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Trends in the Global Capital Markets Industry 2012: Buy-Side Firms

Key emerging trends across buy-side firms and their implications on the global capital markets industry

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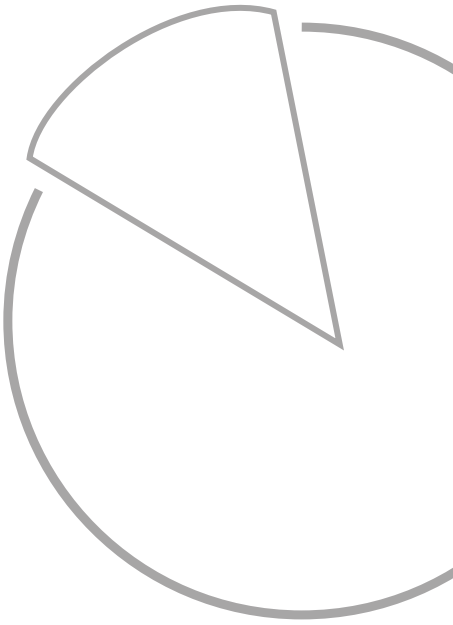
1. Highlights

As a result of the on-going debt crisis in the Eurozone and slowing emerging markets such as India and China, 2011 turned out to be a relatively difficult year for global capital markets. Most of these macro-economic issues also persisted in the first half of 2012.

In 2011, low investor confidence led investors to shy away from the riskier equity markets and look for relatively safer bets in the debt markets. Interest in commodities increased among the fund houses due to their ability to act as risk diversification tools. Gold emerged as the biggest beneficiary of this trend and continued its bull run in 2011.

Overall the global buy-side industry[1] experienced a mixed year in 2011 with a collective market size of $58.3 trillion (up 0.5%) as of December 2011. The pension fund industry reported collective assets under management (AUM) of $27.5 trillion (up 3.9%) for the year ending December 2011. Sovereign wealth funds had a good 2011 and witnessed their AUM base growing by 9.6% during the year to reach $4.8 trillion by December 2011. The hedge fund industry—which was recovering from the financial crisis of 2008-09—reported global AUM of $2.2 trillion (down 0.9%). The mutual fund industry with a collective global AUM of $23.8 trillion (down 3.7%) continued to be under pressure as the difficult market environment dented investor confidence leading to net outflows during the year.

A combination of difficult market environment, increased scrutiny by market regulators, and rising cost pressure is reshaping the way the buy-side firms operate.



1 For our analysis, the market size for buy-side industry includes only the collective assets under management of mutual funds, pension funds (for top 13 nations), sovereign funds and hedge funds

2. Introduction

2.1. Global Capital Markets Players[2]

Global capital market players can be broadly divided into three core categories:

- **Buy-Side Firms:** Mutual funds, hedge funds, pension funds, unit trusts, proprietary trading firms, and private equity
- **Sell-Side Firms:** Investment banks, brokerage houses, and independent analysts
- **Financial Intermediaries:** Stock exchanges, clearing houses, and custodian banks

This paper reviews and summarizes the key trends prevalent across buy-side firms and their implications on these firms and global capital markets.

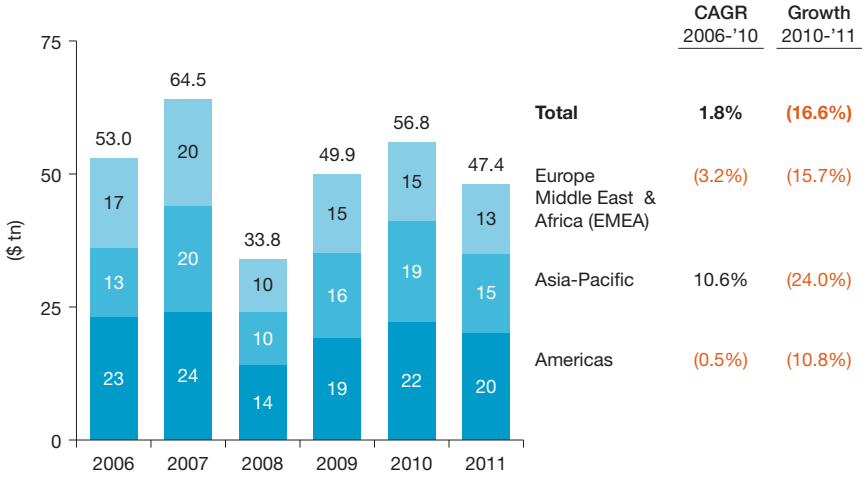
2.2. Global Capital Markets Performance

As a result of the ongoing Eurozone debt crisis and slowing growth in emerging markets such as India and China, 2011 turned out to be a difficult year for capital markets.

Global equity market capitalization declined 16.6% or $9.4 trillion in 2011, as the sovereign debt crisis in the Eurozone weakened investor sentiment. Asia-Pacific however, was the worst-affected market with its combined market capitalization falling by around 24% during the year.

Markets in Europe, the Middle East, and Africa collectively fell by 15.7% due to investor concerns around growth prospects of the Euro Zone. The very existence of the euro was questioned leading to investors becoming underweight of European equities. Equity markets in the Americas however emerged as the notable exception and outperformed other regional peers despite the S&P downgrade of the U.S. This was due to relatively poor fundamentals of Europe and slowing emerging markets in Asia-Pacific.

Exhibit 1: Global Equity Market Capitalization ($ trillion), 2006–11



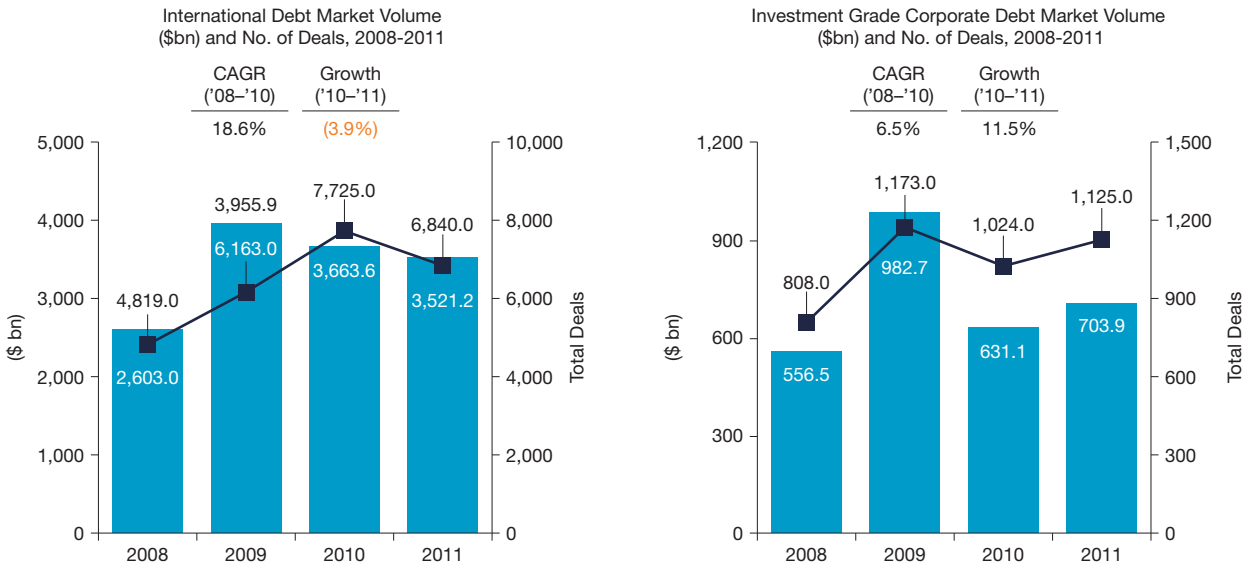
Source: Capgemini Analysis, 2012; World Federation of Exchanges, 2012

2 Wealth management and private banking are covered in a separate paper within our *What You Need to Know* series

The government bond market witnessed slow activity in 2011 due to excess supply from government auctions. International debt market volume declined 3.9% to $3,521.2 billion from $3,663.6 billion in 2010. Euro-denominated bonds were the worst impacted and witnessed their volumes decline by 51.3% to $81.8 billion in 2011 from $168.1 billion in 2010. Non-resolution of the sovereign debt crisis, looming recessionary fears in several major Eurozone economies, and already high levels of public debt of certain peripheral European nations (Portugal, Ireland, Italy, Greece, and Spain) dimmed investor interest in government bonds and were the primary reasons behind the fall in volumes.

On the other hand, corporate bond issuance grew in 2011 despite higher yields, as firms chose the debt route over depressed equity markets. Volumes of investment grade corporate debt grew 11.5% from $631.1bn in 2010 to $703.9 billion in 2011. The volumes of high-yield corporate debt, on the other hand, declined 9.5% from $306.8 billion in 2010 to $277.8 billion in 2011 due to investors' proclivity to avoid risky investments. Worsening economic fundamentals resulted in more companies falling under the high-yield bonds category during the year.

Exhibit 2: International Government Debt and Investment Grade Corporate Debt, Market Volume ($ billion) and Number of Deals, 2008–2011



Source: Capgemini Analysis, 2012; Market Data Q2 2012, International Capital Markets Association

Commodities funds continued to see growth in 2011, driven by new investors interested in this asset class as a portfolio diversification tool. Unrest in the Middle East and demand from emerging markets made energy the most preferred commodity bet for commodity-based investment funds. On the other hand, fears of sovereign debt contagion helped gold continue its run with a huge demand for funds tracking gold as a commodity. Fears of a double-dip recession and an overall slowdown in the European economy halted the growth for funds invested in base metals. Several base metal commodities such as copper and lead corrected significantly on the London Metal Exchange due to subdued physical demand.

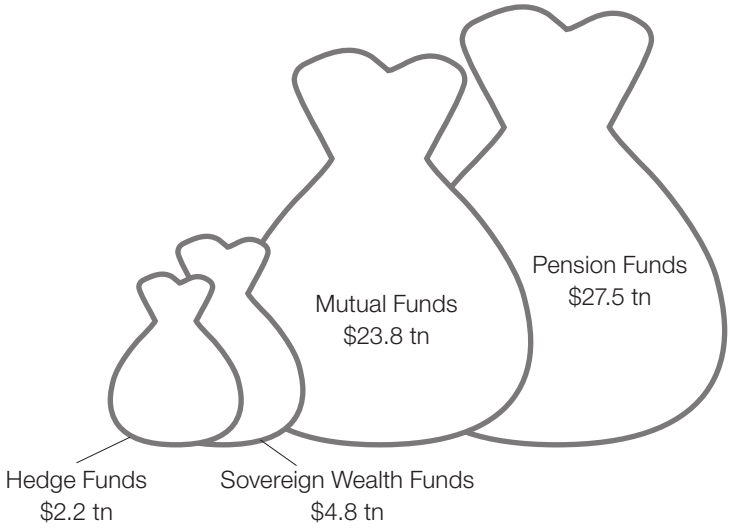
3. Emerging Trends in Global Capital Markets: Buy-Side

The year 2011 and most of 2012 has been marred by macroeconomic issues ranging from a debt-laden Eurozone to slowing growth in the emerging markets of the Asia-Pacific region. Making the situation worse was a series of sovereign downgrades, including that of the U.S. by credit rating agencies on fiscal concerns. These economic risks negatively impacted investor confidence which sunk to new lows after seeing a sharp resurgence during 2009-2010.

The prevailing economic chaos and falling consumer confidence negatively impacted the financial markets with certain sections of the buy-side industry being the worst-hit. Overall, the buy-side industry, which comprises of multiple participants ranging from individually-run hedge funds to mutual funds and pension funds, to state-run sovereign wealth funds, went through a volatile period largely due to macro challenges.

The market size of the global buy-side industry stood at $58.3 trillion[3] as of December 2011 with pension funds the largest participant at $27.5 trillion followed by mutual funds with a collective AUM of $23.8 trillion by December 2011.

Exhibit 3: Buy-Side Market Analysis – Major Participants as of December 2011



Source: Capgemini Analysis, 2012; World Federation of Exchanges, 2012

The pension fund industry was relatively stable in 2011 with collective pension assets of the 13 largest pension markets accounting for a record $27.5 trillion in December 2011 representing a 3.9% rise during the year[4]. The U.S represented the largest and most significant pension fund market with total pension assets of $16.1 trillion, roughly 107% of its 2011 GDP.

3 Based on an aggregate of AUMs held by pension funds, mutual funds, sovereign wealth funds, and hedge funds. Other buy-side participants like private equity and venture capital funds are excluded for our analysis

4 Global Pension Assets Study 2012, Tower Watson, January 2012

The U.S. market remains the most important constituent of the global mutual fund industry with an AUM of $11.6 trillion (48.7% of the global AUM of $23.8 trillion) as of December 2011. Continuing economic uncertainty since the beginning of the global financial crisis of 2008-09 has severely dented investor confidence and has resulted in total outflow of $546 million in the past three years from the mutual fund AUM. Three consecutive years of net outflows for the industry depicts the relatively difficult environment that this important part of buy-side industry is facing.

The sovereign wealth funds (SWFs) and hedge fund industry which have been relatively smaller buy-side participants are gaining prominence. Sovereign wealth fund assets reached the $5 trillion mark in June 2012 and the hedge fund industry has recovered well since the 2008-09 financial crisis.

These ongoing developments have led to the emergence of the following key trends in the buy-side industry globally[5]:

- Demand for low latency is driving changes in the data center architecture.
- Product design and pricing of Order Management Systems is getting overhauled due to changing customer business dynamics.

Note that several trends covered in the 2011 *Trends in Global Capital Markets* series are still relevant and not shown again. These include:

- Landscape of investment products is evolving due to increased pressure from shareholders and changing investor demands.
- Continued focus on developing internal enterprise risk management (ERM) systems.
- Increased investments in automating trading platforms, reducing latency, and enhancing data analytics capabilities.
- Buy-Side firms are expanding their operations in high-growth emerging markets.

Trends in the Global Capital Markets Industry 2011: Financial Intermediary Firms

Trends in the Global Capital Markets Industry 2011: Sell-Side Firms

Trends in the Global Capital Markets Industry 2011: Buy-Side Firms

5 Trends shown are not necessarily comprehensive, but have been highlighted due to their relevance and potential impact on the industry

4. Trend 1: Demand for Low Latency is Driving Changes in the Data Center Architecture

There has been a natural desire among capital market firms for systems that can help execute orders with the lowest possible latency.

4.1. Background and Key Drivers

The latency associated with the execution of a trade has cost implications for traders. Higher latency might result in the trade being executed at a less than optimal price, thereby resulting in the cost of execution going up for traders. There has been a natural desire among capital market firms for systems that can help them execute their orders with the lowest possible latency. This has in turn created a need for data center architectures which can ensure low latency in communication with trading venues. The key drivers are:

- The regulatory mandate to increase competition among trading places has resulted in the liquidity getting divided among multiple trading venues.
- The desire of the participants to exploit the market and statistical arbitrage opportunities that this division of liquidity presents, creates the need for data infrastructures which can deliver low latency in communicating with multiple venues.
- The rising importance of high frequency trading (HFT) and the need for low latency that it imposes are driving the requirement of data center infrastructures which can provide low latency.

4.2. Analysis

The current capital markets landscape is no longer dominated by monopolistic national stock exchanges where liquidity used to be concentrated earlier. A series of regulatory measures aimed at increasing competition among trading venues, most notably allowing Alternative Trading Systems (ATSs) in the U.S. and Multilateral Trading Facilities (MTFs) in Europe, have contributed to this. The fragmentation of liquidity which resulted from the proliferation of trading venues has resulted in the evolution of market arbitrage strategies which in turn require infrastructure capable of carrying out real-time data analysis for identifying the venue where trades should be carried out to get the best price execution.

Buy-side firms traditionally used to route their orders to their sell-side brokers who in turn executed them on the exchanges on their behalf. This process was however time consuming and did not provide the low latency which buy-side firms needed to exploit the arbitrage opportunities existing between different venues. Consequently, there has been an increased migration of buy-side firms to the “direct market access” route wherein they use their broker’s membership for trading directly on the exchanges.

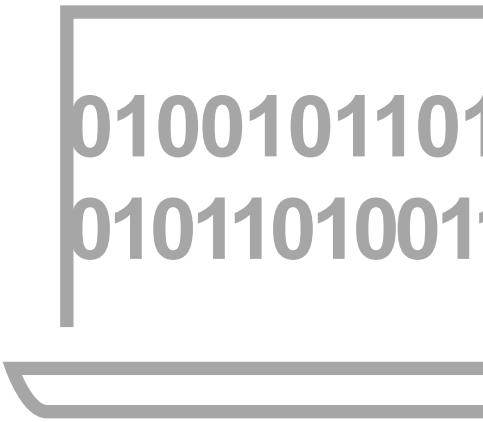
Large buy-side firms build or lease their own data centers in proximity to large exchanges, while smaller use data centers provided by carriers.

The need for low latency has made co-location (which initially used to be sell-side specific need) into a major consideration of buy-side firms too. Typically, large buy-side firms build or lease their own data centers in proximity of large exchanges, while the smaller ones tend to go for data centers provided by carriers. Besides, firms are increasingly looking for networks which can minimize the number of hops and thus provide the speediest possible connection to trading venues. Provision of tiered network services which make redundant the need for integrating front and back office network services, has also emerged as a key service being offered by network vendors to their capital markets clients.

4.3. Implications

The need for data centers which can provide low latency to clients has many significant technological implications. Processor load is expected to increase significantly, driving processor manufacturers to enhance the processing ability of their products. Also, network processing units (software programmable devices having functionalities similar to central processing units or CPUs) and field programmable gate arrays (integrated circuits which can be configured after manufacturing) might have to be used to offload a part of the processing load from CPUs.

The need for low latency is also driving changes in the networking technology used by capital market firms. Recently, the use of network interface cards with pre-loaded Field Programmable Gate Arrays, which take care of certain functions such as filtering of traffic before the data reaches servers and thereby reduce the latency of execution, has been gaining popularity with participants. Even in storage, shift towards devices such as flash drives which have lower response time compared to hard disk drives, is being witnessed.



5. Trend 2: Product Design and Pricing of Order Management Systems is Getting Overhauled Due to Changing Market Dynamics

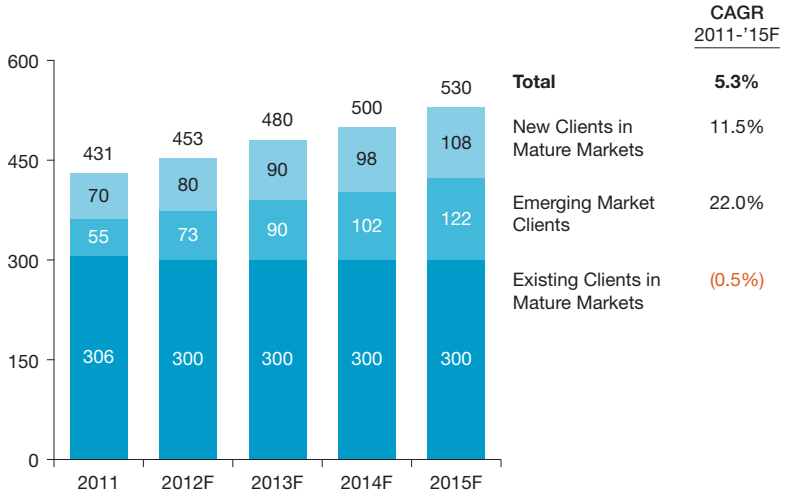
5.1. Background and Key Drivers

Buy-side organizations use order management systems (OMS) for trade order execution through automated software platforms. These systems play an important role for buy-side firms by offering trade-related functions including execution of order, changing of order, and cancellation/updating of orders to the exchanges through the sell-side route, which in turn execute it through the exchanges as members.

A combination of economic and business related factors have been driving design and pricing related changes in OMS products, of which the major ones can be categorized under three heads—evolving regulations, changing customer needs, and increasing need for customization. The key drivers are:

- Subdued economic environment in most of the developed world has led to buy-side firms looking for growth in emerging markets, thereby creating the need for new geographic capabilities for OMS solution providers.
- Evolving regulatory landscape, which requires additional stringent compliance standards to be followed by the financial services industry.
- Increasingly commoditized nature of OMS solutions is forcing vendors to look for value-added services with enhanced and unique capabilities.

Exhibit 4: Buy-Side OMS Expenditure Projections ($ mn), 2011–15F[6]



Source: Capgemini Analysis, 2012; Celent: "Buy side order management systems – Providing More for Less", Anshuman Jaswal, November 2011

6 Number and growth rates provided in the chart are based on approximations

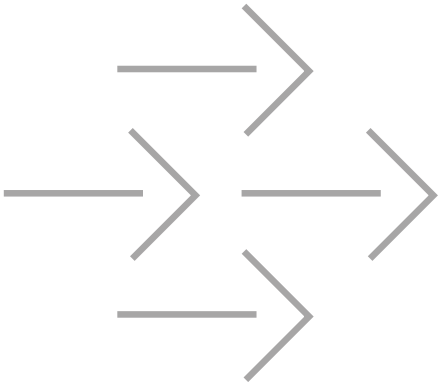
5.2. Analysis

Due to subdued growth opportunities in the mature markets of North America and Europe, many buy-side firms are expanding their operations through emerging financial centers in Asia-Pacific, including Singapore, Shanghai, and Hong Kong. Growing need for a global-level service offering by clients is driving OMS solution vendors to build their capabilities within these emerging financial centers.

Additionally, firms which have been traditionally operating on a single-asset trading platform are demanding multi-asset platforms, which can execute not just equity trades but commodities, FX, and fixed income trades too. The sluggish business environment on the other hand has also led to clients demanding an array of value-added services at lower costs due to budget constraints.

After the financial crisis, the regulatory landscape around the world has evolved significantly with the objective of overcoming earlier shortcomings and preventing future financial system crises. Buy-side firms such as asset management companies and hedge funds are now facing various regulations such as MiFID, UCITS, Reg NMS, Dodd-Frank Act, Alternative Investment Fund Managers Directive, and European Market Infrastructure Regulation. Complying with all these regulations and standards is expected to be even tougher as they keep getting updated on an ongoing basis. These developments have created a need for OMS enhancements.

The OMS vendor market has become increasingly competitive over the years with request for quotes by a potential client often attracting quotes from multiple vendors. The competitive nature of bidding and an increasingly demanding nature of the clientele have led to vendors coming out with comprehensive solution packages with multiple functionalities. Currently, most OMS solutions resemble each other on the functionality aspect as well as on the way they connect to other execution platforms. The offerings have thus become increasingly commoditized with not much to differentiate between various OMS solutions.



5.3. Implications

The increasingly commoditized nature of OMS solutions and desire of OMS vendors to provide something differentiated is forcing them to lookout for innovative pricing models. New pricing models in the form of Application service provider (ASP) or Software as a service (SaaS) models are increasingly being used to attract and retain budget-conscious customers. Additionally, as capital market firms look to outsource more and more of their non-core functions, OMS vendors are certifying as well as maintaining financial information exchange connectivity to their liquidity support partners.

The increased competition in the OMS vendor market and the increasing commoditization of OMS products has also increased to buyer power of buy-side firms, as they are now in a position to dictate the terms of engagement to their vendors and extract the best possible product configuration and most competitive pricing model from them.

References

1. *2011 WFE Market Highlights*, World Federation of Exchanges, January 2012, http://www.world-exchanges.org/files/file/stats%20and%20charts/2011%20WFE%20Market%20Highlights.pdf

2. Celent: "Buy side order management systems – Providing More for Less", Anshuman Jaswal, November 2011

3. Financial Times: "Europe urged to restore market confidence – Financial Times", February 2012

4. *Global Economic Prospects January 2012: Uncertainties and Vulnerabilities*, World Bank, 2011, http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1322593305595/8287139-1326374900917/GEP_January_2012a_FullReport_FINAL.pdf

5. *Global investor confidence index*, State Street Global Markets, August 2012

6. *Global Pension Assets Study 2012*, Tower Watson, January 2012

7. *How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation* –U.S. Securities and Exchange Commission – July 2012

8. *International Capital Markets Association: Market Data 2nd quarter 2012*. International Capital Market Association. http://www.icmagroup.org/market-data/Market-Data-Dealogic/#1

9. Ovum: "Data Center Architectures for Low Latency, The race to zero continues", Rik Turner, Ian Brown, July 2012

10. Ovum: "Financial Markets Technology Spending Through 2016 ~ Location Segmentation", Daniel Mayo, July 2012

11. *The Wall Street Journal*. Dow Jones & Company, Inc. http://online.wsj.com

12. *World Federation of Exchanges: Query Tool*. Intelligent Financial Systems Limited. http://www.world-exchanges.org/query-tool

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We would also like to thank **Ashish Kanchan, William Sullivan, David Wilson, Aloke Paskar, Deepak Srinivas, Shekhar Mukherjee,** and **Santosh Ejanthkar** for their overall contribution to this publication.

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