FISD

2014 Market Data Survey Report

A comprehensive review of Market Data management at FISD consumer firms.

Confidential to FISD Consumer Participants
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Introduction

Managing Market Data continues to challenge FISD consumer firm members as product complexity, new regulatory guidelines, and increasing cost pressures are driving the need for efficient, transparent and highly effective processes. Firms have developed their Market Data management functions to meet their varying needs, and in some cases have taken these approaches in similar tracks, but have also needed to innovate. FISD recognizes that this is an opportune time to examine consumer firms’ processes and approaches, and the results may be of significant benefit to the Industry.

Only FISD Consumer Constituency Group Members (CCG) that participated in the survey are receiving and entitled to see the comprehensive report of the results. Non-participating CCG members and FISD Executive Committee members will be given a broad overview of the results that has been approved by the steering committee for this project.

This report was created in cooperation with Investit Ltd. (investit.com) a specialist investment management research, benchmarking and consulting firm which guides firms in creating efficient and effective businesses. With an eleven-year track record of benchmarking investment management firms, Investit has the ability to assess processes against the market, a self-selected peer-group and industry best practice to help leading firms maximise their return on investment.

Confidentiality

This was a completely confidential survey and was managed by FISD and Investit. Results are being shared only with the consumer firms who participated. Participants should not share this report outside of their organization.

Participating firms are not identified in any manner.

Goal

The goal of this survey is to provide FISD consumer firm members with metrics and information related to the management of Market Data as well as to enable a comparison of individual member firm’s approaches with the baselines and solutions identified in the survey across the various aspects of Market Data management workflows.
Scope

The survey is intended to be a comprehensive review of the Market Data Management process across the FISD consumer firms. Survey sections include staffing levels and organization, administration, financial, vendor management and governance. The questions in the survey were developed and tested by a subcommittee of the Consumer Constituency Group. There are six sections in the survey:

- Section One: Classification & Firm Characteristics
- Section Two: Organization Structure
- Section Three: Administration
- Section Four: Financials
- Section Five: Vendor Management
- Section Six: Governance

Definition of Terms

Market Data

Market Data is the financial information used in the investment process from investment analysis and evaluation, through the trade process to performance evaluation, record keeping, reporting and valuation. Market Data exists for all classes of financial instruments including equities, fixed income, currency, derivatives, etc.

Market Data Management

Market Data Management is the overall business function supporting the acquisition, delivery, inventory and support of Market Data and related software platforms.

Market Data Administration

Market Data administration is the specific function that manages a firm’s inventory of Market Data services and spend. The people providing this function: review, reconcile and allocate vendor invoices; maintain the inventory to reflect changes in price, users, and other cost drivers; perform exchange/vendor reporting; execute orders with vendors.

Market Data Costs

Market Data costs are composed of external vendor services but also include internal costs related to administration. Spending should include all Market Data expenses (regardless of hard or soft dollar payment.) Spending should not include trading systems (i.e., Bloomberg’s TOMS or SSEOMS, Charles River, etc.), portfolio accounting systems (i.e., Portia) and related transaction systems except
for any pass-through of data costs. Market Data costs should reflect full year expenditures. The Market Data content categories to be included follow.

Analytic Tools
- Often included in workstation platforms and on a stand-alone basis
- Performance attribution tools (FactSet PA, Barclays POINT, Bloomberg PORT, etc.)
- Risk models (Barra, Wilshire, Axioma, Northfield, etc.)
- Bond analytics (Bond Edge, PC Bond, Intex)
- Miscellaneous tools - Baseline, other charting, etc.

Exchange Fees
- Pro and non-pro usage
- Domestic and international exchanges
- End user and redistribution costs
- Individual user and non-display costs

Index Data
- Active manager licenses
- Passive index fees - both buy and sell-side vehicles
- MSCI, S&P, FTSE and Russell plus most exchanges and multiple niche providers (e.g. fixed income benchmarks)
- Include redistributors (e.g. RIMES)

Mutual Fund / ETF Data
- Morningstar, Lipper, eVestments, etc.
- Both internal and external distribution

News Services
- Typically received with a workstation platform but could be separate
- Both real-time and delayed
- Includes Dow Jones, Reuters, Bloomberg, international news, etc.
- Excludes “print” subscriptions for general purpose news and information (WSJ, Economist).

Real Time Data
- Direct feeds and use of redistributors
- Unique trading requirements (low-latency)
- Internal use and external redistribution
- Snap and streaming feeds
- Delayed data feed costs
- All external vendor fees charged for services, infrastructure, support, etc.
Exclude internal infrastructure costs related to data delivery and distribution due to concerns with inconsistent cost models across firms.

Reference and Pricing Data
- Security Master data
- EOD and intra-day pricing
- Fundamental data
- Estimates data
- Ratings feeds (e.g., S&P, Moody's, Fitch)
- GICS and other classification schemes
- Other reference data
- Includes Bloomberg (data license), IDC, Thomson Reuters, Six Telekurs, S&P, Markit and boutique providers
- Includes investment data from suppliers (e.g., TradeWeb, Omgeo & ICAP)
- Excludes costs of trading related services from these providers
- Could involve external as well as internal use

Research
- Credit research providers (e.g., Moody's, S&P, Fitch, Credit Sights)
- Broker research is usually free to customers
- Equity and industry analysis (e.g., mostly boutique providers like Ned Davis, BCA, GaveKal)
- Include only research used in investment process (exclude market or IT related research)

Specialty Third Party Content
- Corporate events products (e.g. Street Events)
- Content focused on specific industry verticals (e.g. SNL, REIS, Intex)
- Specific marketplace/sector/industry focused content (e.g. GovPx, IFR)
- Content that can be delivered directly by the vendor or over third party workstations and Market Data platforms

Workstations and Market Data Platforms
- Device/platforms used to access data and analytics
- Includes Bloomberg terminal, FactSet workstation, Thomson Reuters platforms (both legacy & Eikon), CAPIQ
- Includes services received via web distribution, client/server networks or other means

Other Data Costs
- Catch-all for costs that are difficult to classify
- Security processing and admin costs such as trading fees, proxy services, should be excluded from Market Data
Highlights

Classification and Firm Characteristics

The source data for this report consists of responses from 34 FISD member firms and represents a cross-section of the asset management industry and includes asset servicers, buy-side and sell-side firms. Most of the participating firms are global enterprises with a broad geographic footprint. Over 90% are multi-asset class and require a broad array of information and data to support their business. Participating in the survey provides valuable insight into the dynamics of organizations and the industry as a whole. Sharing experiences and evaluating opportunities empowers firms to enhance the opportunity for success in today’s changing market conditions by leveraging the wisdom of the broader industry.

Throughout this report, we segment results to reveal further insight into the realities of managing a Market Data organization. Segmentation of results includes the following:

**Type of firm**
- Buy-side
- Sell-side & Asset Servicers

**Assets Under Management (AUM)**
- $0bn to $200bn
- $200bn to $500bn
- $500bn +

<table>
<thead>
<tr>
<th>PARTICIPATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Participants</td>
<td>34 member firms</td>
</tr>
<tr>
<td>Buy-side</td>
<td>50%</td>
</tr>
<tr>
<td>Sell-side &amp; Asset Servicers</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSETS UNDER MANAGEMENT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy-side</td>
<td>Average: $614bn</td>
</tr>
<tr>
<td></td>
<td>Median: $400bn</td>
</tr>
<tr>
<td>Sell-side &amp; Asset Servicers</td>
<td>Average: $862bn</td>
</tr>
<tr>
<td></td>
<td>Median: $375bn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRMS SUPPORTING GLOBAL ASSETS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>78%</td>
</tr>
<tr>
<td>EMEA</td>
<td>84%</td>
</tr>
<tr>
<td>North America</td>
<td>94%</td>
</tr>
<tr>
<td>Central/South America</td>
<td>28%</td>
</tr>
</tbody>
</table>
Organization

Suvey Questions 7 – 13

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
<th>Question</th>
</tr>
</thead>
</table>
| **Organizational alignment** | 100% of responding firms indicated they currently have their Market Data organization centralized and 94% of firms centralize their Market Data administration.  
- 63% of firms centralize administration within back-office operations along with administration, legal, human resources, and IT.  
- 19% centralize administration within the front-office.  
- 12% centralize administration within the middle-office functions alongside risk and performance measurement.  
Market Data staffing alignment is distributed across business lines, geography or by vendor. No firm assigns staff by asset class.  
- 40% of firms assign staff by business line (custody, asset mgmt. and brokerage). Firms using this approach are typically asset servicing firms, sell-side firms and firms with over $500bn in assets under management.  
- 30% of firms assign staff by geography and are primarily international firms.  
- 30% of firms assign staff by vendor. These firms are typically small to mid-sized firms with less than $500bn in assets under management. | 8, 23    |
| **Staffing**             | Sell-side firms, on average, have larger Market Data teams than buy-side firms and the larger the firm (based on assets under management) the larger the Market Data team:  
**Segment**               | **Average # of FTEs**                                                                                       | 9        |
|                          | Buy-side                                                                                                       | 6        |
|                          | Sell-side                                                                                                      | 16       |
|                          | $0bn - $200bn AUM                                                                                              | 4        |
|                          | $200bn - $500bn AUM                                                                                            | 10       |
|                          | $500bn +                                                                                                      | 17       |
|                          | 78% of firms have formal job descriptions for Market Data staff. The frequency of compensation review varies among participants: | 9        |
|                          | - 39% of firms review job descriptions annually.                                                                | 9        |
|                          | - 22% of firms review job descriptions when staffing a new role.                                               | 9        |
|                          | - 41% of firms never review or are not sure of the frequency of job description reviews.                       | 9        |
| **Top activities**       | The top activities that Market Data teams engage in are invoice processing, cost allocations, vendor management – relationship management and compliance: contract negotiations and contract management. | 10       |
Administration

Survey Questions 14 – 48

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Invoice Processing</strong></td>
<td>The majority of firms process less than 1,500 invoices annually regardless of their AUM or their type.</td>
</tr>
<tr>
<td><strong>Segment</strong></td>
<td><strong>Average # of Invoices</strong></td>
</tr>
<tr>
<td>Buy-side</td>
<td>1,176</td>
</tr>
<tr>
<td>Sell-side</td>
<td>2,933</td>
</tr>
<tr>
<td>$0bn - $200bn AUM</td>
<td>750</td>
</tr>
<tr>
<td>$200bn - $500bn AUM</td>
<td>2,065</td>
</tr>
<tr>
<td>$500bn +</td>
<td>3,021</td>
</tr>
</tbody>
</table>

97% of firms are experiencing issues with the quality of the vendor invoices with 82% of invoice errors reported as having minor issues and 15% of invoice errors having major issues. This equates to firms, on average, resolving 1,230 invoices with minor issues annually and 225 invoices with major issues.

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**Inventory Management Systems**

The top two inventory tracking systems used by 74% of participants are The Roberts Group FITS at 44% and MDSL Market Data Manager at 30%. InfoMatch is gaining traction with 10% of firms using. Key system features that participants consider important to business processing yet need enhancements include the following.

<table>
<thead>
<tr>
<th>Inventory Management Systems</th>
<th>Importance Ranking</th>
<th>Need for Enhancement Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expense Management &amp; Control</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Contract Information (Prices Increases, Renewal Dates)</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Service Add/Change Requests</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>System Integration (HR, Finance, Vendors)</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Budget</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Service, Product Information</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Usage Metrics</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Market Data Related Infrastructure Info (Circuits)</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Consumer Profiles (Type Based Product Deployments)</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Vendor Details (Contact Info)</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Top functions offering significant opportunity for enhancement
Secondary areas of importance or limited enhancement required
Areas working well or less important, limited need for enhancements
### Administration continued

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reporting</strong></td>
<td>The overwhelming majority (91%) of firms have their Market Data reporting managed by the Market Data teams. 6% of firms have the Procurement department managing Market Data reporting and 3% of firms have the Finance department.</td>
<td>25</td>
</tr>
<tr>
<td><strong>Market data consumers (usage)</strong></td>
<td>Regardless of the type of firm, the AUM, or the number of consumers of Market Data, the internal user community consistently encompasses the front-, middle- and back-office. Only 33% of firms offer Market Data services to external clients.</td>
<td>29</td>
</tr>
<tr>
<td><strong>Audit</strong></td>
<td>32% of firms “never” conduct “formal internal” audits of Market Data. The number of external audits being conducted has not changed since 2012 and averages 2.3 external audits per participating firm. The #1 concern shared by participants concerning the audit process is managing and resolving issues with ambiguous or misinterpreted exchange policies. Participating firms indicate that the 3rd party auditors are improving their practices. 40% of firms indicated that 3rd party exchanges are following the FISD Business Issues Policy and Practice Standards (BIPPS) best practices whereas only 10% of firms indicated exchange auditors are.</td>
<td>35, 36</td>
</tr>
<tr>
<td><strong>Administration staffing</strong></td>
<td>Resource constraints are evident in the lack of resources dedicated to audits, resolving audit issues and supporting compliance efforts even though 81% of firms consider it important, very important, or extremely important to support compliance. 58% of the firms are having to defend their resources and budgets for these activities against competing responsibilities.</td>
<td>38, 39</td>
</tr>
<tr>
<td><strong>Compliance reporting</strong></td>
<td>74% of firms do not have a system or service to assist in applying compliance rules and reporting, 15% use a proprietary system.</td>
<td>7, 31, 40</td>
</tr>
<tr>
<td><strong>Inventory reviews</strong></td>
<td>49% of firms are performing Market Data inventory reviews annually or at contract renewal with another 22% performing them monthly, 19% quarterly, and 10% twice a year. 97% of participating firms use an inventory system to support the effort. However, only 3% of firms have a fully automated review process, 71% have a partially automated process and 26% of firms still have a manual review process.</td>
<td>46, 47</td>
</tr>
</tbody>
</table>
## Financials

Suvey Questions 6, 49 - 58

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
<th>Question</th>
</tr>
</thead>
</table>
| Costs | Since 2012, the majority of participating firms have experienced annual increases in Market Data costs and spend.  
   - In 2012, 69% of firms had an increase in Market Data costs, and 58% saw an increase in 2013.  
   - 71% of firms anticipate an increase in 2014 with 42% of participating firms expecting an increase of more than 5%. | 6 |
| Market data financial management | While 61% of firms have centralized the management of Market Data financials, 16% are managing separately by business line or regional offices. | 49 |
| System of record | There is a 50-50 split of firms where the official system of record of Market Data costs is either the Market Data inventory system or the Finance department systems (accounting or accounts payable). | 50 |
| Service spend increases | The top 3 Market Data services in which firms are experiencing spend increases are:  
   1. Index data  
   2. Reference and pricing data  
   3. Market Data and terminals / workstations | 54 |
| Reasons for increase / decrease in spend | For firms experiencing an increase in Market Data spend, the top reasons for the spend increase are:  
   1. Vendor price increases  
   2. Expanded business usage / needs  
   3. New services  
   For firms experiencing a decrease in Market Data spend, the top 3 reasons for the decrease are:  
   1. Enterprise cost savings initiatives  
   2. Reducing usage and need  
   3. Renegotiating contracts | 55, 56, 57 |
## Vendor Management

Questions 59 - 72

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influencers of spend</td>
<td>Consumers (Portfolio Managers, Traders and Analysts) have the most significant influence in determining the selection of Market Data services. The Market Data team ranked #2 over senior management at #3.</td>
<td>60</td>
</tr>
<tr>
<td>Licensing</td>
<td>Larger firms ($500bn+) want to move towards enterprise licensing, while firms between $200bn and $500bn firms want to move towards consumer based licensing and reduce the number of site licenses.</td>
<td>64</td>
</tr>
<tr>
<td>Cost management</td>
<td>43% of firms found negotiating flexibility on contracts was the most effective in managing the cost of Market Data vendor services.</td>
<td>66</td>
</tr>
<tr>
<td>SLAs and violations</td>
<td>SLAs with penalties are the exception, not the rule, and larger firms are able to negotiate these terms more frequently than smaller firms. While 66% of firms have never experienced SLA violations, 18% have. 27% of firms collected at least one penalty in the last two years.</td>
<td>68, 70</td>
</tr>
<tr>
<td>Risk tools</td>
<td>Risk tools are still primarily internally developed (85% of firms). Third party offerings are not yet commonplace.</td>
<td>72</td>
</tr>
</tbody>
</table>
## Governance

### Survey Questions 73 – 92

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
<th>Question</th>
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</thead>
</table>
| **BCP planning and activities** | Trading systems are regarded as the most critical and necessary Market Data applications for business continuity planning (BCP), followed by real-time data systems and back-office systems such as pricing, settlement and clearing.  
A formal BCP Group is the primary group responsible for BCP activities (writing plans, coordinating tests) for critical Market Data systems - not the Market Data team.                                                                 | 73, 78, 79, 80 |
| **BCP events**              | 45% of Market Data vendors "met the needs" of Market Data consumer firms during the last major BCP event.  
Vendors perform better during coordinated events than actual events with 55% of firms indicating vendors "met needs" during a coordinated BCP exercise.                                                                                                          | 74, 75   |
| **BCP readiness**           | While 78% of Market Data consumer firms assessed the BCP readiness of their critical Market Data system at least annually, 3% responded that they "never" assessed their BCP readiness.  
83% of Market Data consumer firms are actively testing the BCP readiness of their critical Market Data systems at least annually.  
- 40% of consumers schedule BCP tests annually  
- 27% schedule BCP tests twice a year  
- 13% schedule on a quarterly basis  
- 3% schedule on a monthly basis  
The primary activities leveraged during a formal BCP review of Market Data vendors listed by order of frequency used are:  
1. Questionnaires / survey  
2. Phone interviews  
3. Specific questions based on services  
4. On-site visits                                                                 | 76, 77, 78, 85 |
### Governance continued

<table>
<thead>
<tr>
<th>Area</th>
<th>Observation</th>
<th>Question</th>
</tr>
</thead>
</table>
| **Production change controls** | The overwhelmingly majority of Market Data teams (90%) manage and schedule all internally controlled changes to their Market Data terminal applications; 97% of firms require business management approval for change controls to the Market Data production environment.  
  - 53% of firms reported that they do not allow Bloomberg to make production changes to the terminal software without prior review.  
  - 74% - 80% of firms do not allow Thomson Reuters, FactSet and S&P to make production changes to terminal software without prior review. | 82, 83   |
| **Service requests**      | 86% of firms process their Market Data service requests manually.  
71% of firms manage Market Data service requests against a formal budget, while 67% require that budget information be included in the service request. | 85, 87, 88 |
Survey Results

The survey is intended to be a comprehensive review of the Market Data Management process across the FISD consumer firms. Survey sections include staffing levels and organization, administration, financial, vendor management and governance. The questions in the survey were developed and tested by a subcommittee of the Consumer Constituency Group. There are six sections in the survey.

<table>
<thead>
<tr>
<th>Section</th>
<th>Sub-section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification and Firm Characteristics</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Organization</td>
<td>Organization structure</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Staffing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td></td>
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<tr>
<td>Administration</td>
<td>Invoice processing</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Inventory management</td>
<td></td>
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<tr>
<td></td>
<td>Administration</td>
<td></td>
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<tr>
<td></td>
<td>Financial reporting</td>
<td></td>
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<tr>
<td></td>
<td>Audit management</td>
<td></td>
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<tr>
<td></td>
<td>Audit participants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance and policy management</td>
<td></td>
</tr>
<tr>
<td>Financials</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>Vendor Management</td>
<td>Vendor management</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Pricing models and costs</td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td>BCP planning</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Change control</td>
<td></td>
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<tr>
<td></td>
<td>Budget</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 1: CLASSIFICATION AND FIRM CHARACTERISTICS

2. What are your firm’s assets under management (AUM) in BILLIONS USD that are supported by the information provided in this survey.

3. Please identify for what type of firm (or area of the firm) you are completing this survey for.

4. In what region(s) does your firm have Market Data consumers?
5. Which FISD members does your firm consider as peers? Please select a minimum of 3 firms.

Used for analysis purposes only.

6. For the following periods, how has your firm adjusted their spend on Market Data from the previous year?

<table>
<thead>
<tr>
<th>Year</th>
<th>10%+ Decrease</th>
<th>5 - 9% Decrease</th>
<th>0 - 4% Decrease</th>
<th>No change</th>
<th>0 - 4% Increase</th>
<th>5 - 9% Increase</th>
<th>10%+ Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>9%</td>
<td>3%</td>
<td>9%</td>
<td>19%</td>
<td>34%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>10%</td>
<td>16%</td>
<td>10%</td>
<td>6%</td>
<td>16%</td>
<td>29%</td>
<td>13%</td>
</tr>
<tr>
<td>2014 (Expected)</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>29%</td>
<td>29%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

71% firms expect increase in 2014
### SECTION 2 - ORGANIZATION: Organizational Structure

7. Which area of your firm is organizationally responsible for the Market Data management team?

| Back Office: Admin Support, Legal, HR, IT and Ops |
| Middle Office: Risk, Performance, Investment Operations |
| Front Office: Investment Management, Trading, Distribution |
| Back Office: Finance |

No firms indicated that Back Office Accounting is responsible for Market Data management.

A firm's AUM, type, or geographic dispersion are not determinates of organizational approach.

8. How is your Market Data team organizationally structured (administrative reporting lines) currently and what do you expect them to be in 2014?

<table>
<thead>
<tr>
<th>Currently Centralized</th>
<th>Currently Decentralized</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.0%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

- **Currently Centralized**:
  - Primarily Asset Servicing firms, buy-side firms with more than $500bn in AUM and sell side firms
  - Primarily, firms with a global footprint
  - Primarily, small to mid size firms with less than $500bn in AUM

- **Currently Decentralized**:
  - Staff assigned by business line (custody, asset mgmt, brokerage)
  - Staff assigned by asset classes
  - Staff assigned by geography
  - Staff assigned by vendors

**2014 Centralized**

- 36.7%
- 30.0%
- 33.3%

**2014 Decentralized**

No firms are assigning staff by asset class or using a decentralized model.

One firm is shifting from assigning by business line to assigning by vendor in 2014.
SECTION 2 - ORGANIZATION: Staffing

9. How many full time equivalent (FTE) resources work to support the Market Data functions?

Segmented by type of firm

Segmented by AUM
10. Please rank the top 5 activities that Market Data staff spend their time supporting by percentage of their time spent.

**Weighted by Percentage of Time Spent**
11. Does the Market Data staff have specific job descriptions?

- Yes, formal and specific job descriptions (78%)
- No, not currently but developing (19%)
- No, not currently and not developing (3%)
SECTION 2 - ORGANIZATION: Compensation

12. What is the frequency for reviewing Market Data staff compensation against the industry?

- When staffing a new role: 22%
- Annually: 22%
- Every two years: 37%
- Never: 0%
- Not sure: 19%

13. What methods are used when assessing and benchmarking compensation?

- External sources (research firms such as McLaughlin, recruiting firms): 70% of firms respond
- Internal benchmarks (Human Resource department): 56% of firms respond
- We don't benchmark compensation: 15% of firms respond

33% of firms use both external and internal sources
SECTION 3 - ADMINISTRATION: Invoice Processing

14. What is the quantity (number) of distinct Market Data invoices do you receive annually?

Segmented by type of firm

Segmented by AUM
15. On average, how satisfied is your firm with the accuracy of your Market Data invoices?

- No issues, consistently correct: 60%
- Infrequent minor errors: 22%
- Infrequent major errors: 9%
- Frequent minor errors: 6%
- Frequent major errors: 3%

16. On average, how satisfied is your firm with the accuracy of the TAX calculations on your Market Data invoices?

- No issues, consistently correct: 57%
- Infrequent minor errors: 10%
- Infrequent major errors: 3%
- Frequent minor errors: 30%
- Frequent major errors: 3%

17. What is the primary tax calculation software your firm uses?

- Vertex: 60%
- Don’t use tax calculation software: 40%
- Not sure: 10%
18. On average, who approves invoices prior to payment?

- Determined at contract execution (automated payment structure, allocations set)
- Finance
- Business consumers
- Senior management
- Market Data administration team
- Not sure
- Not applicable

58%

19. What method do you use to manage your Market Data expense?

<table>
<thead>
<tr>
<th>Method</th>
<th>Current</th>
<th>Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrual</td>
<td>81%</td>
<td>81%</td>
</tr>
<tr>
<td>Cash</td>
<td></td>
<td>16%</td>
</tr>
<tr>
<td>Not sure</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percentage of Firms Responding
SECTION 3 - ADMINISTRATION: Inventory Management

20. What is the primary vendor inventory tracking system that your firm uses?

- The Roberts Group: FITS
- MDSL: Market Data Manager (Market DM)
- Screen: InfoMatch
- Proprietary (Internal)
- BST: FinOFFICE
- Don't use one, but planning to in the next 6-12 months
- Microsoft: Access database
- Don't use one, not planning to
- Not applicable

21. How important are the following functions in the Market Data inventory tracking system to the Market Data team?

<table>
<thead>
<tr>
<th>Function</th>
<th>Not applicable</th>
<th>Unimportant</th>
<th>Slightly important</th>
<th>Important</th>
<th>Very important</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Expense management and control</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract information (price increases, renewal dates)</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Market Data related circuit/infrastructure information</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>11</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Service add/change requests</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>12</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Service, product information</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>System integration (HR, Finance, Vendors)</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Usage metrics</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Consumer profiles (standard product deployments based on consumer type)</td>
<td>4</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Vendor details, contact information</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
22. Please rank the top 3 areas of market data inventory tracking capabilities you would like to see enhanced.

- Usage metrics
- Expense management and control
- Budget
- Service add/change requests
- System integration (HR, Finance, Vendors)
- Contract information (price increases, renewal dates)
- Service, product information
- Vendor details, contact info
- Consumer profiles (type based product deployments)
- Market Data related circuit/infrastructure info

Responses Weighted by Level of Importance
SECTION 3 - ADMINISTRATION: Administration

23. How is Market Data administration organizationally aligned in your firm?

- Centralized, reporting to the front office (investment management, trading, distribution, corporate finance)
- Centralized, reporting to the middle office (risk, performance, investment operations)
- Centralized, reporting to the back office (IT, operations, financial accounting, administrative and support services)
- Not centralized

24. How many full time equivalent (FTE) staff are dedicated to your Market Data administration function?

Segmented by type of firm

Segmented by AUM

Number of FTE's Dedicated to Market Data Administration Function
SECTION 3 - ADMINISTRATION: Financial Reporting

25. Who is primarily responsible for reporting Market Data inventory, usage and spend to internal consumers and your management team?

- 91% Market Data team
- 6% Procurement
- 3% Finance
- 3% Technology

26. On average, how frequently are the Market Data inventory, usage and spend reports produced?

- 49% Weekly
- 28% On-demand
- 17% Twice a month
- 2% Monthly
- 2% Annually

27. Who is primarily responsible for producing month-end financial reports that close out the financial period (cost allocations, accruals and prepaid reports)?

- 47% Market Data team
- 50% Finance/Corporate Accounting
- 3% Procurement
- 3% Business owners (end consumers)
- 2% Legal
SECTION 3 - ADMINISTRATION: Usage Reporting

28. Please provide the number of internal desktop consumers of Market Data.

Segmented by type of firm

**Buy-side**

Front Office (Investment Management, Trading, Distribution)

Middle Office (Risk, Performance, Investment Operations)

Back Office (Accounting/Finance, Admin Support, Legal, HR, IT and Ops)

**Sell-side and Asset Servicers**

Front Office (Investment Management, Trading, Distribution)

Middle Office (Risk, Performance, Investment Operations)

Back Office (Accounting/Finance, Admin Support, Legal, HR, IT and Ops)
Segmented by size of firm

**AUM $0bn to $200bn**

- Front Office (Investment Management, Trading, Distribution)
- Middle Office (Risk, Performance, Investment Operations)
- Back Office (Accounting/Finance, Admin Support, Legal, HR, IT and Ops)

**AUM $200bn to $500bn**

- Front Office (Investment Management, Trading, Distribution)
- Middle Office (Risk, Performance, Investment Operations)
- Back Office (Accounting/Finance, Admin Support, Legal, HR, IT and Ops)

**AUM Greater than $500bn**

- Front Office (Investment Management, Trading, Distribution)
- Middle Office (Risk, Performance, Investment Operations)
- Back Office (Accounting/Finance, Admin Support, Legal, HR, IT and Ops)
29. Please indicate the types of consumers that have access to your firm’s Market Data through display applications. Percentage indicates a particular type of service/data is provided to a particular type of user.

### Based on % of All Firms Responding
- Real-time North American Exchange data, 87%
- Real-time non North American Exchange data, 87%
- Workstations, Market Data platforms, 97%
- News services, 94%
- Reference and pricing data, 97%
- Analytical tools, 94%
- Index data, 97%
- Research, 94%
- Mutual Fund / Exchange Traded Fund (ETF) data, 84%
- Speciality, third-party content, 87%

### Based on % of Firms Offering Market Data to External Consumers
- Real-time North American Exchange data, 73%
- Workstations, Market Data platforms, 53%
- News services, 73%
- Reference and pricing data, 73%
- Analytical tools, 67%
- Index data, 80%
- Research, 73%
- Mutual Fund / Exchange Traded Fund (ETF) data, 73%
- Speciality, third-party content, 40%

### Based on % of Firms Offering Market Data to External Consumers
- Real-time North American Exchange data, 60%
- Workstations, Market Data platforms, 33%
- News services, 53%
- Reference and pricing data, 47%
- Analytical tools, 33%
- Index data, 80%
- Research, 47%
- Mutual Fund / Exchange Traded Fund (ETF) data, 60%
- Speciality, third-party content, 33%
30. What is the primary system that your firm uses for the following functions?

- **Access Control**
  - TCB Data Systems: VARS
  - NYSE Technologies: DART
  - Thomson Reuters: DACS
  - Microsoft Access
  - Microsoft Excel/Spreadsheet
  - Inventory Tracking System
  - Proprietary

- **Internal Usage Reporting**

- **Exchange/Vendor Reporting**

31. What contractor(s) or system(s) does your firm use to interpret or apply reporting rules for real-time data?

- We don't have a system or contractor to interpret or apply rules for real-time data
- Proprietary
- Market Data Management Solutions (MDMS)
- NYSE Technologies: DART Data Management
- The Exchange Guide
- Ballintrae: BERRD
- JCV Investment Systems
- Jordan and Jordan
### SECTION 3 - ADMINISTRATION: Audit Management

32. How many exchange or vendor audits have you participated in during the past 2 years?

![Average Number of Audits](chart1)

33. How many exchange audits were completed by third-party auditing firms (not directly by the exchange)?

![Average Number of Audits Completed by a 3rd Party Auditing Firm](chart2)
34. Please identify the top 5 concerns your firm has experienced with the audit process.

- Ambiguous or misinterpreted exchange policies
- Changing scope of audit requirements (requests for additional data usage periods during audit)
- Audit process takes too long
- Inconsistent pre-audit work requests (vague requirements)
- Unclear and ambiguous audit findings making it difficult to reconcile
- Insufficient notification period for audit commencement
- Vague on-site requirements, leading to extended and unscheduled on-site work
- Difficulty in closing audit due to auditor availability
- Exchanges using 3rd party auditors who lack expertise

35. Did the auditor satisfactorily follow the Market Data Audit Best Practices published by FISD?

<table>
<thead>
<tr>
<th>3rd Party Auditors</th>
<th>Not sure</th>
<th>Major deficiencies</th>
<th>Notable deficiencies</th>
<th>Minor deficiencies</th>
<th>Met FISD best practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exchange Auditors</th>
<th>Not sure</th>
<th>Major deficiencies</th>
<th>Notable deficiencies</th>
<th>Minor deficiencies</th>
<th>Met FISD best practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Number of Firms Responding
36. How frequently does your firm conduct formal internal audits of Market Data?

- **Quarterly**: 7%
- **Annually**: 39%
- **Every two years**: 32%
- **Never**: 18%
- **Not sure**: 4%

37. Please rank in order of effectiveness what your firm believes is the most effective approach for communicating internal Market Data policies?

1. **Through line-manager communications**
2. **During new hire on boarding**
3. **Periodic email policy updates**
4. **Through cross enterprise committees**
5. **As part of an audit process (internal or external audit)**
6. **Corporate internet site**

*Weighted by Order of Effectiveness*
SECTION 3 - ADMINISTRATION: Audit Participants

38. On average, how many full-time equivalent staff are engaged in each Market Data audit?

Segmented by AUM

<table>
<thead>
<tr>
<th>AUM</th>
<th>Buy-side</th>
<th>Sell-side and Asset Servicers</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0bn and $200bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$200bn and $500bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater than $500bn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Graph showing FTEs dedicated to Market Data Audit by AUM segment](image-url)

Number of FTE's Dedicated to Market Data Audit

Between $0bn and $200bn:
- Average
- Median

Between $200bn and $500bn:
- Average
- Median

Greater than $500bn:
- Average
- Median
SECTION 3 - ADMINISTRATION: Compliance/Policy Management

39. What is the level of importance of Market Data compliance in your firm?

- Extremely important, appropriate resources and budgets consistently allocated and available
- Very important, resources and budget allocated as needed
- Important, resources and budget needs to be consistently defended against other demands
- Somewhat important, resources and budget need to be defended and frequently are not met
- Not important, limited resources and budget allocated to support

40. Which area of your firm is responsible for the Market Data compliance?

- Front Office (Investment Mgmt, Trading, Distribution)
- Middle Office (Risk, Performance, Investment Operations)
- Back Office (Accounting/Finance, Admin Support such as Legal & HR, IT and Ops)
41. How many full-time equivalent (FTE) staff are responsible for Market Data compliance/policy management?

**Segmented by type of firm**

- **Buy-side**
  - Buy-side Average
  - Buy-side Median

- **Sell-side and Asset Servicers**
  - Sell-side and Asset Servicers Average
  - Sell-side and Asset Servicers Median

**Segmented by AUM**

- **Between $0bn and $200bn**
- **Between $200bn and $500bn**
- **Greater than $500bn**

**FTE Responsible for Market Data Compliance/Policy Management**
43. Does your firm have a formal due diligence process to confirm a consumer’s designation as non-professional?

- Yes, we have a formal due diligence process
- No, we do not have a formal due diligence process
- Not sure
- Not applicable

44. How frequently does your firm conduct an external due diligence review of a consumer’s access to Market Data?

- On demand
- Quarterly
- Annually
- Every two years
- Never
- Not sure

45. Identify which of the following systems or tools are used to facilitate entitlement change requests for market data applications.

- Inventory tracking system: 63%
- Internal helpdesk tool: 50%
- Vendor’s portal: 50%
- Microsoft Access/Proprietary Database: 23%
- Microsoft Excel/Spreadsheet: 17%
- Consumers make requests from vendors directly: 13%
- External tool (for example, CRM system): 10%

**Percentage of Firms Responding**
46. How automated are your Market Data inventory reviews?

- Fully automated: 71%
- Partially automated: 26%
- Fully manual: 3%
- Don’t perform market data inventory reviews: 22%

47. What is the typical frequency of the Market Data inventory reviews?

- Monthly: 39%
- Quarterly: 22%
- Twice a year: 19%
- Annually: 10%
- Service by service, at contract renewal: 10%

48. What data is used for the inventory review process?

- Results from polling consumers: 57%
- Approval of inventory by department level/line manager: 90%
- Approval of inventory by consumer: 53%
- Review of consumer count at service level during renewal activity: 80%
- Usage information provided by Market Data vendor: 80%

Percentage of Firms Responding
SECTION 4 - FINANCIALS

49. What is the primary organizational structure for managing the Market Data financials at your firm?

- Centrally managed (61%)
- Managed separately by regional offices (23%)
- Managed separately by business line (3%)
- Hybrid approach; shared responsibility between central and regional offices or business lines (13%)

50. What is the official system of record for Market Data financial spend reporting?

- Market Data inventory system (52%)
- Company accounting system (26%)
- Corporate accounts payable system (22%)
- Procurement system (13%)

51. Rank in the order of frequency of usage how your firm tracks Market Data financials.

- By the business line (for instance, equity management, fixed income management, wealth management)
- By vendor (for instance, Bloomberg, Thomson Reuters, Exchanges)
- By expense category (for instance, Real-time data, Exchange fees, Workstation/Market Data platform, News)

Responses Weighted by Frequency of Usage
52. What % of your firm’s Market Data spend is in the following expense categories?

**Segmented by type of firm**

<table>
<thead>
<tr>
<th>Expense Category</th>
<th>Buy-side Average</th>
<th>Sell-side and Asset Servicers Average</th>
<th>Buy-side Median</th>
<th>Sell-side and Asset Servicers Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workstation/Market Data platforms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty 3rd party content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference and pricing data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>News</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutual Fund/ETD data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exchange fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analytic tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Percentage of Firms Responding**
Segmented by AUM

- **Workstation/Market Data platforms**
  - Between $0bn and $200bn Average: 44%
  - Between $0bn and $200bn Median: 36%
  - Between $200bn and $500bn Average: 24%
  - Between $200bn and $500bn Median: 40%
  - Greater than $500bn Average: 50%
  - Greater than $500bn Median: 44%

- **Specialty 3rd party content**
  - Between $0bn and $200bn Average: 4%
  - Between $0bn and $200bn Median: 5%
  - Between $200bn and $500bn Average: 2%
  - Between $200bn and $500bn Median: 3%
  - Greater than $500bn Average: 2%
  - Greater than $500bn Median: 3%

- **Research**
  - Between $0bn and $200bn Average: 7%
  - Between $0bn and $200bn Median: 6%
  - Between $200bn and $500bn Average: 5%
  - Between $200bn and $500bn Median: 5%
  - Greater than $500bn Average: 3%
  - Greater than $500bn Median: 4%

- **Reference and pricing data**
  - Between $0bn and $200bn Average: 16%
  - Between $0bn and $200bn Median: 17%
  - Between $200bn and $500bn Average: 15%
  - Between $200bn and $500bn Median: 16%
  - Greater than $500bn Average: 25%
  - Greater than $500bn Median: 25%

- **Real-time data**
  - Between $0bn and $200bn Average: 6%
  - Between $0bn and $200bn Median: 5%
  - Between $200bn and $500bn Average: 2%
  - Between $200bn and $500bn Median: 4%
  - Greater than $500bn Average: 2%
  - Greater than $500bn Median: 4%

- **News**
  - Between $0bn and $200bn Average: 3%
  - Between $0bn and $200bn Median: 1%
  - Between $200bn and $500bn Average: 2%
  - Between $200bn and $500bn Median: 2%
  - Greater than $500bn Average: 2%
  - Greater than $500bn Median: 2%

- **Mutual Fund/ETD data**
  - Between $0bn and $200bn Average: 3%
  - Between $0bn and $200bn Median: 1%
  - Between $200bn and $500bn Average: 1%
  - Between $200bn and $500bn Median: 1%
  - Greater than $500bn Average: 2%
  - Greater than $500bn Median: 2%

- **Index data**
  - Between $0bn and $200bn Average: 8%
  - Between $0bn and $200bn Median: 7%
  - Between $200bn and $500bn Average: 5%
  - Between $200bn and $500bn Median: 6%
  - Greater than $500bn Average: 10%
  - Greater than $500bn Median: 11%

- **Exchange fees**
  - Between $0bn and $200bn Average: 5%
  - Between $0bn and $200bn Median: 7%
  - Between $200bn and $500bn Average: 10%
  - Between $200bn and $500bn Median: 10%
  - Greater than $500bn Average: 18%
  - Greater than $500bn Median: 18%

- **Analytic tools**
  - Between $0bn and $200bn Average: 4%
  - Between $0bn and $200bn Median: 4%
  - Between $200bn and $500bn Average: 7%
  - Between $200bn and $500bn Median: 6%
  - Greater than $500bn Average: 6%
  - Greater than $500bn Median: 6%
53. Approximately, what has been/is your firm’s total annual spend for Market Data (in USD)? Per Bn AUM

**Segmented by type of firm**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013 (Projected)</th>
<th>2014 (Expected)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Buy-side Average</strong></td>
<td>105,403</td>
<td>96,260</td>
<td>103,695</td>
<td>105,951</td>
</tr>
<tr>
<td><strong>Buy-side Median</strong></td>
<td>35,722</td>
<td>41,334</td>
<td>45,273</td>
<td>47,485</td>
</tr>
<tr>
<td><strong>Sell-side Average</strong></td>
<td>159,331</td>
<td>171,772</td>
<td>207,709</td>
<td>176,076</td>
</tr>
<tr>
<td><strong>Sell-side Median</strong></td>
<td>95,977</td>
<td>105,337</td>
<td>141,104</td>
<td>105,904</td>
</tr>
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</table>

**Segmented by AUM**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013 (Projected)</th>
<th>2014 (Expected)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between $0bn and $200bn Average</strong></td>
<td>254,637</td>
<td>247,406</td>
<td>314,839</td>
<td>253,931</td>
</tr>
<tr>
<td><strong>Between $0bn and $200bn Median</strong></td>
<td>103,825</td>
<td>108,023</td>
<td>323,448</td>
<td>109,290</td>
</tr>
<tr>
<td><strong>$200bn to $500bn Average</strong></td>
<td>115,684</td>
<td>120,432</td>
<td>123,419</td>
<td>126,683</td>
</tr>
<tr>
<td><strong>$200bn to $500bn Median</strong></td>
<td>52,500</td>
<td>55,000</td>
<td>65,000</td>
<td>65,000</td>
</tr>
<tr>
<td><strong>Greater than $500bn Average</strong></td>
<td>61,621</td>
<td>68,310</td>
<td>72,205</td>
<td>75,579</td>
</tr>
<tr>
<td><strong>Greater than $500bn Median</strong></td>
<td>50,367</td>
<td>56,353</td>
<td>59,723</td>
<td>63,585</td>
</tr>
</tbody>
</table>
54. How has your firm’s Market Data spend changed since 2012?

<table>
<thead>
<tr>
<th>Category</th>
<th>Decreased</th>
<th>Remained Neutral</th>
<th>Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index data</td>
<td>1</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Reference and pricing data</td>
<td>3</td>
<td>4</td>
<td>22</td>
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<tr>
<td>Workstation/Market Data platforms</td>
<td>7</td>
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<td>18</td>
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<tr>
<td>Exchange</td>
<td>6</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Specialty 3rd party content</td>
<td>3</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Real-time data</td>
<td>3</td>
<td>12</td>
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</tr>
<tr>
<td>Analytic tools</td>
<td>1</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Mutual Fund/ETD Data</td>
<td>2</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>News services</td>
<td>4</td>
<td>14</td>
<td>6</td>
</tr>
</tbody>
</table>

Number of Firms Responding
55. In categories where you had a DECREASE in spend, please rank the top 3 reasons for the decrease?

- Introducing enterprise cost savings initiatives (for example, system re-architecture)
- Reducing Market Data usage and need
- Renegotiating vendor contracts
- Reducing headcount
- Changing policies
- Changing workforce management strategy and tactics (for instance CoE deployments, outsourcing)
- Reducing budget allocation
- Restructuring departments
- Restructuring business

*Weighted for Ranking*

56. In categories where you had an INCREASE in spend, please identify the top 3 reasons for the increase?

- Supplier price increases
- Expanded business/usage needs
- New services
- Increase in headcount
- New data policies
- Audit fees

*Weighted for Ranking*
57. What proactive actions is your firm taking to manage Market Data costs?

- Adjusting budget allocation: 4
- Changing policies: 2
- Changing workforce management strategy and tactics (for instance CoE deployments, outsourcing): 4
- Introducing enterprise cost savings initiatives (for example, system rearchitecture): 11
- Reassessing Market Data usage and need: 23
- Reducing headcount: 11
- Renegotiating vendor contracts: 11
- Restructuring business: 24
- Restructuring departments: 9

Weighted by Priority of Action

58. For the actions you have identified in the question above, how are the financial management activities being managed?

- By business line: 14
- Centrally (for instance, expense management department): 12
- By external consultants: 1
- By the IT department: 2
- By the Market Data team: 24

Number of Firms Responding
SECTION 5 - VENDOR MANAGEMENT

59. Please rank the top 3 most important factors your firm uses to evaluate the importance of a Market Data vendor?

- Importance of the service to operational processing
- Spend on vendor services
- Past performance of vendor
- Number of consumers
- Effort to replace
- Other (Data Quality)

*Weighted by Level of Importance*

60. Rank the top 3 most influential participants in the Market Data vendor selection process at your firm?

- Consumers (PMs, Analysts, Traders)
- Market Data department
- Senior management/ budget owners
- Other (Pricing, Client Hierarchy of Data)
- Technology department (Architecture, Infrastructure, Database mgmt.)
- Project implementation team
- Procurement department
- Finance department

*Weighted by Level of Influence*
61. On average, during discussions with your top 10 Market Data vendors (as determined by spend) what % of your time is spent on the following topics?

Segmented by type of firm

- **Strategic alignment discussions**
  - Buy-side Average: 14%
  - Buy-side Median: 13%
  - Sell-side and Asset Servicer Average: 10%
  - Sell-side and Asset Servicer Median: 14%

- **Contracting activities**
  - Buy-side Average: 30%
  - Buy-side Median: 28%
  - Sell-side and Asset Servicer Average: 29%
  - Sell-side and Asset Servicer Median: 30%

- **Product performance reviews**
  - Buy-side Average: 8%
  - Buy-side Median: 9%
  - Sell-side and Asset Servicer Average: 10%
  - Sell-side and Asset Servicer Median: 10%

- **Operational items such as data content and product training**
  - Buy-side Average: 17%
  - Buy-side Median: 16%
  - Sell-side and Asset Servicer Average: 15%
  - Sell-side and Asset Servicer Median: 18%

- **Issue resolution reviews**
  - Buy-side Average: 17%
  - Buy-side Median: 20%
  - Sell-side and Asset Servicer Average: 20%
  - Sell-side and Asset Servicer Median: 20%

- **Product enhancement reviews**
  - Buy-side Average: 13%
  - Buy-side Median: 10%
  - Sell-side and Asset Servicer Average: 12%
  - Sell-side and Asset Servicer Median: 10%
Segmented by AUM

- Strategic alignment discussions
- Contracting activities
- Product performance reviews
- Operational items such as data content and product training
- Issue resolution reviews
- Product enhancement reviews

Percentage of Time

Between $0bn and $200bn Average
Between $0bn and $200bn Median
Between $200bn to $500bn Average
Between $200bn to $500bn Median
Greater than $500bn Average
Greater than $500bn Median
62. Please rank the top 3 factors that influence your firm's ability to engage a vendor in a strategic partnership.

- Alignment of engagement objectives between the vendor and my firm
- Vendor willingness to participate in strategic engagement with my firm
- Vendor performance
- Vendor product pricing
- Vendor providing appropriate resources
- Vendor delivering product enhancements requested by my firm
- Other
- My firm providing appropriate resources

Ranked by Level of Influence

63. On average, have your firm's proactive Market Data vendor relationship management practices reduced the number of vendor audits at your firm?

- Yes, dramatically reduced the number of audits
- Yes, somewhat reduced the number of audits
- No, have not reduced the number of audits
- Not sure
SECTION 5 - VENDOR MANAGEMENT: Pricing Models & Cost

64/65. What % of your current Market Data contracts use the following pricing models and which models would you prefer.

- Based on assets under management (AUM)
- Based on number of site or department licenses
- Based on the total number of consumers
- Enterprise license: unlimited usage

<table>
<thead>
<tr>
<th>Category</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-$200bn (Preferred)</td>
<td>12%</td>
<td>34%</td>
<td>9%</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>$0-$200bn (Current)</td>
<td>15%</td>
<td>56%</td>
<td>26%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>$200bn - $500bn (Preferred)</td>
<td>2%</td>
<td>47%</td>
<td>8%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>$200bn - $500bn (Current)</td>
<td>12%</td>
<td>43%</td>
<td>31%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Greater than $500bn (Preferred)</td>
<td>3%</td>
<td>30%</td>
<td>14%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Greater than $500bn (Current)</td>
<td>3%</td>
<td>42%</td>
<td>29%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Sell-side (Preferred)</td>
<td>2%</td>
<td>28%</td>
<td>15%</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Sell-side (Current)</td>
<td>3%</td>
<td>45%</td>
<td>33%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Buy-side (Preferred)</td>
<td>8%</td>
<td>51%</td>
<td>5%</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Buy-side (Current)</td>
<td>16%</td>
<td>49%</td>
<td>24%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Universe (Preferred)</td>
<td>5%</td>
<td>37%</td>
<td>11%</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Universe (Current)</td>
<td>9%</td>
<td>47%</td>
<td>28%</td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>
65. What % of your Market Data contracts would you PREFER to have the following pricing models?

Included above in question 64.

66. Which action has your firm found to be the MOST effective in managing the cost of Market Data vendor services?

- Negotiating flexibility on contracts (for example add/delete services over term of contract)
- Working with vendors to achieve target reductions (for example, looking for services to be replaced or replacing higher cost product with lower cost product)
- Top down reduction mandates that are articulated to vendors (for example, reduction of invoice by 10%)
- Reducing costs through line of business changes (consolidating departments, reducing headcount)

67. Please indicate in order of time spent where you CURRENTLY spend time when selecting a new vendor.

Risk analysis (BCP plan review, information security analysis) - Amount of Time Currently Spent

- Don’t want to spend any time
- Want to spend less time
- Currently spend the right amount if time
- What to spend a little more time
- Want to spend significantly more time

Financial stability analysis - Amount of Time Currently Spent

Analysis of product and service capabilities - Amount of Time Currently Spent

Vendor references - Amount of Time Currently Spent

Proof-of-concept trial with user participation or application team - Amount of Time Currently Spent

Technical review - Amount of Time Currently Spent

Weighted by Order of Time Spent
68. When measuring Market Data vendor performance, what % of time does your firm spend on the following approaches?

- Measurable key performance indicators (KPIs)
- Scorecards
- Service Level Agreements (SLAs) that sometimes include fee based penalties
- Service Level Agreements (SLAs) that always include fee based penalties
- Service Level Agreements (SLAs) that never include fee based penalties
- Regularly scheduled relationship meetings with all vendors
- Ad-hoc (as needed) relationship meetings
- Regularly scheduled relationship meetings with select vendors

Percentage of Firms Responding
69. If you use scorecards for tracking and measuring vendor performance, what criteria is included?

- Incident responsiveness and performance history
- Inventory and cost of services in use
- Account management performance including communication effectiveness
- Incident impact
- Vendor disaster recovery/business continuity preparedness
- Order processing performance
- Vendor financial risk profile
- Supporting details for use in negotiating contract renewals
- Ratings on how the vendor performs/contributes to the firms business continuity testing

*Weighted by Frequency of Usage of Criteria*

70. Over the past two years, how frequently has your firm experienced performance issues that violated service level agreements and resulted in collecting penalties from the vendor?

- Never
- Once
- Twice
- Three or more times
- Never use penalties
- Not sure
- Not applicable
71. How frequently, on average, do you conduct risk assessments of Market Data vendors that support business processes?

![Bar chart showing the frequency of risk assessments for Critical Market Data systems and Non-critical Market Data systems.](chart)

72. What do you use to conduct vendor risk assessments?

- 41% Third-party risk tools
- 44% Proprietary security and operational questionnaires and audits
- 15% Proprietary business impact analysis
SECTION 6 GOVERNANCE: BCP Planning

73. What are your firm's top 3 most critical and necessary Market Data applications for business continuity planning (BCP)?

- Trading systems
- Real-time data systems
- Back-office systems (pricing, settlement, clearing)
- Workstation/Market Data platforms
- Reference and pricing data
- Compliance systems
- Real-time data
- Other (Position Keeping)
- Research systems
- Index data
- Analytics systems

*Weighted by Level of Criticality*
74. How did your Market Data vendors perform during the last major BCP event at your firm?

- Met needs: 45%
- Minor deficiencies: 26%
- Notable deficiencies: 7%
- Major deficiencies: 3%
- Not sure: 19%
- Not applicable: 4%

75. How did your Market Data vendors perform during a coordinated BCP exercise at your firm?

- Met needs: 55%
- Minor deficiencies: 22%
- Notable deficiencies: 10%
- Major deficiencies: 13%
- Not sure: 13%
- Not applicable: 7%

76. How frequently does your firm assess the BCP readiness of your critical Market Data applications, feeds and systems?

- Quarterly: 13%
- Twice a year: 29%
- Annually: 7%
- Every two years: 6%
- Never: 3%
- Ad-hoc: 13%
77. When undertaking a formal BCP process with your Market Data Vendors, for what % of vendors do you use the following activities?

**Segmented by type of firm**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Buy-side Average</th>
<th>Buy-side Median</th>
<th>Sell-side Average</th>
<th>Sell-side Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit vendors at their site</td>
<td>15%</td>
<td>15%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Request vendor complete standard questionnaire or survey</td>
<td>10%</td>
<td>18%</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Conduct phone interviews with vendor</td>
<td>10%</td>
<td>10%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Request answers to specific questions based on their service(s)</td>
<td>10%</td>
<td>10%</td>
<td>24%</td>
<td>24%</td>
</tr>
</tbody>
</table>

**Segmented by AUM**

For Firms Using Activity: Percentage of Vendors with whom the Activity is Used

<table>
<thead>
<tr>
<th>Activity</th>
<th>Between $0bn and $200bn Average</th>
<th>Between $0bn and $200bn Median</th>
<th>Between $200bn to $500bn Average</th>
<th>Between $200bn to $500bn Median</th>
<th>Greater than $500bn Average</th>
<th>Greater than $500bn Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit vendors at their site</td>
<td>12%</td>
<td>12%</td>
<td>20%</td>
<td>20%</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Request vendor complete standard questionnaire or survey</td>
<td>14%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td>Conduct phone interviews with vendor</td>
<td>10%</td>
<td>16%</td>
<td>30%</td>
<td>30%</td>
<td>43%</td>
<td>43%</td>
</tr>
<tr>
<td>Request answers to specific questions based on their service(s)</td>
<td>13%</td>
<td>19%</td>
<td>40%</td>
<td>40%</td>
<td>53%</td>
<td>53%</td>
</tr>
</tbody>
</table>
78. How frequently does your firm schedule BCP tests for your critical Market Data applications, feeds and systems?

- Monthly: 7%
- Quarterly: 13%
- Twice a year: 10%
- Every two years: 10%
- Annually: 7%
- Every two years: 3%
- Never: 13%
- Ad-hoc: 27%

79. Who writes and develops BCP plans for your critical Market Data systems?

- BCP team: 33%
- IT: 31%
- Market Data team: 20%
- Business line: 16%

80. Who acts as the lead/point person for the BCP activities of your critical Market Data systems?

- BCP team: 43%
- Market Data team: 29%
- IT: 26%
- Business line: 3%
SECTION 6 - GOVERNANCE: Change Control

81. Does your firm have a formal Change Control Approval committee that reviews changes to your technical production environment?

- Yes, currently have a formal Change Control approval committee
- No, but planning to create a formal change control approval committee
- No, and not planning to create a formal change control approval committee
- Not sure

82. Please indicate approval change control process for the following activities.

- Manage and schedule all internally controlled changes to the Market Data terminal applications
  - Not Sure: 10%
  - No: 90%
  - Yes: 3%

- Require business management approval for change controls to the Market Data production environment
  - Not Sure: 97%
83. Do you allow exceptions for specific Market Data vendors to make production changes without prior review for software installed locally?

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Yes</th>
<th>No</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloomberg, LP</td>
<td>53%</td>
<td>40%</td>
<td>7%</td>
</tr>
<tr>
<td>Thomson Reuters</td>
<td>80%</td>
<td>17%</td>
<td>3%</td>
</tr>
<tr>
<td>FactSet</td>
<td>74%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>S&amp;P</td>
<td>74%</td>
<td>9%</td>
<td>17%</td>
</tr>
</tbody>
</table>

84. For each content category identify the top 3 provisions sought in your contractual agreements for the following services:

- **Notice Period**
- **Prior Approval for Change**
- **Recipient Acceptance Testing**
- **Documentation (specs/plan, schedule)**
- **Change Notice (email/website)**
- **Service Level Agreement (SLA)**
- **Financial Penalties**
- **Other**

<table>
<thead>
<tr>
<th>Category</th>
<th>9</th>
<th>4</th>
<th>3</th>
<th>6</th>
<th>2</th>
<th>4</th>
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<td>Analytic tools</td>
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<td>Exchange fees</td>
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<td>2</td>
</tr>
<tr>
<td>Reference and pricing data</td>
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<td>4</td>
<td>1</td>
<td>9</td>
<td>3</td>
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<td>2</td>
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<td>10</td>
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<td>3</td>
<td>2</td>
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<tr>
<td>Speciality 3rd party content</td>
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<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Workstations/market data platforms</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>
85. How do you process Market Data service requests?

- 86% Manual
- 14% Automated

86. Which of the following factors impact your Market Data service requisition/approval process?

- Cost of service requested, 90%
- Senior management review and approval, 90%
- Role/approval level of requestor, 71%
- Introduction of new services, 65%
- Requests processed based on standard business line needs, 58%
- Standardized profile/catalogue of services pre-identified for request approval, 45%

Percentage of Firms Responding
SECTION 6 - GOVERNANCE: Budget

87. Are your Market Data service requests managed against a formal budget?

- Yes: 29%
- No: 71%
- Not Sure: 1%

There are no defining characteristics in AUM, size or type of firm for determining whether a firm market data requests are managed against a formal budget.

88. Do Market Data service requests require budget information?

- Yes: 33%
- No: 67%
- Not Sure: 1%

Predominately sell-side firms with a few large buy-side firms
89. Does your firm CURRENTLY manage a single year or multi-year Market Data budget?

- Single year budget: 87%
- Multi-year budget: 13%

90. Would your firm PREFER to manage a single year or multi-year Market Data budget?

- Single year budget: 86%
- Multi-year budget: 14%

91. What area of the firm prepares/creates the Market Data budget?

- Business lines: 52%
- Finance department: 26%
- Market Data department: 22%
- IT department
92. Who has the final approval for the Market Data budget in your firm?

- Centralized committee representing the enterprise (34%)
- By business line (53%)
- Market Data team (13%)
- Finance department

93. If Market Data budget is approved through a centralized committee, who participates on the committee?

- Business lines, 86%
- Finance department, 79%
- Market Data department, 57%
- IT department, 29%
- Procurement team, 21%
- Legal department, 0%

Percentage of Firms Responding