

US Investment Banking & Brokerage Snapshot

Q1 2016 Edition



Freeman & Co. LLC

Independent Financial Services Advice

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Investment Banking & Brokerage Highlights

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Largest sectors by middle market investment banking fees:

| Q4 2015 | Q1 2016 |
|----------------------|----------------------|
| 1. FIG & Real Estate | 1. FIG & Real Estate |
| 2. TMT | 2. TMT |
| 3. Healthcare | 3. Healthcare |

Smallest sectors by middle market investment banking fees:

| Q4 2015 | Q1 2016 |
|----------------------|----------------------|
| 1. Energy & Power | 1. Energy & Power |
| 2. Consumer & Retail | 2. Industrials |
| 3. Industrials | 3. Consumer & Retail |

Largest sectors by middle market with sponsor involvement investment banking fees:

| Q4 2015 | Q1 2016 |
|----------------------|----------------------|
| 1. Industrials | 1. FIG & Real Estate |
| 2. FIG & Real Estate | 2. Consumer & Retail |
| 3. TMT | 3. TMT |

Top middle market banks in terms of middle market IB fees:

- **Overall:** Wells Fargo, Jefferies, Houlihan Lokey
- **M&A:** Houlihan Lokey, Jefferies, Moelis
- **ECM:** Jefferies, Cowen, Stifel
- **DCM:** Wells Fargo, SunTrust, RBC

Top market share gainers / decliners for middle market fees:

- **Overall:** ↑RBC / ↓Jefferies
- **M&A:** ↑Piper Jaffray / ↓Stephens
- **ECM:** ↑RBC / ↓Sandler O'Neill Partners

Investment Banking Fees: All Deal Sizes

Figure 1: Investment Banking Fees (\$bn)

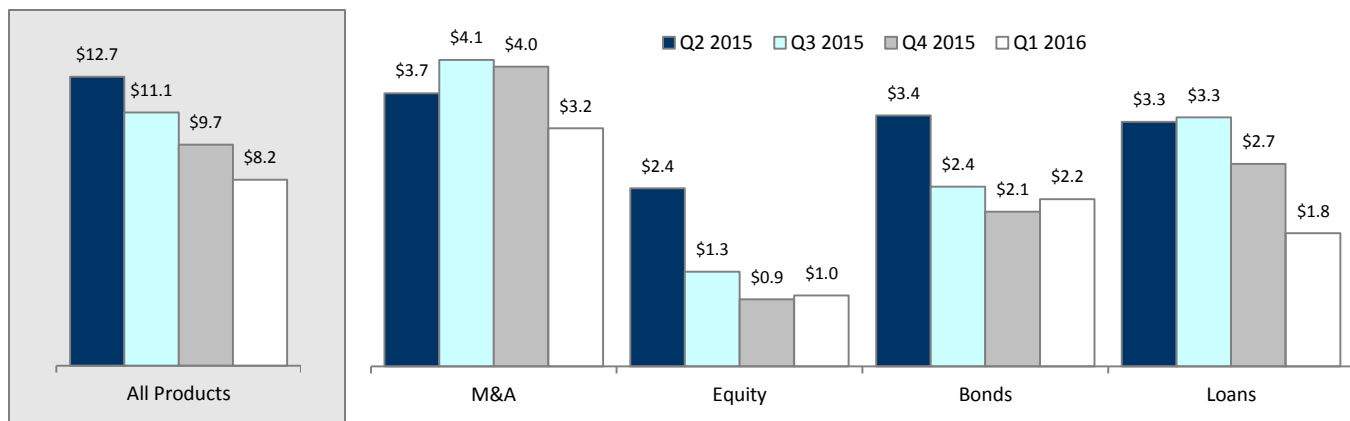


Figure 2: Investment Banking Fees by Product (\$mm)

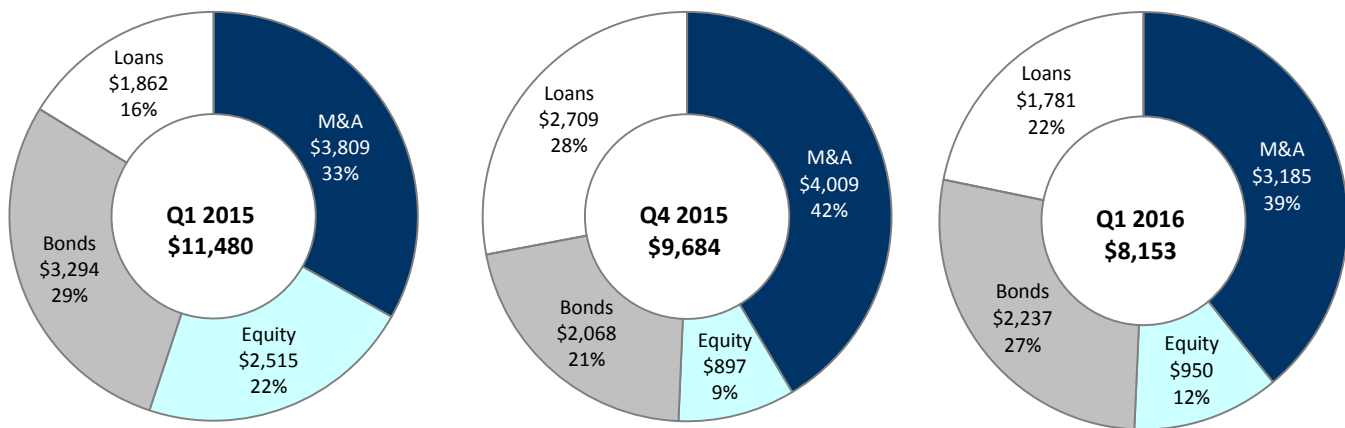
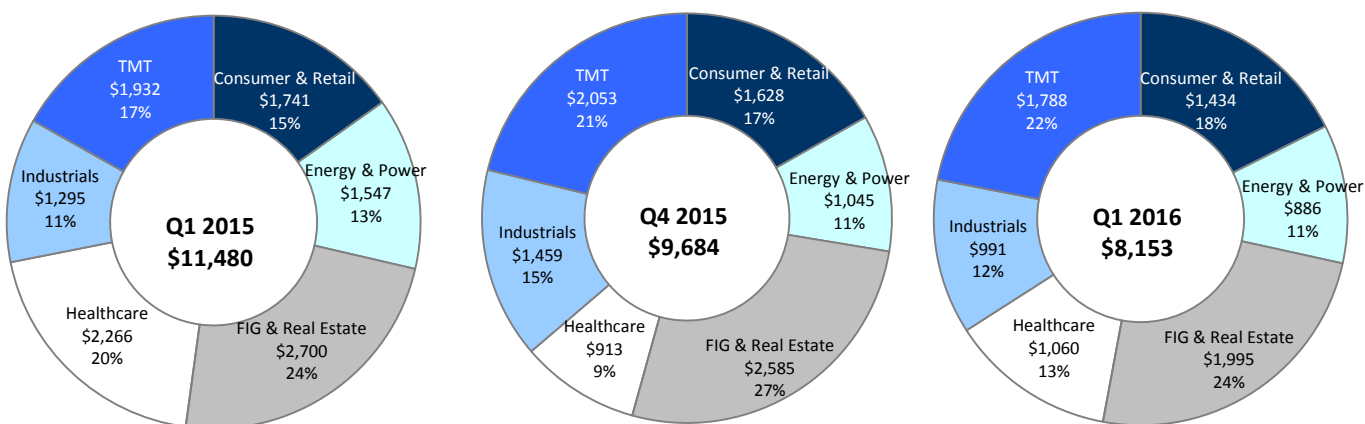


Figure 3: Investment Banking Fees by Sector (\$mm)



Investment Banking Fees: Middle Market Deals Only

Figure 4: Middle Market IB Fees (\$bn)

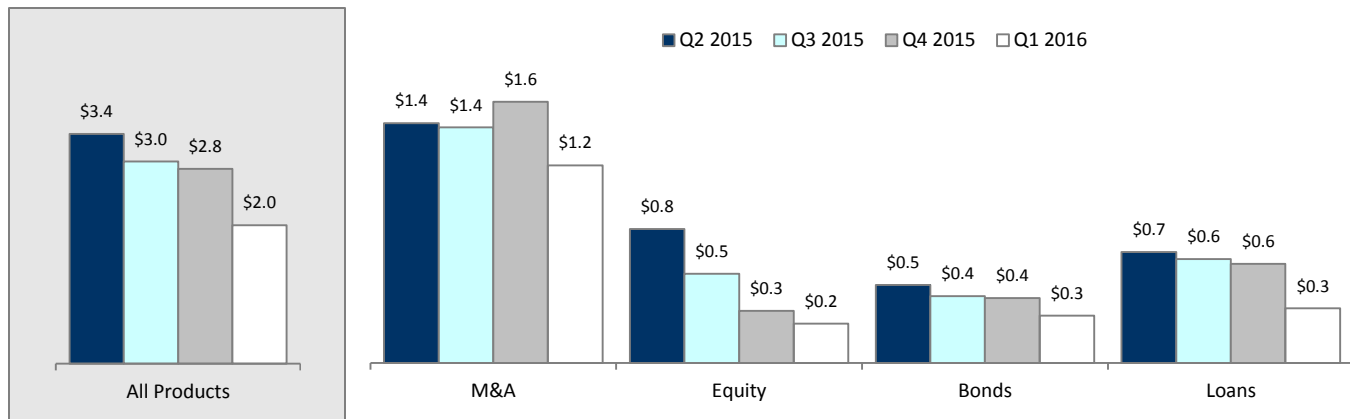


Figure 5: Middle Market IB Fees by Product (\$mm)

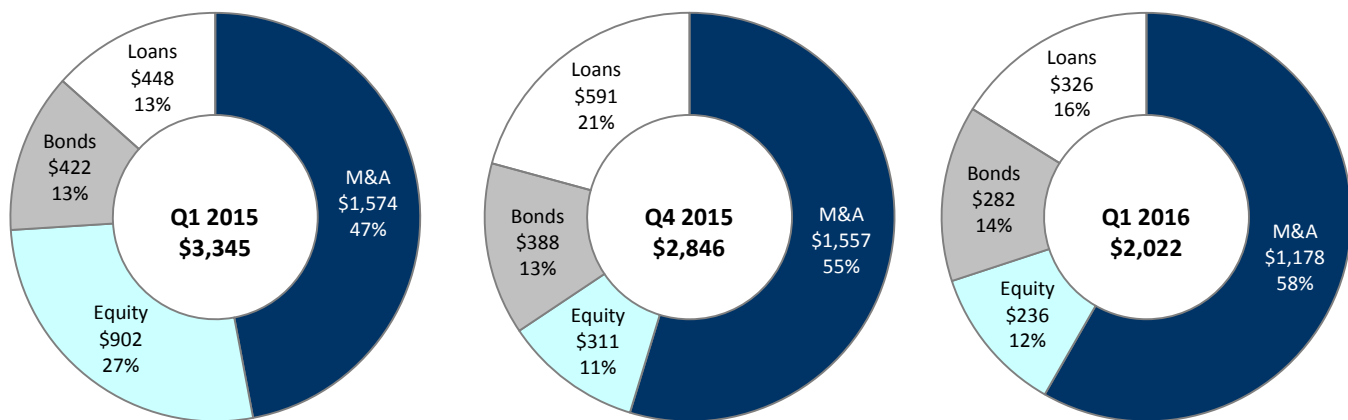


Figure 6: Middle Market IB Fee Ranking (LTM ending 3/31/2016)

| Rank | All Products Ranking | M&A Ranking | ECM Ranking | DCM & Loans Ranking |
|------|------------------------------|------------------------------|-----------------------------|--------------------------------|
| 1 | Wells Fargo & Co | Houlihan Lokey | Jefferies LLC | Wells Fargo & Co |
| 2 | Jefferies LLC | Jefferies LLC | Cowen & Co | SunTrust Banks |
| 3 | Houlihan Lokey | Moelis & Co | Stifel/KBW | RBC Capital Markets |
| 4 | RBC Capital Markets | Evercore Partners | Piper Jaffray Cos | BMO Capital Markets |
| 5 | Stifel/KBW | Lazard | Leerink Partners LLC | Jefferies LLC |
| 6 | Piper Jaffray Cos | William Blair & Co | Wells Fargo & Co | KeyBanc Capital Markets Inc |
| 7 | Raymond James Financial Inc | RBC Capital Markets | RBC Capital Markets | US Bancorp |
| 8 | William Blair & Co | Raymond James Financial Inc | Raymond James Financial Inc | Mitsubishi UFJ Financial Group |
| 9 | Evercore Partners | PNC Financial Services Group | William Blair & Co | Madison Capital Funding LLC |
| 10 | BMO Capital Markets | Piper Jaffray Cos | Robert W Baird & Co Inc | Fifth Third Bancorp |
| 11 | Moelis & Co | Robert W Baird & Co Inc | JMP Securities LLC | PNC Financial Services Group |
| 12 | PNC Financial Services Group | Stifel/KBW | BMO Capital Markets | General Electric Co |
| 13 | Lazard | Sandler O'Neill Partners | Canaccord Genuity | Societe Generale |
| 14 | SunTrust Banks | Wells Fargo & Co | KeyBanc Capital Markets Inc | Stifel/KBW |
| 15 | KeyBanc Capital Markets Inc | Rothschild | Roth Capital Partners Inc | Regions Financial Corp |

Source: Freeman Consulting Services / Thomson Reuters

Note: Middle market: deals with values under \$500mm for M&A and \$250mm for ECM, DCM & Loans

Note: Middle market advisors / underwriters represent all investment banks other than 10 of the largest bulge bracket firms (see page 13 for further detail)

Middle Market Investment Banking

\$ in billions

Legend:

- Bulge Bracket Fees
- Middle Market Fees
- MM Market Share

Figure 7: Fees & Market Share of Middle Market Firms – All Products

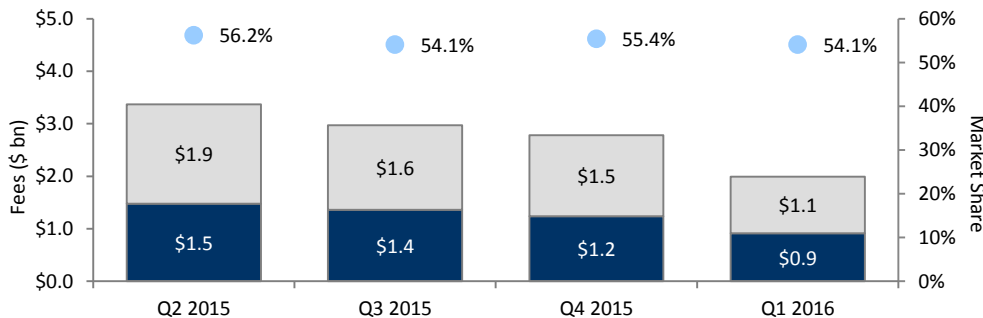


Figure 8: Fees & Market Share of Middle Market Firms – M&A

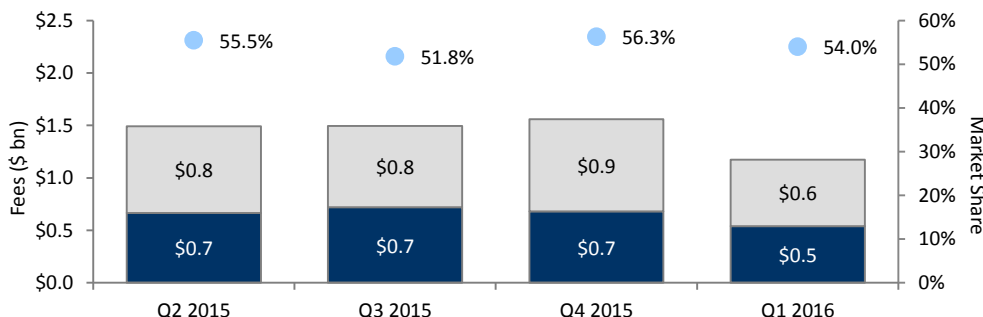


Figure 9: Fees & Market Share of Middle Market Firms – ECM

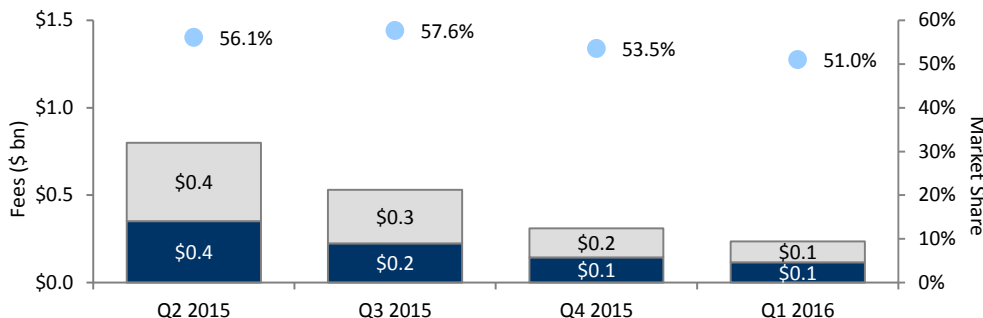
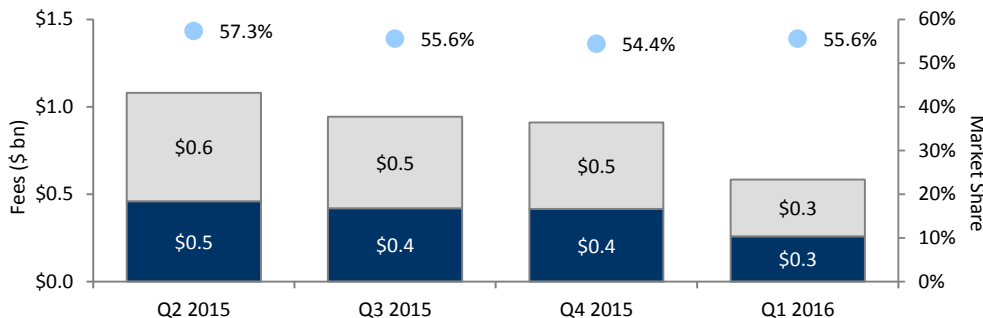


Figure 10: Fees & Market Share of Middle Market Firms – DCM & Loans



Source: Freeman Consulting Services / Thomson Reuters

Note: Middle market: deals with values under \$500mm for M&A and \$250mm for ECM, DCM & Loans

Note: Middle market advisors / underwriters represent all investment banks other than 10 of the largest bulge bracket firms (see page 13 for further detail)

Middle Market Investment Banking Fees: Sponsor Deals Only

Figure 11: Middle Market Sponsor Involved IB Fees (\$mm)

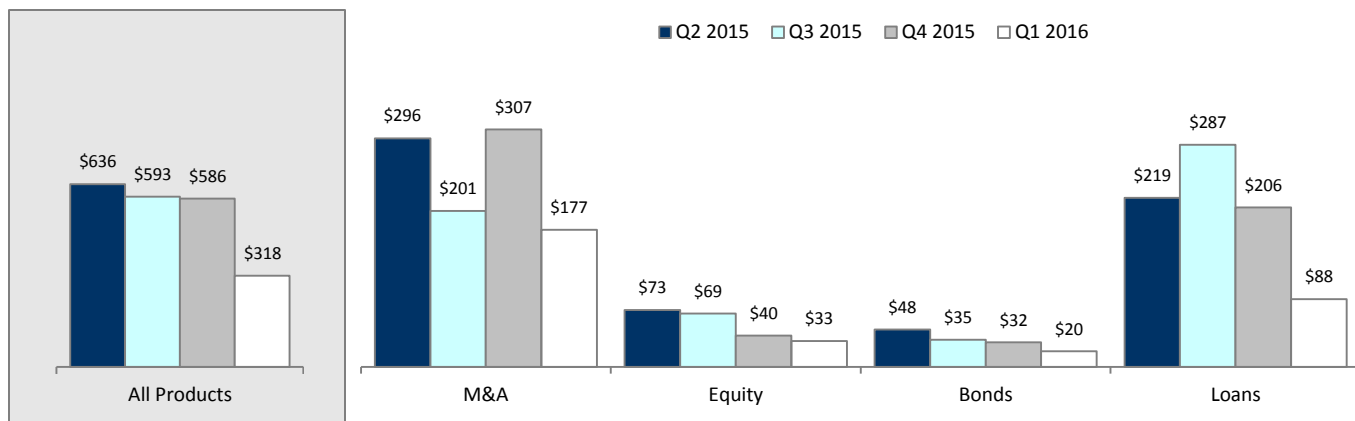


Figure 12: Middle Market Sponsor IB Fees by Product (\$mm)

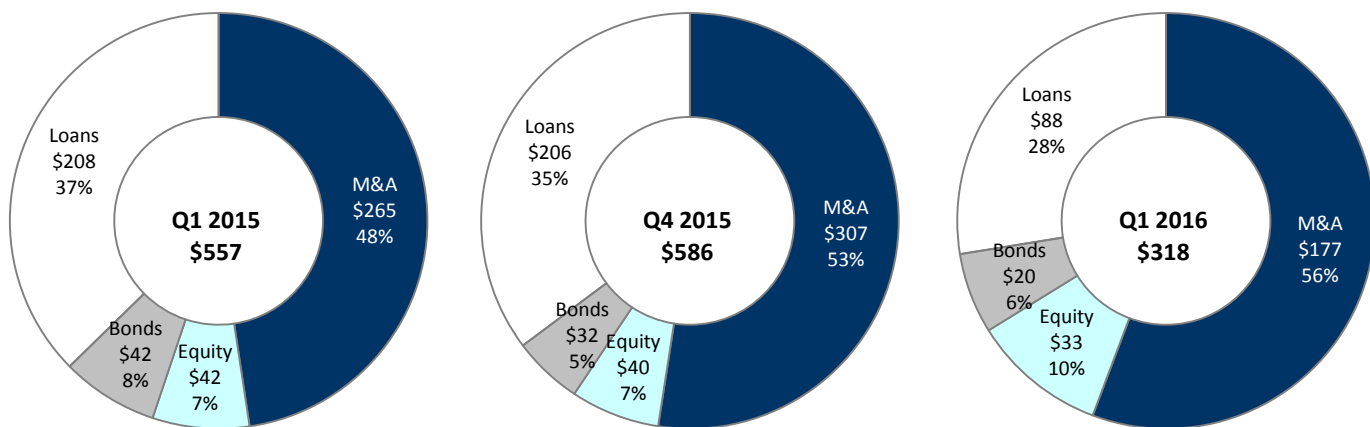


Figure 13: Middle Market Sponsor-Involved IB Fee Ranking (LTM ending 3/31/2016)

| Rank | All Products Ranking | M&A Ranking | ECM Ranking | DCM & Loans Ranking |
|------|------------------------------|------------------------------|-----------------------------|------------------------------|
| 1 | Jefferies LLC | Houlihan Lokey | Cowen & Co | Jefferies LLC |
| 2 | Houlihan Lokey | Jefferies LLC | Jefferies LLC | BMO Capital Markets |
| 3 | PNC Financial Services Group | PNC Financial Services Group | Piper Jaffray Cos | Wells Fargo & Co |
| 4 | BMO Capital Markets | William Blair & Co | Leerink Partners LLC | RBC Capital Markets |
| 5 | Wells Fargo & Co | Lazard | William Blair & Co | SunTrust Banks |
| 6 | William Blair & Co | Evercore Partners | Robert W Baird & Co Inc | Madison Capital Funding LLC |
| 7 | RBC Capital Markets | Moelis & Co | Wedbush Securities | General Electric Co |
| 8 | Lazard | Robert W Baird & Co Inc | Wells Fargo & Co | KeyBanc Capital Markets Inc |
| 9 | SunTrust Banks | BMO Capital Markets | JMP Securities LLC | Macquarie Group |
| 10 | Piper Jaffray Cos | Rothschild | Raymond James Financial Inc | NXT Capital LLC |
| 11 | Robert W Baird & Co Inc | Wells Fargo & Co | Canaccord Genuity | CIT Group Inc |
| 12 | Evercore Partners | Raymond James Financial Inc | RBC Capital Markets | Societe Generale |
| 13 | Macquarie Group | Lincoln International | BMO Capital Markets | ING |
| 14 | Moelis & Co | RBC Capital Markets | KeyBanc Capital Markets Inc | NewStar Financial |
| 15 | KeyBanc Capital Markets Inc | Guggenheim Securities LLC | Needham & Co LLC | Sumitomo Mitsui Finl Grp Inc |

Source: Freeman Consulting Services / Thomson Reuters

Note: Middle market: deals with values under \$500mm for M&A and \$250mm for ECM, DCM & Loans

Note: Middle market advisors / underwriters represent all investment banks other than 10 of the largest bulge bracket firms (see page 13 for further detail)

Middle Market Investment Banking Fees: Sector & Product

\$ in millions

Legend:

- Loans
- Bonds
- Equity
- M&A

Figure 14: Consumer/Retail

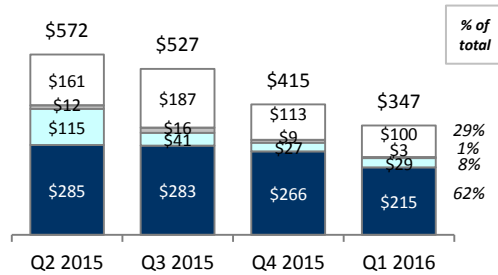


Figure 15: Energy & Power

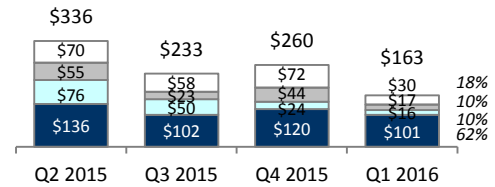


Figure 16: FIG & Real Estate

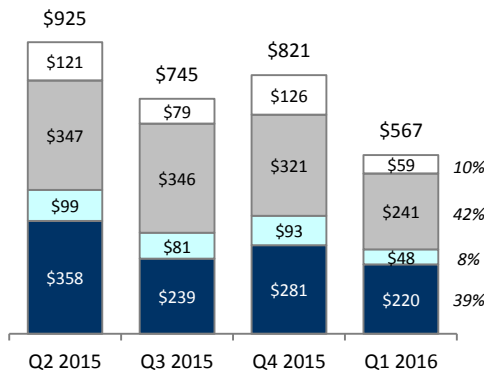


Figure 17: Healthcare

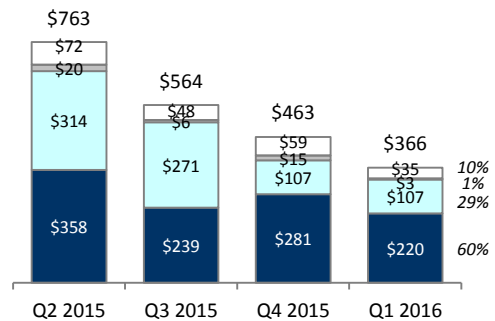


Figure 18: Industrials

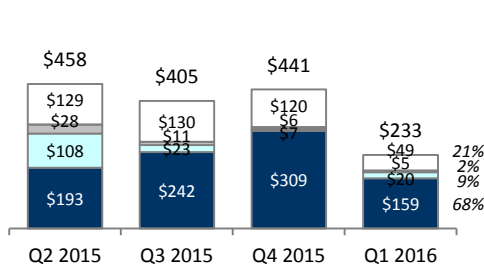
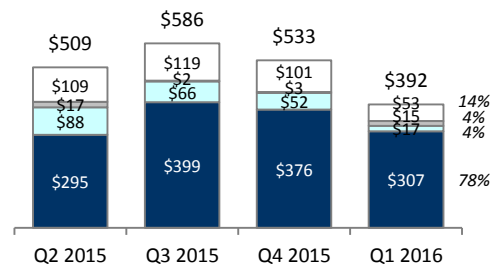


Figure 19: TMT



Source: Freeman Consulting Services / Thomson Reuters

Note: Middle market: deals with values under \$500mm for M&A and \$250mm for ECM, DCM & Loans

Note: Middle market advisors / underwriters represent all investment banks other than 10 of the largest bulge bracket firms (see page 13 for further detail)

Middle Market Investment Banking League Tables by Fees

*M&A advisory and ECM
underwriting fees only*

LTM ending Q1 2016

Figure 20: Consumer/Retail

| Rank | Firm | Market Share |
|------|------------------------------|--------------|
| 1 | Houlihan Lokey | 11.0% |
| 2 | Jefferies LLC | 6.6% |
| 3 | Robert W Baird & Co Inc | 6.0% |
| 4 | PNC Financial Services Group | 5.5% |
| 5 | William Blair & Co | 5.1% |
| 6 | Raymond James Financial Inc | 4.8% |
| 7 | Piper Jaffray Cos | 4.7% |
| 8 | Lazard | 4.2% |
| 9 | Guggenheim Securities LLC | 3.8% |
| 10 | Moelis & Co | 3.7% |
| 11 | RBC Capital Markets | 2.5% |
| 12 | Evercore Partners | 2.3% |
| 13 | Generational Equity | 1.9% |
| 14 | FTI Consulting Inc | 1.7% |
| 15 | Wells Fargo & Co | 1.7% |

Figure 22: FIG & Real Estate

| Rank | Firm | Market Share |
|------|-----------------------------|--------------|
| 1 | Sandler O'Neill Partners | 10.0% |
| 2 | Stifel/KBW | 8.5% |
| 3 | Raymond James Financial Inc | 7.1% |
| 4 | Jefferies LLC | 5.1% |
| 5 | Houlihan Lokey | 4.8% |
| 6 | Wells Fargo & Co | 4.4% |
| 7 | RBC Capital Markets | 3.8% |
| 8 | Evercore Partners | 3.8% |
| 9 | BMO Capital Markets | 2.2% |
| 10 | Rothschild | 2.2% |
| 11 | Macquarie Group | 2.0% |
| 12 | Lazard | 1.5% |
| 13 | HSBC Holdings PLC | 1.4% |
| 14 | Willis Capital Markets | 1.2% |
| 15 | Moelis & Co | 1.1% |

Figure 24: Industrials

| Rank | Firm | Market Share |
|------|------------------------------|--------------|
| 1 | Houlihan Lokey | 10.3% |
| 2 | Moelis & Co | 8.7% |
| 3 | Robert W Baird & Co Inc | 5.8% |
| 4 | PNC Financial Services Group | 5.8% |
| 5 | Jefferies LLC | 5.5% |
| 6 | Lazard | 4.4% |
| 7 | William Blair & Co | 3.1% |
| 8 | Lincoln International | 3.0% |
| 9 | Raymond James Financial Inc | 2.7% |
| 10 | RBC Capital Markets | 2.5% |
| 11 | Wells Fargo & Co | 2.4% |
| 12 | Generational Equity | 2.2% |
| 13 | Evercore Partners | 1.9% |
| 14 | M&A International | 1.5% |
| 15 | Duff & Phelps | 1.5% |

Figure 21: Energy & Power

| Rank | Firm | Market Share |
|------|----------------------------|--------------|
| 1 | Evercore Partners | 14.9% |
| 2 | RBC Capital Markets | 14.0% |
| 3 | Lazard | 7.5% |
| 4 | Wells Fargo & Co | 6.4% |
| 5 | Jefferies LLC | 6.0% |
| 6 | Houlihan Lokey | 5.4% |
| 7 | Simmons & Co International | 4.4% |
| 8 | BMO Capital Markets | 4.2% |
| 9 | Greenhill & Co, LLC | 4.1% |
| 10 | Robert W Baird & Co Inc | 3.1% |
| 11 | Stifel/KBW | 2.5% |
| 12 | Tudor Pickering & Co LLC | 2.3% |
| 13 | Scotiabank | 2.3% |
| 14 | Numis | 2.1% |
| 15 | Marathon Capital LLC | 1.9% |

Figure 23: Healthcare

| Rank | Firm | Market Share |
|------|------------------------------|--------------|
| 1 | Piper Jaffray Cos | 11.7% |
| 2 | Jefferies LLC | 10.5% |
| 3 | Cowen & Co | 8.4% |
| 4 | Leerink Partners LLC | 8.3% |
| 5 | Houlihan Lokey | 6.6% |
| 6 | William Blair & Co | 4.7% |
| 7 | Stifel/KBW | 4.3% |
| 8 | Moelis & Co | 2.8% |
| 9 | Guggenheim Securities LLC | 2.4% |
| 10 | JMP Securities LLC | 2.4% |
| 11 | RBC Capital Markets | 2.2% |
| 12 | Canaccord Genuity | 2.1% |
| 13 | Lazard | 1.8% |
| 14 | Wells Fargo & Co | 1.5% |
| 15 | PNC Financial Services Group | 1.3% |

Figure 25: TMT

| Rank | Firm | Market Share |
|------|------------------------------|--------------|
| 1 | Houlihan Lokey | 7.7% |
| 2 | William Blair & Co | 6.5% |
| 3 | Jefferies LLC | 5.4% |
| 4 | Moelis & Co | 4.5% |
| 5 | Evercore Partners | 4.4% |
| 6 | PJT Partners LP | 3.9% |
| 7 | RBC Capital Markets | 3.8% |
| 8 | Lazard | 3.6% |
| 9 | Raymond James Financial Inc | 3.5% |
| 10 | Stifel/KBW | 2.8% |
| 11 | PNC Financial Services Group | 2.7% |
| 12 | Robert W Baird & Co Inc | 2.5% |
| 13 | Wells Fargo & Co | 2.4% |
| 14 | Qatalyst Partners | 2.2% |
| 15 | Rothschild | 1.6% |

Source: Freeman Consulting Services / Thomson Reuters

Note: Middle market: deals with values under \$500mm for M&A and \$250mm for ECM, DCM & Loans

Note: Middle market advisors / underwriters represent all investment banks other than 10 of the largest blue bracket firms (see page 13 for further detail)

Middle Market Investment Banking Fees: Market Share Change

M&A advisory and ECM underwriting fees only

Market share change (Δ) from Q1 2015 to Q1 2016

Figure 26: Top Overall Market Share Increases / Decreases

| # | Firm | Market Share \uparrow |
|---|---------------------|-------------------------|
| 1 | RBC Capital Markets | 3.1% |
| 2 | PJT Partners LP | 2.5% |
| 3 | Piper Jaffray Cos | 2.2% |

| # | Firm | Market Share \downarrow |
|---|---------------|---------------------------|
| 1 | Jefferies LLC | (2.4%) |
| 2 | Cowen & Co | (2.3%) |
| 3 | Stephens Inc | (2.2%) |

Figure 27: Consumer/Retail

| Rank | Firm | Market Share Δ |
|------------------|-------------------------|-----------------------|
| Increases | | |
| 1 | RBC Capital Markets | 8.2% |
| 2 | Centerview Partners LLC | 5.2% |
| 3 | FTI Consulting Inc | 3.8% |
| Decreases | | |
| 1 | Stephens Inc | (9.1%) |
| 2 | William Blair & Co | (5.7%) |
| 3 | Jefferies LLC | (5.0%) |

Figure 28: Energy & Power

| Rank | Firm | Market Share Δ |
|------------------|---------------------|-----------------------|
| Increases | | |
| 1 | Greenhill & Co, LLC | 19.8% |
| 2 | Numis | 15.2% |
| 3 | Houlihan Lokey | 10.0% |
| Decreases | | |
| 1 | Alvarez & Marsal | (8.5%) |
| 2 | M&A International | (8.5%) |
| 3 | Evercore Partners | (7.8%) |

Figure 29: FIG & Real Estate

| Rank | Firm | Market Share Δ |
|------------------|-------------------------|-----------------------|
| Increases | | |
| 1 | Houlihan Lokey | 4.4% |
| 2 | Rothschild | 4.3% |
| 3 | Fifth Third Bancorp | 3.7% |
| Decreases | | |
| 1 | Robert W Baird & Co Inc | (4.7%) |
| 2 | Stifel/KBW | (4.1%) |
| 3 | Wells Fargo & Co | (2.4%) |

Figure 30: Healthcare

| Rank | Firm | Market Share Δ |
|------------------|---------------------------|-----------------------|
| Increases | | |
| 1 | Piper Jaffray Cos | 12.3% |
| 2 | Guggenheim Securities LLC | 4.3% |
| 3 | Houlihan Lokey | 4.0% |
| Decreases | | |
| 1 | Leerink Partners LLC | (5.3%) |
| 2 | Cowen & Co | (4.9%) |
| 3 | Wells Fargo & Co | (2.6%) |

Figure 31: Industrials

| Rank | Firm | Market Share Δ |
|------------------|------------------------------|-----------------------|
| Increases | | |
| 1 | William Blair & Co | 7.1% |
| 2 | Lincoln International | 6.2% |
| 3 | Rothschild | 4.5% |
| Decreases | | |
| 1 | Houlihan Lokey | (14.0%) |
| 2 | PNC Financial Services Group | (6.4%) |
| 3 | Evercore Partners | (3.5%) |

Figure 32: TMT

| Rank | Firm | Market Share Δ |
|------------------|---------------------|-----------------------|
| Increases | | |
| 1 | PJT Partners LP | 9.5% |
| 2 | RBC Capital Markets | 7.4% |
| 3 | Rothschild | 2.6% |
| Decreases | | |
| 1 | Qatalyst Partners | (11.1%) |
| 2 | Jefferies LLC | (6.1%) |
| 3 | Stephens Inc | (4.3%) |

Source: Freeman Consulting Services / Thomson Reuters

Note: Middle market: deals with values under \$500mm for M&A and \$250mm for ECM, DCM & Loans

Note: Middle market advisors / underwriters represent all investment banks other than 10 of the largest bulge bracket firms (see page 13 for further detail)

US Equity Market Trading Volume

Shares in billions

Figure 33: NYSE Average Daily Trading Volume

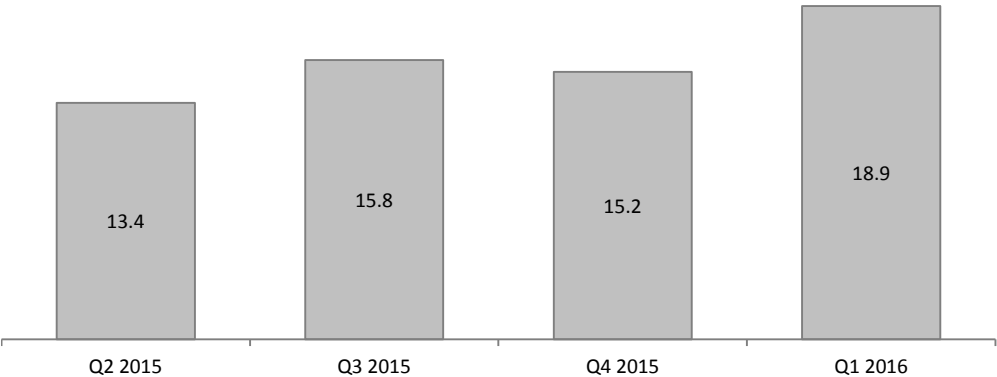


Figure 34: Nasdaq Average Daily Trading Volume

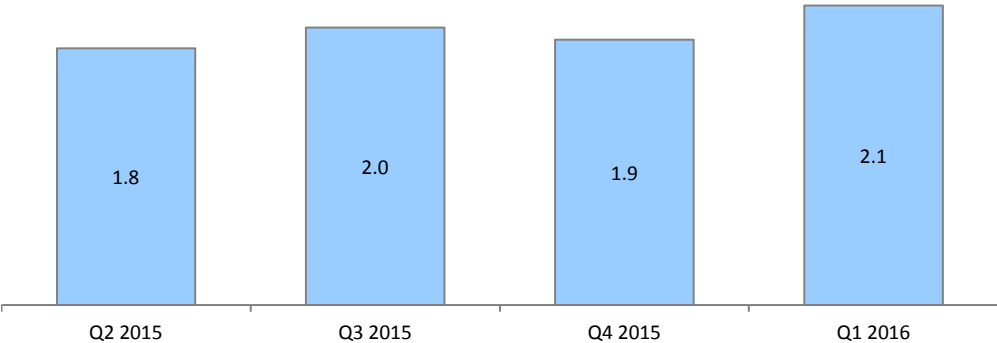
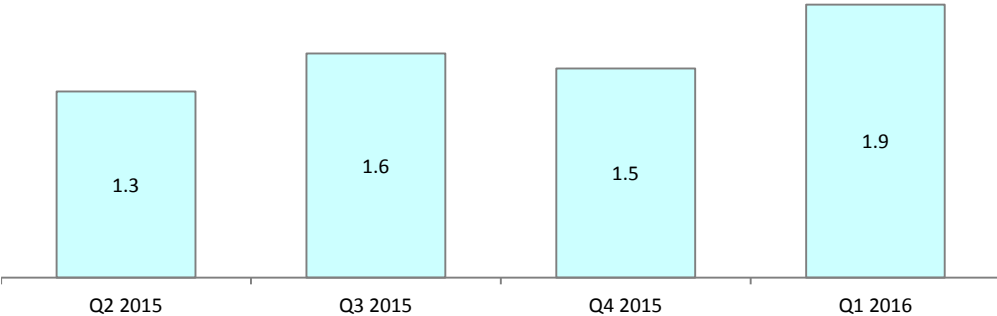


Figure 35: BATS & Direct Edge Average Daily Trading Volume



US Bond Market Trading Volume

\$ in billions

Figure 36: US Corporate Bond Market Average Daily Trading Volume

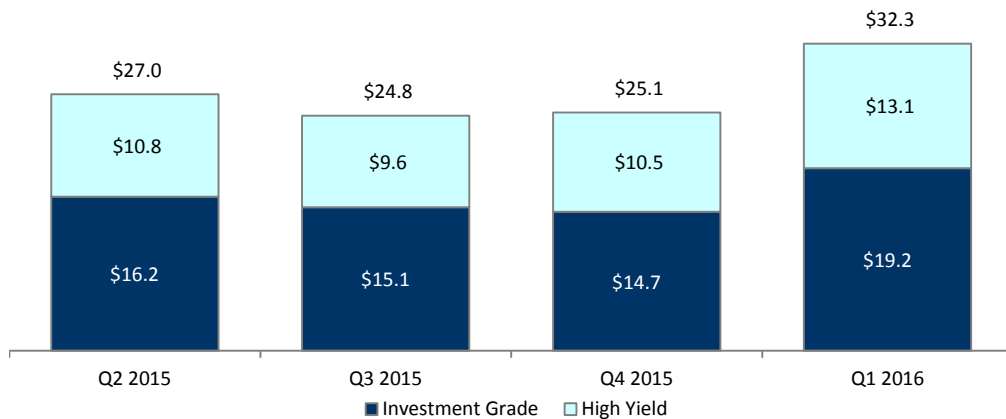


Figure 37: US Treasury Market Average Daily Trading Volume

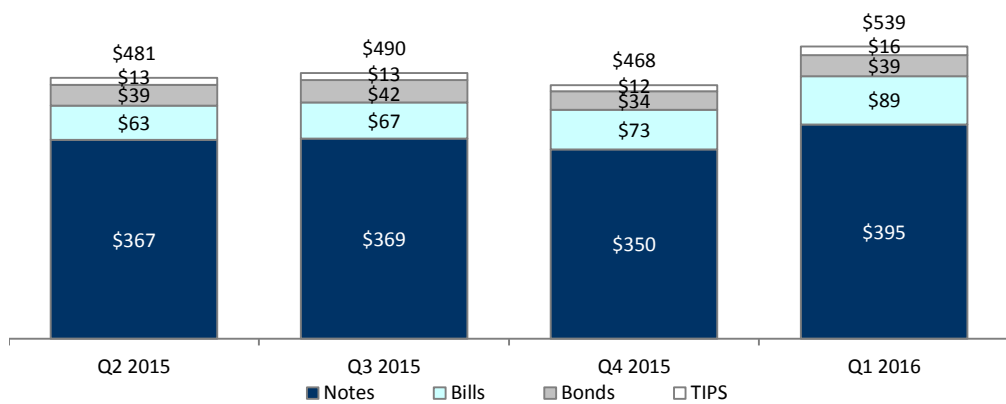
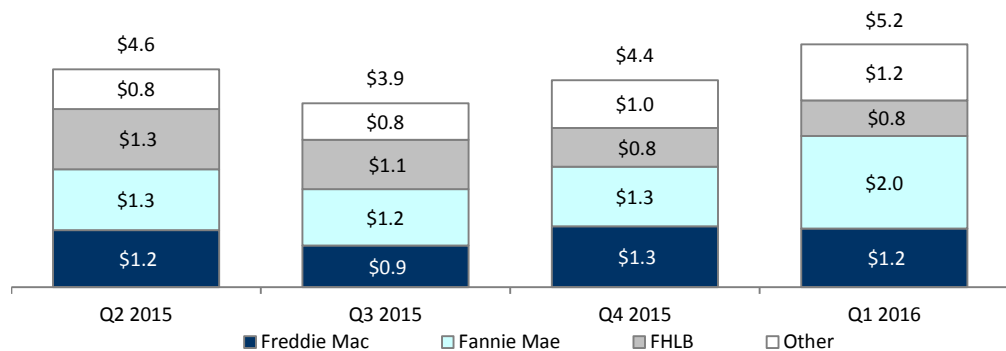


Figure 38: Agency MBS Market Average Daily Trading Volume



US Broker-Dealer Public Company Comparables

Figure 39: US Broker-Dealer Public Company Comparables

(All figures in millions except per share data; All figures have been adjusted for extraordinary and non-recurring items)

| Company Name | Summary Financials | | | | | | | | | Valuation Metrics | | | | | | | |
|------------------------------------|--------------------|------------|------------|--------------------|-----------|-----------|-------------------------------|-----------|---------|-------------------|----------------------------|-------------|--------------|------------------------------|-------------|--------------|--------------|
| | 3/31/2016 | | | LTM ⁽¹⁾ | | | 2016 Estimates ⁽²⁾ | | | Price / Book | Price / LTM ⁽¹⁾ | | | Price / 2016E ⁽²⁾ | | | |
| | Stock Price | Market Cap | Book Value | Revenue | Pre-Tax | EPS | Revenue | Pre-Tax | EPS | | Revenue | Pre-Tax | EPS | Revenue | Pre-Tax | EPS | |
| Bank Holding Companies | | | | | | | | | | | | | | | | | |
| Bank of America | \$ 13.52 | \$ 139,603 | \$ 233,932 | \$ 80,368 | \$ 24,145 | \$ 1.42 | \$ 85,038 | \$ 24,908 | \$ 1.41 | 0.6x | 1.7x | 5.8x | 9.5x | 1.6x | 5.6x | 9.6x | |
| Citigroup | 41.75 | 122,796 | 205,139 | 69,172 | 26,462 | 5.80 | 72,585 | 22,340 | 4.98 | 0.6x | 1.8x | 4.6x | 7.2x | 1.7x | 5.5x | 8.4x | |
| Goldman Sachs | 156.98 | 69,253 | 75,528 | 33,820 | 12,588 | 18.25 | 32,040 | 11,098 | 16.54 | 0.9x | 2.0x | 5.5x | 8.6x | 2.2x | 6.2x | 9.5x | |
| JPMorganChase | 59.22 | 217,353 | 221,506 | 89,716 | 32,470 | 5.57 | 96,603 | 35,158 | 5.67 | 1.0x | 2.4x | 6.7x | 10.6x | 2.2x | 6.2x | 10.4x | |
| Morgan Stanley | 25.01 | 48,984 | 67,662 | 35,155 | 7,971 | 2.52 | 34,179 | 8,144 | 2.52 | 0.7x | 1.4x | 6.1x | 9.9x | 1.4x | 6.0x | 9.9x | |
| Wells Fargo | 48.36 | 244,568 | 170,636 | 83,615 | 33,053 | 4.12 | 89,492 | 34,298 | 4.21 | 1.4x | 2.9x | 7.4x | 11.7x | 2.7x | 7.1x | 11.5x | |
| | | | | | | | | | | AVERAGE | 0.9x | 2.1x | 6.0x | 9.6x | 2.0x | 6.1x | 9.9x |
| | | | | | | | | | | MEDIAN | 0.8x | 1.9x | 6.0x | 9.7x | 1.9x | 6.1x | 9.7x |
| M&A Boutiques | | | | | | | | | | | | | | | | | |
| Evercore Partners | \$ 51.75 | \$ 2,056 | \$ 505 | \$ 1,223 | \$ 161 | \$ 1.49 | \$ 1,296 | \$ 318 | \$ 3.66 | 4.1x | 1.7x | 12.8x | 34.8x | 1.6x | 6.5x | 14.1x | |
| Greenhill | 22.20 | 662 | 283 | 259 | 44 | 0.85 | 315 | 76 | 1.54 | 2.3x | 2.6x | 14.9x | 26.0x | 2.1x | 8.7x | 14.4x | |
| Lazard | 38.80 | 5,062 | 1,313 | 2,354 | (384) | 3.70 | 2,501 | 630 | 3.40 | 3.9x | 2.2x | NM | 10.5x | 2.0x | 8.0x | 11.4x | |
| Moelis & Co. | 28.23 | 2,410 | 168 | 552 | 152 | 5.69 | 628 | 169 | 1.79 | NM | 4.4x | 15.9x | NM | 3.8x | 14.3x | 15.8x | |
| PJT Partners | 24.05 | 432 | (111) | 406 | 42 | 2.09 | 461 | 100 | 1.66 | NM | 1.1x | 10.3x | 11.5x | 0.9x | NM | 14.5x | |
| | | | | | | | | | | AVERAGE | 3.4x | 2.4x | 13.5x | 20.7x | 2.1x | 9.4x | 14.1x |
| | | | | | | | | | | MEDIAN | 3.9x | 2.2x | 13.8x | 18.8x | 2.0x | 8.4x | 14.4x |
| Middle Market | | | | | | | | | | | | | | | | | |
| Cowen Group | \$ 3.81 | \$ 403 | \$ 790 | \$ 489 | \$ (12) | \$ 0.34 | \$ 512 | \$ 37 | \$ 0.20 | 0.5x | 0.8x | NM | 11.3x | 0.8x | 10.9x | 19.1x | |
| FBR | 18.09 | 134 | 211 | 120 | (15) | (0.93) | 141 | 3 | 0.27 | 0.6x | 1.1x | NM | NM | 0.9x | NM | NM | |
| INTL FCStone | 26.73 | 503 | 404 | 618 | 77 | 2.84 | 636 | 86 | 2.81 | 1.2x | 0.8x | 6.6x | 9.4x | 0.8x | 5.8x | 9.5x | |
| JMP Group | 5.23 | 111 | 125 | 141 | (4) | 0.28 | 151 | 14 | 0.51 | 0.9x | 0.8x | NM | 18.7x | 0.7x | 7.9x | 10.3x | |
| Oppenheimer & Co. | 15.78 | 211 | 518 | 911 | 5 | 0.12 | 953 | 23 | 0.98 | 0.4x | 0.2x | NM | NM | 0.2x | 9.1x | 16.1x | |
| Piper Jaffray | 49.56 | 798 | 784 | 673 | 89 | 3.87 | 703 | 94 | 4.24 | 1.0x | 1.2x | 8.9x | 12.8x | 1.1x | 8.5x | 11.7x | |
| Raymond James | 47.61 | 6,726 | 4,647 | 5,194 | 778 | 3.30 | 5,425 | 790 | 3.49 | 1.4x | 1.3x | 8.6x | 14.4x | 1.2x | 8.5x | 13.6x | |
| Stifel Financial | 29.60 | 2,057 | 2,492 | 2,332 | 299 | 2.48 | 2,550 | 331 | 2.58 | 0.8x | 0.9x | 6.9x | 11.9x | 0.8x | 6.2x | 11.5x | |
| | | | | | | | | | | AVERAGE | 0.9x | 0.9x | 7.8x | 13.1x | 0.8x | 8.1x | 13.1x |
| | | | | | | | | | | MEDIAN | 0.9x | 0.9x | 7.8x | 12.4x | 0.8x | 8.5x | 11.7x |
| Retail / Online Brokers | | | | | | | | | | | | | | | | | |
| Charles Schwab | \$ 28.02 | 37,026 | 11,917 | \$ 6,380 | \$ 2,279 | \$ 1.01 | \$ 7,260 | \$ 2,866 | \$ 1.25 | 3.1x | 5.8x | 16.2x | 27.9x | 5.1x | 12.9x | 22.4x | |
| E*TRADE | 24.49 | 6,846 | 5,799 | 1,403 | 237 | 0.48 | 1,950 | 701 | 1.55 | 1.2x | 4.9x | NM | NM | 3.5x | 9.8x | 15.9x | |
| Gain Capital | 6.56 | 319 | 306 | 326 | 31 | 0.96 | 437 | 66 | 1.02 | 1.0x | 1.0x | 10.2x | 6.8x | 0.7x | 4.8x | 6.4x | |
| Interactive Brokers | 39.32 | 16,004 | 863 | 1,190 | (105) | 0.76 | 1,534 | 901 | 1.53 | NM | 13.4x | NM | NM | 10.4x | 17.8x | 25.7x | |
| ITG | 22.10 | 725 | 455 | 633 | 146 | 1.29 | 525 | 27 | 0.66 | 1.6x | 1.1x | 4.9x | 17.2x | 1.4x | NM | 33.5x | |
| LPL Financial | 24.80 | 2,207 | 716 | 4,275 | 295 | 1.82 | 4,074 | 224 | 1.70 | 3.1x | 0.5x | 7.5x | 13.7x | 0.5x | 9.9x | 14.6x | |
| TD AMERITRADE | 31.53 | 16,870 | 4,974 | 3,200 | 1,284 | 1.49 | 3,461 | 1,432 | 1.66 | 3.4x | 5.3x | 13.1x | 21.1x | 4.9x | 11.8x | 18.9x | |
| | | | | | | | | | | AVERAGE | 2.2x | 4.6x | 10.4x | 17.3x | 3.8x | 11.1x | 19.6x |
| | | | | | | | | | | MEDIAN | 2.3x | 4.9x | 10.2x | 17.2x | 3.5x | 10.8x | 18.9x |
| Interdealer / Market Making | | | | | | | | | | | | | | | | | |
| BGC Partners | \$ 9.05 | \$ 2,468 | \$ 651 | \$ 2,995 | \$ (126) | \$ (0.29) | \$ 2,820 | \$ 418 | \$ 0.87 | 3.8x | 0.8x | NM | NM | 0.9x | 5.9x | 10.5x | |
| ICAP | £ 4.75 | £ 3,094 | £ 948 | £ 1,251 | £ 195 | £ 0.26 | £ 1,220 | £ 229 | £ 0.27 | 3.3x | 2.5x | 15.9x | 18.3x | 2.5x | 13.5x | 17.3x | |
| KCG Holdings | 11.95 | 1,086 | 1,444 | 1,528 | 94 | 0.67 | 1,155 | 117 | 0.83 | 0.8x | 0.7x | 11.5x | 17.8x | 0.9x | 9.3x | 14.3x | |
| Tullett Prebon | £ 3.52 | £ 856 | £ 542 | £ 796 | £ 82 | £ 0.26 | £ 851 | £ 98 | £ 0.31 | 1.6x | 1.1x | 10.5x | 13.5x | 1.0x | 8.7x | 11.3x | |
| | | | | | | | | | | AVERAGE | 2.3x | 1.3x | 12.6x | 16.5x | 1.3x | 9.4x | 13.3x |
| | | | | | | | | | | MEDIAN | 2.4x | 0.9x | 11.5x | 17.8x | 1.0x | 9.0x | 12.8x |

(1) LTM based on calendar year ended 12/31/2015; Estimates for firms with fiscal year ends other than 12/31 have been calendarized

(2) Based on average consensus Bloomberg estimates as of 3/31/2016

1. Investment Banking Deal & Fee Data (pages 3-9) – all data is US only

- Source: fees imputed by Freeman Consulting Services in partnership with Thomson Reuters investment banking transaction data
- Benchmarked fees include only M&A advisory fees, equity and bond underwriting fees, and syndicated loan arrangement fees
- Benchmarked fees do not include trading commissions, gains / losses on held securities, interest, or derivatives
- Regional segmentation based on location of asset / issuer
- Fee analyses include only closed transactions, and date ranges are based on transaction close date
- Estimated fee for deals with no disclosed advisor included in middle market fees
- Sector for sponsor deals reflect target industry for both sides
- M&A deal volume analyses include announced and closed transactions, and date ranges are based on transaction announcement date
- All data is provisional, and subject to adjustment in any future reporting
- Middle market data refers to all transactions under \$500mm in deal value for M&A and transactions under \$250mm in deal value for equity, bonds and loans. Transactions with undisclosed deal values also included
- Middle market firms and corresponding fee pools and market shares represent all firms except a basket of 10 bulge bracket investment banking firms selected by Freeman & Co. (BAML, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JP Morgan, Morgan Stanley, UBS)

2. US Equities & Fixed Income Volumes (pages 10-11)

- Source: Securities Industry and Financial Markets Association (SIFMA) and exchange volume / market share releases. Underlying sources:
 - Treasury: US Primary Dealer Trading Volumes (NY Fed)
 - Agency: NY Fed & FINRA Trace (“Other” includes Farmer Mac, HUD, Federal Farm Credit Banks, TVA and Resolution Funding Corporation)
 - Corporate Bonds: FINRA Trace
- NYSE Group equity market trading volumes include NYSE and AMEX/ARCA volumes
- Corporate bond trading volume includes publicly traded and 144A securities; excludes issues with maturities of one year or less and convertible bonds
- Corporate bond trading volume for Q1 2016 is calculated as a trading day weighted average for monthly volume data from July through September
- Daily trading figures do not include all trades reported for the asset class due to time, trade type, or trade size cutoffs. Monthly and certain annual averages are derived from daily trading and therefore will often be an undercount to actual figures

Investment Banking Services

- Independent investment banking boutique with no proprietary capital markets business
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 - Organization of capital markets departments
- Public offering advisory
- Personnel productivity
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- Sample analyses:
 - League tables and competitive positioning
 - Top fee paying clients/issuers
 - Monetizing corporate and lending relationships with investment banking fees
 - Market entry analysis
 - Missed deals analysis

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