



# Asia Research Project

## Executive Summary

*For the London Stock Exchange  
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*Research & Report Produced By:*

美策  
咨询



## I. Introduction

The London Stock Exchange is one of the world's leading equity exchanges and has always played a key role in the reference data industry, allocating and administering SEDOL™ codes to the marketplace for over 35 years. The Exchange is also the UK representative of the Association of National Numbering Agencies (ANNA) and combined with SEDOL codes allocates global ISIN codes to all UK listed securities.

### **What are SEDOL codes?**

SEDOL codes are seven character codes used to identify securities traded in the global marketplace. A SEDOL code is used to uniquely identify a security for trading, settlement and reporting purposes – streamlining post-trade processes and reducing trade failure.

### **Recent changes to the SEDOL code structure**

Due to the ever increasing demand for new SEDOL codes, and with the existing numeric code format reaching its capacity, a new alphanumeric coding structure was implemented to ensure the continuation of the service.

The new SEDOL Masterfile™ service, including the introduction of alphanumeric SEDOL codes, was launched in March 2004.

### **Enhancements to the service**

Coinciding with the code change the Exchange responded to customer requests to enhance the existing service and meet the industry's three test criteria of uniqueness, commonality and timeliness. Based on extensive industry consultation it was identified the absence of a unique, market-level, global security identifier increases STP inefficiencies and costs of cross-border trade failure.

Uniqueness – SEDOL codes are issued with additional identification data including the Market Identifier Code (MIC) and global ISIN code - providing complete uniqueness at the market level.

Commonality - SEDOL codes are proactively issued for every listed equity and every fixed-income instrument with further allocations to different asset classes planned, ensuring widespread access to a consistent and widely adopted security identifier code.

Timeliness - SEDOL codes are proactively issued for listed equities and fixed-income instruments with all other customer requests for non-listed instruments assigned SEDOL codes in real-time via a 24-7 web browser. In addition, SEDOL Masterfile reference data is delivered to direct data subscriber's intra-day.

### **Current SEDOL coverage**

The SEDOL Masterfile database currently holds c1m instruments, incorporating ISIN, SEDOL and MIC codes. Additional codes are being allocated at a rate of over 3,000 per day.

### **Planned developments**

The SEDOL Masterfile database is forecasted to grow to 2 million coded instruments by 2007. This includes further expanding SEDOL coverage into the Asian region and

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to add new asset classes such as futures and options, global debt, warrants, funds and commodities.

There are plans to extend SEDOL codes to include mappings to additional third party data e.g. sector codes, data vendor ticker codes and local back office codes. Finally the Exchange is investigating a counterparty data pilot with a number of large investment houses to assist the industry in providing a source of clean, reliable counterparty data, settlement instructions and linkages across issuers.

### **Asian research programme**

To gain a comprehensive understanding of the Asian market and the instrument identification challenges it faces the Exchange approached A-Team Group, which engaged Matrix Services, based in Hong Kong, and Finetik Partners, based in Singapore, to conduct focused research into the Asian region across eight countries. The information collected will assist the Exchange in growing its reference data product range and SEDOL data coverage to meet the needs of Asian markets.

## II. Demographics of Research

The research consortium conducted its research through structured interviews with 232 market participants, many of which were conducted face-to-face in eight countries throughout Asia. This sample was sufficiently broad in terms of geography and company type to ensure representative conclusions.

The following charts illustrate the location of the companies and the sector that the companies interviewed occupy.

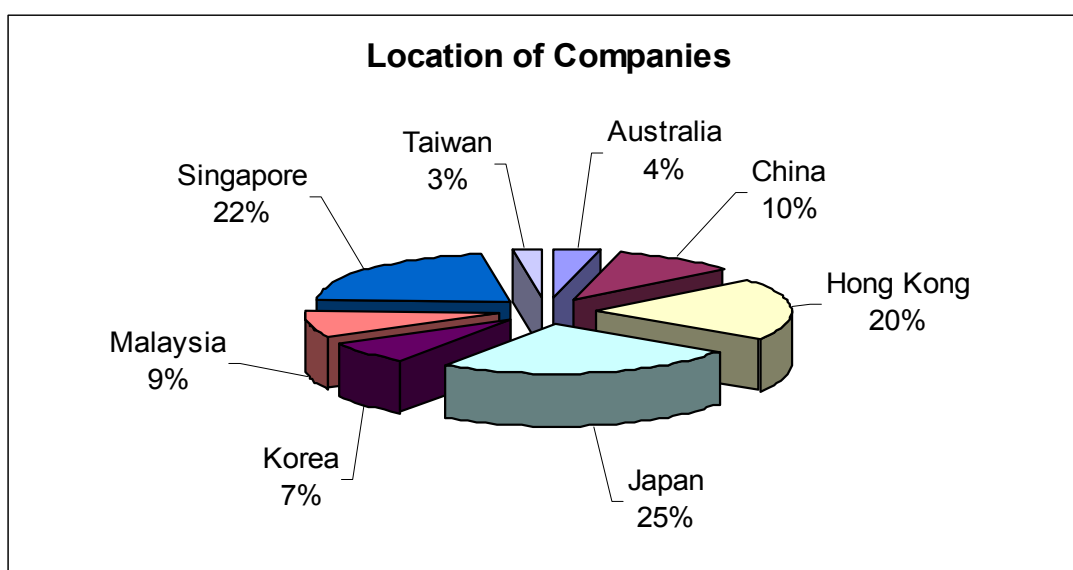


Chart 1: Location of Companies Interviewed

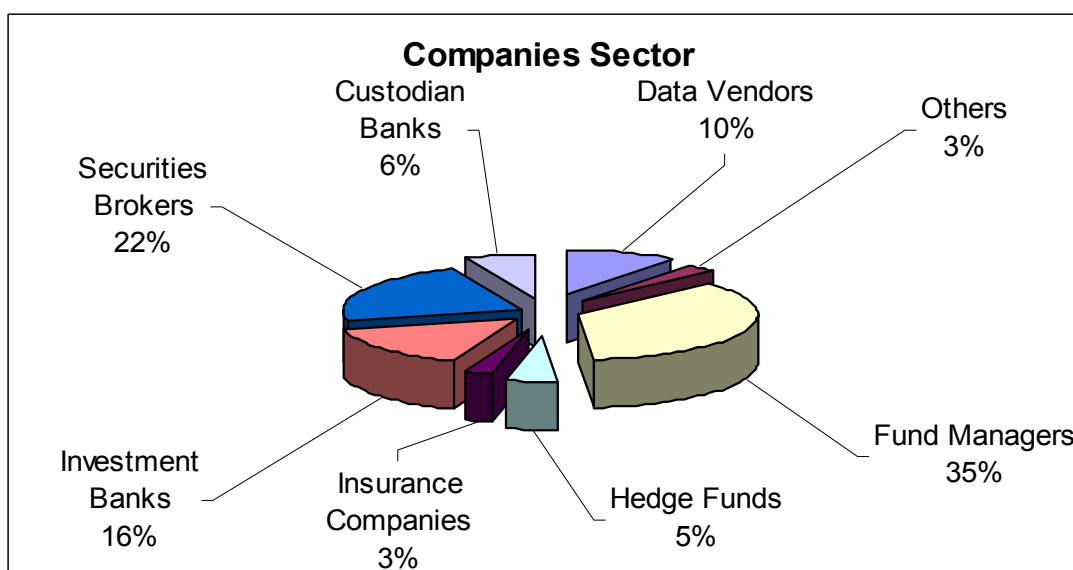


Chart 2: Interviewed Company Sectors

### III. Summary of Findings: Input for Marketing Literature

Many countries within Asia are growing at a rapid rate, but as has been experienced in Europe and North America, this growth has implications for financial institutions' trade processing practices. While technology can be implemented to ease problems associated with handling increasing volumes and increasingly international-focused transactions, the technology is of no use if the underlying data needed to manage such trades is erroneous.

As such, the issue of reference data<sup>1</sup> will become more of an issue in Asia. Accuracy, timeliness and coverage of reference data is of utmost importance. And an essential ingredient is securities identifiers, the codes by which a security is recognised.

Against this backdrop the London Stock Exchange commissioned research into the region to understand how eight Asian countries – Australia, China, Hong Kong, Japan, Korea, Malaysia, Singapore, and Taiwan – are dealing with reference data and in particular securities identifiers. The research, conducted by a total of 232 structured interviews with market participants, was conducted by a consortium of A-Team Group, Finetik Partners and Matrix Services.

This region is currently characterised by the following:

- Ongoing deregulation and liberalisation at the local level
- Opening of markets to foreign participation in the financial services markets (the WTO effect)
- Increasing attractiveness of foreign companies and products (the Demand effect)
- International capital moving back into Asia looking for better returns and geographically diversity
- Growth in investment and fund management; explosive growth in hedge funds and other alternative investments
- Continued consolidation in the equity broker market
- Growing importance of fixed income markets as source of corporate funding
- Introduction and development of exotic or structured products (e.g. derivatives, ELN etc.)
- Securitisation (e.g. Non Performing Loan)
- Soft dollaring has become less popular
- Keen competition – margins remain thin and cost control remains strong
- Low interest rate environment
- Pension privatization

#### The Data Landscape

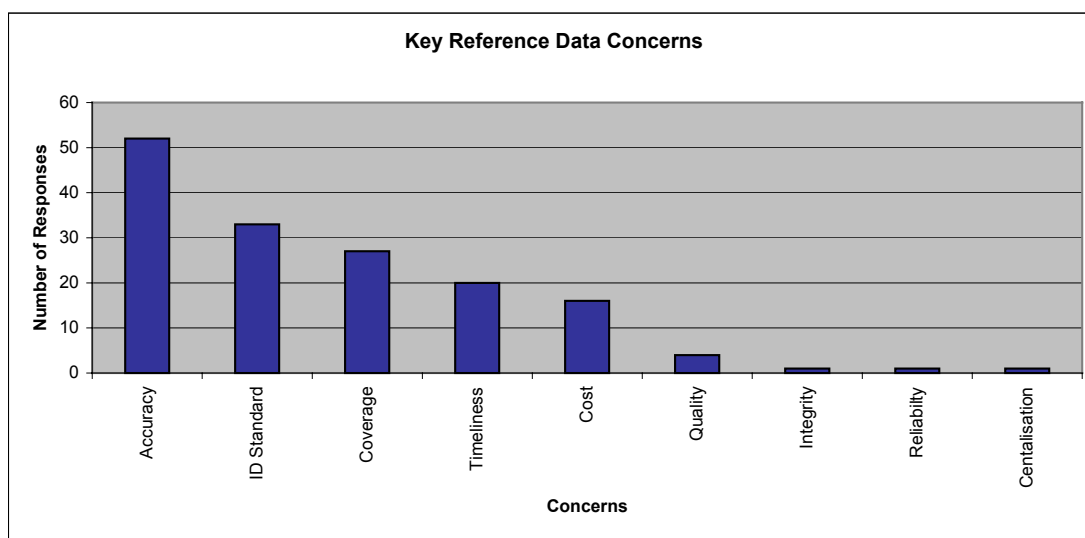
The issues surrounding 'reference data' and the associated regulatory drivers have

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<sup>1</sup> Any static data that describes assets and account entities required for transaction processing and is then fed through to other systems within the mid and back office. This data includes pricing (non-real-time), descriptive data, securities identification, and corporate actions. Source: A-Team Group

focused the minds of European and North American based firms in recent years. These issues are now becoming global in nature, thus requiring organisations such as the London Stock Exchange to have a fuller appreciation of the reference data challenges facing the Asian region.

As Chart 3 below shows key concerns that market participants have when considering reference data. Of primary importance is the level of accuracy of data. This is followed by the recognised need for a standard among the many securities identifiers in use. Coverage, timeliness and cost are also issues of concern.



**Chart 3: Reference Data Concerns**

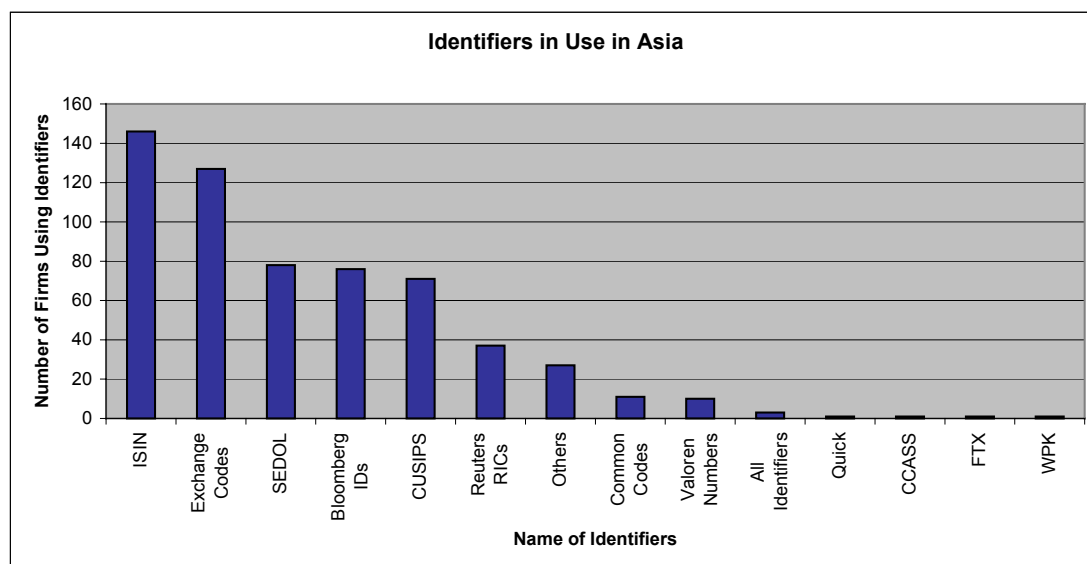
The fact that the need for a standard in securities identification is so high on the priority list is indicative of the importance of identifiers to the trade processing cycle, particularly with multiple listings and cross-border trading.

As Chart 4 shows, the use of security identifiers in Asia is extremely fragmented, with ISIN and SEDOL codes being widely used, together with a range of local exchange symbols (which obviously vary by country).

As per Europe and North America, whilst the front office tend to use short user-friendly identifiers associated with their data services such as Bloomberg IDs and Reuters Instrument Codes (RICs), back offices use longer computer-friendly codes such as ISINs, local exchange tickers and SEDOL codes.

In order to smoothly process data from the front office through to the back office and across to counterparties, which are becoming increasingly international, there must be consistency in the numbering schemes so that the relevant data is being identified correctly. Incorrect identification can lead to breakdowns in processing, the need for manual intervention to find and correct errors, higher costs and operational risk.

As regional markets become more internationally focused and the number of multi-listed securities grow, so does the demand to use industry standard instrument codes. In particular, security identifiers with an international coverage and ability to uniquely identify instruments at the place of listing.



**Chart 4: Identifiers in Use in Asia**

As Chart 5 illustrates, markets such as Singapore, Hong Kong and Japan are currently the most internationally focused markets in terms of the coverage of instruments in the databases of those data managers surveyed in each country.

This compares with the more closed markets of China, Taiwan and Malaysia which are currently domestically focused. However, these regions are undergoing major structural changes and market liberalisation for WTO 2008 in China and the Capital Market Plan in Malaysia. Subsequently, the demand for international data and associated securities identifiers within these currently domestic markets will grow significantly.

Trading in Asia is dominated by equities, as can be seen from Chart 6, but there is growth in fixed income as corporations seek additional methods of funding. In addition, there is also growing development and interest in exotic or structured products such as derivatives. Again, Hong Kong, Singapore and Japan are leading the field in this respect.

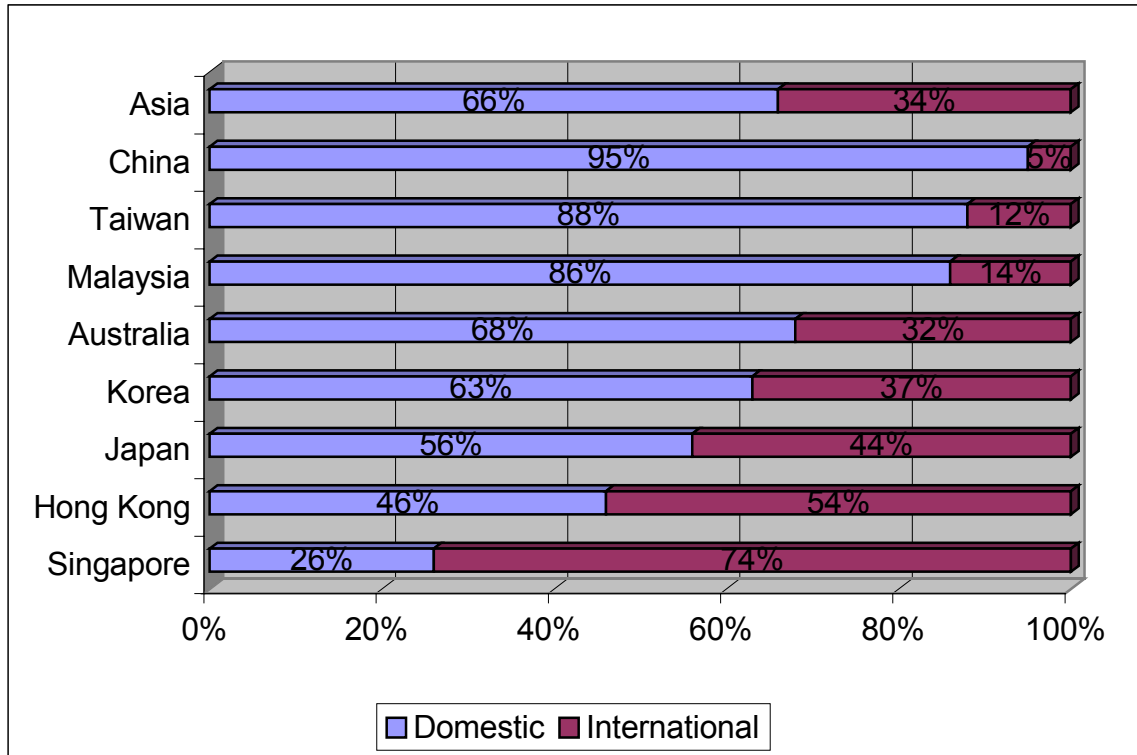
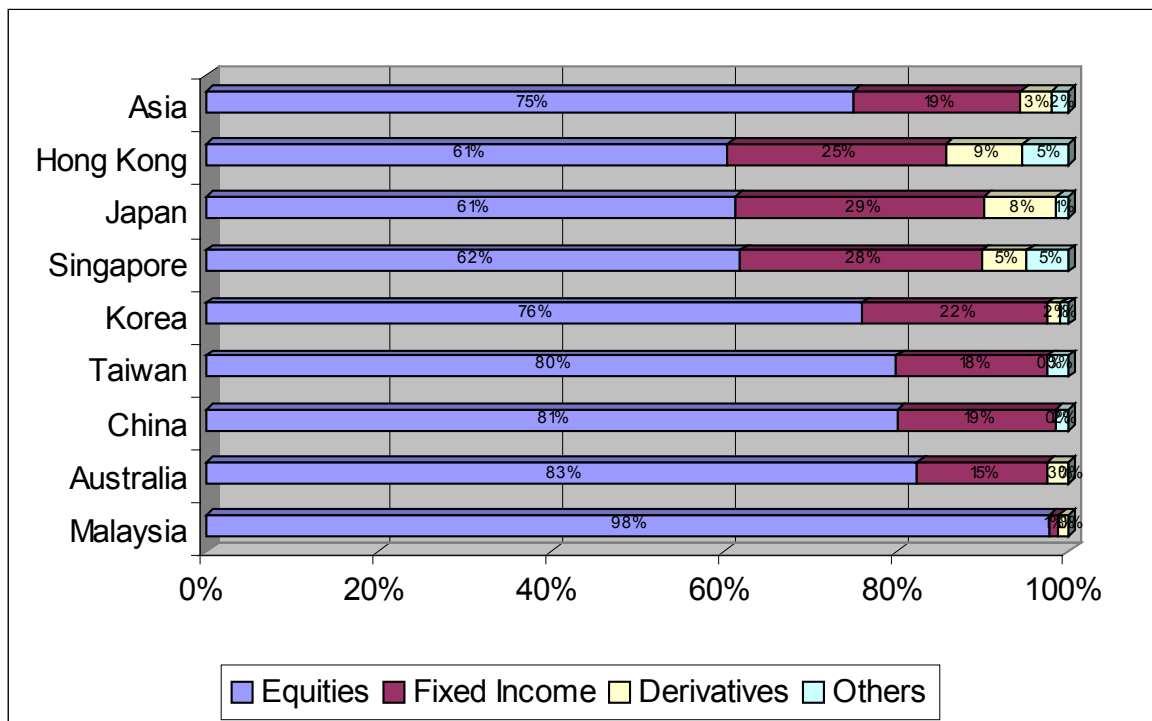


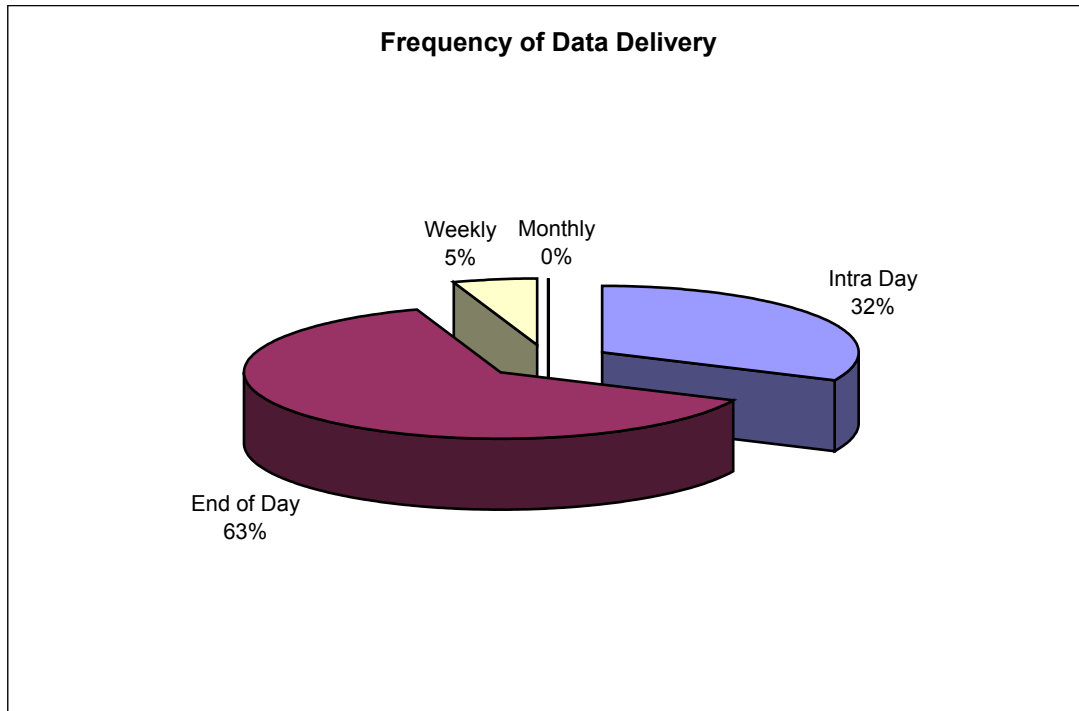
Chart 5: Domestic vs. International Coverage



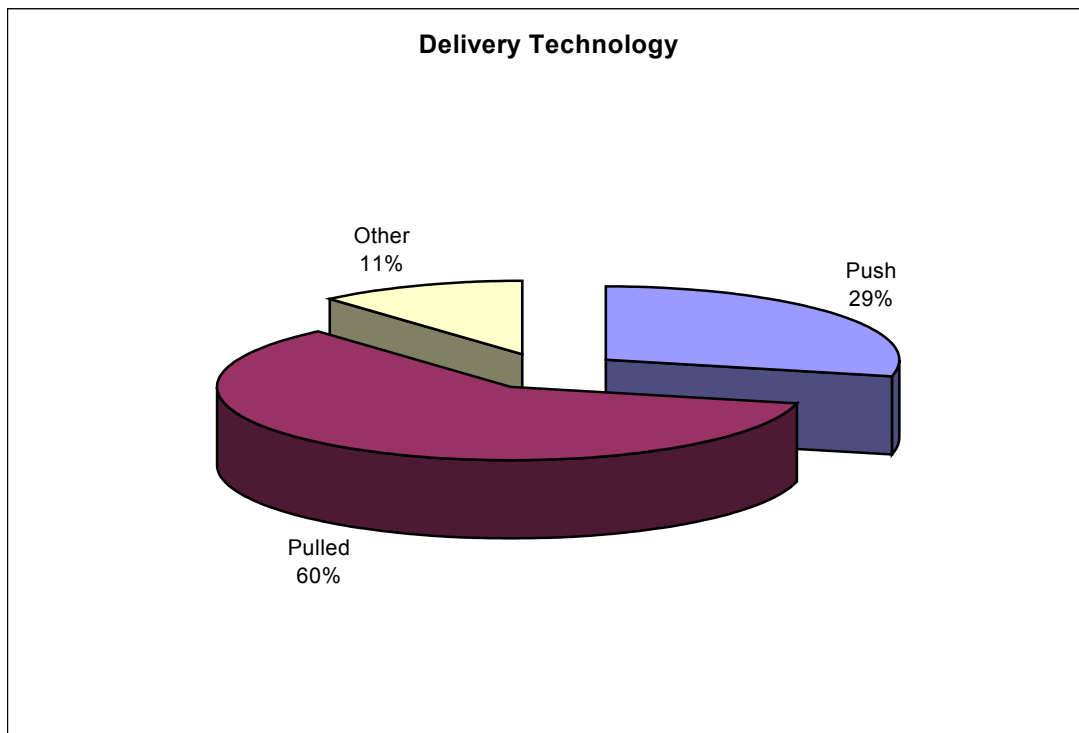
The comment from the LSE was that the percentages on the original chart were unreadable for Chart 6. I have put the 2 versions of the chart up. The first chart has the smallest font but still readable and the second chart without the percentages. Which is more preferable?

**Chart 6: Asset Class Coverage**

The frequency of data delivery has been predominantly end-of-day, although intraday frequency is becoming more relevant (see Chart 7). Regarding the delivery technology, the majority of users in Asia utilise pull-based technology, though again, push-based technology is growing in importance (see Chart 8).

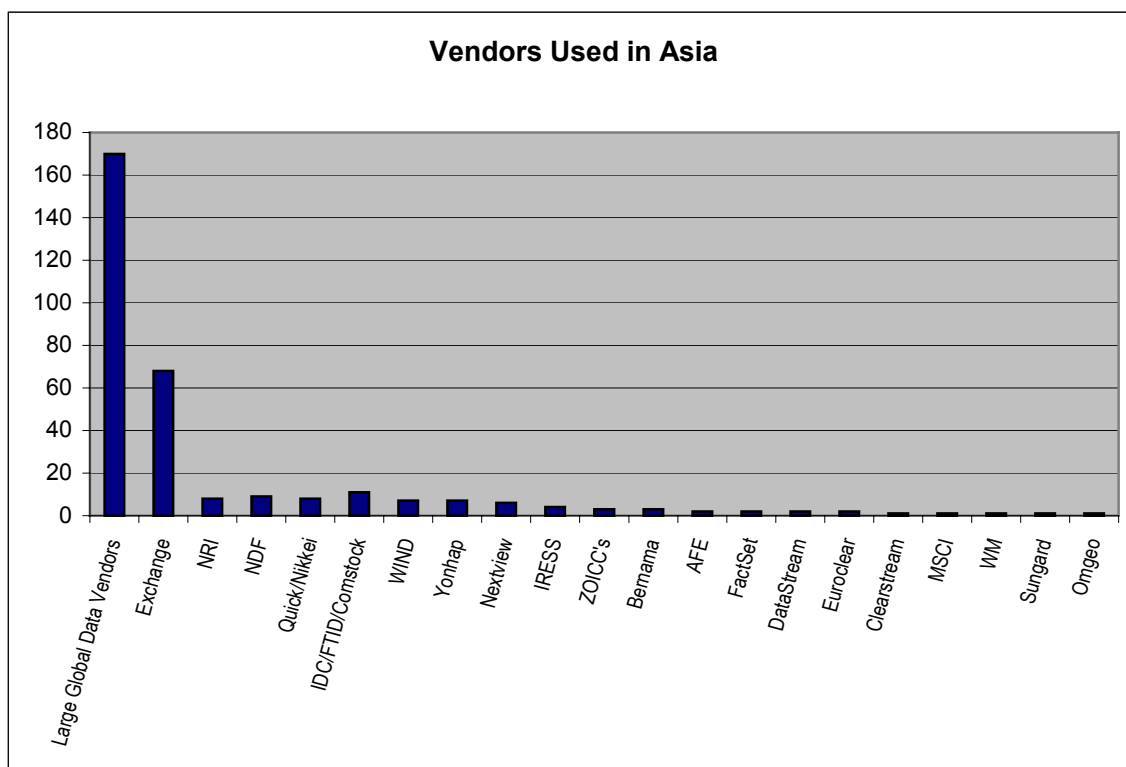


**Chart 7: Frequency of Data Delivery**



### Chart 8: Delivery Technology

Regarding data vendors, it is clear that although the large content providers dominate the provision of global data, a variety of domestic vendors are also prominent. In addition, many firms also collect data directly from regional Exchanges.



### Chart 9: Vendors in Use in Asia

As the findings from our research highlight, Asia is a region fragmented into many markets with their own rules, standards and data suppliers. If it is to cope with the ongoing, and in some cases expected, expansion of its markets it will need to ensure its underlying data infrastructure can handle the growth.

This means that data used throughout the enterprise from front to back-office will need to be accurate, timely and perhaps more importantly consistent in order to support cross-border and global trading.

In order to successfully identify securities and minimise trade failures, the use of industry standard codes that provide uniqueness across global markets is likely to grow with importance. As will the necessity to cross reference to the existing multitude of domestic identifiers, which are likely to continue to be used by local participants.