationship is changing. Managers no longer have to settle for static offerings, sending data back and forth to the administrator in order to access the information they require, frequently in the form of telephone conversations, e-mail and so on. Administrators now leverage innovative technology, substantial domain expertise and on-the-ground support to become a natural extension of their clients business, interacting with managers on a daily basis

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# Technology

## Technology Considerations

HEDGE FUND ADMINISTRATION – THE NEW PARADIGM

Mark Wightman – Head of Asset Management Strategy, SunGard

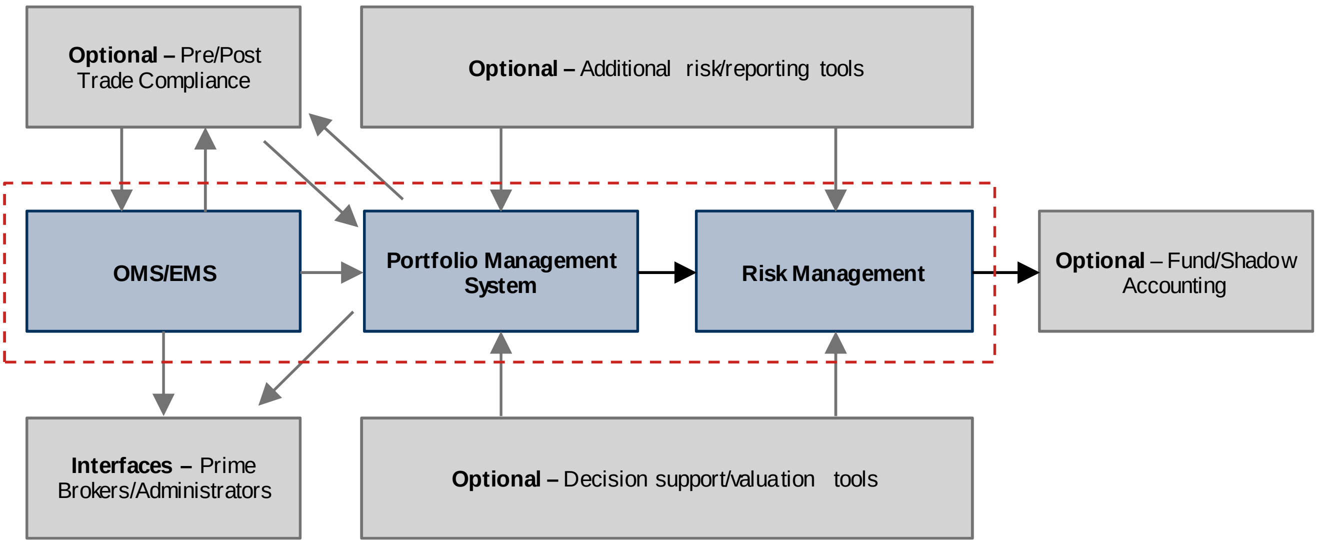
Whether you are a start-up hedge fund, or have been around for a few years and have reached that typically US$100–300m point, and need to review infrastructure ready for the next stage of your growth to 500m or more, investing time in thinking about systems is time well spent. Of course you want to focus on managing money, producing good performance and growing assets, but without the right infrastructure you'll get side-tracked, face more questions on due diligence and may well find you just can't scale as you'd like

After start-up, purchase drivers often seem to be dramatic growth of assets and/or an institutional investor coming on board

Technology needs vary considerably depending on the strategies employed, trading volume and AUM. A US$30m long-short fund that does 15-20 trades should be able to get by just using Bloomberg and Excel although they may end up buying a simple PMS (portfolio management system) to ease investor DD concerns. A multi-strategy prop desk spin-out with US$300m will have very different needs and investors will have different expectations

Two of the main questions driving what systems are needed are (1) significant trade volume YES/NO; (2) significant OTC YES/NO. The meaning of 'significant' is subjective but roughly equates to do you fancy doing all this manually

In our experience, probably the single most important conversation is around the workflow with all the key stakeholders involved. The below diagram gives a very simple overview of a typical funds' workflow, but getting it right can take quite some time for the most complex funds, especially when you take into account where you are today and where you plan to be in say 3 years



The goal should be to reduce manual processes and have a streamlined STP (straight through processing) solution which reduces cost and the scope for operational risk

Let's start from the initiation of the trade In the past there was a clear separation between EMS (execution management system) and OMS (order management system) solutions. The OMS aggregated orders from various portfolio managers, managed executions and collected the fills, checked compliance and allocated trades to accounts. The EMS consisted of a trade blotter, with connectivity to various execution destinations, access to algorithms and the ability to run analysis such as TCA (transaction cost analysis) plus access market depth data

Today the two have blurred and most OMS have EMS functionality, and vice versa, and the trend continues. Sitting in this space we also have a number of single bank platforms. Generally life is simpler if you can reduce the number of interfaces you need to maintain hence we see a move to multi-broker platforms as well as increasing focus on pre-trade compliance meaning all your trades need to go through one platform. When it comes to such rationalisation, it's also worth ensuring you understand how you pay for these platforms in terms of up-front vs commissions, or both

### 10 WORKFLOW QUESTIONS TO ANSWER WITH YOUR TEAM

- Which OMS/EMS platforms are essential – rationalise the number?
- Do you need pre-trade compliance?
- Will your OMS/EMS send trade files to your prime brokers and administrators or will this come from your PMS?
- How will OTC products that your OMS can't handle fit into the flow?
- Which system will act as your security master?
- If your risk and PMS systems are different you need a clear mapping between the two. How do you source risk data for newly traded securities?
- If you have a PMS and a separate fund accounting system how do you handle end-of-day processes and ensure all corporate actions, rolls, fixings are correct in both systems?
- If you are running managed accounts consider how they fit into the flow
- How do you reconcile with your Administrator?
- Do you need to link to any post-trade services such as MarkitWire, Omgeo, DTCC?

Once you have your trades, you need a PMS to keep track of all your positions and calculate P&L. If you're using derivatives, your PMS may also show real-time Greeks if it has embedded valuation tools or this may be handled by a separate system. Risk means many things to many people from real-time Greeks to stress testing, historical scenario analysis and end of day VaR. It may also include counterparty risk, collateral risk and liquidity management. The numbers a portfolio manager or CRO in a multi-strategy or macro fund need are very different to what investors want, so it is very important to understand clearly what outputs you expect and how they will be used both internally and externally. We see a lot of variation in risk needs across the industry so it's important to check your vendor can provide all the outputs you require. If you have a separate risk solution you need to consider the data mapping from your PMS or OMS to this system and how you handle OTC products or missing data/fields to ensure you are analysing the risk on your whole portfolio, not just the data that managed to pass through!

At this point you may already have a pre-trade compliance tool but post-trade compliance is still the more common in the industry and investors expect you to be able to show you track and prevent limits being breached by trader, asset class, country, counterparty, position size etc. Again, this may be part of your PMS or risk solution, or it may be separate

The final common area of discussion is around shadow NAV or at least having a way to keep an eye on your Administrator's numbers. In the US it is common to have a full accounting solution such as VPM or Geneva but in Asia and Europe it is more common to perform shadow NAV using your PMS. In this model you bring in the fees, accruals etc from your Administrator and combine them to get a rough NAV. Some funds rely solely on their Administrator's numbers but for the more sophisticated strategies it is common to see funds at least roughly tracking NAV if not performing full double entry accounting. Again, it comes down to your strategy and needs

As more and more funds looks to outsource non-core skills this means your relationship with your systems vendor becomes more important and they will often provide advice, customisation, and on-going support as your business develops. We are seeing more and more funds look for a hosted solution so they don't need to invest in hardware and its on-going maintenance, as well as the BCP (business continuity planning) costs but it's worth considering data security, performance and customisation of such solutions

### 10 QUESTIONS TO ASK YOUR VENDOR

- Does your system cover all our asset class needs today and for where we plan to be in 3 years?
- Is your solution designed for Asian markets e.g. how do you handle NDFs, equity/portfolio swaps and say convertible asset swaps?
- Can you provide a hosted solution? Is it SSAE 16 Type II (formerly known as SAS 70)? What if I decide I want to go in-house in the future?
- How open is your system? Can I change assumptions, integrate my own models, add my own columns?
- Can you meet my trading and investor risk requirements such as real-time Greeks, what-if analysis, historical scenarios, VaR? Can you provide simulation and factor based risk?
- What interfaces do you already have in place to other systems and service providers? Will I have to pay for something new? Who maintains the interfaces?
- Can you advise us on the whole systems infrastructure and how do you work with partners to fill areas you don't support?
- Do I have to pay for new releases and how easy it is to upgrade?
- What is your regional support commitment in terms of people, working hours, location and language skills?
- Most vendors are headquartered in the US or Europe. How can we be sure you are committed to Asia?

When it comes to your technology choices talk to a few of the leading regional players, your prime brokerage consulting team and ask lots of questions. Hopefully you'll then end up with an infrastructure that meets your needs today and can scale as your business grows

### WHAT'S NEXT?

Once you have your operational infrastructure in place you may consider other areas in which technology can potentially save you time and improve efficiency. This includes CRM (customer relationship management) systems to help your IR team such as PerTrac or Salesforce.com. Research aggregation tools are also popular in bigger funds to help with ideas tracking and tools such as Tamale may be used as part of a knowledge management strategy. Finally some of the larger firms that have a variety of systems are looking to create "golden source" data copies across the firms and to that ends may build or source a data warehouse combining a centralised security master

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## Choosing an appropriate technology solution

### TYPICAL TECHNOLOGY CHALLENGES AND DECISIONS FACING NEW START-UP ENTITIES

pts|consulting®
World class. Local knowledge.
Patrick O'Reilly – PTS Consulting Hong Kong

Whether you are planning a new start-up or you are an established fund that is undergoing rapid growth and expansion, technology solutions can be daunting and expensive. Without appropriate consideration to business requirements, now and in the future, planning, procuring and implementing appropriate technology solutions, makes managing a multi-m dollar fund look easy!

### THE SCENARIO

A proprietary desk spin-out /breakaway of an established operating business entity of a global investment bank, to create a new start-up hedge fund.

### SUMMARY OF MAIN CHALLENGES AND DECISIONS FACING A NEW START-UP

- Office premise selection
- IT equipment room size and location
- Technology selection and deployment
- Application and software licensing
- Other inter-entity considerations

The article is written from the point of view, of a new start-up entity, that is breaking away from a larger 'parent' entity, examines some of the Infrastructure Technology (IT) challenges and decisions that a new start-up hedge fund needs to consider, to ensure 'Day 1' operations commence smoothly and operate reliably. (The key challenges and takeaways can equally be applied to a brand new hedge fund start-up entity)

### KEY TAKE-AWAY

The author recommends involving your IT consultant at the earliest possible stages of the building selection process, IT equipment room location and specifications and overall planning through to discussions with Audit, Compliance and Regulators, to ensure a successful 'breakaway' and smooth 'Day 1' operations

- **Office premise facilities**; power, cooling, telecoms, data cabling and IT equipment room
  In considering office premises for your new start-up, probably the most important IT related question to ask is Can your business operate without technology in the event of a power or cooling failure?
  - **Power** Premium real-estate, typically only in Central Business District (CBD) locations, may offer what is known as 'essential power' to tenants, but many buildings will not. Essential power is an emergency back-up system, utilizing generators and batteries; this will automatically 'kick in' when there is a city mains power failure. Even if your building of choice offers this, you will still need to negotiate with the land-lord to ascertain that there is sufficient remaining capacity for your requirements and then have it installed to your IT equipment room, which can be a very costly and time consuming exercise. If the building and/or landlord cannot meet your essential power requirements, another option is to install battery backed Uninterruptible Power Supply (UPS) systems for critical IT equipment and even critical desk positions
  - **Cooling** Typical landlord supplied 'base-building' air conditioning is only available for 10-11 hours a day, perhaps 5 to 5.5 days per week. Therefore tenants should negotiate extended operating hours for the cooling of IT equipment rooms and critical desk positions if required, or install a dedicated air conditioning system. Again, depending on

requirements, additional air-conditioning can involve lengthy negotiation with the landlord, other tenants and even the statutory Government buildings approvals department AND can be another expensive option that has not been planned for

- **Telecoms provisioning** Many buildings only have a single incoming telecoms ‘riser’ available for tenant’s use, to install incoming cabling for telephony, Internet and Wide Area Network (WAN) circuits. Depending on the age of the building and occupancy rate, riser capacity may be limited and may limit available options; EG fiber vs. copper, choice of telecoms carriers, bandwidth limitations etcetera and may impact installation lead times; 2-4 weeks is common and 6-10 weeks not uncommon, depending on the required service and landlord negotiations.
- **Data cabling** Modern offices and their technology installations cannot function without the underlying back-bone of structured data cabling. This is an aspect often overlooked and needs to be considered in the earliest design planning stages. This is one area where you really need to consult with a qualified IT cabling design expert, to ensure you have a ‘concept design’ of what your cabling requirements will be
  - How much cabling is required? How many PC’s and printers will be deployed? Will you require wireless (Wi-Fi) capability? Too little limits expansion options and is costly to retro-fit (if at all possible) and too much may end up wasting money. Two to four data connections per desk are a typical installation for most financial office environments, with perhaps six to eight connections for ‘heavy’ trading positions
  - Once you’ve decided on the amount of cabling, the next potential problem is installation. Does your new office have a raised floor that allows for easy access to install cables? If not, quite often the cabling will have to run through the false ceiling, which introduces other potential obstacles
  - Your IT consultant can advise you on what is the best installation for your needs. Careful planning for today’s requirements, with consideration for tomorrow’s expansion, will save money on the initial fit-out as well as minimizing future expansion expense
  - You should also ensure that your fit-out contractor /designer works closely with your IT consultant /cabling consultant, to ensure that all data cabling is laid in the correct sequence to ensure no impact to overall project schedule. EG Under floor cabling must be installed before carpets are laid and furniture is installed.

It sounds like common sense, but still requires multiple parties and contractors to coordinate closely together for even the smallest of new office fit-out projects

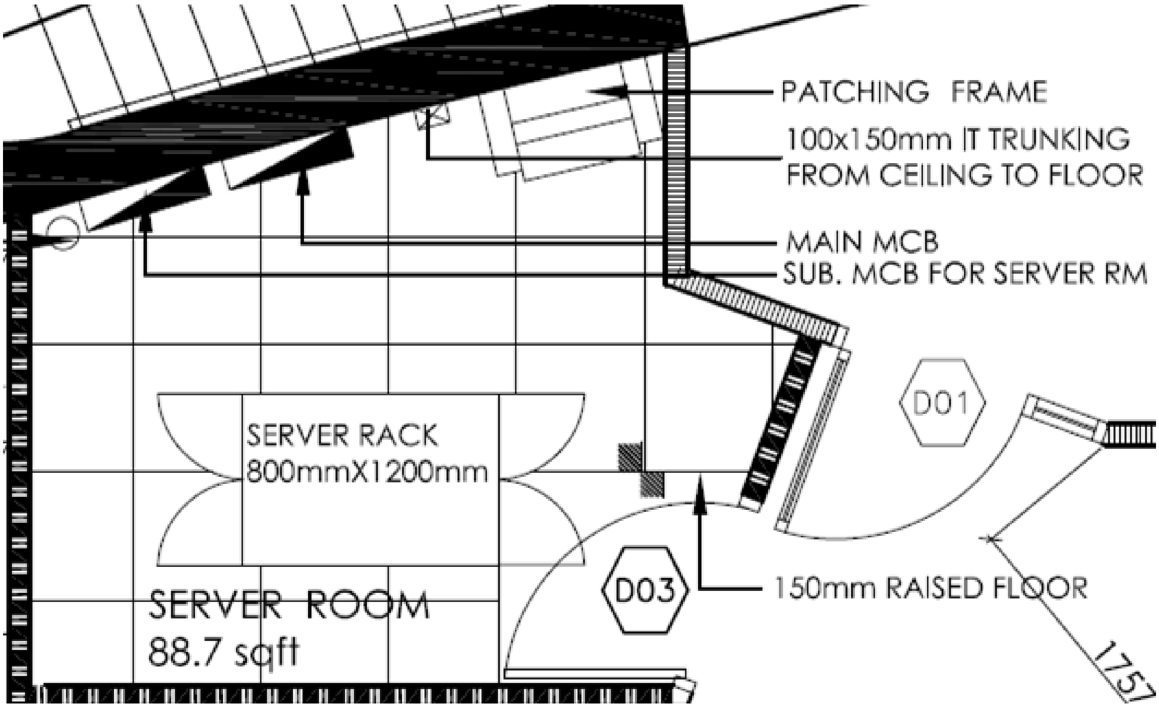
- **IT equipment room** How large should it be, where will it be located? What type of power and cooling is required? Will the main office host the primary IT equipment room, or will it be hosted elsewhere? In today’s market, there are several options to consider when it comes to deciding where to ‘host’ your critical IT infrastructure

  However, regardless of the location of your main IT equipment room, one critical point often overlooked, is that every office, regardless of size, requires some form of IT equipment room, whether it’s a full blown data centre, a medium to small IT server room or a small ‘comms’ closet for basic connectivity. Either way, it requires consideration and planning. Due to the potential complexity of this topic, we will discuss it separately in the next section

- **IT equipment room size and location**
  - **Size of the IT equipment room** Even a relatively small start-up of less than 10 staff, could require at least 1 to 2 racks of critical IT infrastructure. Best practices suggest allowing approximately 3 square metres of space for each equipment rack, therefore just a single rack installation will require at around 4 to 5 square metres of efficiently designed space, that allows full access to the rack in order to install and maintain the IT and telecommunications equipment housed within. In conjunction with your IT consultant, you need to carefully consider how much infrastructure you will require to be housed. Some examples
    - Basic office network connectivity for less than 10 staff can require up to 50% of a rack for the network switches and patching panels
    - A 'standard' telephony solution will require around 15% of an equipment rack
    - If you require a 'trading turret' solution, you should allow 25% of a rack just for this
    - A voice recording solution (if required) will require another 10%
    - Telecoms carriers will require perhaps another 25% of a rack for their connectivity requirements, such as internet, voice and data lines etcetera
    - Minimal server requirements (2 physical servers), for email, file servers and data storage could require 10% to 20% of a rack
    - If you require exchange connectivity, depending on the complexity and nature of your requirements, you could see half to one racks allocated to this function
    - If you require data network connectivity to another firm, such as; the breakaway 'parent' or overseas offices of your company, you should allow another 25% of a rack for the metropolitan and wide area network connectivity requirements

The above examples could require up to 2 full equipment racks, taking between 8 to 10 square metres of space! Not to mention the power and cooling requirements. How big is your new office?

**Diagram 1** Shows a single cabinet IT equipment room for a hedge fund start-up



- **Location of the IT equipment room** Once you have a reasonable understanding of the amount of equipment that will be housed in your IT equipment room, the second thing to consider is; where will you locate the IT room? As mentioned earlier, there are several options to consider when deciding on where to place your critical IT equipment
  - Within your main office location As previously mentioned, regardless of the size of your office or the final decision on where to house your critical IT equipment, every office requires some form of IT equipment room, if for nothing more than basic connectivity to the outside world. Therefore a common approach is to build sufficient space within the new office to cater for all IT requirements. Space planning with your fit-out contractor or interior designer and your IT consultant is crucial at the earliest planning stage. Influencing factors to consider; location of incoming telecoms risers, access by IT engineers and vendors, noise and placement of other services. For example, best practice suggests you do not want your IT room beneath potential water leaks; who is the tenant above? Where are the water pipes running? Nor do you want your IT room near client meeting areas or executive offices
    - Possible benefits of locating your IT room in the main office can include
      - Potentially lower costs by maintaining only one physical location
      - Easier access by IT support staff
      - Reduces the number of vendors and associated contracts required in the start-up phase
    - The potential downsides can include
      - Reduces the amount of space available for office functions and therefore staff numbers. This in turn can hinder future expansion when your start-up takes off
      - Increased start-up costs for the office fit-out; if you require additional power and cooling as discussed in point 1 above, this can be a costly and lengthy exercise
      - Increased operational risk by ‘having all your eggs in one basket’; best practices suggest that critical IT equipment and business functions are separate, so that in the event of a disaster occurring in the business office, you can recover quickly from another location or even from home if required
  - Another increasingly popular option to consider when deciding where to house the majority of your critical IT equipment, is within an off-site co-location data centre (ODC), run by a Managed Services Provider (MSP). All major cities in Asia have many vendors offering these types of services. Basically, you sign a contract with the MSP for the amount of space /racks required and the estimated amount of electricity /cooling your IT equipment will require to operate. The contract period can vary from a monthly roll-over to a multi-year agreement and usually the vendor can offer other ‘value add’ services, such as technical support, equipment installations and maintenance and back-up services
    - Possible benefits of choosing an ODC provider can include
      - Minimizes the amount of ‘prime’ real estate office space required to house IT
      - Maximizes the amount of office space available for office functions and staff
      - Potentially reduces the initial office fit-out costs by reducing the need for dedicated power and cooling for the office IT equipment room
      - Removes the reliance on the business office for housing the IT, therefore increasing flexibility if your business expands significantly and you need to take on additional office premises, you don’t have to worry about the complicated task of relocating your critical IT equipment
      - Reduces operational risk by separating critical IT from your business functions, therefore in the event of a disaster at the office, you may still be able to perform business functions from an alternate location
      - The ODC MSP can supply vital IT support functions if required, which in turns reduces your IT staff requirements

- Potential downsides of choosing an ODC provider could be
  - Increased operational costs; co-location facilities can be expensive, with prices (in Hong Kong) ranging from HKD$14,000 to HKD$22,000 per month for a single IT equipment cabinet, supplied with ~3 kilowatts (kW) of power and cooling (In a typical installation described in point 2A above, one cabinet can require between 1.5kW to 3.5kW of power and cooling)
  - Increased operational costs; if you choose to utilize an ODC, effectively you're adding another location to your business operations and you will require at least one, preferably two (for resilience), Metropolitan Area Network (MAN) connections between your business office and the ODC. Typically this could run to around HKD$10,000 per month
  - Potentially increases operational risk; by placing all of your critical IT equipment at another location, you are reliant upon the MAN connection for all IT services, from email to internet, to trading functions. Hence the recommendation in point b above for dual MAN links for resilience
  - Potentially decreased IT support service levels; if all your equipment is at an ODC and your IT engineers have to travel to resolve problems, it could increase time to resolve issues

In light of the issues raised and points discussed in sections above, PTS recommends involving your IT consultant in the building selection process and IT equipment room location, from the earliest possible stage

- **Technology selection and deployment**

Physically owned, or 'cloud hosted', network cabling, equipment cabinets, telecoms, network equipment, servers, voice systems, desktop equipment, remote access, etcetera

Once the office premises and IT equipment room locations have been resolved, the next stage of technology deployment at your new start-up will most likely be in considering what technology platforms you will be deploying and how they will be deployed. Historically, firms have bought and installed their own dedicated IT infrastructure. Another option that has been available for a few years, but is now becoming more main stream is deployment of 'cloud' based services

- Let's discuss 'The Cloud'

Cloud services are simply the next logical evolution of the internet. Whether you realize it or not, you are almost certainly using cloud computing today. Accessing web based email such as Hotmail, Yahoo or Google Mail, is the most likely way people are using 'the cloud'. You don't care where the IT 'heavy iron' is located; all you care about is being able to access your email, when you want, no matter where you are.

Large corporations have deployed 'private' cloud computing for years; it's just probably not thought of that way. For example; the corporate email system is probably in a large data centre in another country, but you can access it from pretty much anywhere

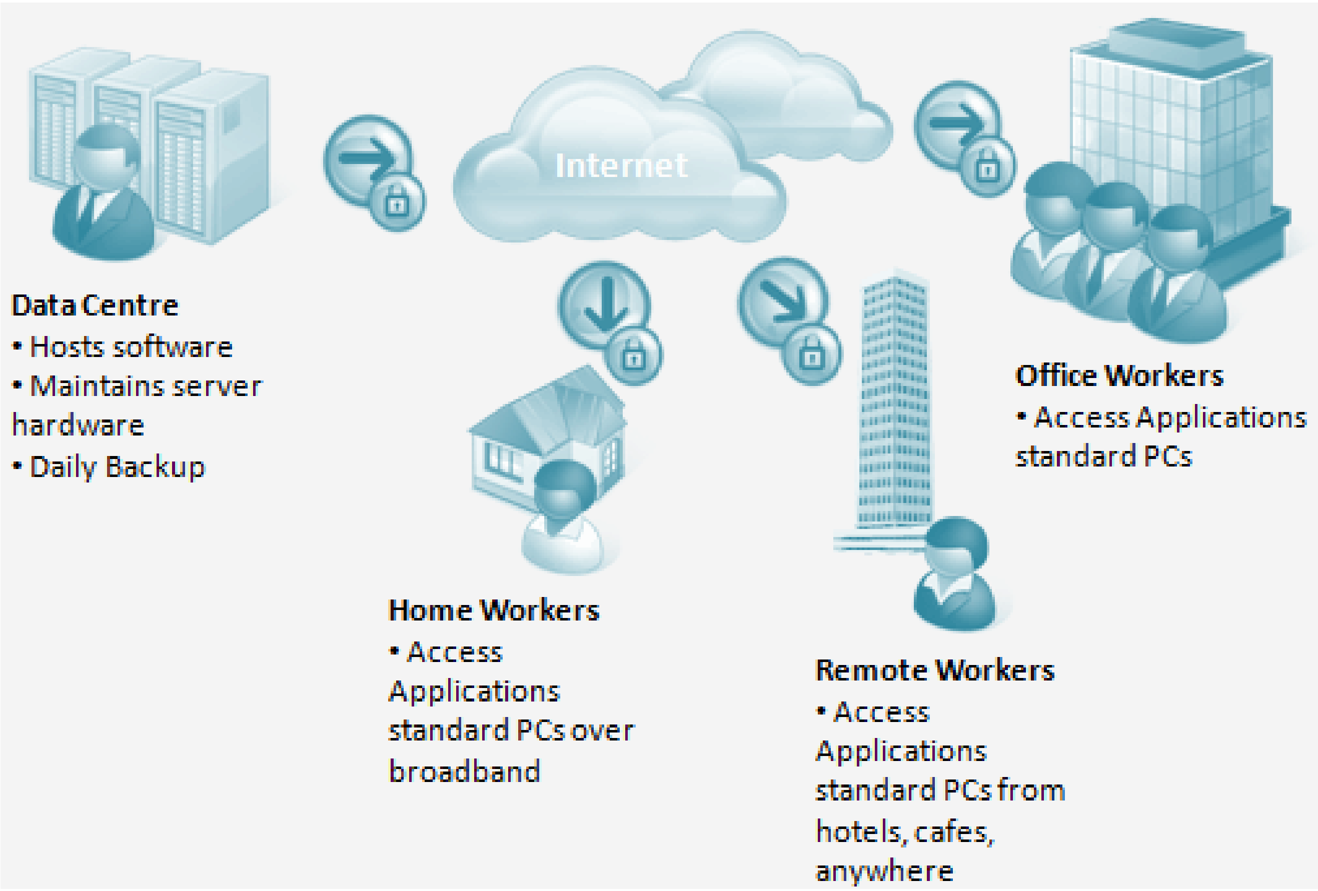
Cloud Hosted business applications and services are now becoming more mainstream and can be considered similar to the Off-site Data Centre (ODC) /Managed Services Provider (MSP) model discussed earlier. Put simply, you decide what IT services and applications you require and you rent them on a monthly basis. Note that not all required applications can be hosted in a 'cloud' and it may not be right for your business model, which is why you should always discuss requirements with your IT department or Consultant first

- Some benefits of 'The Cloud'
  - Reduces expensive IT capital costs
  - Reduces the requirements for IT support staff and maintenance contracts
  - flexibility to scale up and down as required; just like turning the faucet for your water, you can consume as much or as little as required, contractual terms notwithstanding of course
  - Allows rapid deployment of new applications and services
  - Can provide better resilience than in-house solutions

- Reduces the requirements for the IT equipment room we discussed earlier
- Some down side of 'The Cloud'
  - Reliability of services is only as good as the Cloud services provider. There have been various embarrassing instances of cloud outages over the last couple of years, which in some people's eyes, placed a dark cloud, over cloud computing (pun intended)
  - Loss of control; possibly no way to influence maintenance levels and restoration of services in the event of problems
  - potentially reduce application flexibility, as one size may not fit all; if kept 'in-house', applications can be customized to your specific requirements
  - Security & privacy; not all firms and users may be comfortable with handing over all their business critical and client confidential data to third party

*Note that even if you decide to deploy cloud computing for all or some of your IT and application requirements, you will still have to procure and install some IT equipment. We discuss this in the next section.*

**Diagram 2 Shows a typical cloud computing infrastructure**




- **Deploying your own IT solutions**

  Whether you're a new start-up or a breakaway entity, if you've decided that using 'The Cloud' for all or some of your business requirements is not the right IT deployment model for you, you will have to procure and install your own IT equipment

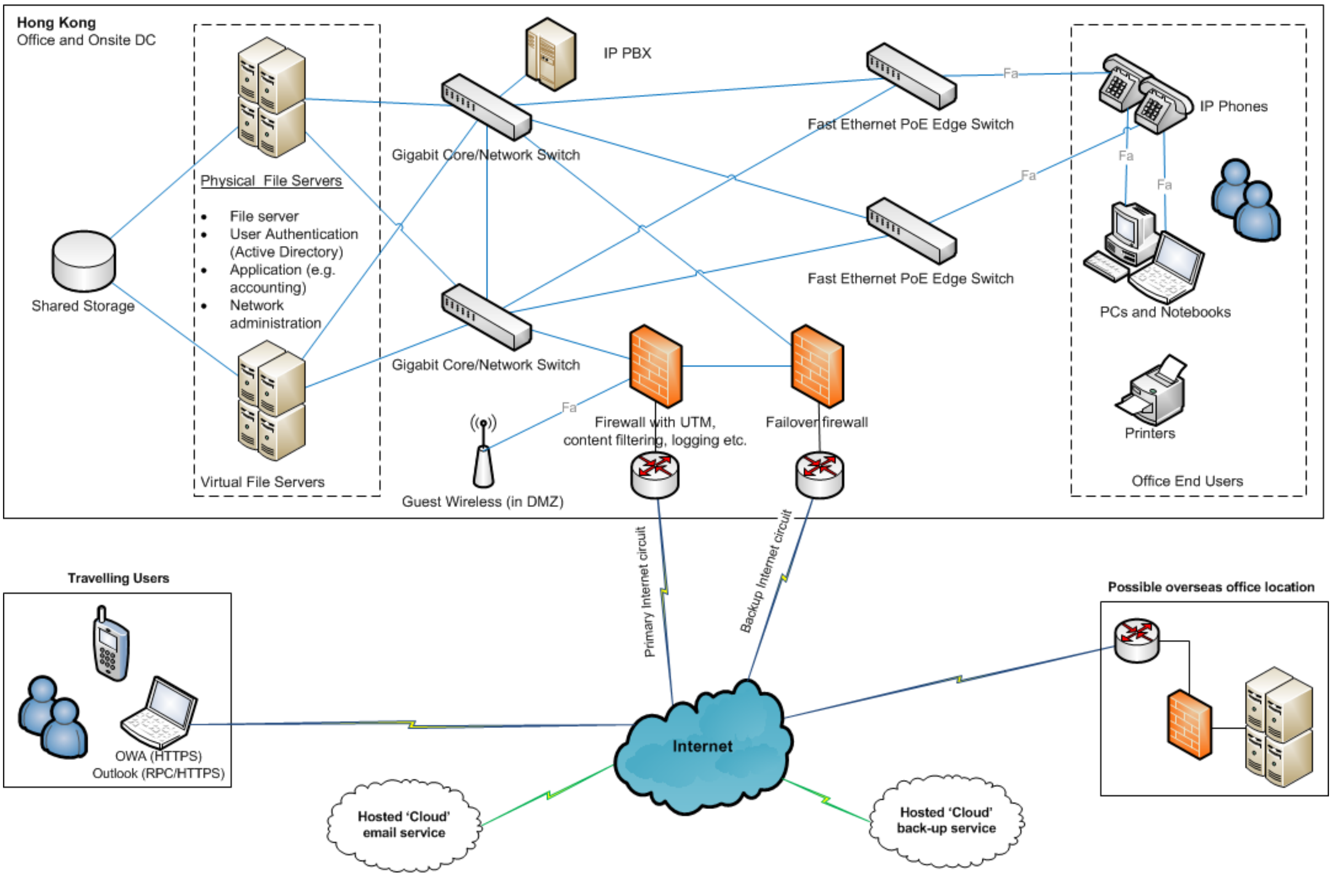
Typically new start-ups will buy all new, latest generation equipment. However, if budget is a concern, there are many IT equipment vendors that sell refurbished equipment, usually with the original manufacturer's warranty, at a considerable discount to the new price

As a breakaway, depending on the nature of the entity and agreements with the parent entity, you may be reusing existing technology, procured /relocated from the parent entity, you may already have a set of standards drawn up by your entities 'head office' or you may be faced with having to decide on and procure everything from scratch

This article will assume a clean slate and everything is selected and procured new. Starting 'at the bottom' the following decisions will have to be made on equipment and vendor selection

- Network structured cabling (SCS); in section 1.d above, we touched on the amount of data cabling required. Once the basic quantities are known, the next choice is the manufacturer and installation vendor.
  - In this regard, SCS is pretty much a commodity and as long as the manufacturer's cables and connectors meets the relevant industry standards (ANSI/TIA/EIA-568-B.2-10) and the installation vendor is reputable and qualified by the manufacturer, the main considerations are; time to procure, time to install and final cost. From purchase order issuance to final completion, allow 4 to 8 weeks depending on the size of the project
- IT equipment cabinets; again, these are very much a commodity item and the main points to consider are time to procure, time to install and final cost. Often these are manufactured to order, so allow 3 to 4 weeks
- Telecoms provisioning; depending on your location, you will have multiple vendors to choose from to deliver the required network connectivity, such as; data, voice, internet, exchange connectivity and Bloomberg to name a few common ones
  - Some services dictate that you use a certain telecoms provider, so a factor to consider here is if that provider can easily commission the service in your building; don't always assume this to be the case!
  - In any event, it is wise to try and split your incoming services across multiple vendors to ensure as much resilience as possible. For example, at minimum have your data circuits provided by a different telecom carrier to your voice and internet circuits
  - Allow 2 to 4 weeks for most in-city/in-country telecom services and up to 8 weeks (or more) for international services
- Network equipment; the most common name people are familiar with, when it comes to network equipment is Cisco. Other vendors include; Huawei, Juniper, Foundry and even HP and DELL to name a few. The biggest choice you may be faced with, depending on the complexity of your business operations, is how much resilience you require and what type of services you expect to deploy over your network, such as Voice over IP (VoIP), WiFi, video conferencing etcetera. All those mentioned vendor's equipment can provide all these services and more. There are too many variables to be considered in selecting the vendor, quantity and type of network equipment that is right for you in this article, so unless you know exactly what you require, you should really consult with a qualified IT consultant or vendor, to help decide what solution is right for you
  - Allow 4 to 6 weeks for delivery of most vendors equipment and perhaps another week, depending on network complexity, to install, configure and test the final network deployment

**Diagram 3 Shows a typical network infrastructure deployment, for a start-up business of around 10 to 15 users, combining local office and cloud based solutions**




- Server equipment; most companies choose to use servers from either HP or DELL. The biggest choice you may be faced with, depending on the complexity of your business operations, is how much resilience you require and will you use 'physical' or 'virtual' servers? There are too many variables to be considered in selecting the quantity and type of servers to cover in this article, so unless you know exactly what you require, you should really consult with a qualified IT consultant, to help decide what solution is right for you
  - Allow 4 to 6 weeks for delivery of HP or DELL servers and another 2 to 3 days, depending on application, to install, configure and test each server
- Voice Telephony systems; possibly the biggest decision to make when choosing a voice solution, is do you require a trading turret system, as used on typical bank dealing room floors and/or voice recording capabilities? Turret solutions can be very expensive and probably exceed the budget of a typical start-up and aside from being very expensive, in PTS' experience, most people can perform all required business functions, with a modern TCP/IP telephone solution from companies such as Cisco or Avaya
  - Allow 4 to 8 weeks to procure, install, configure and test a small office telephony solution
- Desktop PC's; again, PC's these days are very much a commodity item and aside from cost and time to deliver, the main thing to consider is the warranty and maintenance service offered by the vendor. The main-stream vendors such as; HP, DELL, Lenovo and Apple will offer extended warranties and on-site repair service if required. Another option is to buy one or two 'spare' systems that can be used in the event of an outage
  - One option to consider is to deploy notebook systems, with a docking station, external monitor, keyboard and mouse, instead of a standard desktop PC

    - Advantages are; facilitates remote access
    - Disadvantages are; slightly more expensive, risk of loss or theft
  - Multi-function printing devices (MFD's); most people are used to these and are the most convenient way to go. All the major manufacturers, such as Canon, Xerox and HP offer attractive leasing deals, which can include all maintenance and consumables. Possibly the only choice to be made is do you require smaller stand-alone printers for senior managers or sensitive functions like Audit and HR?
  - Remote access and mobile devices; these days it is pretty much expected by employees that they will be able to access at minimum company email on any device from anywhere. The main choice facing all companies in this regard is whether to enforce a standard, such as Blackberry or iPhone, or allowing any employee to use any device they want. Another consideration is whether or not to allow remote access to other company resources, such as file servers and databases
    - These choices will have to be made in consultation with your Audit or Compliance function (if available) and will probably be best made on a case by case basis

- **Applications, software licensing** and data ownership/transfer

  This is one area where many start-ups, both new entities and breakaways run into problems. If you're forming a breakaway, whilst at the 'parent' company, your employees had access to all of the corporate applications, databases and the data they were entitled to access. Whatever your situation, when you are within your new entity, questions you will face can include; what software applications and systems will you use, how many licences are required, which data base systems are required, will you be transferring data to and from the parent entity or other counter-parties?

  - Some of the issues PTS has encountered
    - An assumption that the new entity is entitled to use the software licences of the parent. Even if the new entity is a partial subsidiary of the parent, many enterprise software agreements do not allow the transfer of licences between entities. This can be a significant unplanned expense.
    - Another factor to consider; are you transferring (say) data base information from the parent to the new entity? If so, this may dictate a lot of your software choices. For example, if you used Oracle databases at the parent, you might find it difficult to convert to say Sybase or SalesForce.
    - Another common example, which can create a lot of problems, is migrating from Lotus Notes work-flow and email, to MS Exchange and SharePoint.
    - Transference of required data; It is often underestimated how much data companies, departments and individuals store on company file servers. Quite often the people using the data don't even know where it is stored; when asked where their critical client data is, an employee will usually say "On the 'D' drive". Rarely will they say "It's on UNIX server HK1\Client info\Client 1\M&A" (for example)
      - The assumption is that the parent's IT department will know exactly where all data is and who requires it. This is rarely the case.
      - It can be a reasonable size project in its own right, just to identify what data is required, where it is stored and determine the most appropriate method to retrieve and transfer it

- **Other inter-entity considerations**

  Whether you're a new start-up or a breakaway entity, all financial services firms are subject to varying levels of regulatory scrutiny, depending on the country of incorporation and the business model being operated.

  If you are a new start-up, one area to be especially mindful of, is any type of restrictive covenant your employees may be under from their previous employers. These are quite common in senior front office staff employment contracts. A restrictive covenant is a clause in an employment contract which **prohibits an employee from competing** with his ex-employer after the employee has parted company with the business, or **prevents the ex-employee from soliciting or dealing with customers** of the business by using knowledge of those customers gained during his prior employment.

There have been several high profile cases in recent years, where Regulators (notably in Singapore and Hong Kong) have pressed criminal charges against firms and staff for inappropriate use of previous employer's confidential client data

If on the other hand, you are setting up a breakaway entity, depending on the nature of the breakaway and the contractual obligations between entities, the breakaway may continue to access systems and data from the parent for some time

How is this achieved? What technology solution is required to facilitate this? What internal and external Audit, Compliance, IT Security and Regulatory issues need to be identified and addressed before any inter-connection can take place?

An example PTS is aware of, is of the 'breakaway date' being pushed back by six months, in order to address Compliance and Regulatory concerns! It will be a worthwhile investment, to seek advice from an independent Consulting firm, experienced with these types of situations

Finally; planning your new start-up and/or breakaway brings with it many challenges and decisions that require careful consideration, obviously not just in regard to the various IT aspects we've covered in this article, but other aspects, both IT and non-IT, that are often overlooked, in the case of breakaways, primarily through an assumption that the parent entities' IT department will handle all these aspects. This is often not the case

Note that none of the issues or challenges high-lighted in this article is insurmountable, but it is the hope of the author, that the reader now has a better understanding of the types of technology challenges to consider when planning a new entity breakaway or start-up. PTS again recommend that an experienced IT consultant is bought on board at the earliest stage, to help in identifying challenges and advising on solutions to overcome them

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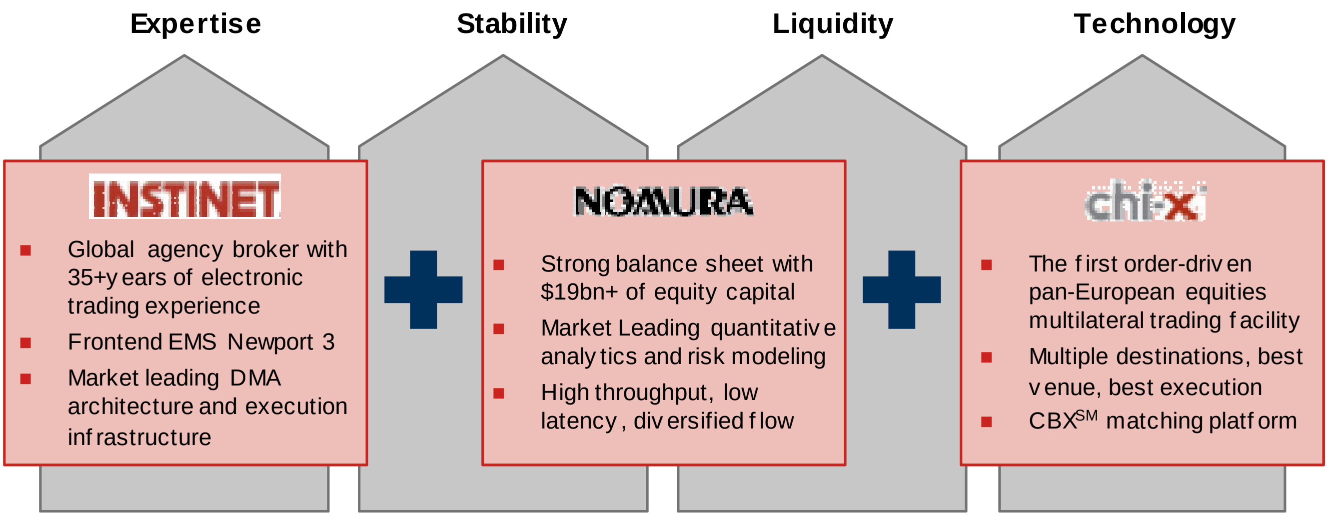
# Nomura Trading and Analytics Platform

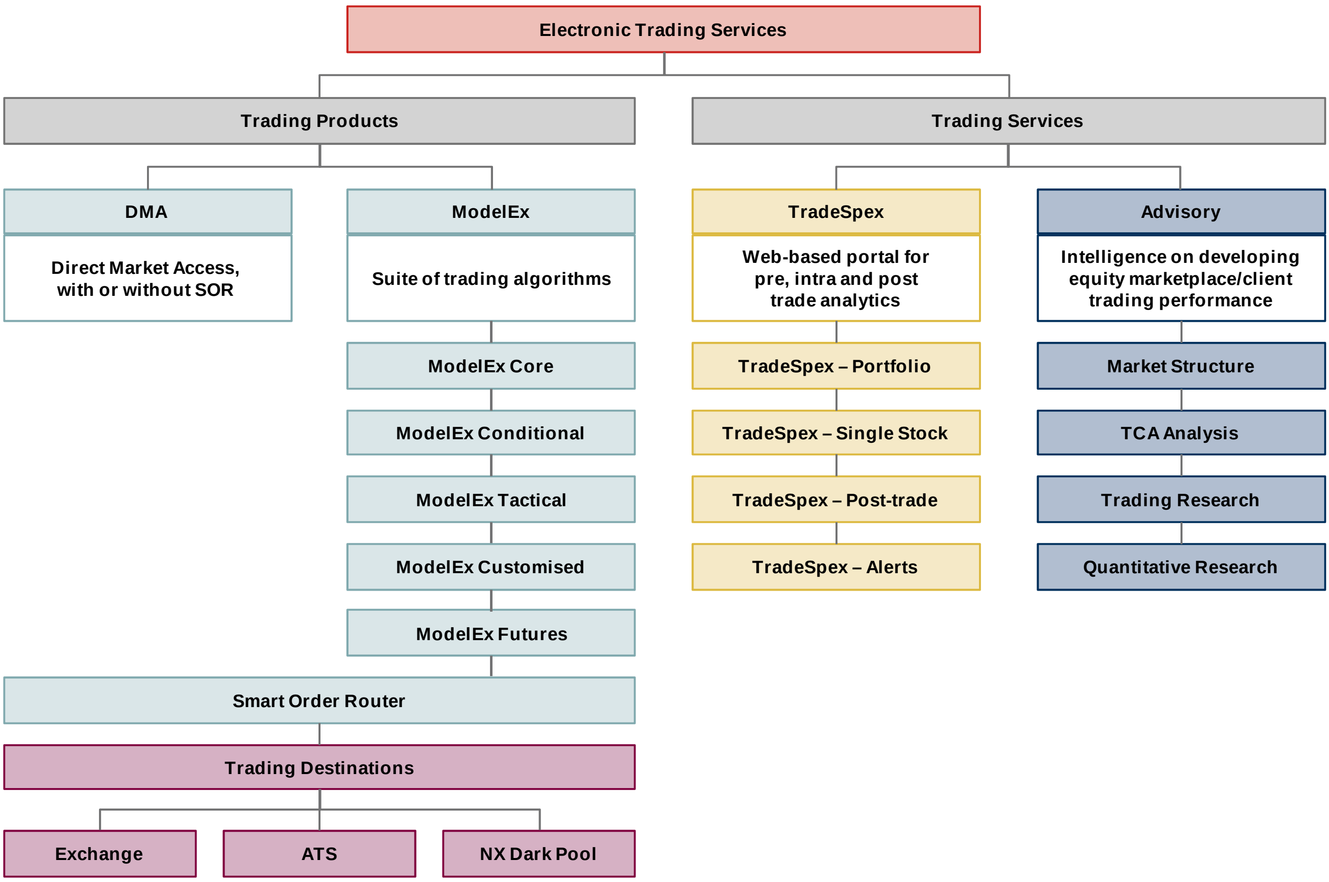
## Nomura Technology

### NOMURA LIQUID MARKET ELECTRONIC TRADING FOOTPRINT

Nomura's global liquidity centre combines the best of Nomura, Instinet and Chi-X, placing Nomura in a unique position to lead the next generation of global electronic execution.




### ELECTRONIC TRADING SERVICES



## DIRECT MARKET ACCESS

DMA offers robust, high-speed access to exchanges globally. It leverages upon Nomura's extensive statistical arbitrage client infrastructure and provides advanced risk monitoring and alerting systems. The anonymous trading capability provided by DMA reduces information leakage and market impact.

### Key Points

- High throughput platforms providing DMA to all major global exchanges through a single point of access
- Pre and post trade risk management – client profile entitlements around order size, markets, order types, etc.
- Dedicated service and transition team providing real-time resolution of trading and technology issue
- Smart DMA available for HK

## SMART DMA

### Intelligent order handling method that enhances DMA-style trading through use of an algorithmic engine

- Execution – Smart DMA navigates the market micro-structure to increase order acceptance rate and execution performance (e.g., Accepts orders from 0600–1600 in Hong Kong; queues orders pre-opening, during blocking period and lunch break )
- Consistency – Offers Nomura's clients a consistent trading experience across all destinations, including simulated order types, odd-lot handling, order splitting and queuing, where not natively supported by the exchange
- Strategy – Enables advanced order types and broader FIX support, including Reserve, Discretion, Pegged, and Stop orders
- Liquidity – Provides dynamic access to internal and external liquidity sources including the planned NX dark pool, via Smart Order Routing

## MODELEX™

### Innovative, comprehensive and customizable platform for algorithmic trading

**ModelEx**

| Core | Conditional | Tactical |
|---|---|---|
| ▪ Profile based trading strategies<br>– VWAP<br>– WAP<br>– With Volume<br>– IS (Implementation Shortfall) | ▪ Trigger-based liquidity seeking strategies<br>– Step<br>– Relative Step<br>– Aggressive Step<br>– Work and Pounce | ▪ Profile based trading strategies<br>– Reload<br>– Float<br>– Hide and Pounce<br>– Float and Pounce |

**Custom strategies can be developed incorporating any aspect of the above models, based on a range of trigger conditions**

## NOMURA DARK POOL ( NX™ )

### Nomura's Anonymous Crossing Network

### Complete product coverage

**Market Coverage**

- Tokyo Stock Exchange (TSE)
- Osaka Stock Exchange (OSE)
- JASDAQ
- Hong Kong Stock Exchange (HKEX)

**Consolidated Order Flow**

- Single Stock Worked Orders
- Program Trading
- Electronic Trading Services
- Principal Trading


### Significant cost savings[1]

**NX Japan**

Average Cost Saving 13.9 bps!

**NX Hong Kong**

Average Cost Saving 7.7 bps!

1. *Average Cost Savings dating from June to October 2010*

### Innovative algorithm trading interactions

**ModelEx™**

- ModelEx simultaneously posts liquidity in NX and the market. As algorithms post slices of an order in the market, unexecuted quantity is available for crossing in NX within the bid-ask spread

**SmartDMA**

- SmartDMA sweeps NX for available liquidity within a limit price using Immediate or Cancel (IOC) orders before routing the remaining quantity to external trading venues

**SmartDark**

- SmartDark posts directly in NX and provides clients with the ability to float the entire quantity into the dark pool or to gradually release slices of the order over its duration

### Key benefits

- Market Standard Crossing: NX will function as an automated match identifier that will electronically send order pairs to be crossed by the exchange-provided crossing systems; TOSTNET, JNET, HKEX
- Price Improvement: NX will cross orders within the bid-ask spread published on the primary exchange
- Smaller Tick Sizes: NX will post at f ractional tick sizes as well as mid-quotes
- Multiple Streams of Liquidity: NX will provide clients with a central pool of liquidity formed by Nomura's agency and principal order f low
- Anonymity: Orders in NX will not be displayed externally or internally, allowing NX participants to place orders without revealing information, thereby minimizing market impact

## SMART ORDER ROUTING (SOR)

Advanced smart routing logic underpins Nomura's execution technology to enhance the overall trading performance. SOR optimizes execution quality by aggressively sweeping liquidity from dark venues and both sweeping and posting liquidity to lit venues

### Sequential routing process

| | |
|---|---|
| **1. IOC to Dark Venues** | ■ Before going to the exchange, Immediate or Cancel (IOC) orders will f irst sweep dark venues<br>■ Pricing will be based on the better of the best visible market price or limit price on the order<br>■ The dark venues will be swept: Nomura NX, Instinet CBX Japan, and Chi-X |
| **2. Orders to Primary Exchange** | ■ Aggressive orders will be sent to primary venues (TSE, OSE, JASDAQ) at a limit price<br>■ The market data will determine the optimal size/price to place IOC slices on the primary exchange |
| **3. Repeat Dark Sweep** | ■ If step 2 has moved the price, then repeat step 1 (IOC to Dark Venues) at the order's limit price<br>■ If step 2 has not moved the price, move on to step 4 |
| **4. Post Orders at Visible Venues** | ■ Remaining orders will be posted based on visible liquidity, filled quantities and default weighting<br>■ If price within the imit appears in other venues, liquidity posting will be adjusted accordingly to aggressively grab available liquidity |

## TRADESPEX™

TradeSpex™ is Nomura's flagship web-based suite of applications for portfolio and single stock analytics spanning pre-trade, monitoring, post-trade, risk management and portfolio optimisation. TradeSpex™ covers global equities (including ADRs), futures, ETFs, indices, and FX

### Portfolio construction

- Transaction cost aware portfolio optimization
- Optimized hedging using stocks, futures, and ETFs
- Sophisticated statistical risk models covering country, region, and global universe
- Tracking error and VaR risk analysis

### Pretrade analysis

- Liquidity analysis
- Corporate actions screening
- Market impact estimation
- Impact/Risk comparisons for different trading strategies
- Historic time-series analysis

### Post trade analysis

- T +0 and historical post trade for PT/Electronic business
- Interactive analysis on user loaded trades
- Benchmarking against pre-trade estimates, arrival price, VWAP, OHLC
- Multi-venue execution analysis, indulging price improvement measurement

### Execution monitoring

- Track PT/Electronic trades executing via PUMA
- Apply performance measurement of live trades
- Evaluate performance and outstanding opportunity risk
- Alerts based on market data and trade settings

## THE TRADESPEX™ SUITE

### TradeSpex™ Portfolio

- Global coverage of equities, ETFs, futures and FX
- Transaction cost forecasting
- Historic time-series analysis
- Hedging and risk management using a fully featured optimiser
- Real-time performance monitoring
- Detailed post-trade analysis
- Pre-trade risk bid sheets

### TradeSpex™ Single Stock

- Intraday (live) graphical summaries of volume, spread and volatility profiles
- Transaction cost and opportunity risk forecasting with optimal trade scheduling
- Identification of correlated stocks and ideal hedges

### TradeSpex™ Alerts

- Streaming alerts that deliver real-time market news and order status at desktops
- Customisable and designed to deliver market alerts related to your clients order/holdings or a custom watch list
- Intra-trade execution quality updates

### TradeSpex™ Execution Review

- Detailed forensics of program trading, Electronic and SmartDMA orders
- Execution Venue Analysis detailing trading on different exchanges and MTFs
- Persistent history of client trades

## DNA TRADER FOR FUTURES & OPTIONS

DNA Trader is a customizable order execution management system and routing tool that provides direct market access to major global F&O markets along with Nomura's algorithms, order slicing, and position management capabilities

### Key features

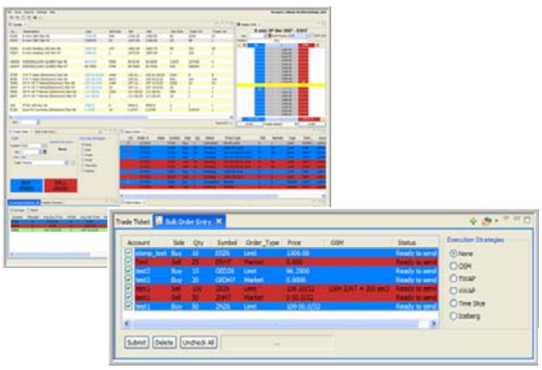
- Customizable workspace
- Real-time market data including depth of market
- Post-trade allocation rules with automatic email notification
- Comprehensive reporting, position management and P&L capabilities
- Spread-Manager for creating synthetic inter-market spreads

### Order entry

- Multiple methods of order entry to suit trading style
- VWAP and TWAP trading algorithms
- Iceberg and Time-Slice orders
- Staged and Care orders for further slicing
- Time Release and Time Cancel orders
- OCO and Contingent orders (OPO)

### Bulk order entry / spreadsheet upload

- User defined import templates
- Orders are staged here for further routing to exchanges, Nomura 24-hour executions desks or to DNA Trader's algorithmic models



## DNA ALLOCATOR BOP

DNA Trader is a customizable order execution management system and routing tool that provides direct market access along with Nomura's algorithms, order slicing, and position management capabilities

### Trade blotter

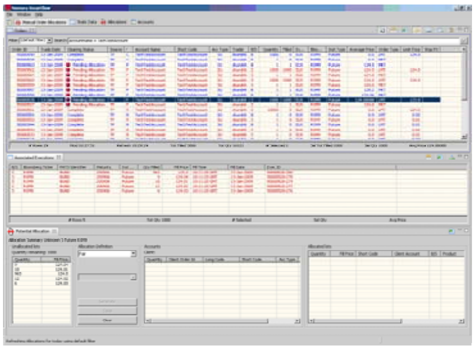
- Fully customisable workspace
- Execution & allocation shape trade confirmations
- Full range of industry symbology: including Reuters, Bloomberg, Exchange
- Advanced search and filter capabilities
- Seven years historic data search

### Post-trade allocations

- GUI, FIX or file-based allocations
- Sophisticated average pricing functionality, including fair pricing
- Grouping of orders and ability to allocate manually
- Advanced search and filter capabilities

### Reconciliations

- Trade and Position Reconciliations
- Online, email or via FTP



# Corporate Governance – Risk, Compliance, Independent Directors, and Insurance

## Prime Broker Risk and Financing perspective

**Mark Thatcher – Nomura Prime Services Risk**

Two of the key services a Prime Broker provides its clients is the provision of secured financing on various assets and security lending. In providing these services, the Prime Broker takes counterparty credit exposure to its client. Prime Brokers need to be able to assign fair value to the assets and assess and quantify the financing risk to ensure that they are adequately collateralised for this risk. From a Prime Broker's financing perspective the key risk area is the volatility of the portfolio's liquidation value

In the recent years, we have seen some extraordinary events and volatility in the market. Traditionally, Value-at-Risk ("VaR") was a primary risk measure for both Asset Managers and Prime Brokers, however there are many aspects of risk that VaR does not help quantity. Prime Brokers have been increasingly incorporating additional risk measures such as stress tests and simulations into portfolio analysis. By understanding the risk model a Prime Broker applies, a client may be able to gauge how market events will potentially impact their portfolio and consider how margin rates will be adjusted

Asset Managers should be aware of another increasingly important factor in financing the underlying fundability of the assets. The rehypothecation market used by Prime Brokers has undergone a number of changes with certain assets becoming increasing difficult to rehypothecate, thereby impacting which assets a Prime Broker is willing to finance as well as widening financing spreads and haircuts

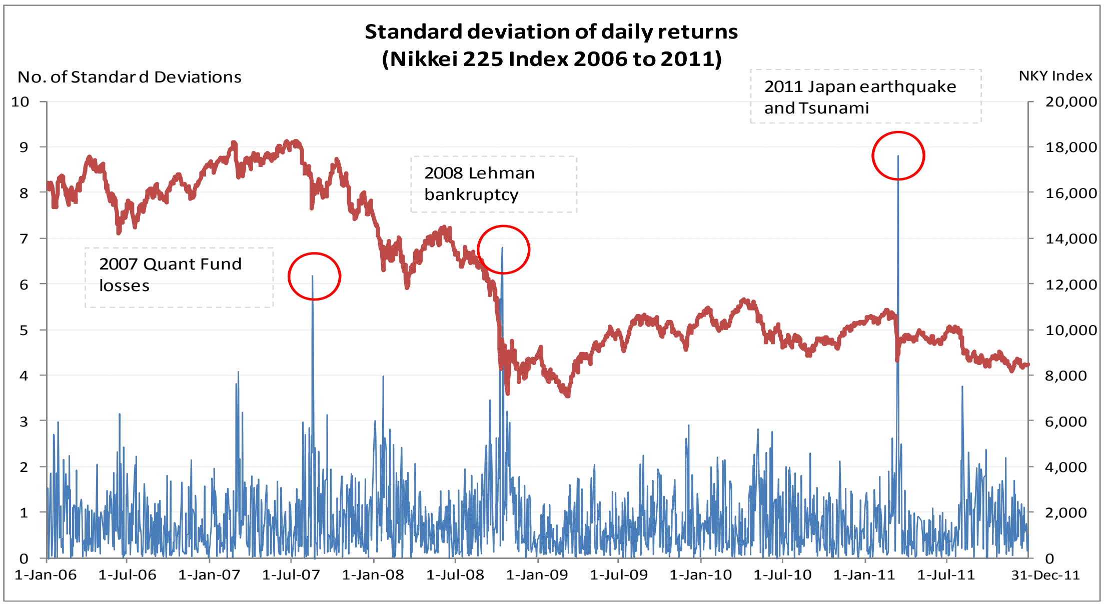
Set out below, this article will discuss the traditional view of risk and more recent trends and concerns, from the Prime Brokers perspective

### TRADITIONAL VIEW AND MEASUREMENT OF RISK

#### Value-at-Risk

Often viewed as a standalone measure, Value-at-Risk ("VaR") was widely used by Prime Brokers and Asset Managers. One of the limitations of VaR, however, is that when there is a VaR break, VaR does not give an estimate of the expected loss. This limitation was exposed during the volatile events since 2008, which resulted in a number of fat tail events

The chart below highlights the standard deviation of daily Nikkei 225 index returns over the period of 2006 to 2011 compared to the standard deviation of returns for the previous 90-days. The chart highlights the significant moves around the August 2007 Quant Fund squeeze, the September 2008 Lehman Bankruptcy and the March 2011 Japan earthquake and tsunami




In the past it was common to use traditional VaR limits ranging from a 95% to 99% loss confidence interval, which translates to a 1.65 to 2.33 standard deviation move. What the chart shows is that whilst the outlier events may be few in number, their impact can be extremely significant and would be missed using a traditional VaR standard. As a consequence, it may be more prudent to also incorporate Tail-VaR (otherwise known as Conditional VaR "CVaR" or Expected Tail Loss "ETL") in the analysis. Tail-VaR focuses on the worst market-to-market losses on the portfolio. It does not consider the single most catastrophic outcome but the expected short fall for a specified loss percentile. Comparing to standard VaR, if the standard 95% VaR is $1m , Tail-VaR provides the estimate of the loss when this standard VaR level is broken and is useful for quantifying the tail-risk. Alternatively we could just manage risk to a 6+ standard deviation level!

### Portfolio Diversification

The risk analytic models used by a Prime Broker will usually assess risk at both position level and the diversified portfolio level, and identify any concentrated risk positions. In the simplest form risk analytic techniques could be applied at the individual position level, using metrics such as position level VaR. However this ignores the asset correlations, the effect of portfolio diversification, and any hedges on the aggregate risk profile

For diversified portfolios often clients will expect some margin relief to reflect the reduced level of risk. Measuring diversification can be a complex process. Diversification can come from a number of factors such as geography, sector, and asset class in a long bias portfolio or through the asset correlations of long and short positions in a long/short strategy or market neutral strategy. In these instances the risk manager will need to consider the correlations of the assets as part of assessing the risk and diversification

Risk offset could also include hedges against specific positions and netting the risk factors, such as a Convertible Arbitrage strategy where the equity delta risk on a bond is hedged through a short position on the underlying equity, or more macro level hedging, for example through the use of short index futures against a portfolio of long equity positions.

The benefit for clients in having more diversified portfolios with Prime Brokers is that the Prime Broker can reduce margin rates or potentially use a flat portfolio margin rate, rather than financing each asset in isolation. This provides clients with the ability to allocate and use capital more efficiently

### Liquidity

A key aspect highlighted over recent years is the importance of incorporating liquidity into the risk assessment process.

When looking at liquidity, Prime Brokers utilise various market data to estimate the number of days it would take to unwind a position. For some products liquidity risk is more easily assessed, such as for listed equities where trading volume data exists. When we consider other products, such as corporate and convertible bonds or off-the-run government bonds, liquidity risk may be harder to estimate due to less available market data and more privately executed or off market transactions. However, the recent liquidity crunch does give some data points on traded bonds, including the prices at which bonds may trade in stressed markets and overall liquidity.

Using the available data and our experiences, a Prime Broker will estimate the time it could take to unwind a portfolio and specific concentrated positions and hence the liquidity risk. Application of this analysis into the risk calculations could vary from simply scaling up VaR calculations to the estimated liquidation period to more complex market impact models applying additional margin requirements for less liquid positions.

## TRENDS IN RISK MEASUREMENT

VaR is no longer viewed as the single defining measure of risk and should be complemented with other measures such as simulations and stress tests across the portfolio. A true understanding of risk enables a Prime Broker to offer more consistency in applying margin rates and methodologies to a client's portfolio, especially in times where markets show signs of stress.

### Stress Tests and Simulations

Simulations and stress scenarios can be designed to cover tail or outlier events and the potential losses in a portfolio in times of market stress. Under ordinary market conditions, if a client defaults then it may be relatively straight forward for a Prime Broker to liquidate even large portfolios in an orderly manner, such that a Prime Broker can recover financing provided and avoid incurring a loss. However, often in these stable periods it is a less common occurrence for a default to occur. Therefore it is the stress scenarios that a Prime Broker focuses on, since multiple counterparties may default at the same time. In addition, in times of stress the market may experience liquidity crunches and market participants identify concentrated trades, as investors attempt to reduce risk and move into cash holdings at the same time. In these conditions liquidating multiple and similar portfolios at once may cause further disruptions to the market and losses from the concentrated risk and liquidity exposures.

There are many ways to design stress tests, and there is no single defining stress test scenario used by the market. One could consider applying single factor shocks where factors of equity, credit and interest rate components are treated individually or applying multi-factor shocks.

Simulations can be run to recreate the impact of particular historical events on a current portfolio, such as the Asia crisis in 1997 or capturing the results of the recent Global Financial Crisis. These are designed to estimate the level of losses should market conditions display similar historical correlations. In addition, simulations could be run based on hypothetical future stress scenarios, such as hyper inflationary or double dip scenarios. Some "off-the-shelf" risk analytics software will include a number of predefined stress tests that can be run and include the ability to design new scenarios.

At Nomura we have designed our stress tests using historical data to determine the shocks that we apply to various factors. Our stress tests are also market calibrating as the market becomes more volatile, the shocks applied will recalibrate automatically. For example, one of our equity stress tests is based on the individual position's current volatility, so that as markets become more volatile the extent of the stress will adjust to reflect this. Similarly for credit shocks, the current bond credit spread is used to determine the shock applied. Our stress testing approach also incorporates portfolio diversification benefit through analysis of the correlations of the assets and the level of diversification the portfolio demonstrated over historical periods, including stressed market conditions.

Stress tests and simulations are a stronger way to identify the outlier market events and conditions that would cause the largest losses in a portfolio thereby enabling the Prime Broker to set margin rates to cover risk appropriately.

## ASSET BASED FINANCING

Another consideration in the Prime Broker space has been the de-coupling of risk and fundability. In the past, the vast majority of assets were able to be rehypothecated by Prime Brokers; financing spreads were relatively consistent across asset classes. However since the financial crisis the rehypothecation market has gone through a significant change with many counterparts becoming more focused on tiering assets into quality or liquidity buckets

In bilateral and tri-party funding facilities, the eligible collateral schedules focus on the most liquid assets; for equities these tend to be based on primary and secondary indices and for bonds on an investment grade rating. Such top tier assets still experience a fluid rehypothecation market. However the collateral haircuts and funding spreads have increased since the liquidity crunch

For the assets outside of these collateral schedules, such as unrated and sub-investment grade bonds and mid to small cap equities, the rehypothecation market tends to work on a more ad-hoc basis with counterparties approving these as eligible collateral on a case-by-case basis. Where no financing counterparty can be found, then a Prime Broker has to use its own balance sheet to offer financing on the position. In addition, because there are fewer ways to hypothecate these assets, counterparties will require higher spreads to finance

As a result the market for these secondary tier assets has fewer participants and this is where the decoupling from traditional risk is most evident. Looking at the assets from a more traditional VaR market risk perspective, the risk level may seem low compared to the end haircut a PB or financing counterpart applies. This reflects the market’s experience that in times of stress, these assets will be harder to liquidate and will be more susceptible to larger pricing discounts upon liquidation as bids dry up; so higher haircuts and financing spreads are applied

## COUNTERPARTY RISK MANAGEMENT (for the Fund)

Traditionally it was usually considered that the margining process was designed to protect the Prime Broker, however in light of events since 2008, this is also something that should be at the forefront of the Fund’s agenda as well. The fund needs to appreciate that any assets that it places at its PB will expose the Fund to counterparty risk. Something previously fund’s paid less attention to. This will not only include the margin it holds, but also any excess equity and fully paid for assets unless they are appropriately segregated. A fund should consider the types of accounts that their PB offers, such as Omnibus accounts where assets are co-mingled and held with the PB, though to having separate entities and account structures where fully paid for assets can be held in client protected accounts in more of a custody model

There are a number of ways that a Fund can look to protect the equity it holds at a PB. Many alternatives exist such as having multiple PBs to move balances between, or the Fund may be able to look at simply moving out any available excess each day to an account at a third party, and utilising segregated margin or held away collateral accounts could be considered. A fund could even consider employing a form of counterparty insurance model to hedge their counterparty risk to the PB using CDS protection if available. Each option will have its own advantages and costs. Having multiple PBs or managing the excess each day will put additional operational and infrastructure costs on the fund, whereas segregated margin will likely increase funding costs a PB charges since the PB no longer has access to the margin to fund the position

Ultimately the fund should ensure that it understand the counterparty it is dealing with and they should monitor their counterparty on an ongoing basis and have contingency plans to be proactive in managing this exposure should events in the market dictate that their counterparty is becoming more risky to deal with

## CONCLUSION

It is important for Asset Managers to have more transparency into the financing of assets and the factors a Prime Broker will consider. Clients who engage more with their Prime Broker on the risk assessment process will more fully understand the situations and events that may cause margin rates to increase. You might find that what may initially seem like a higher margin rate from one Prime Broker may be based on a more stringent methodology and therefore in times of increased market volatility may actually offer potentially more stable margin rates

The market has witnessed some extraordinary events in recent years, and this has led to a number of key changes in the way that Prime Brokers evaluate risk and provide financing to clients. Prime Brokers are increasingly focused on stress events and more sophisticated risk analysis techniques to ensure they are adequately collateralised. This should also be considered by the Asst Manager as well in dealing with counterparties to consider the counterparty risk they are taking and how to mitigate some of this

There has also been a change in the nature of assets that can be readily financed, and this is shown through greater differentiation in pricing for liquidity and fundability of these assets in the market

For more information on Nomura Prime Services' risk and financing solutions please contact Mark Thatcher or your Prime Services Sales coverage contact

# Compliance

## COMPLIANCE SOLUTIONS FOR THE ALTERNATIVE ASSET MANAGEMENT INDUSTRY IN ASIA

ComplianceAsia
*Financial Industry Compliance in Asia Pacific*

**Philippa Allen – ComplianceAsia Consulting**

Individual and corporate penalties for compliance failures are higher than they ever have been in terms of monetary and reputational consequences and the impact on an individual's ability to remain in the financial industry once he or she suffers a regulatory punishment.

It is no longer the case that regulation is underdeveloped in Asian, particularly in key countries such as Japan, Hong Kong, Singapore and India. Managers must appreciate that the requirements in many Asian jurisdictions are as onerous as those in the US or Europe.

There is comprehensive legislation governing the operation of the financial industry and extensive requirements for managers of hedge funds which are located or operate in Asia. Managers must factor compliance into their start up or market entry plans as they will be required to demonstrate their compliance regime to regulators as part of the process of becoming licensed.

### Regulatory Themes for 2012

***Increased licensing / registration requirements***

Many Asian firms have now had to register with the SEC or notify the SEC of their exempt reporting status under the Dodd Frank Act. Start up firms must consider if they are likely to be seeking US money and understand when they may be required to seek SEC registration. Investors are increasingly requiring firms to demonstrate that they have taken advice on this point.

Certain larger Asian managers or certain strategies (particularly arbitrage strategies that use ADRs) may trigger the thresholds for registration with FINRA as a large trader and make subsequent reports on their trading activities. The largest Asian funds may also need to report to the SEC under the private fund reporting rules.

In 2011 the MAS finalized the rules that will apply to the licensing of fund management companies in Singapore removing the exempt fund manager regime. All fund managers will need to be either (i) a recognized fund management company for firms with AUM of less than S$250 million or (ii) a licensed accredited institutional investor fund management company. There are residency, experience, capital, risk management and infrastructure requirements which must be complied with. As at March 2012 the enabling legislation has not been passed but the MAS is asking new entrants to indicate that they can comply with these rules.

***Inspections and Enforcement***

In Hong Kong, the SFC has increased inspections of alternative managers with a 20% increase in the number of inspections in 2011 compared to 2010. We expect this to continue in 2012. The SFC's Enforcement Division continues to take its hard line stance, criminally prosecuting many financial industry participants particularly for insider dealing and market abuse.

In 2012, the Japanese FSA has announced plans to inspect all investment advisers in Japan following an apparent fraud at an alternative manager.

Globally, IOSCO is requiring all national regulators to Asian regulators to survey industry participants again in September 2012 as part of the Financial Stability Board's attempt to identify systemic risk in the financial industry arising from alternative managers.

### *Anti Money Laundering*

The bar has been raised in Asia with Hong Kong rolling out comprehensive AML requirements backed by legislation for the first time and the new FAFT guidelines deeming a number of Asian jurisdictions to be high risk therefore requiring enhanced due diligence on investors based in those countries. Managers must ensure that they have an AML policy and procedure. Even if they use the services of an administrator to assist in checking client identities, local regulators hold the manager responsible for AML breaches.

### *Cross Border Compliance Issues*

One of the major hurdles facing managers in Asia in achieving compliance is that they almost always operate on a cross border basis and there is a multiplicity of different rules applying to them. Managers, which are new to Asia or starting-up can find this overwhelming.

A manager will deal with laws from its local regulator, head office, the countries in which it is investing, the countries in which its funds are domiciled or sold and the countries in which investors are based. In particular managers must ensure that they know the rules applicable to capital raising and private placement activities in Asia as there are prohibitions in certain jurisdictions on marketing of offshore funds and complicated rules around how a private placement of offer to institutional investors can be made. This is increasingly an are on which Asian regulators are focussing and prosecuting.

## Ensuring Successful Compliance

The key regulatory expectations are that a manager will:-

- Identify key compliance obligations and risks;
- Document compliance policies and procedures;
- Design compliance monitoring plan around those risks;
- Ensure training and awareness of compliance; and
- Implement a reporting structure.

Senior management is made specifically responsible for implementing compliance in Asia. Senior management commitment to compliance is therefore essential and the culture of compliance must be created at top. There must be demonstrable involvement in the compliance process by management, including receiving and actioning compliance reports and equal treatment for offenders even when they are portfolio managers.

### *Identifying Key Regulations*

Managers analyze what activities they do in various locations considering:-

- Activities delegated to the manager by overseas affiliates
- Activities delegated to by the manager to overseas affiliates
- Activities being undertaken on a “fly-in, fly-out” basis
- Offshore marketing efforts
- Cross borders transactions or deals

In respect of each activity the manager should consider:-

- Is the activity legal in that country?
- Does the activity require a physical presence by law?
- Does the activity require corporate or individual licencing?
- Are there PE, tax or immigration issues?

***Compliance Policies and Procedures***

Manager may consider a compliance checklist setting out the legal and regulatory obligations (including non financial laws such as bribery and corruption legislation) imposed on it in the countries in which it has a presence or is undertaking activities. The checklist should show applicable regulations, associated monitoring requirements, record keeping and/or reporting requirements and the persons currently responsible.

Regulators will expect to see written compliance, risk and operational policies and procedures. It is unlikely that one document will satisfy all these requirements. These may need to be supplemented by specific procedures for complicated or unusual types of business. Documented compliance and procedures must:-

- Be clear and convincing;
- Promote culture of compliance;
- Be easy to locate and use; and
- Be specific to the manager and the licences it holds and the activities in which it is actually engaged and not an off the shelf manual.

The documents should at a minimum cover the following types of areas:-

- Local regulatory regime information and ongoing regulatory obligations;
- Ethical matter such as gifts and personal share dealing;
- Trading and investment related compliance matters;
- Conflicts of interest and confidentiality;
- Anti Money Laundering and Terrorist Financing;
- Know Your Client and Professional/Accredited Investor Rules;
- Marketing and distribution related matters;
- How complaints, errors, breaches, mistakes, and frauds are reported, investigated and recorded;
- Provide a framework for interaction with regulatory agencies; and
- Guidelines on the circumstances in which the manager deals with third parties (such as internal auditors, external auditors, legal counsel, investigators, consultants).

***Monitoring***

Monitoring compliance is a thorny subject for managers. On one hand, regulators do not set out specific guidance for firms. On the other, regulators have made it clear that they come down heavily on firms without adequate programmes.

Monitoring is a key pre-emptive defence against loss, breaches and investor harm and demonstrates a commitment to a culture of compliance. Monitoring assists in pro-active identification of potential risk, reduces time spent on handling breaches and reduces reputational harm and the cost of after the fact error resolution.

Each firm needs to identify the biggest areas of exposure or risk that it faces to tailor-make a monitoring plan focused on those risks. The aim is to ensure that the focus of the plan is on the areas of highest risk in terms of potentially breaching a law or regulation and ensure that more emphasis is placed on monitoring activities in that area.

Monitoring can be manual or automated but should cover:-

- Entity compliance - licensing, company secretarial compliance, compliance with contractual obligations and book and record keeping;
- Operational compliance - settlement, pricing and valuation process;

- Legal issues - controls over insider dealing or market manipulation;
- Fit and proper compliance - the overall internal control system, ongoing regulatory obligations like financial resources and personal share dealing;
- Sales, marketing and IR compliance - the communication processes (including email monitoring) approval process for marketing materials, reporting to clients, complaints handling and performance measurement;
- Fund compliance - adherence to investment guidelines or restrictions, best execution, allocations, concentration, substantial shareholding reporting and short reporting.

***Reporting***

There are strict reporting requirements in Hong Kong Japan and Singapore on both a regular basis (year end annual returns) and for ad hoc changes. Some events require pre-approval from the regulators. These include change of substantial shareholder, change of company address, opening of new bank accounts, changes or additions to directors, changes to the business plans filed with regulators, changes in capital adequacy or financial position information and changes in individual's personal details. It is important that managers identify these requirements and allow sufficient time for regulatory approval. Some events can take several weeks or months to be approved.

There are requirements to notify regulators where there are material events which impact on the manager's business. It is not always clear what events are captured so managers should reach an in house view on what constitutes a material event. There must be agreement on compensation and rectification arrangements.

Managers need clear, well-documented process for reporting breaches of laws and a clear process for escalating reported breaches. There must be clarity as to when to report breaches to senior management, regulators and investors and who is responsible for reporting. There must be an appropriate method for recording of errors and breaches.

***Capital Adequacy***

Certain regulators, most notably the Hong Kong SFC, the MAS and JFSA proscribe minimum capital for licensed hedge fund managers and advisors.

The rules are complex and a range of normal inter-company transactions can give rise to adverse capital adequacy effects that need to be planned for, monitored and responded to.

Prior to being licensed firms need to ensure that they are adequately capitalized to get their business up and running. Premises, manpower and the set up of a trading infrastructure can be an expensive undertaking and capital requirements can be much larger than many managers expect.

Once licensed, firms have an ongoing responsibility to remain adequately capitalized. Licensed firms are required to report their capital position monthly, quarterly or semi annually depending on the jurisdiction in addition to the formal annual audit process and reporting. The reporting process is often completed under tight deadlines with some areas of the rules different from other established jurisdictions.

Managers must ensure they have an adequate management accounting process to allow them to compile the data needed to produce reports.

***Individual licensing, examinations and training***

There are individual licensing requirements in most major jurisidctions and these often include examination requirements. Exemptions from examinations are difficult and the process of trying to obtain exemptions often delays applications.

There are also educational, experience and residency obligations for key officers and it is imperative that the CVs of such persons meet these requirements as there is an increasing regultory trend to reject applicants for licensing who do not meet these requirements.

Once licensed, there is a strong regulatory emphasis on remaining fit and proper which includes training. In Hong Kong there are mandatory training requirements but even in places without mandatory hours, employees are expected to remain up to date particularly about compliance developments.

Regulators expect that suitable records including the courses attended and the hours accumulated are kept and this should be on an ongoing basis rather than trying to reconstruct records at the calendar year end.

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## Independent Directors

### CAN DIRECTORS ADD VALUE?

**William Jones – ManagementPlus Group**

I have noticed in over 20 years in the alternative investment industry that there is always a tendency to distill complicated topics into simplified rubrics and themes. Examples of this are the definition of a hedge fund, the development of prime brokerage, the search for a panacea fund structure that could be sold everywhere to everybody, "kitchen sink" disclosure, the "best" jurisdiction, trends such as "demystifying", institutionalization, convergence, and onshorisation, the so-called regulatory tsunami and many others. Perhaps such simplification is simply due to human nature but many attempts to simplify matters often end up making the topics less understood

Corporate governance is another area which seems to be rushing towards simplification. Poor generalizations are frequently made and debated about executive and independent directors, professional and non-professional directors, number of directors, board composition, evaluation, responsibilities, conflict of interests and other themes which run the real danger of "dumbing down" corporate governance which in reality is a very complicated topic

In my experience most fund industry participants answer the question - can directors add value? - with a simple yes or no and a few supporting anecdotes. The answer is not as simple as it would seem. I have seen two very experienced senior managers at a major asset allocator strongly disagree on the benefits of corporate governance which suggests the lack of a house view where you would normally expect one. While the answer is not obvious, even in the context of public companies, we can attempt to answer the question by reference to related secondary questions. The sum of the responses to the following questions should help reach a conclusion

- What is the manager's philosophical view on corporate governance?
- What are the drivers of the fund structure?
- Who are the investors in the fund?
- Where is the fund in its development?
- Is the fund sailing "steady as she goes" or is it facing a storm?
- Who are the directors?

**What is the manager's philosophical view on corporate governance?**

In a public company context, the effectiveness and efficiency of the corporate governance process depends to a great extent on the interaction between the CEO and the board. If the CEO and the board work in a complimentary manner to enhance their respective managerial and board functions, then it is more likely that the corporate governance process at that company would add value

A similar relationship exists in the context of investment funds in that management and the board must work well together in order for the corporate governance process to have any chance of adding value. However, the relationship differs in one major respect in the public company context, the board chooses the CEO; in the investment fund context, the sponsor of the fund, who is often the investment manager, selects the board. This "inverted" structure where management chooses the board is probably the greatest single determinant of whether directors of a fund can add value as much depends on the sponsor's view on corporate governance

If the sponsor of the fund believes that directors only need sign documents when necessary, refrain from asking too many questions and effectively implement the sponsor's views, then it does not require much analysis to conclude that the corporate governance process is unlikely to add much value. On the other hand, if the sponsor views directors as sounding boards, resources, advisors, mediators and ultimately as protectors of the best interests of the fund, then it is likely that directors could add great value

But life is never this simple. Weak boards have been known to stand up to managers at crucial times, whereas many strong boards were paralyzed or ineffective during the 2008-09 crisis. However, a sponsor must believe in the potential value added of corporate governance if a board is to have better odds of adding value

### What are the drivers of the fund structure?

Offshore funds are established usually for tax reasons whereas onshore funds tend to be established more for regulatory and distribution reasons. Regardless of the drivers of the structure, funds that have greater substantive and operational requirements are likely to benefit more from a robust corporate governance program. As tax and regulatory authorities are focusing increasingly on the substance of investment funds and management companies, one could expect corporate governance to improve over time to support the tax, regulatory and other drivers of fund structures

### Who are the investors in the fund?

In my view investors have historically ignored corporate governance except when things go wrong. This view played out as expected during the 2008-09 crisis when investors who did not know the directors of their investee funds were suddenly demanding that those same directors provide liquidity, transparency or whatever other action or information was required at the time. If sponsors are the principal constituency with the power to drive corporate governance as a value added proposition, investors are clearly the other main constituency with the power to promote governance by influencing the sponsors

The term “investors” is yet another simplification that can have negative effects. The investor universe is populated by many types of investors institutional, asset allocators/FOFs, HWNI, family offices, wholesalers, retail etc. While any type of investor could formulate a view on corporate governance, very few actually do so and usually these are represented by institutional investors and asset allocators. Family offices and HNWIs are increasingly focusing on corporate governance but in my view this is a relatively new trend. So while “investors” can be assumed to have an expectation of corporate governance as a value added proposition, only certain investors actually have a view on corporate governance and even fewer express that view to managers and boards of investment funds

Many investors and other industry participants advocate that investors should not invest in investment funds that use directors who have too many mandates or do not have sufficient support structures to enable to carry out their duties appropriately. However, this ignores the historical development of the investment fund industry, not to mention the practical impossibility of replacing all such directors even if this were deemed desirable. I recently discussed a very practical point of view with an institutional investor who has done a lot of thinking on corporate governance. In this person’s view, it is impractical to expect that all directors with insufficient experience or inadequate skill sets or too many mandates will be replaced. This person advocated using the influence of the institutional investor to ensure that other directors are added to redress any imbalances on the board, which seems like an eminently sensible view. This principle can be applied in many contexts to improve corporate governance a board consisting of two executive directors, or two professional directors from the same firm, could be enhanced by adding one or more independent directors; a fund board with two directors in the Cayman Islands or Ireland could be enhanced with a third director based in a different jurisdiction; and a board of an alternative UCITS fund with directors who have traditional UCITS backgrounds could be enhanced by the addition of a portfolio, risk or operations manager with a hedge fund background

### Where is the fund in its development?

In my experience the focus on corporate governance is directly correlated to the size of the fund or the AUM of the sponsor. Funds or managers with smaller AUM, say less than US$200m , are usually focused on performance and risk management, operational development, sales and marketing, service providers and counterparties, investor relations, compliance and regulatory matters etc. Arguably this is the correct approach as these areas directly impact performance and/or AUM. While more and more smaller managers seem to be focusing on corporate governance as a value added proposition, it is usually larger AUM managers who have the bandwidth to focus on corporate governance and can “afford” to retain more experienced directors

But again life is not as simple. I know small managers whose fund boards did a superb job during the 2008-09 crisis. There are plenty of examples of well-known large managers who failed during the crisis, at least in part due to weak corporate governance at the fund or management company level

There many other examples of situations when boards could add significant value during the development of a manager evolving from a FOF client base to an institutional client base; negotiating and agreeing to seeding deals, managed accounts or single investor funds; growing from being a small or medium AUM manager to a medium or large AUM manager; opening offices in different jurisdictions; obtaining one or multiple regulatory registrations; adding prime brokers and counterparties; changing jurisdictions of funds or management companies; changing service providers; dealing with partnership splits, spin-offs of managers and other disruptive events. I would venture a guess that in most cases above, boards remain relatively uninvolved. However, a robust board could not only become involved but also add significant value at a number of different levels

### Is the fund sailing “steady as she goes” or is it facing a storm?

Most directors of public companies would probably agree that their value added is somewhat limited on the upside but potentially significant on the downside. After all no one would buy shares in a public company or a fund because of the board, but a strong board could go a long way to limiting the downside in a crisis management context. While even a weak board could help steer a company or investment fund through normal times, only a strong board, ideally including one or more battle-tested directors, could help a company or investment fund in the midst of a difficult and fast-evolving crisis. One of the positive legacies of 2008-09 is that the directorship industry now has many more crisis veterans in its ranks which should lead to better and more robust corporate governance going forward

### Who are the directors?

So if the sponsor espouses the view that corporate governance can be a value added proposition and investors understand the benefits of robust corporate governance without being impractical in their demands, the sponsor is left with the task of implementing a robust corporate governance program. This starts with the selection of directors

I have recently been involved with two hedge fund launches – one in the UK and the other in Hong Kong – by managers who were atypical in the identification, interviewing and selection of directors for their respective funds and management companies. Both managers spent a considerable amount of time identifying and interviewing the candidate directors, often engaging in more than one interview with the same director. They did not follow a routine tick-the-box exercise but asked challenging questions. They actively thought of board composition given the specific skill sets of the directors chosen for the final list of candidates. Finally, they reviewed and negotiated the director services agreements. None of the above guarantees that the corporate governance of these funds and management companies will be robust or even adequate, but it certainly sets the right tone for the implementation of a corporate governance process that is intended to be value added

The following quote is attributed to Michael Steinhardt “A good trader has to have three things a chronic inability to accept things at face value, to feel continuously unsettled, and to have humility.” He could just as easily have said this of directors. It is imperative that directors walk the talk and do everything to demonstrate the proposition that corporate governance can add value in a demonstrable manner. Sponsors need to ask themselves whether they want to appoint passive directors who will not raise any challenges or enhance a discussion or active directors who will ensure that the fund and management company structures operate consistently in the entities’ own best interests

### Conclusion

Corporate governance is like VAR – it works until it doesn't. Many sponsors and managers have realized that corporate governance can add value at many levels. Investors now recognize the benefits of having a "real" board on an investment fund. Regulators, service providers and even directors are now focused on director responsibilities and duties. However, none of the above will ensure that a corporate governance program adds value. While it has been amply demonstrated that corporate governance can at least limit the downside, the achievements of a board depend directly on the interaction between many parties sponsors/managers, directors, service providers, investors and now regulators and even counterparties. The key objective is that corporate governance permeates the entire structure of a fund. Only when corporate governance becomes part of the culture of a fund will all participants in the fund's structure find themselves rowing in the same direction. Corporate governance can add value but the tone has to be set by sponsors and investors and the implementation has to be driven by the directors themselves

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## Disaster Recovery Planning

A disaster recovery or business continuity plan describes the coordinated process an organization employs to minimize effects to mission-critical systems and infrastructure when a disaster occurs. A disaster can be defined as an event, from hard drive failure to full scale catastrophe, which impacts the ability to deliver your stated product or service. A plan needs to be firmly in place long before this occurs. By applying one of the following disaster recovery approaches to each business system or infrastructure, the effects of a potential disaster can be mitigated.

| | **Pros** | **Cons** |
|---|---|---|
| Hot Site | ■ Redundant environment<br>■ Replication of data real-time or at short intervals<br>■ Most reliable with least downtime | ■ Large up front costs<br>■ Regular maintenance required<br>■ Most expensive |
| Hosted Facility | ■ Outsourced solution<br>■ Cost is spread over fixed length of contract<br>■ Managed maintenance<br>■ Lease or buy hardware options | ■ Replication /bandwidth requirements<br>■ Possible accessibility issues<br>■ Reliance on a third party |
| Back-up | ■ Security of backup storage<br>■ Least expensive | ■ Relatively long potential downtime<br>■ Potential loss of intraday data<br>■ Potential synchronization issues with disparate systems |

### FORMULATING YOUR PLAN

To formulate your disaster recovery plan, clearly identify and categorize different risks based on their probability of occurring. Then examine your infrastructure and business systems and determine for each

- How quickly must the system be restored to full operating capacity?
- How accurate (up to the minute before the event occurred) should the restored information be?

Based on the probability of each risk occurring, analyze the annual impact of the risk happening against the annual cost of mitigating the risk. If the cost of mitigating the risk is less than the potential cost associated with the risk, then it is necessary to develop a disaster recovery plan around this system or infrastructure

Based on these criteria, develop a detailed disaster recovery plan which includes

- Critical systems
- Key personnel along with their roles and responsibilities
- Service provider contact information
- Detailed inventory information
- Detailed test and clean-up plans to ensure full recovery has occurred

A well thought out disaster recovery plan can be expensive and time consuming but can ultimately decide the future of your hedge fund in the event of a disaster

## Insurance

### INVESTMENT MANAGEMENT CLAIMS EXAMPLES

Miller

Martin Gigins, Joanne Liu, James Parratt, Brian Horwell – Miller Insurance

**Important Note Fines and Penalties are not generally covered by insurance and in some jurisdictions are deemed uninsurable.**

### ALLEGED FRAUD

A fund manager in a sizeable fund allegedly fraudulently manipulated data to hide his losses in certain trades, using a loop hole in the administrators pricing on certain products. The market experienced a correction in a specific class which meant the individual could no longer hide his losses. He immediately left the firm but the innocent partners were left to sort out the mess as the fund lost 25% of its value over night

- **Professional Indemnity**

  The fund board stepped down and was replaced by a board made up of the major investors. They took a hostile position against the fund management entity and sued for failure in their duty of care. The professional indemnity insurance at first provided the legal cost of defence. Given the position was not easily defensible and litigation could have taken many years, underwriters sought, with the innocent managers, to seek an early settlement. Once the litigation was settled, the fund managers sought to revive the fund but the damage had been done and the fund closed. The settlement payment did however release the innocent partners to continue with their career elsewhere which would not have been possible had a settlement not been reached and litigation had continued. Wherever you are in the world the regulators are unlikely to allow an individual to continue to trade until such time as outstanding litigation involving that individual is closed

**Important Note Losses and costs arising from findings or admissions of fraud are not covered by insurance and a court finding of fraud after final determination e.g. appeal court could lead to insurers asking for return of legal costs advanced**

### BREACH OF MANDATE

During the 2008 financial meltdown, the lack of liquidity coupled with the need to sell some of the more liquid stocks to fund redemptions led a number of funds to breach certain mandate restrictions set out in their prospectus and fund management contracts

- **Professional Indemnity**

  The loss experienced by these funds/managed accounts allowed investors to use the breaches of mandates as a rod to seek financial redress from the management entities. Most of the losses were in the long only funds but sizeable payments were made by insurers under the professional indemnity insurance

- **Directors and Officers**

  In a very limited number of cases threats were made against the directors for their failure to ensure that the management entities maintained the correct systems and processes to ensure that mandates were not breached. Costs of defence were provided

**Important Note Investors losses caused by routine market fluctuations or trading are generally not covered by insurance unless clear negligence of the trader or entity can be established**

## TRADING ERRORS

Sizeable market swings can very easily lead to errors being made in both currency hedging and trading. The close relationship between the prime brokers and the fund management entities along with the sizeable profits being made by both prior to 2008 meant that these losses were often resolved by offset either within the fund or with the PB's. 2008 changed that. The sheer size of some of the losses and the losses being experienced by banks generally meant that managers were left to fend for themselves and where possible to repay purported "trading errors". This has led to a shift in emphasis and the FSA now requires managers to reimburse trading errors. Prospectuses in the past often made provision for the "plus's and minus's" of trading errors but this is increasingly frowned upon by investors

In one case a sizeable management entity with a number of funds and managers had a large trading error resulting from a profitable trade! One of the funds management team used the internal dealing desk to effect a trade with a broker. Another of the funds managed by the same entity sent a request for the same stock direct to the same broker but avoiding their internal dealing desk. When the trades came through to the internal dealing desk, twice the size of the original request, the internal dealing desk asked the first fund if they were happy to accept twice the trade. They accepted and the shares were allocated to them and sold on at a sizeable profit. The second fund then proceeded to sell their shares but had no shares to sell resulting in a sizeable short sale loss to the fund from the loss of profit that would have been earned on the deal. The error existed in both the fund manager himself and the dealing desk although this was determined to be one error for insurance purposes

- **Professional Indemnity**

  It is incumbent upon the management entity to prove that the trading errors are genuine errors in the back office. Sometimes a senior lawyer (e.g. a QC in the UK) is asked to provide an opinion stating that any failure by the manager to reimburse the affected fund would likely result in an allegation or claim against the managers of a breach of duty or negligence. In the above case underwriters did not seek a legal opinion, but accepted the error was a genuine error which would inevitably result in an indefensible claim by the fund for loss of profit and paid the trading loss in full (minus the one excess)

## REGULATORY INVESTIGATION

Directors and Officers Liability insurance policies usually provide coverage for costs of legal representation at a regulatory investigation. There are two parts of the policy wording where the coverage applies. The first is the main D&O cover where the policy covers the costs of legal representation at a regulatory investigation where an Individual Insured is required to attend in respect of a specific allegation of a wrongful act. The full policy limit applies to this type of claim

Often there is also a separate extension of cover for "Representation at Investigations" or similar when there is no specific allegation of a wrongful act (i.e., the early days of regulatory investigations are often "fishing expeditions" seeking a target to "blame and shame"), The policy often has a sub- limit to cover the legal costs , again, in respect of an Individual Insured but often also for the entity itself.. If there is a subsequent allegation of a wrongful act or a formal written notice of a regulatory investigation is issued the claim falls back to be dealt with under the main D&O cover and the full policy limit applies

- **Directors and Officers**

  An individual fund manager was investigated by the FSA for alleged directed trading in breach of internal and external regulations. The individual decided to leave the firm to dedicate his time to clearing their name Having resigned, even though the individual concerned was no longer indemnified by the management entity, the insurers paid for all the costs of legal representation incurred in defending the allegations. The individual was eventually cleared of wrongdoing but in doing so very substantial legal costs were incurred by the individual but were paid for by the insurers

- **Professional Indemnity**

  Where an allegation of a wrongful act is made against the entity and the extension of cover is in place, cover will apply to the costs of legal representation for the entity. In the above case, had the formal investigation been made against the entity alleging management failures then the PI policy would have responded to the costs of legal representation

## FUND BLOW UP

A recent first instance judgment in the Cayman Islands has been widely reported in the press and has led to some interesting conclusions. The Cayman Court found that the non-executive directors of a Fund in liquidation were guilty of “wilful neglect and default” of their duties as directors and, as such, they had a part in causing the Fund’s liquidation. The Court awarded USD111m to the liquidators (and the liquidators costs for good measure!) against the individuals. The judgment, which has far reaching ramifications, is likely to be appealed. It is not clear if this award amounts to damages, or a fine or civil penalty, which are uninsurable in some jurisdictions

- **Directors and Officers**

  D&O policies usually provide for the advancement of legal costs on behalf of Individual Insured’s and would have done so in this case. The allegations by the liquidators of wilful neglect and default ensured that the fund would not be required to indemnify the directors themselves (most indemnities by companies to its directors do not apply where there is a finding of wilful neglect), however, it is unlikely the policy would have paid the award on the basis that all D&O and PI policies exclude what amount to “deliberate acts”. In these circumstances the policy may pay up until final judgement (i.e., including the costs of the appeal) as some policies cover the insured until “final adjudication”

In the case of Fraud, money laundering, market abuse etc all policies exclude cover for such acts but most policies provide coverage until such an illegal act is proven, or admitted by the individual and a number of policies apply until “final adjudication”

**Important Note Should ultimately the individual be found to have committed an illegal act or wilful neglect or default of their duties then insurers are entitled to “claw back” from the individual insured the legal costs that they have advanced on behalf of that person**

## THE COLLAPSE OF SERVICE PROVIDERS

The collapse of Lehman Brothers led to a number of issues for funds and their management entities, from counterparty credit issues to assets being frozen by Lehman liquidators under the Prime Brokerage agreements and re-hypothecation issues have developed. This led to a number of claims being advised to insurers

- **Professional Indemnity**

  The majority of Professional Indemnity policies have an Insolvency Exclusion or something equivalent to that excluding cover arising from the insolvency or suspension of payment of any broker, dealer, buyer, seller or underwriter in securities or commodities, or any financial organisation or provider of services to the insured. It is not the intention of insurers to provide a financial guarantee to funds or management entities as to the payment ability of their service providers so where claims are solely as a result of the collapse underwriters are likely to consider this a cost of doing business and therefore trading risk of the Insured. However, where there has been an error or negligence of the part insured coverage should be provided. There were also instances and grey areas around the coverage that did lead to legal costs of defence being provided where the ensuing action was not solely as a result of the insolvency of Lehman

- **Directors and Officers**

  Claims for costs incurred defending alleged wrongful acts by Directors and Officers leading to insolvency of the fund or the funds service providers may be covered by D&O insurances as no such insolvency exclusion applies to D&O coverage. Whilst it is unlikely that the directors could be found liable the legal costs of defence could be substantial. As an example of a claim in this area, it is our understanding that even today the collapse of the Bear Sterns Funds involves significant legal cost in defence of the directors of the funds that failed

**The above are provided as illustrative examples only and no representations are made concerning the accuracy of these examples or cover that may or may not be provided by your insurance policy. Miller are insurance brokers and not qualified to give legal advice. If you have any doubt as to cover you should consult your insurance or legal adviser**

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# Appendices

## Appendix 1 Service Provider Listing

This listing is not exhaustive and we encourage readers to seek alternatives where appropriate

### REAL ESTATE CONTACTS

| | | |
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| CBRE CB Richard Ellis | Hong Kong<br>Rhodri James \| 852.2820.2883<br>rhodri.james@cbre.com.hk | Singapore<br>Moray Armstrong \| 65.6326.1608<br>moray.armstrong@cbre.com.sg |
| Colliers International | Hong Kong<br>Tom Bolland \| 852.2822.0577<br>thomas.bolland@colliers.com | |
| High West Real Estate Consulting | Hong Kong<br>Keith Hemshall \| 852.2891.1871<br>keith@highwesthk.com | |

### SERVICED OFFICE CONTACTS

| | | |
|---|---|---|
| The Executive Centre | ■ The Executive Centre serves over 5,000 satisfied multinational corporate clients daily<br>■ An “Outsourced Office model” – walk in and instantly commence business operations in a fully fitted office under flexible terms<br>■ In each centre, tap into our business support teams, on-demand as required<br>■ Choose from a network of premium centres in Tokyo, Seoul, Shanghai, Beijing, Tianjin, Guangzhou, Shenzhen, Hong Kong, Macau, Taipei, Singapore, Jakarta, Sydney and Mumbai | Hong Kong<br>David Adams \| 852.6777.0213<br>david_adams@executivecentre.com<br><br>Singapore<br>Rachel Pak \| 65.6622.5577<br>rachel_pak@executivecentre.com<br><br>Tokyo<br>Junko Tanaka \| 81.3.5456.5724<br>jtanaka@executivecentre.com |

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- In the next 12 months, Servcorp intends to increase its business presence by opening new centers across the globe Personal account manager trained to take care of client's specific account and day to day operation

Hong Kong
Anki Li | 852.2251.1888
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Tokyo
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Hong Kong
Kristy Saul | 852.3796.7288
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Tinny Wong | 852.2824.8013
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## DESIGN/INFRASTRUCTURE

**HBO + EMTB**

- Headquartered in Sydney, HBO+EMTB works in over 10 countries. Fully own operates in HK, Shanghai, Beijing, Singapore, Tokyo, Sydney, Mumbai, Bangkok, and Manila
- HBO+EMTB has been operating in Asia for more than 15 years and over a decade in Australia and New Zealand
- Strong local presence & track record in financial sector including hedge funds
- Employs a consultative, collaborative approach and offers robust project coordination

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| | | |
|---|---|---|
| RHK INTERIOR DESIGN | ■ Operating in Hong Kong, Shanghai, Beijing, New Delhi, Singapore and London<br>■ Established for over 11 years<br>■ Outstanding track record of Hedge Fund procurement success | Hong Kong/Singapore<br>Michael Reader<br>852.1908.8766 \| 44.7739.800.887<br>michael.reader@rhkdesign.com |
| ..onespace | ■ Integrated interior and technology design<br>■ Flexible design and construction to fit each client's budget<br>■ Consultative design approach delivers office solutions specifically tailored to unique operational requirements | Hong Kong<br>Matthew Deayton \| 852.3555.2219<br>matthew.deayton@one-space.com |
| The Design Studio | ■ Operates in Tokyo and across the APAC region<br>■ Architectural/interior design consultancy, project management, facility management services<br>■ Portfolio includes major foreign financial institutions | Tokyo<br>Benjamin Drinkwalter \| 81.3.3288.8447<br>drinkwalter@tds-tokyo.co.jp |

## FUND ADMINISTRATION

| | | |
|---|---|---|
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| PrimeFundSolutions | Hong Kong<br>Stewart Bent \| 852.3416.6008<br>stewart.bent@hk.primefundsolutions.com | |
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| | | |
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| APEX FUND SERVICES | Asia Pacific<br>Anthony D'Silva \| 852.6402.9883<br>anthony@apexfunds.cn | |
| ALTER DOMUS | Hong Kong<br>Javed Rahman \| 852.3576.3580<br>javed.rahman@alterdomus.com | |
| swiss financial services | Singapore<br>Christine Lau \| 65.6513.3251<br>clau@swiss-financial.sg | |
| LACROSSE GLOBAL FUND SERVICES™ A Wells Fargo Company | Singapore<br>Celia Choh \| 65.6383.8422<br>celia.choh@lacrosseglobal.com | |
| SS&C | Asia Pacific<br>Jagathisan Govindasamy \| 65.6823.1352<br>jgovindasamy@sscinc.com | |
| PORTCULLIS TRUSTNET | Asia Pacific<br>Allard de Jong \| 65.6496.0499<br>allard.dejong@portcullis-trustnet.com | Hong Kong<br>Danny Leung \| 852.3173.1084<br>danny.leung@portcullis-trustnet.com |
| CUSTOM HOUSE THE SPECIALIST FUND SPECIALIST | Singapore<br>Ralph Chicktong \| 65.6808.1501<br>ralph.chicktong@sg.customhousegroup.com | |
| MAPLES FUND SERVICES | Hong Kong<br>Kate Colchester \| 852.3690.7606<br>kate.colchester@maplesfs.com | |
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## LEGAL - ONSHORE

| | | |
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COMPLIANCE

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|---|---|---|
| CA \| ComplianceAsia | ■ ComplianceAsia is the largest provider of independent financial industry compliance advice and support in Asia<br>■ We undertake licensing in Hong Kong and Singapore, provide ongoing compliance support programs, conduct mock inspections and assist with compliance documentation, training and other projects | Hong Kong<br>Alex Duperouzel \| 852.2868.9070<br>alex.duperouzel@complianceasia.com<br><br>Singapore<br>Philippa Allen \| 65.6533.8834<br>philippa.allen@complianceasia.com |
| CompliancePlus Consulting<br>Compliance Consulting • Funds Consulting<br>Regulatory Consulting • Compliance Training | ■ Independent consulting firm focused on providing a complete range of proven and reliable compliance solutions<br>■ Offering tailored made packages for start-up hedge funds on licensing and designing customized compliance framework<br>■ On-going comprehensive compliance support services to fund managers | Hong Kong<br>Josephine Chung \| 852.3487.6903<br>jchung@complianceplus.hk |

## IT PROVIDERS

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| PrincipleOne | ■ Significant client base in Asia with offices in HK, Singapore and Tokyo<br>■ Offers technology infrastructure design, integration and on-going operation<br>■ With in-house IT, telecom and audiovisual specialists<br>■ Red Box solution for start-up managers | Hong Kong<br>Eric Tsoi \| 852.3555.2221<br>eric.tsoi@principleone.com<br><br>Singapore<br>Lex Tan \| 65.6433.5050<br>lex.tan@principleone.com<br><br>Tokyo<br>Charlie Hsieh \| 81.3.5577.1700<br>charlie.hsieh@principleone.com |
| pts\|consulting<br>World class. Local knowledge. | ■ Global presence in all major financial cities including Hong Kong, Shanghai, Singapore, Sydney, Tokyo, London and New York<br>■ 27-year solid experience in IT consultancy and project management for the Banking and Finance industries<br>■ Provider of specialist professional services covering corporate relocations, data centre design and fit-out, technology consulting and business transformation projects<br>■ Dedicated engineering team specializing in technology solutions for Hedge Funds, new office setup projects and on-going IT support | Hong Kong<br>Patrick O'Reilly \| 852.3658.5222<br>pat.oreilly@pts-consulting.com.hk |
| options | ■ A unique managed service approach providing flexibility and scalability with reduced capital outlay<br>■ Services include core office technology, financial application hosting, ultra-low latency market data and trading connectivity<br>■ Global presence with 24x7 follow the sun support model<br>■ Experienced in supporting over 120 clients globally ranging from start-ups to multi-billion dollar global operations | Asia Pacific<br>Simon Chivers \| 852.3166.5088<br>simon.chivers@options-it.com |
| systemsGo | ■ Substantial financial industry experience with regional focus on Hong Kong, China, Japan, Singapore, and Taiwan<br>■ Broad range of technology and professional services including Strategic Consultancy, Project Management, Infrastructure Design/Implementation, User and Infrastructure Support, VoIP Telephony, and Disaster Recovery (customized for start-ups to large multi-national institutions)<br>■ Continuous Support utilizing multi-lingual service desk, automated infrastructure monitoring, and 24 x 7 dispatch | Asia Pacific<br>Matthew Olson \| 65.9668.6555<br>matthew.olson@systemsgo.asia<br><br>Hong Kong<br>Victor Man \| 852.3151.3010<br>victor.man@systemsgo.asia |

**Encore INFORMATION TECHNOLOGY**

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- Encore IT is the exclusive provider to Compass Offices managing over 3000 workstation across 15 business centres in Hong Kong, Singapore and Tokyo

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- Helps users decompose risk, forecast risk, rebalance/optimize portfolios, scenario analysis and much more

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| imagine software | ■ Combines real-time, portfolio management and risk management capabilities in a single, integrated, ASP-based solution<br>■ Manages multiple asset classes, investment strategies, currencies and geographies<br>■ ASP solution enables users to logon in multiple locations, in addition to access to 24-hour help desk support based in Hong Kong | Hong Kong<br>Wilson Ng \| 852.3929.2236<br>wilsonn@imagine-sw.com<br><br>Sydney<br>Angus Johnston \| 612.9350.8830<br>angusj@imagine-sw.com |
| ADVENT® | ■ Advent's global portfolio management platform Geneva has been designed to enable hedge funds to integrate all phases of the investment management process.<br>■ Portfolio management, accounting and reporting<br>■ Real- time tick by tick P&L, position management, reconciliation<br>■ Client investor management, light trade capture and risk capabilities | Hong Kong<br>Chris Schmutz \| 852.2297.2280<br>info@advent.com<br><br>Singapore<br>65.6631.2821<br><br>Beijing<br>86.10.8405.4888 |

### ORDER MANAGEMENT SYSTEMS

| | | |
|---|---|---|
| Eze Castle Software<br>BNY ConvergEx Group | ■ The multi-asset class Eze OMS is known for ease of use and real-time functionality to support portfolio management, pre- and post-trade compliance, trading, analytics and operations in a single platform<br>■ 400+ buy-side clients 75% are hedge funds (all strategies)<br>■ 24-hour global service model with offices in Hong Kong, Singapore and Sydney to support the Asia-Pacific region<br>■ 350+ established interfaces with third-party systems | Hong Kong<br>Rafael Manalac \| 852.3664.1000<br>rmanalac@ezecastlesoftware.com |
| LINEDATA LONGVIEW | ■ Trade order management solution for global buy-side institutions and hedge funds with advanced portfolio modeling, order generation, electronic trading, compliance, investment accounting, and transfer agency functionality<br>■ A global solutions provider with over 800 financial institutions with 13,000 users<br>■ Locally Deployed or Hosted (ASP) solutions available with a new startup package specifically designed for Hedge Funds | Asia Pacific<br>Keith Rogers \| 65.6693.5304<br>keith.rogers@hk.linedata.com |

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|---|---|---|
| Bloomberg™ | ■ The Assets and Investment Manager (AIM) is a Portfolio Order Management<br>■ System embedded with routing capability through Bloomberg EMSX; delivered by ASP solution<br>■ It monitors Real time Price, Risk, Exposure and PnL for multi assets<br>■ Allows for data upload and download to Prime Brokers/Fund Admin<br>■ Robust performance reporting tools for investors<br>■ Accommodation policies through Bloomberg Tradebook Execution | Hong Kong<br>Jason Wong \| 852.2977.6946<br>jwong71@bloomberg.net<br><br>Singapore<br>Siu-Mei Pang \| 65.6311.2450<br>spang22@bloomberg.net<br><br>Tokyo<br>Satoshi Watanabe \| 81.3.3201.3786<br>swatanabe4@bloomberg.net |
| Charles River | ■ Charles River provides software, hosting and data services to automate front- and middle-office investment operations for buy-side firms. On-premises software and SaaS solutions support portfolio management, compliance and risk monitoring, order and execution management, and access to global liquidity. The company has more than 300 clients in 41 countries in the institutional asset and fund management, alternative investments, wealth management, insurance, banking, pension and custody markets | Asia Pacific<br>Mark McBurnie \| 614.0001.6188<br>markmcburnie@crd.com |

EXECUTION MANAGEMENT SYSTEMS

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|---|---|---|
| INSTINET POWERFORWARD | ■ Newport is a global, multi-asset, broker-neutral EMS that provides direct access to nearly all significant sources of liquidity globally and hundreds of broker-neutral destinations.<br>■ Newport allows you to easily switch from executing single stocks to global programs, manage dispersed teams, customize trading strategies and conform your desktop to your workflow.<br>■ Instinet's powerful Insight suite is fully integrated within Newport, offering seamless access to pre-, intra- and post-trade analytics.<br>■ With its agency-only brokerage businesses also using Newport globally, Instinet is able to provide users an unparalleled level of support and capture invaluable feedback for future development efforts. | Hong Kong<br>Kym Graham \| 852.2585.0505<br>kym.graham@instinet.com<br><br>Singapore<br>Anthony Bowyer \| 65.6854.3409<br>anthony.bowyer@instinet.com<br><br>Tokyo<br>Jason Ledell \| 81.3.6366.8335<br>jason.ledell@instinet.com<br><br>Sydney:<br>Matthew Moore \| 61.2.8028.3019<br>matthew.moore@instinet.com |

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|---|---|---|
| Bloomberg™ | ■ Over 1,500 broker dealer destinations and over 40 dealers offering algo strategies trading<br>■ Support Single order entry and Drag Drop orders from users' PC file & Basket upload<br>■ Fully integrate to Bloomberg analytics, news, IOI and real-time data<br>■ Flexible post-trade STP solution to 3rd party back-office systems | Hong Kong<br>Elin Tan \| 852.2977.6405<br>etan14@bloomberg.net<br><br>Singapore<br>Manabu Okawa \| 65.6212.1887<br>mokawa1@bloomberg.net<br><br>Tokyo<br>Ryo Nakamura \| 81.3.3201.2229<br>rnakamura2@bloomberg.net |
| TradingScreen SIMPLIFYING GLOBAL MARKETS® | ■ Multi-broker, multi-asset class execution management solution<br>■ Pre-certified integration with the leading Order Management System and Portfolio management systems<br>■ Advanced execution management features multi-asset class algorithmic trading coverage; sophisticated strategy builder including Basket, Pairs and Spread trading capabilities<br>■ Fully integrated Post-Trade analytics suite covering Activity, Performance, Compliance and Transaction Cost Analysis functions | Hong Kong<br>Bernard Ho \| 852.3607.8977<br>bernard.ho@tradingscreen.com<br><br>Singapore/Sydney<br>Nathan Walker<br>65.6491.8670 \| 61.2.8249.4320<br>nathan.walker@tradingscreen.com<br><br>Tokyo<br>Haruo Hashimoto \| 81.3.4540.8500<br>haruo.hashimoto@tradingscreen.com<br><br>Tokyo<br>James Lee \| 81.3.4540.8500<br>james.lee@tradingscreen.com |
| ITG® INVESTMENT TECHNOLOGY GROUP | ■ ITG's Triton is a global, broker-neutral EMS. It connects traders to a wide range of markets, algorithms, broker desks and alternative trading venues around the world from a single platform<br>■ It is highly customisable, ideal for both single stock and list-based equity trading<br>■ ITG's world-leading pre- and post-trade analytics are built into the system to improve execution performance<br>■ As a broker, ITG's own trading expertise delivers ongoing enhancements to the platform. Commission-based payment structures are available | Hong Kong<br>Michael Corcoran \| 852.2846.3545<br>michael.corcoran@itg.com<br><br>Singapore<br>Matt O'Shea \| 65.6550.9780<br>matt.o'shea@itg.com<br><br>Australia<br>Dion Cooney \| 612.9779.4601<br>dion.cooney@itg.com |

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| TORA TECHNOLOGY. TRADING. LIQUIDITY. | ■ TORA Compass™ is Asia's leading multi-broker, multi-asset execution and order management platform with dedicated support teams across Asia-Pacific<br>■ Manage risk and compliance through TORA Compliance, a comprehensive and customizable rules and limits library<br>■ Advanced EMS/OMS features include the ability to trade complex strategies, make informed decisions through pre-trade analytics and customize workflows, trading parameters and algorithms<br>■ Broad connectivity to over 750 brokers and 250 algos globally, and 15 alternative venues in Asia<br>■ TORA Crosspoint™, TORA Clearpool™ and TSOR™ give access to unique off-exchange liquidity in Asia | Hong Kong<br>Jethro Glover \| 852.3983.5002<br>jethro.glover@tora.com<br><br>Tokyo<br>Simon Coombes \| 81.3.4550.2774<br>simon.coombes@tora.com<br><br>Singapore<br>Carol Sun \| 65.6823.6804<br>carol.sun@tora.com<br><br>Or contact<br>sales@tora.com |
| NYSE Technologies | ■ XiliX is an intuitive DMA trading platform providing access to more than 20 exchanges across 14 countries in Asia<br>■ Recognized as providing the most comprehensive real-time buy side compliance checks and controls<br>■ XiliX is strengthened by NYSE Technologies' commitment to reliability and exemplary customer service.<br>■ Built in Asia for Asia, XiliX takes full consideration of local market requirements, including a multi-lingual user interface-Japanese, simplified and traditional Chinese, Korean and English | Tokyo<br>Kenichi Morita \| 813.3664.4160<br>kmorita@nyx.com<br><br>Hong Kong<br>Claus Kwon \| 852.3973 6456<br>ckwon@nyx.com |

## PORTFOLIO MANAGEMENT SYSTEMS

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|---|---|---|
| Paladyne™ SYSTEMS | ■ The Paladyne Suite is an integrated set of applications including trading and order management, portfolio management, real-time P&L, portfolio accounting, global security master, data warehousing and custom reporting, pricing and valuation, and automated reconciliation<br>■ Combined Order Management and Portfolio Managed offering including electronic trading, pre and post trade compliance, trade allocations, real time P&L, shadow NAV along with multi-asset class and currency support<br>■ ASP (hosted) option available for all of Paladyne's products along with Advent Geneva and Sungard VPM hosting, including QA environment and real time mirroring for disaster recovery support | Hong Kong<br>Eric Royer \| 852.3695.5128<br>eroyer@paladyne.com |

| | | |
|---|---|---|
| TRADAR | ■ Tradar is a leading supplier of portfolio management and accounting solutions to the buy side<br>■ The solution provides all the facilities you need to capture and verify orders, compliance check and send them to your EMS via FIX. All regulatory and in-house compliance restrictions can be run in ad-hoc, pre-trade and post-trade modes. Funds can also manage the risk to their portfolio through our performance and risk analytics module<br>■ Fully customizable real-time and end of day reports provide flexibility for decision making, investor performance and accounting operations | Hong Kong<br>Steve Au \| 852.3652.6600<br>steve.au@tradar.com |
| LINEDATA BEAUCHAMP | ■ Multi-Asset, Multi-Strategy Front-to- Back Portfolio Management and Investment Accounting system with interfaces to 20 PBs and 50 TPAs with automated reconciliations, cash management, FIX connectivity, daily NAV, P&L and Position tracking as standard<br>■ Scalable architecture allows you add functionality to the system as your business grows<br>■ Locally Deployed or Hosted (ASP) solutions available with a startup package specifically designed for Hedge Funds | Keith Rogers \| 852.3583.7900<br>keith.rogers@hk.linedata.com |
| ADVENT® | ■ Advent's highly configurable calculation suite Syncova facilitates management and transparency of margin, financing and stock borrow terms and fees for hedge funds<br>■ Automated reconciliation, replication, optimization, alerting and attribution of margin and financing terms and fees<br>■ Detailed reporting and analysis to meet to investor demands for improved control and transparency | Hong Kong<br>Chris Schmutz \| 852.2297.2280<br>info@advent.com<br><br>Singapore<br>65.6631.2821<br><br>Beijing<br>86.10.8405.4888 |

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| THOMSON REUTERS | Hong Kong<br>Gareth Fong \| 852.3761.1800<br>gareth.fong@thomsonreuters.com<br><br>Tokyo<br>Shintaro Toba \| 81.3.6441.1742<br>shintaro.toba@thomsonreuters.com | Singapore<br>William Wheaton \| 65.6403.5555<br>william.wheaton@thomsonreuters.com |
| Interactive Data | Asia Pacific<br>Paul Shaffery \| 852.3962.8100<br>paul.shaffery@interactivedata.com | Asia Pacific<br>Rodney Geres \| 852.3962.8100<br>rodney.geres@interactivedata.com |

## DIRECTORSHIPS, MANAGEMENT COMPANY SERVICES

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| HF Fund Services Ltd. | Cayman Islands<br>Patrick Harrigan \| 345.949.9900<br>patrick@hffunds.com |

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| Principle Partners | Singapore<br>Will Tan \| 65.6329.9659<br>will.tan@principle-partners.com | |

## RESEARCH AND ANALYTICS SERVICES

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## OTHER SERVICES

| | | |
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| Encore PROFESSIONAL SERVICES | ■ Encore Professional Services specialises in Business Registration, Visa Processing, Payroll and Accounting Scalable architecture allows you add functionality to the system as your business grows<br>■ Encore can provide a complete turn-key for your business start-up, from domain registration, setting up bank accounts, secretarial services, recruitment and hardware procurement<br>■ Reliable, professional and personable services you can trust<br>■ Over 15 years' experience in Asia's Professional Services industry<br>■ Encore Professional Services is the exclusive provider to Compass Offices supporting over 1500 business across Hong Kong, Singapore and Tokyo | Hong Kong:<br>Rebecca Sham \| 852.3972.5650<br>info@encorepro.com |
| ADVENT® | ■ Advent's research management solution Tamale RMS® enables portfolio managers and analysts to easily capture, access and share their research.<br>■ Single, integrated research platform that brings key research information together for better, faster decisions<br>■ Automation of email processing, research categorization and content deposit<br>■ Mobile options keep investment professionals in synch from anywhere, anytime | Hong Kong<br>Chris Schmutz \| 852.2297.2280<br>info@advent.com<br><br>Singapore<br>65.6631.2821<br><br>Beijing<br>86.10.8405.4888 |
| Kledia | ■ Hedge Fund consulting: Supports the manager in the setting up the fund i.e. advising in selection of vendors (Legal, Hardware, Software, Real Estate) and subsequent coordination of actual implementation<br>■ Systems and software advisory: Selection of systems (PMS, RMS, OMS, EMS) to find the ideal combination matching both budget and trading strategy<br>■ Development of quantitative tools to streamlines day to day tasks of traders, risk management | Jean-Manuel Camguilhem \| 852.9745.8546<br>jeanmanuel@kledia.com<br><br>Martin Bertsch \| 852.2855.6912<br>martin@kledia.com |

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