

US Investment Banking & Brokerage Snapshot

Q3 2015 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:

Q2 2015	Q3 2015
1. FIG & Real Estate	1. FIG & Real Estate
2. Healthcare	2. Healthcare
3. Consumer & Retail	3. TMT

Smallest sectors by middle market investment banking fees:

Q2 2015	Q3 2015
1. Energy & Power	1. Energy & Power
2. Industrials	2. Industrials
3. TMT	3. Consumer & Retail

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

Q2 2015	Q3 2015
1. FIG & Real Estate	1. Consumer & Retail
2. Consumer & Retail	2. Industrials
3. TMT	3. FIG & Real Estate

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

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

Top market share gainers / decliners for middle market fees:

- **Overall:** ↑Jefferies / ↓Chilmark Partners
- **M&A:** ↑Moelis / ↓Chilmark Partners
- **ECM:** ↑Piper Jaffray / ↓RBC

Investment Banking Fees: All Deal Sizes

Figure 1: Investment Banking Fees (\$bn)

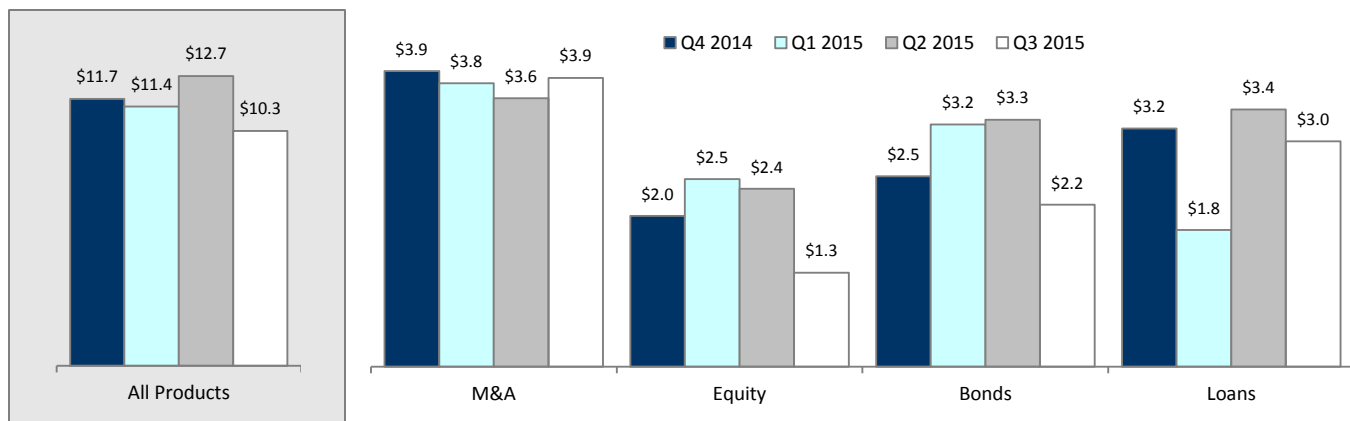


Figure 2: Investment Banking Fees by Product (\$mm)

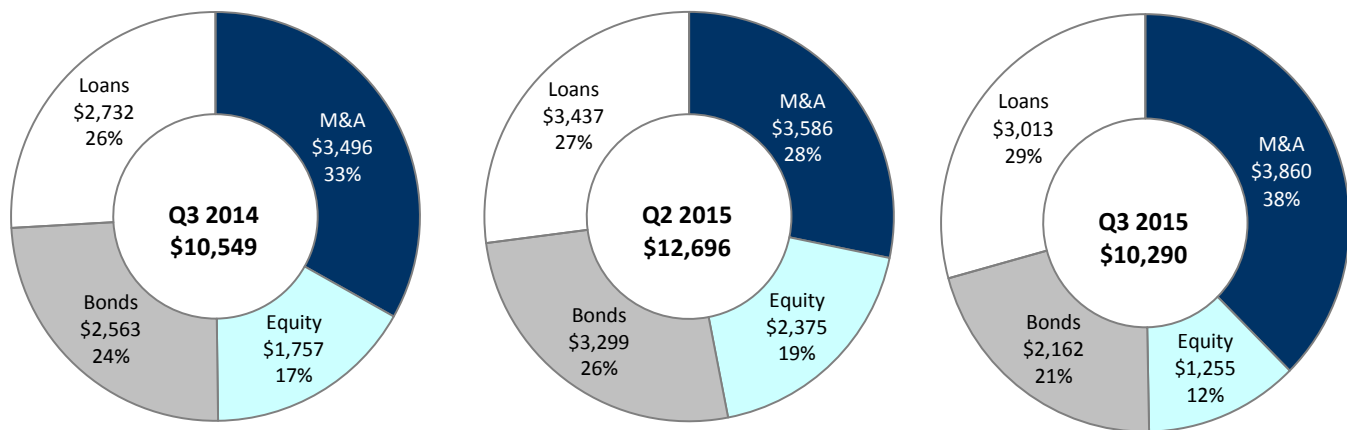
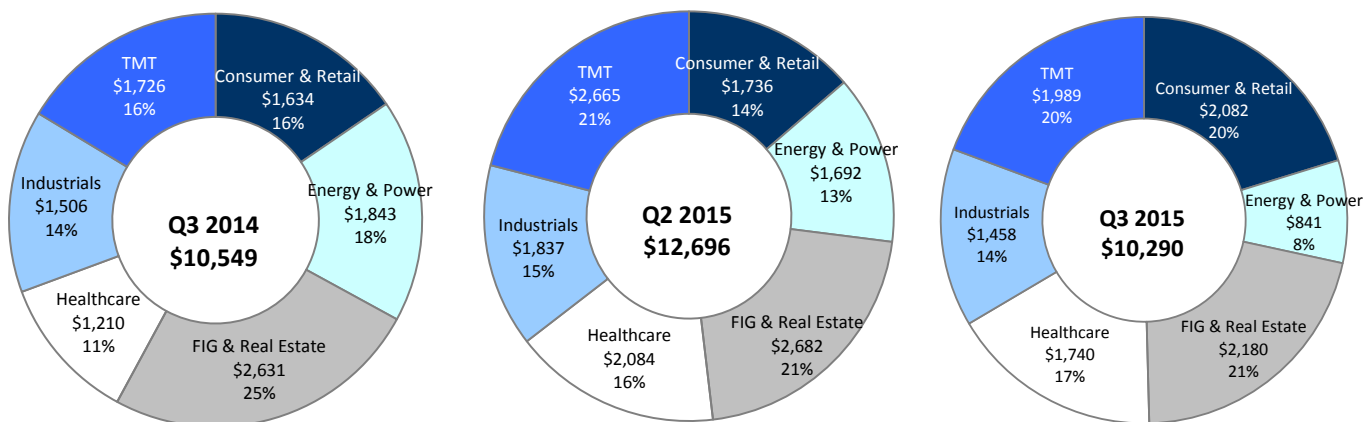


Figure 3: Investment Banking Fees by Sector (\$mm)



Investment Banking Fees: Middle Market Deals Only

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

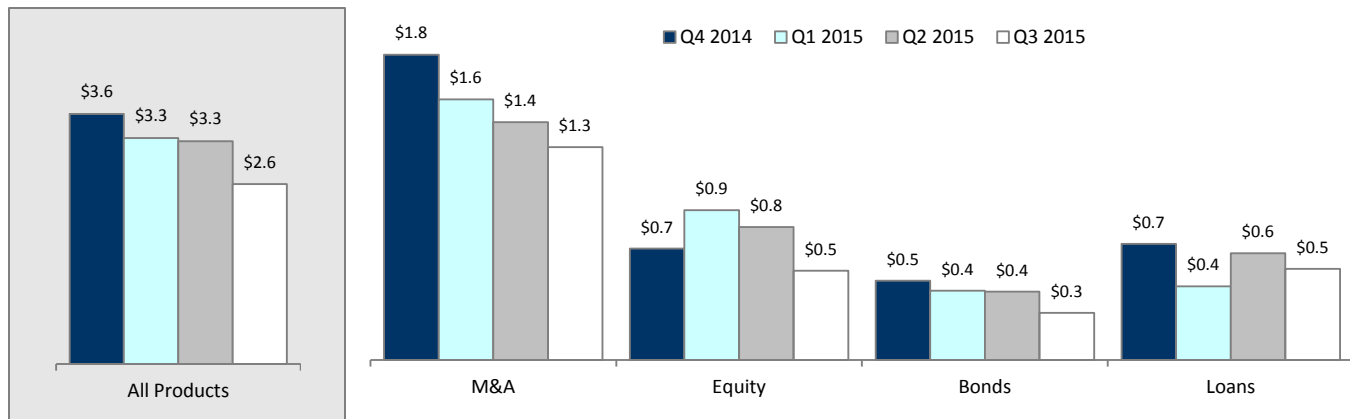


Figure 5: Middle Market IB Fees by Product (\$mm)

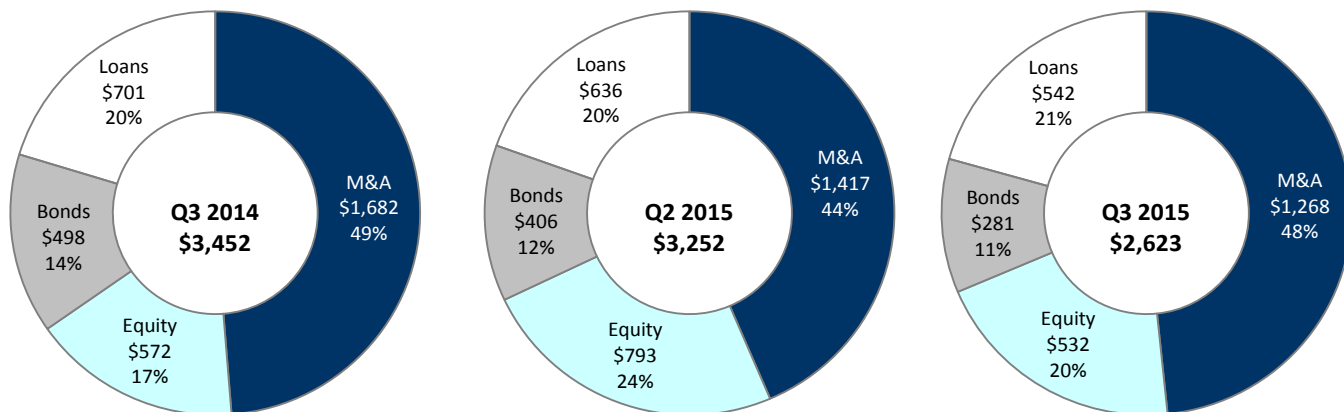


Figure 6: Middle Market IB Fee Ranking (LTM ending 9/30/2015)

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	RBC Capital Markets	Moelis & Co	Leerink Partners LLC	RBC Capital Markets
4	Houlihan Lokey	Evercore Partners	Stifel/KBW	BMO Capital Markets
5	Stifel/KBW	Lazard	Piper Jaffray Cos	Jefferies LLC
6	Raymond James Financial Inc	RBC Capital Markets	Wells Fargo & Co	GE Capital
7	Piper Jaffray Cos	Raymond James Financial Inc	Raymond James Financial Inc	US Bancorp
8	Evercore Partners	Stifel/KBW	RBC Capital Markets	KeyBanc Capital Markets Inc
9	Moelis & Co	Wells Fargo & Co	William Blair & Co	Mitsubishi UFJ Financial Group
10	BMO Capital Markets	William Blair & Co	Robert W Baird & Co Inc	PNC Financial Services Group
11	William Blair & Co	PNC Financial Services Group	JMP Securities LLC	RBS
12	PNC Financial Services Group	Sandler O'Neill Partners	BMO Capital Markets	CIT Group Inc
13	SunTrust Banks	Piper Jaffray Cos	Canaccord Genuity	Madison Capital Funding LLC
14	Lazard	Robert W Baird & Co Inc	Cantor Fitzgerald Inc	Nomura
15	Cowen & Co	Qatalyst Partners	Sandler O'Neill Partners	Fifth Third Bancorp

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

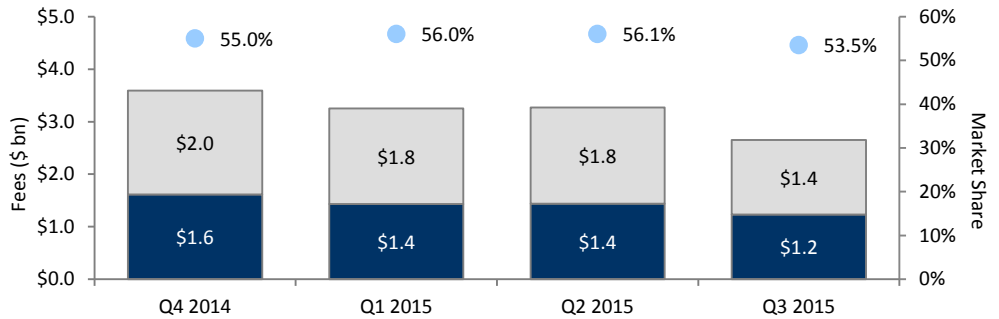


Figure 8: Fees & Market Share of Middle Market Firms – M&A

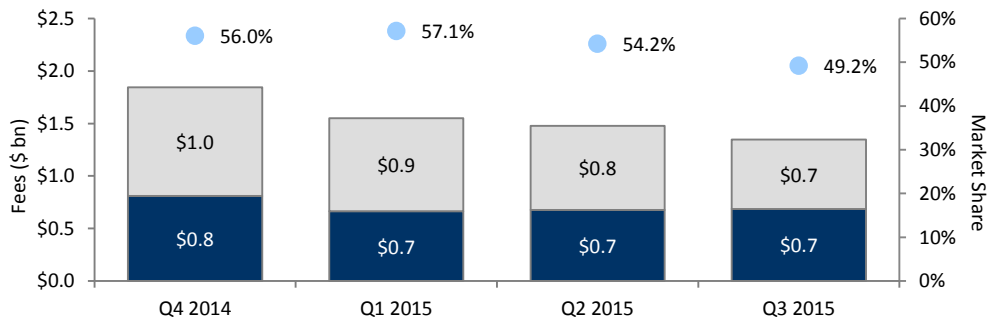


Figure 9: Fees & Market Share of Middle Market Firms – ECM

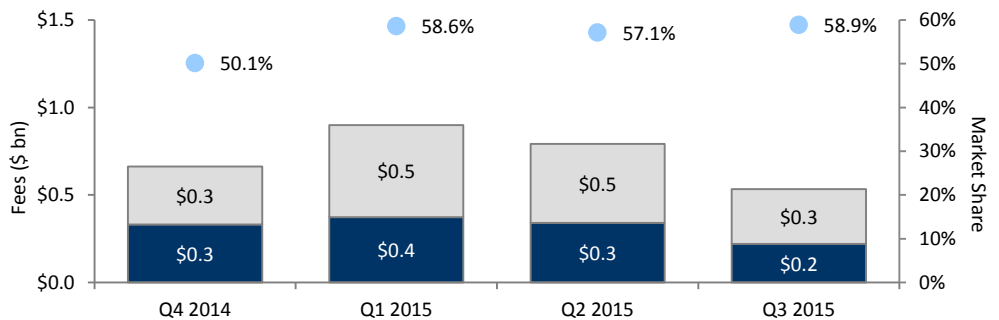
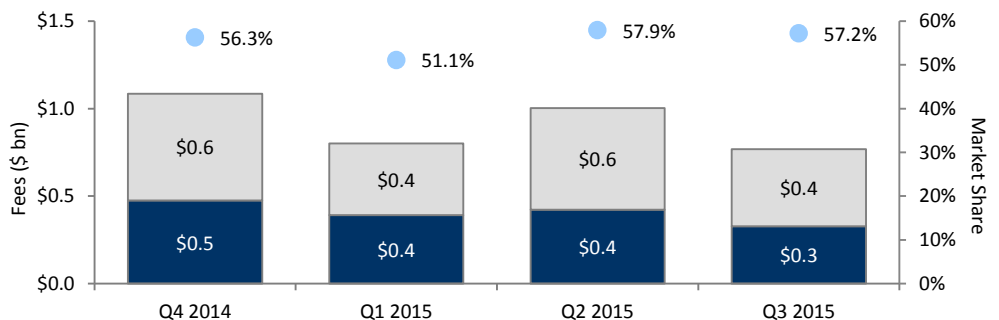


Figure 10: Fees & Market Share of Middle Market Firms – DCM & Loans



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)

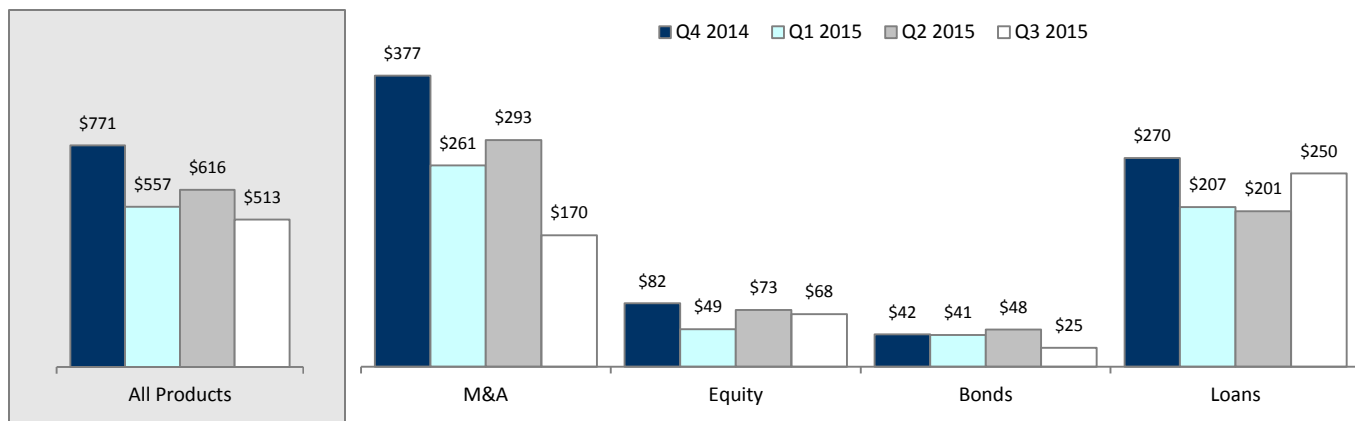


Figure 12: Middle Market Sponsor IB Fees by Product (\$mm)

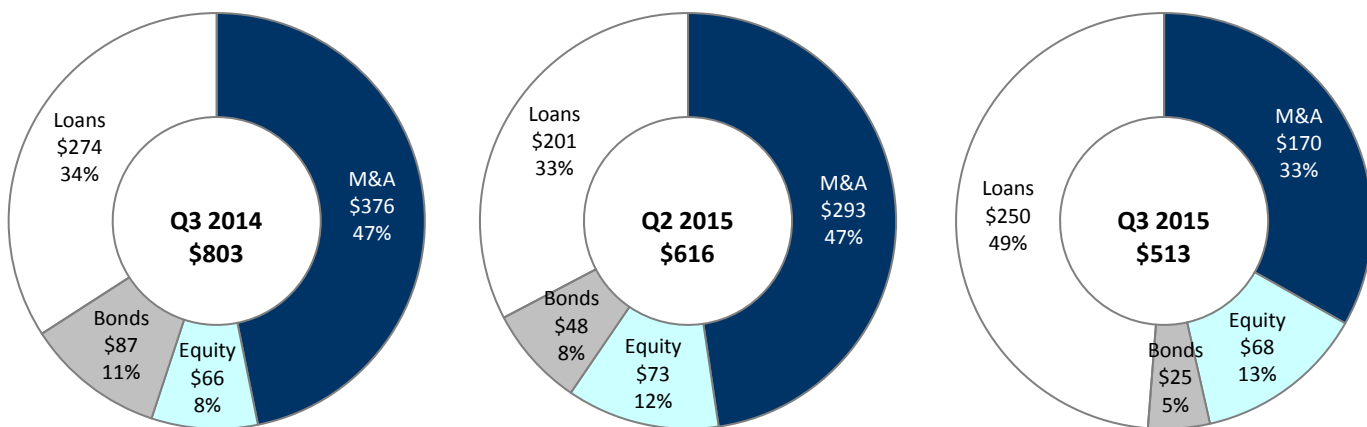


Figure 13: Middle Market Sponsor-Involved IB Fee Ranking (LTM ending 9/30/2015)

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

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

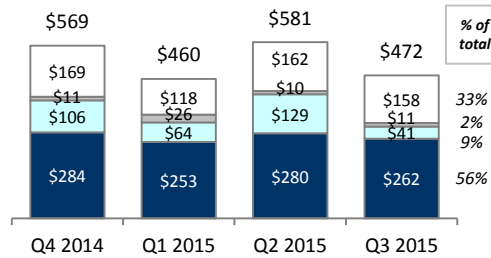


Figure 15: Energy & Power

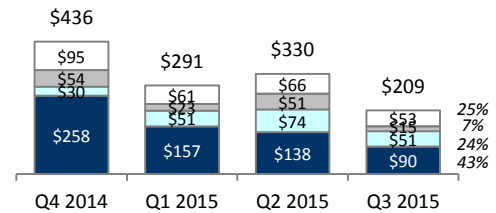


Figure 16: FIG & Real Estate

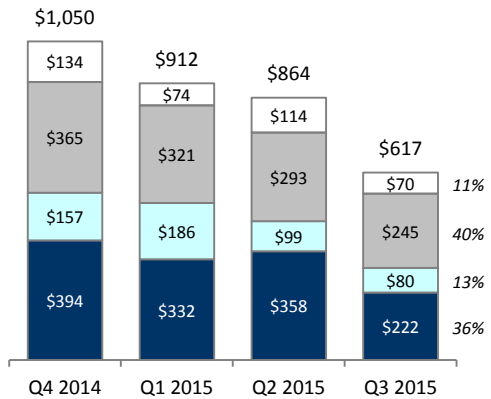


Figure 17: Healthcare

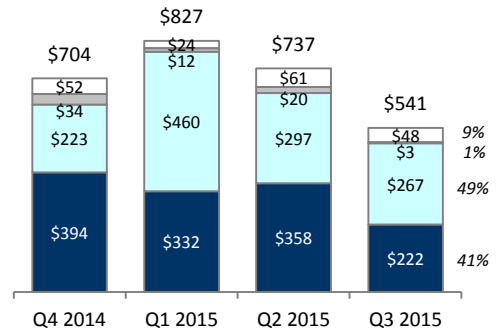


Figure 18: Industrials

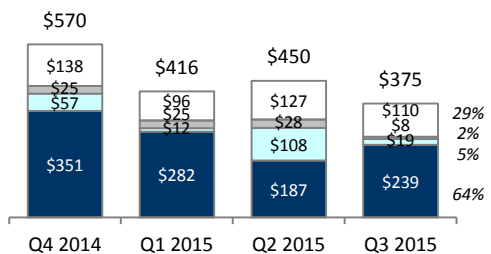
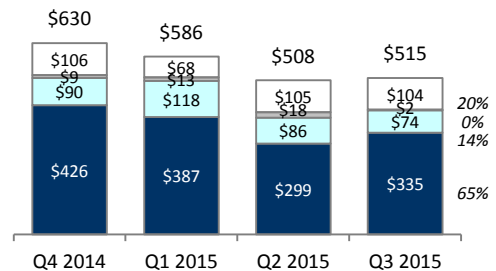


Figure 19: TMT



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 Q3 2015

Figure 20: Consumer/Retail

Rank	Firm	Market Share
1	Houlihan Lokey	9.4%
2	Jefferies LLC	8.3%
3	Raymond James Financial Inc	5.8%
4	Robert W Baird & Co Inc	5.7%
5	William Blair & Co	5.5%
6	Lazard	5.5%
7	Piper Jaffray Cos	5.4%
8	Moelis & Co	4.6%
9	Guggenheim Securities LLC	3.2%
10	PNC Financial Services Group	2.8%
11	Stephens Inc	2.5%
12	Wells Fargo & Co	2.0%
13	Evercore Partners	1.7%
14	Generational Equity	1.6%
15	Stifel/KBW	1.4%

Figure 22: FIG & Real Estate

Rank	Firm	Market Share
1	Sandler O'Neill Partners	11.1%
2	Stifel/KBW	9.7%
3	Raymond James Financial Inc	6.7%
4	Wells Fargo & Co	6.7%
5	Jefferies LLC	5.0%
6	RBC Capital Markets	5.0%
7	Houlihan Lokey	3.5%
8	Cantor Fitzgerald Inc	2.8%
9	Robert W Baird & Co Inc	2.0%
10	Evercore Partners	1.7%
11	William Blair & Co	1.4%
12	Willis Capital Markets	1.3%
13	Macquarie Group	1.2%
14	MarshBerry & Co Inc	1.1%
15	Moelis & Co	1.1%

Figure 24: Industrials

Rank	Firm	Market Share
1	Houlihan Lokey	10.9%
2	Moelis & Co	7.9%
3	PNC Financial Services Group	7.6%
4	Robert W Baird & Co Inc	4.2%
5	Evercore Partners	4.2%
6	Jefferies LLC	4.1%
7	Lazard	3.8%
8	Raymond James Financial Inc	3.0%
9	RBC Capital Markets	2.8%
10	William Blair & Co	2.7%
11	Lincoln International	2.7%
12	KeyBanc Capital Markets Inc	2.3%
13	Piper Jaffray Cos	2.1%
14	Macquarie Group	2.0%
15	Generational Equity	1.6%

Figure 21: Energy & Power

Rank	Firm	Market Share
1	RBC Capital Markets	13.2%
2	Evercore Partners	12.4%
3	Wells Fargo & Co	8.8%
4	Simmons & Co International	7.8%
5	Lazard	6.1%
6	Jefferies LLC	6.0%
7	Raymond James Financial Inc	4.2%
8	Tudor Pickering & Co LLC	3.9%
9	Houlihan Lokey	2.3%
10	M&A International	2.3%
11	Alvarez & Marsal	2.3%
12	SunTrust Banks	2.2%
13	PNC Financial Services Group	1.6%
14	Marathon Capital LLC	1.5%
15	Moelis & Co	1.4%

Figure 23: Healthcare

Rank	Firm	Market Share
1	Leerink Partners LLC	11.9%
2	Jefferies LLC	11.3%
3	Cowen & Co	10.3%
4	Piper Jaffray Cos	8.3%
5	Stifel/KBW	6.1%
6	William Blair & Co	4.0%
7	RBC Capital Markets	3.3%
8	JMP Securities LLC	3.0%
9	Canaccord Genuity	2.3%
10	BMO Capital Markets	2.2%
11	Wells Fargo & Co	2.2%
12	Guggenheim Securities LLC	1.9%
13	Houlihan Lokey	1.5%
14	Lazard	1.5%
15	Wedbush Securities	1.4%

Figure 25: TMT

Rank	Firm	Market Share
1	Jefferies LLC	7.9%
2	Moelis & Co	6.1%
3	Evercore Partners	5.7%
4	Houlihan Lokey	5.6%
5	Qatalyst Partners	5.2%
6	William Blair & Co	4.8%
7	Raymond James Financial Inc	3.9%
8	Wells Fargo & Co	3.7%
9	RBC Capital Markets	3.3%
10	Stifel/KBW	3.2%
11	Piper Jaffray Cos	3.2%
12	Needham & Co LLC	2.6%
13	Robert W Baird & Co Inc	2.5%
14	Lazard	1.9%
15	Stephens Inc	1.5%

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 Q3 2014 to Q3 2015

Figure 26: Top Overall Market Share Increases / Decreases

#	Firm	Market Share \uparrow
1	Jefferies LLC	2.4%
2	Piper Jaffray Cos	2.2%
3	Moelis & Co	1.8%

#	Firm	Market Share \downarrow
1	Chilmark Partners	(1.5%)
2	PNC Financial Services Group	(1.3%)
3	Qatalyst Partners	(1.0%)

Figure 27: Consumer/Retail

Rank	Firm	Market Share Δ
Increases		
1	Guggenheim Securities LLC	4.8%
2	Raymond James Financial Inc	4.2%
3	Houlihan Lokey	3.2%
Decreases		
1	Jefferies LLC	(5.9%)
2	Piper Jaffray Cos	(4.4%)
3	Sage Group LLC	(4.3%)

Figure 28: Energy & Power

Rank	Firm	Market Share Δ
Increases		
1	Rivington Capital Advisors LLC	6.3%
2	Lazard	5.7%
3	Piper Jaffray Cos	4.4%
Decreases		
1	Macquarie Group	(6.3%)
2	Scotiabank	(5.5%)
3	Tudor Pickering & Co LLC	(5.0%)

Figure 29: FIG & Real Estate

Rank	Firm	Market Share Δ
Increases		
1	Willis Capital Markets	5.2%
2	Sandler O'Neill Partners	4.2%
3	IMAP	3.4%
Decreases		
1	Wells Fargo & Co	(4.1%)
2	RBC Capital Markets	(3.8%)
3	William Blair & Co	(3.6%)

Figure 30: Healthcare

Rank	Firm	Market Share Δ
Increases		
1	Jefferies LLC	2.9%
2	RBC Capital Markets	2.9%
3	Cowen & Co	2.9%
Decreases		
1	BMO Capital Markets	(8.0%)
2	Houlihan Lokey	(2.3%)
3	Leerink Partners LLC	(2.1%)

Figure 31: Industrials

Rank	Firm	Market Share Δ
Increases		
1	Jefferies LLC	9.4%
2	Moelis & Co	5.7%
3	RBC Capital Markets	3.4%
Decreases		
1	Chilmark Partners	(8.2%)
2	KeyBanc Capital Markets Inc	(3.8%)
3	Lazard	(3.8%)

Figure 32: TMT

Rank	Firm	Market Share Δ
Increases		
1	Jefferies LLC	7.7%
2	Moelis & Co	5.0%
3	William Blair & Co	3.2%
Decreases		
1	Qatalyst Partners	(4.4%)
2	Greenhill & Co, LLC	(3.0%)
3	Stephens Inc	(2.7%)

Source: Freeman Consulting Services / Thomson Reuters

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

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US Equity Market Trading Volume

Shares in billions

Figure 33: NYSE Average Daily Trading Volume

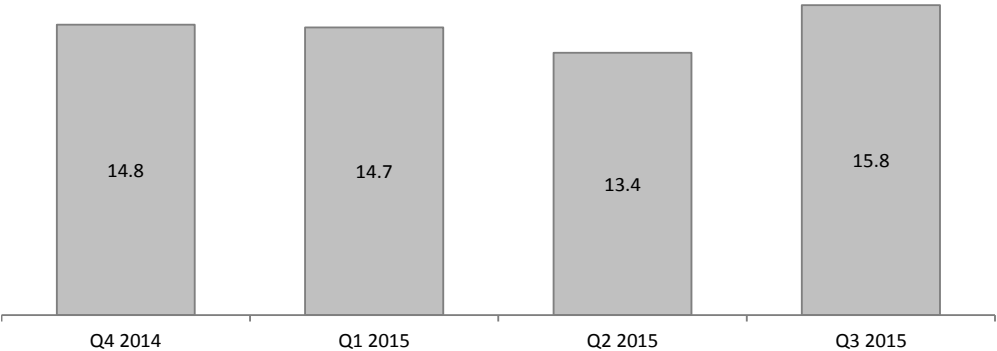


Figure 34: Nasdaq Average Daily Trading Volume

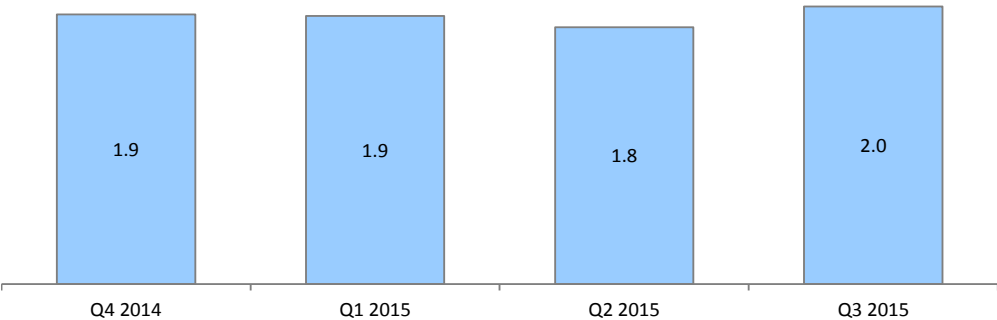
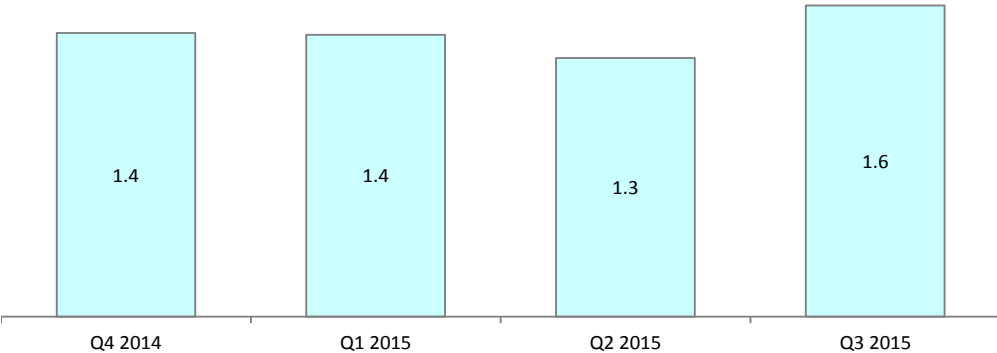


Figure 35: BATS & Direct Edge Average Daily Trading Volume



US Bond Market Trading Volume

\$ in billions

Figure 36: US Corporate Bond Market Average Daily Trading Volume

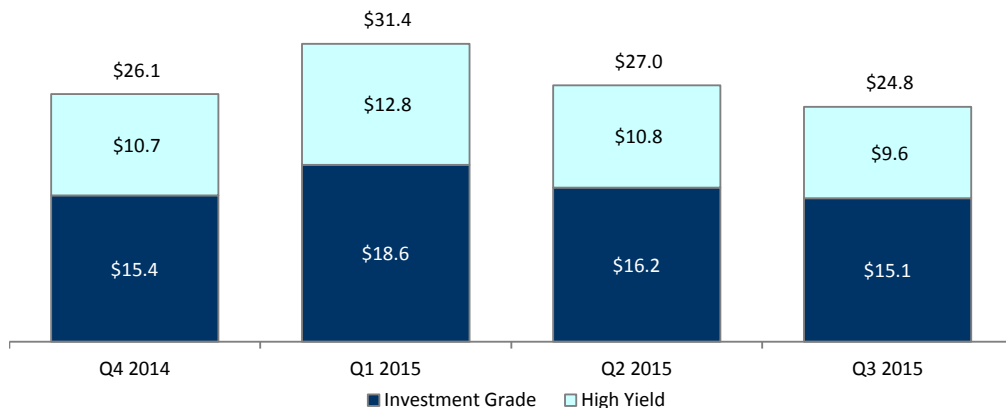


Figure 37: US Treasury Market Average Daily Trading Volume

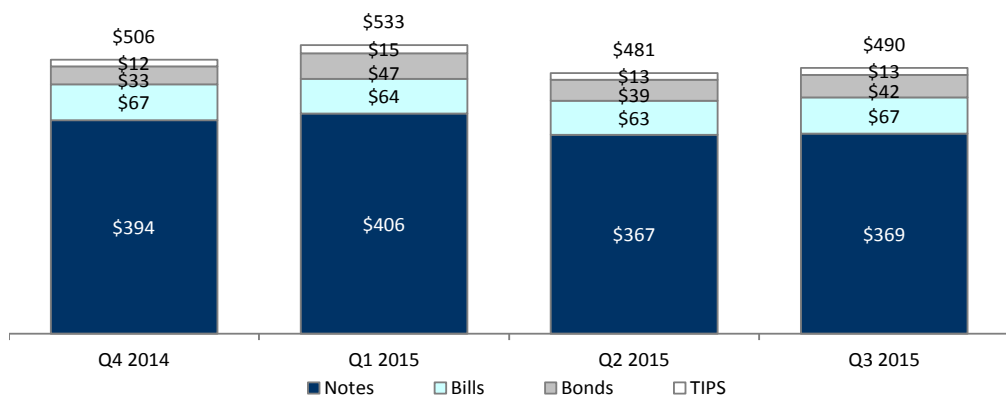
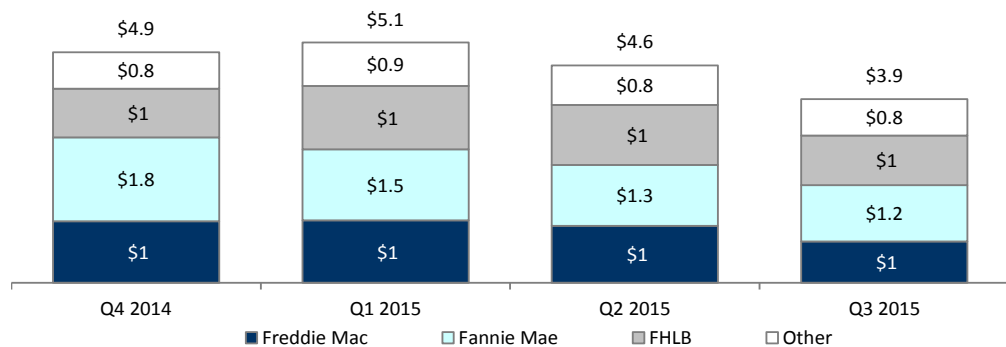


Figure 38: Agency MBS Market Average Daily Trading Volume



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						
	9/30/2015			LTM ⁽¹⁾			2015 Estimates ⁽²⁾			Price / Book	Price / LTM ⁽¹⁾			Price / 2015E ⁽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	\$ 15.58	\$ 162,631	\$ 227,915	\$ 81,721	\$ 23,048	\$ 1.24	\$ 85,723	\$ 24,830	\$ 1.43	0.7x	2.0x	7.1x	12.6x	1.9x	6.5x	10.9x
Citigroup	49.61	149,318	202,652	77,731	19,055	3.41	76,728	26,091	5.59	0.7x	1.9x	7.8x	14.6x	1.9x	5.7x	8.9x
Goldman Sachs	173.76	78,484	75,927	35,817	13,949	19.85	35,824	12,064	17.37	1.0x	2.2x	5.6x	8.8x	2.2x	6.5x	10.0x
JPMorganChase	60.97	225,471	214,371	95,278	34,096	6.05	97,414	33,038	5.83	1.1x	2.4x	6.6x	10.1x	2.3x	6.8x	10.5x
Morgan Stanley	31.50	61,532	66,642	35,253	8,010	3.53	37,120	9,708	3.02	0.9x	1.7x	7.7x	8.9x	1.7x	6.3x	10.4x
Wells Fargo	51.35	263,598	167,909	83,491	32,860	4.11	86,722	34,552	4.16	1.6x	3.2x	8.0x	12.5x	3.0x	7.6x	12.3x
AVERAGE										1.0x	2.2x	7.1x	11.2x	2.2x	6.6x	10.5x
MEDIAN										1.0x	2.1x	7.4x	11.3x	2.1x	6.5x	10.4x
M&A Boutiques																
Evercore Partners	\$ 50.24	\$ 1,823	\$ 487	\$ 1,055	\$ 144	\$ 1.89	\$ 1,167	\$ 272	\$ 3.17	3.7x	1.7x	12.7x	26.5x	1.6x	6.7x	15.9x
Greenhill	28.47	835	288	304	83	1.72	321	84	1.67	2.9x	2.7x	10.1x	16.5x	2.6x	9.9x	17.1x
Lazard	43.30	5,650	810	2,387	(418)	5.21	2,483	627	3.85	7.0x	2.4x	NM	8.3x	2.3x	9.0x	11.2x
Moelis & Co.	26.26	1,430	135	533	121	5.89	536	153	1.63	NM	2.7x	11.8x	NM	2.7x	9.3x	16.1x
AVERAGE										4.5x	2.4x	11.5x	17.1x	2.3x	8.7x	15.1x
MEDIAN										3.7x	2.5x	11.8x	16.5x	2.4x	9.2x	16.0x
Middle Market																
Cowen Group	\$ 4.56	\$ 502	\$ 786	\$ 469	\$ 82	\$ 0.50	\$ 564	\$ 76	\$ 0.53	0.6x	1.1x	6.1x	9.2x	0.9x	6.6x	8.6x
FBR	20.42	152	235	150	(0)	0.43	184	20	1.46	0.6x	1.0x	NM	NM	0.8x	7.6x	14.0x
INTL FCSStone	24.69	470	382	576	57	2.11	388	42	2.00	1.2x	0.8x	8.3x	11.7x	1.2x	11.2x	12.3x
JMP Group	6.21	132	136	172	29	0.93	158	26	0.90	1.0x	0.8x	4.5x	6.7x	0.8x	5.0x	6.9x
Oppenheimer & Co.	20.01	275	532	984	31	0.95	945	26	0.95	0.5x	0.3x	8.8x	21.0x	0.3x	10.7x	21.1x
Piper Jaffray	36.17	546	790	661	91	3.85	652	106	4.49	0.7x	0.8x	6.0x	9.4x	0.8x	5.1x	8.1x
Raymond James	49.63	7,146	4,473	5,144	621	3.50	5,327	840	3.67	1.6x	1.4x	11.5x	14.2x	1.3x	8.5x	13.5x
Stifel Financial	42.10	2,923	2,520	2,260	331	2.39	2,477	357	3.02	1.2x	1.3x	8.8x	17.7x	1.2x	8.2x	13.9x
AVERAGE										0.9x	0.9x	7.7x	12.8x	0.9x	7.9x	12.3x
MEDIAN										0.8x	0.9x	8.3x	11.7x	0.9x	7.9x	12.9x
Retail / Online Brokers																
Charles Schwab	\$ 28.56	\$ 37,574	\$ 11,549	\$ 6,198	\$ 2,033	\$ 0.95	\$ 6,369	\$ 2,283	\$ 1.02	3.3x	6.1x	18.5x	29.9x	5.9x	16.5x	28.1x
E*TRADE	26.33	7,644	5,714	1,975	618	1.59	1,819	508	1.19	1.3x	3.9x	12.4x	16.6x	4.2x	15.1x	22.1x
Gain Capital	7.28	359	333	429	61	0.95	447	43	0.59	1.1x	0.8x	5.8x	7.6x	0.8x	8.4x	12.4x
Interactive Brokers	39.47	16,149	774	938	(564)	0.34	1,275	551	0.89	NM	17.2x	NM	NM	12.7x	NM	NM
ITG	13.34	453	396	574	43	0.85	537	41	1.02	1.1x	0.8x	10.5x	15.7x	0.8x	10.9x	13.1x
LPL Financial	39.77	3,789	943	4,393	327	1.98	4,387	326	2.48	4.0x	0.9x	11.6x	20.1x	0.9x	11.6x	16.0x
TD AMERITRADE	31.84	17,295	4,993	3,212	1,282	1.47	3,247	1,291	1.49	3.5x	5.4x	13.5x	21.6x	5.3x	13.4x	21.4x
AVERAGE										2.4x	5.0x	12.0x	18.6x	4.4x	12.6x	18.9x
MEDIAN										2.3x	3.9x	12.0x	18.3x	4.2x	12.5x	18.7x
Interdealer / Market Making																
BGC Partners	\$ 8.22	\$ 2,058	\$ 547	\$ 2,146	\$ 18	\$ 0.00	\$ 2,696	\$ 347	\$ 0.78	3.8x	1.0x	NM	NM	0.8x	5.9x	10.6x
ICAP	£ 4.76	£ 3,100	£ 885	£ 1,282	£ 87	£ 0.21	£ 1,258	£ 256	£ 0.30	3.5x	2.4x	NM	22.7x	2.5x	12.1x	16.0x
KCG Holdings	10.97	1,030	1,471	1,576	49	0.37	1,331	214	0.52	0.7x	0.7x	NM	29.6x	0.8x	4.8x	21.0x
Tradition	SFr. 61.00	SFr. 430	SFr. 306	SFr. 841	SFr. 44	SFr. 5.10	SFr. 746	SFr. 98	SFr. 3.26	1.4x	0.5x	9.8x	12.0x	0.6x	4.4x	18.7x
Tullet Prebon	£ 3.86	£ 940	£ 462	£ 766	£ 136	£ 0.35	£ 794	£ 106	£ 0.34	2.0x	1.2x	6.9x	11.0x	1.2x	8.9x	11.5x
AVERAGE										2.3x	1.2x	8.4x	18.8x	1.2x	7.2x	15.6x
MEDIAN										2.0x	1.0x	8.4x	17.3x	0.8x	5.9x	16.0x

(1) LTM based on calendar year ended 6/30/2015

(2) Based on average consensus Bloomberg estimates as of 9/30/2015; Estimates for firms with fiscal year ends other than 12/31 have been calendarized

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). 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 Q3 2015 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

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 - Top fee paying clients/issuers
 - Monetizing corporate and lending relationships with investment banking fees
 - Market entry analysis
 - Missed deals analysis

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