

Recent Volatility's Impact on Debt Capital Markets

By Will Bloom, Managing Director and Dan Kaczmarek, Senior Associate

Chartwell's Corporate Finance team shares their perspective on the latest market trends >>

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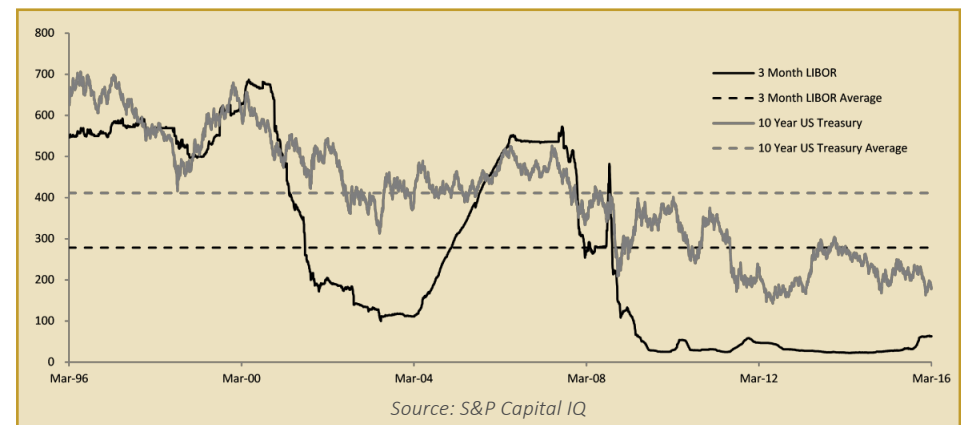
When we last commented on the state of the capital markets at the end of Q3 2015, U.S. debt capital markets remained robust and did not appear to be overly concerned with equity market volatility. Well, debt providers and potential issuers seem to be feeling the effects of market uncertainty now! In addition to a volatile stock market, increasing caution in the debt capital markets reflects Chinese economic growth concerns, continued stress on oil prices, and general market turbulence in Europe. Furthermore, the Federal Reserve is taking a more cautious stance with its interest rate policy and delayed a once anticipated rate hike at its March 2016 policy meeting.

Although indicators in the high yield and liquid loan markets suggest debt investors are noticeably pulling back on the throttle, it remains our belief that now is still a relatively attractive time to access debt capital in the middle market, particularly for those issuers operating outside unfavorable markets (e.g., oil and gas). Fundamentally sound borrowers issuing less than \$300 million of credit can still successfully maximize proceeds to fund and execute on strategic initiatives. While lenders may voice concern over the recent volatility and the state of the markets, we have seen them move quickly and aggressively to win roles in recent financing opportunities. The following data points support our conclusion of a strong and favorable credit market, seemingly open for business for at least the time being.

INTEREST RATES REMAIN NEAR HISTORICAL LOWS, BUT TRENDING UPWARD

Interest rates, as measured by 10-year Treasuries and 3-month LIBOR, remain at historic lows when compared to their 20-year averages of 411 bps and 278 bps, respectively. 10-year Treasuries are currently trading at 179 bps and 3-month LIBOR is trading at 63 bps (as of March 31, 2016).

As we look to the future, there is a high likelihood of a rising interest rate environment. The Federal Reserve raised rates for the first time in nine years in December 2015 but held its key federal funds rate at 0.4% at its March policy meeting, citing softer global economic growth and financial market volatility. While inflation is showing signs of rising, some Fed policy makers worry that increasing rates too soon will smother a recovery. Fed officials lowered their projections for the number of rate hikes across 2016 from four at its December 2015 meeting to two in March 2016, implying a year-end target fed funds rate of 0.875%.



Continued on page 2



Chartwell is proud to be a Gold Sponsor of the 2016 ACEC Annual Convention & the Anchor Sponsor of the CFO Council's Finance Track for a 6th consecutive year!

MONDAY, APRIL 18

10:45am-12:00pm
Ownership Transition, Expansion, & Succession
Presented by: Nick Belitz - Morrissey Goodale

3:45pm-5:00pm
How to Measure the Costs and Results of IT Investment

**Joint CFO/CIO session*
Presented by: Jim Walsh, CIO and Patrick Sheridan, CFO - WSP Parsons Brinckerhoff; Chuck Kemp, CFO and Jim Haynes, CIO - POWER Engineers

TUESDAY, APRIL 19

9:00am-10:00am
CFO Roundtable: Breaking the Traditional Business Model
Moderator: June Jewell - AEC Business solutions
Panelist: Chris Nelson, CFO - McKim & Creed

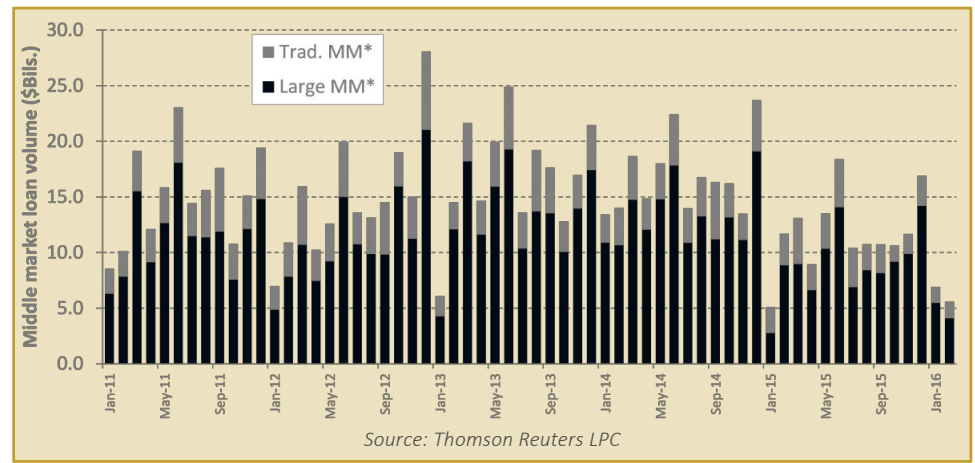
10:30am-11:45am
Exit Strategies & Ownership Transition
Moderator: Tim Cleary, Chartwell
Panelists: Peter Ney, CFO - EA Engineers; Frank Joanlanne, President - Borton-Lawson

1:45pm- 3:00pm
Surviving & Thriving M&A
Moderator: Chris Staloch, Chartwell
Panelist: Jon Carlson, CEO, Mike Anders, CTO, and Bridget O'Brien, VP of HR - Braun Intertec

3:30pm- 4:45pm
Aligning Strategy, Structure and Metrics to Drive Performance
Moderator: David Johnson, AE CFO Solutions
Panelists: Tom Kelly, COO - AE CFO Solutions; Robert Gable, CFO - Haley & Aldrich; Chuck Kemp, CFO - POWER Engineers

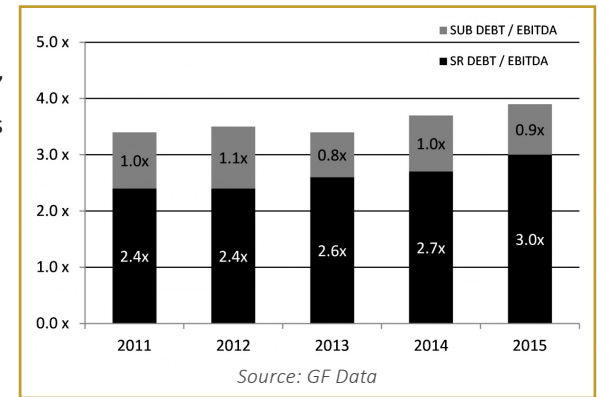
MIDDLE MARKET LOAN VOLUME OFF TO A TEPID START IN 2016

Middle market loan volume finished 2015 on an uptick, likely due to the typical seasonal push that occurs at calendar year end. However, year-to-date volume has cooled significantly as increased volatility in the equity capital markets is curtailing some lenders' appetite. Contrary to the trend, attractive issuers with strong fundamentals are still able to achieve maximum leverage for LBO and recapitalization transactions. Large middle market is defined as deal size ranging from \$100 million to \$500 million, while traditional middle market is defined as deal size below \$100 million.



MIDDLE MARKET LEVERAGE LEVELS PEAKING DURING 2015, BUT WILL TREND CONTINUE?

Leverage, as measured by debt to EBITDA levels, continued its upward trend in 2015. The senior debt component increased to approximately 3.0x debt to EBITDA, illustrating robust credit appetite and willingness to leverage balance sheets for recapitalizations, refinancings, or acquisitions. Recent deal activity and discussions with participants in the capital markets reveal a slight tightening of leverage level tolerances due to increased capital markets volatility as well as continued pressure from commercial bank regulators on risk taking. Nevertheless, as previously stated, bank and nonbank lending institutions are willing to lend deep into the capital structure for attractive and proven issuers. Data is based on private M&A transactions in the \$10 to \$250 million value range.



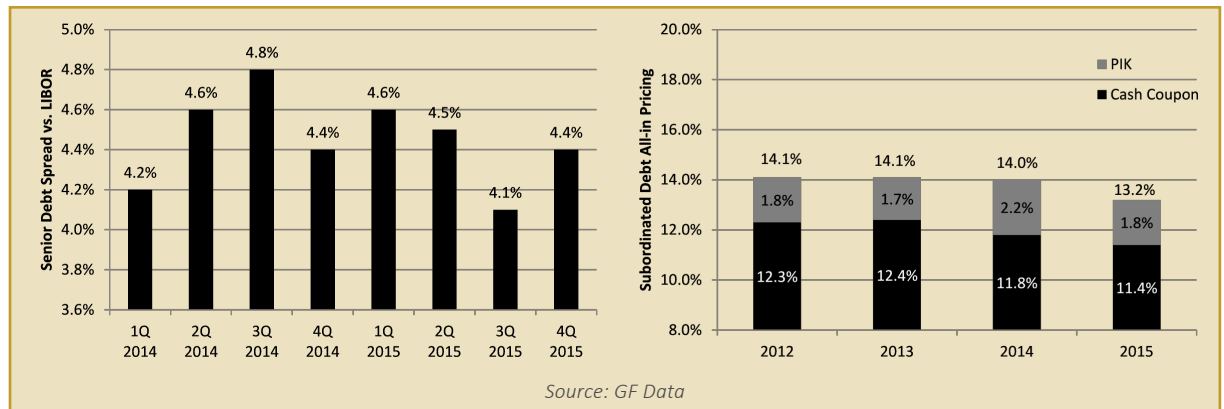
CREDIT SPREADS EXPANDING CAUSING SOME ISSUERS TO PAUSE

After tightening during the majority of 2015, senior debt loan spreads expanded during the fourth quarter as concerns within the debt capital markets began to appear. (Of note, the pricing charts represent an average of commercial bank leveraged loans and nonbank leveraged loans.) Commercial bank pricing remains attractive, ranging from 100-250 bps for strong borrowers with either significant collateral or a lower leverage profile (<2.5x) and 300-400 bps for higher leveraged transactions (>2.75x) with limited collateral. Meanwhile, the nonbank market for issues less than \$250 million are currently pricing in the 500-800 bps range, up approximately 50-100 bps over the average for 2015.

Subordinated or mezzanine debt generally tightened during 2015 as debt investors lowered required returns in order to place capital in a competitive environment. On average,

cash coupons priced between 11% and 12% fixed and 1.5% to 2.5% for paid-in-kind (PIK) components, resulting in all-in cost of 13-14%.

Will Bloom leads Chartwell's Chicago office and is an investment banker for the firm's Corporate Finance team. Will has worked on transactions within a variety of industries while executing high profile ESOP buyouts, terminations, and restructurings.



MERGER & ACQUISITION ACTIVITY – Q3 & Q4 2015

West

Announce/Close Date	Acquirer	Target	Target Location/Headquarters	Deal Notes
7/6/2015	Trihydro Corporation	Kent & Sullivan Inc. - <i>Environmental consulting services</i>	Headquartered in Soldotna, Alaska	Trihydro Corporation acquired assets of Kent & Sullivan Inc. on July 6, 2015.
7/6/2015	Apex Companies, LLC	InterTech Environmental & Engineering, LLC - <i>Environmental management and consulting services</i>	Headquartered in Laramie, Wyoming	Apex Companies, LLC acquired InterTech Environmental & Engineering, LLC on July 6, 2015.
7/31/2015	David Evans and Associates, Inc.	Triad Associates Inc. - <i>Civil engineering and designing solutions</i> - <i>Reported Revenue = \$5.0 million</i>	Headquartered in Woodinville, Washington	David Evans and Associates, Inc. acquired Triad on July 31, 2015. Triad will operate as a division of David Evans and Associates.
8/31/2015	Modjeski And Masters, Inc.	Summit Engineering Group, Inc. - <i>Bridge design, construction, and engineering services</i>	Headquartered in Littleton, Colorado	Modjeski And Masters, Inc. acquired Summit Engineering Group, Inc. on August 31, 2015. Summit Engineering Group is now a wholly owned subsidiary of Modjeski and Masters.
9/2/2015	Apex Companies, LLC	Altus Consulting, LLC - <i>Environmental consulting and engineering services</i>	Headquartered in Boulder, Colorado	Apex Companies, LLC acquired ALTUS Environmental, LLC on September 2, 2015.
9/13/2015	Moore Iacofano Goltsman, Inc.	SvR Design Company, Inc. - <i>Civil engineering and feasibility analysis</i>	Headquartered in Seattle, Washington	Moore Iacofano Goltsman, Inc. acquired SvR Design Company on September 13, 2015. As a result of the transaction, SvR's current location will be MIG's current location in Seattle and will be named as SvR MIG Seattle office, constituting all current team members of SvR. Each of SvR's Managing Principals will become Principals at MIG.
9/29/2015	Re/Spec Inc.	AQUA TERRA Consultants, Inc. - <i>Environmental consulting and water resources engineering</i>	Headquartered in Mountain View, California	Re/Spec Inc. acquired AQUA TERRA Consultants, Inc. in late September 2015. Tony Donigian will continue to serve in a leadership role.
12/7/2015	Jacobs Engineering Group Inc.	J. L. Patterson & Associates, Inc. - <i>Engineering design, construction management, and staff augmentation services</i>	Headquartered in Orange, California	Jacobs Engineering Group Inc. acquired J. L. Patterson & Associates, Inc. on December 7, 2015.

Southwest

Announce/Close Date	Acquirer	Target	Target Location/Headquarters	Deal Notes
7/13/2015	System One Holdings, LLC	AECOM, Quality Programs Business - <i>Workforce solutions, quality engineering, product assurance</i>	Headquartered in Los Angeles, California	System One Holdings, LLC agreed to acquire Quality Programs Business from AECOM on July 13, 2015. Prospect Capital Corporation provided System One Holdings, LLC with an incremental \$11.8 million of first lien senior secured floating rate debt to support the acquisition. Jeff Sengenberger, Director of Quality Programs will assume the role of Vice President, Quality Solutions at System One.
7/22/2015	Ziegler Cooper Architects, Inc.	Hall Barnum Lucchesi Architects, Inc. - <i>Interior design services for civic, commercial, corporate, and other institutions</i>	Headquartered in Houston, Texas	Ziegler Cooper Architects, Inc. acquired Hall Barnum Lucchesi Architects, Inc. on July 22, 2015. President William Hall and Vice President Daniel Barnum of Hall Barnum Lucchesi Architects, Inc. resigned and Steve Lucchesi Vice President of Hall Barnum Lucchesi Architects, Inc., will be principal-in-charge of the Ziegler Cooper's Worship, Education and Community Studio.
8/31/2015	Stantec Inc.	Va Consulting, Inc. - <i>Land development, transportation, water resources, and land surveying</i>	Headquartered in Irvine, California	Stantec Inc. acquired Va Consulting, Inc. on August 31, 2015.
9/25/2015	Braun Intertec Corporation	Apex Geoscience Inc. - <i>Laboratory, and geotechnical and environmental consulting</i>	Headquartered in Tyler, Texas	Braun Intertec Corporation acquired Apex Geoscience Inc. on September 25, 2015. Braun will add 128 members to its team. Apex Geoscience will continue to operate under its existing name and brand.
12/15/2015	Westwood Professional Services, Inc.	Pogue Engineering & Development Company, Inc. - <i>Consulting civil engineering and land surveying services</i>	Headquartered in McKinney, Texas	Westwood Professional Services, Inc. acquired Pogue Engineering & Development Company, Inc. on December 15, 2015.

MERGER & ACQUISITION ACTIVITY – Q3 & Q4 2015 (CONT.)

Midwest

Announce/ Close Date	Acquirer	Target	Target Location/Headquarters	Deal Notes
7/1/2015	Management Team	Trivers Associates, Inc. - <i>Architecture services</i>	Headquartered in St. Louis, Missouri	Joe Brinkmann, Joel Fuoss and Amy Huff acquired Trivers Associates, Inc. from Andy Trivers on July 1, 2015.
7/31/2015	Alfred Benesch & Company, Inc.	Tucker, Young, Jackson, Tull, Inc. - <i>Environmental, water and civil engineering services</i>	Headquartered in Detroit, Michigan	Alfred Benesch & Company, Inc. acquired Tucker, Young, Jackson, Tull, Inc. on July 31, 2015.
8/17/2015	Barr Engineering Company	Horizon Environmental Corporation - <i>Environmental engineering, remedial investigation, and risk assessment</i>	Headquartered in Grand Rapids, Michigan	Barr Engineering Company acquired Horizon Environmental from Allen Reilly and others in August 2015. Horizon Environmental will operate from the office of Barr Engineering Company.
8/31/2015	Patriot Environmental Services, Inc.	Klean Waters, Inc., Wastewater treatment facility in Orange, California (nka:Patriot WasteWater, LLC) - <i>Non-hazardous water treatment and disposal</i>	Headquartered in Griffith, Indiana	Patriot Environmental Services, Inc. acquired a wastewater treatment facility in Orange, California from Klean Waters, Inc. on August 31, 2015. The facility will be renamed Patriot WasteWater, LLC.
9/1/2015	Parsons Brinckerhoff Group Inc.	Halvorson and Partners, a WSP Parsons Brinckerhoff Company - <i>Designs skyscrapers and long span structures</i>	Headquartered in Chicago, Illinois	Parsons Brinckerhoff Group Inc. acquired Halvorson and Partners P.C. on September 1, 2015. Robert Halvorson, founding principal of Halvorson and Partners will join as Executive Vice President and will continue to lead the Chicago office. As a result of the transaction, Halvorson and Partners P.C. will be known as Halvorson and Partners, a WSP Parsons Brinckerhoff Company.
10/1/2015	Versar Inc.	Johnson Controls Security Systems, LLC - <i>Designs, installs, and supports physical security and network security</i> - <i>Reported Enterprise Value = \$20.0 million</i>	Headquartered in Milwaukee, Wisconsin	Versar Inc. entered into a definitive agreement to acquire membership interests of Johnson Controls Security Systems LLC from Johnson Controls Inc. and Johnson Controls Federal Systems Inc. for \$20 million on September 4, 2015. The purchase price of \$10.54 million will be paid in cash at closing and the remaining balance of \$9.5 million in contingent payments.
10/14/2015	Intertek Group plc	Professional Service Industries, Inc. - <i>Consulting engineering and testing services</i> - <i>Reported Enterprise Value = \$330.0 million</i> - <i>Reported Revenue = \$254.0 million</i> - <i>Reported EBITDA = \$40.0 million</i> - <i>Reported Revenue Multiple = 1.30x</i> - <i>Reported EBITDA Multiple = 8.25x</i>	Headquartered in Oakbrook Terrace, Illinois	Intertek Group plc agreed to acquire Professional Service Industries, Inc. from Olympus Growth Fund IV, L.P. of Olympus Partners and others for \$330 million in cash on October 14, 2015. The cash consideration will be paid on a cash-free and debt-free basis. Under the terms of the agreement, Professional Service Industries' construction business will join Intertek's Commercial & Electrical division, while its non-destructive pipeline infrastructure testing activities will join Intertek's Industry & Assurance division. Intertek will finance this acquisition using available debt facilities. The management team of Professional Service Industries will remain with the business.
11/3/2015	Waste Connections Inc.	Rock River Environmental Services, Inc. - <i>Environmental and remediation services and waste disposal and composting</i> - <i>Reported Enterprise Value = \$225.0 million</i> - <i>Reported Revenue = \$75.0 million</i> - <i>Reported Revenue = 3.0x</i>	Headquartered in Rockford, Illinois	Waste Connections Inc. acquired Rock River Environmental Services, Inc. for approximately \$230 million in cash on November 3, 2015. The deal was financed using proceeds from borrowings under its credit agreement. Waste Connections also paid an additional amount for the purchase of estimated working capital, which is subject to post-closing adjustments.
11/30/2015	GUY Engineering Services, Inc.	Nicholls Consulting, PLLC - <i>Bridge and structural engineering consultation and design services</i>	Headquartered in Owasso, Oklahoma	GUY Engineering Services, Inc. acquired Nicholls Consulting on November 30, 2015.
12/1/2015	Fehr Graham & Associates, LLC	Coombe-Bloxdorf P.C. - <i>Provides engineering and land surveying solutions</i>	Headquartered in Springfield, Illinois	Fehr Graham & Associates, LLC acquired Coombe-Bloxdorf P.C. on December 1, 2015. Under the terms of the transaction, 16 new team members will be added to the Springfield branch and the Coombe-Bloxdorf team will remain in their current office in Springfield.

MERGER & ACQUISITION ACTIVITY – Q3 & Q4 2015 (CONT.)

Northeast

Announce/ Close Date	Acquirer	Target	Target Location/Headquarters	Deal Notes
7/2/2015	NV5 Holdings, Inc.	The RBA Group, Inc. - <i>Engineering, architectural, and planning services</i> - <i>Reported Enterprise Value = \$17.0 million</i> - <i>Reported Revenue = \$40.0 million</i> - <i>Reported Revenue Multiple = 0.43x</i>	Headquartered in Parsippany, New Jersey	NV5 Holdings, Inc. entered into an agreement to acquire The RBA Group, Inc. from a group of shareholders for \$17 million in cash and notes on July 2, 2015. Under the terms, NV5 will pay \$8 million in cash and issue promissory note of \$4 million at the closing of the transaction. In addition, the Company may also pay as consideration a non-interest bearing earn-out of up to \$1 million, subject to the achievement of certain agreed upon financial metrics for the years ended 2016 and 2017. A sum of \$1.9 million will be held back to cover liabilities associated with RBA's deferred compensation plan which is expected to be paid to the RBA Stockholders in July 2015. The notes bear interest at the rate of 3.0% per annum, payable at the time the principal payments are due, and contain such other terms as are customary for promissory notes of this type. Furthermore, at closing NV5 paid off approximately \$4 million of RBA's indebtedness. The acquisition will be immediately accretive to NV5's earnings.
7/14/2015	Keystone Capital, Inc.	Morris Switzer Environments for Health, LLC - <i>Architecture and design services for the healthcare industry</i>	Headquartered in Williston, Vermont	Keystone Capital, Inc. acquired an unknown stake in Morris Switzer Environments for Health, LLC on July 14, 2015. The existing partners of Morris Switzer will remain significant shareholders of the firm and will continue to lead the day-to-day operations of the Company. Senior debt financing was provided by The Private Bank.
7/14/2015	Meyer Borgman & Johnson Inc.	Structural Design Group, Inc. - <i>Structural engineering and design services</i>	Headquartered in Rochester, New York	Meyer Borgman & Johnson Inc agreed to acquire Structural Design Group, Inc. on July 14, 2015. Upon the completion of the transaction, Structural Design Group, Inc. will become part of Meyer Borgman & Johnson Inc and operate as Meyer Borgman Johnson.
8/20/2015	Cascade Drilling LP	TerraTherm, Inc. - <i>In situ thermal remediation of organic contaminants in subsurface source zones</i>	Headquartered in Gardner, Massachusetts	Cascade Drilling LP acquired TerraTherm, Inc. from Mass Ventures, AM Venture Partners and others on August 20, 2015. TerraTherm's name will remain the same and it will become a subsidiary of Cascade. John Bierschenk will continue leading TerraTherm and all the members of TerraTherm team will maintain their existing roles.
9/8/2015	Thornton Tomasetti, Inc.	Weidlinger Associates, Inc. - <i>Designs and rehabilitates buildings, bridges, and infrastructure</i>	Headquartered in New York, New York	Thornton Tomasetti, Inc. acquired Weidlinger Associates, Inc. on September 8, 2015. The combined firm will operate under the Thornton Tomasetti name while three product brands will contain the Weidlinger name: Weidlinger Applied Science, Weidlinger Protective Design, and Weidlinger Transportation. The firm will retain its headquarters in New York and post-transaction, the firm will establish an R&D holding company. Thomas Scarangelo will continue as Chairman & Chief Executive Officer of the combined firm, Raymond Daddazio and Robert DeScenza will join as Co-Presidents. Raymond Daddazio, Grant McCullagh and Tod Rittenhouse and will be joining the 11-person Thornton Tomasetti Board of Directors.
11/5/2015	Stantec Inc.	Fay, Spofford & Thorndike, Inc. - <i>Civil engineering, planning, and environmental consulting</i>	Headquartered in Burlington, Massachusetts	Stantec Inc. entered into a Letter of Intent to acquire Fay, Spofford & Thorndike, Inc. on August 27, 2015.
12/7/2015	Gryphon Investors	JENSEN HUGHES, Inc. - <i>Fire protection consulting, engineering, and design services</i> - <i>Reported revenue = \$180.0 million</i>	Headquartered in Baltimore, Maryland	On December 7, 2015, JENSEN HUGHES, Inc. was acquired by Gryphon Investors. Chief Executive Officer Phil Rogers and the remainder of the JENSEN HUGHES's management team have retained a significant ownership position in the company and will continue to lead JENSEN HUGHES.
12/10/2015	The LA Group, Landscape Architecture and Engineering, P.C.	Hughes Associates Landscapes and Architects PLLC - <i>Landscape architectural services</i>	Headquartered in Ithaca, New York	The LA Group, Landscape Architecture and Engineering, P.C. acquired HMH Site & Sports Design on December 10, 2015. All six HMH employees will be employed by The LA Group, but are expected to continue operating under the HMH name.

MERGER & ACQUISITION ACTIVITY – Q3 & Q4 2015 (CONT.)

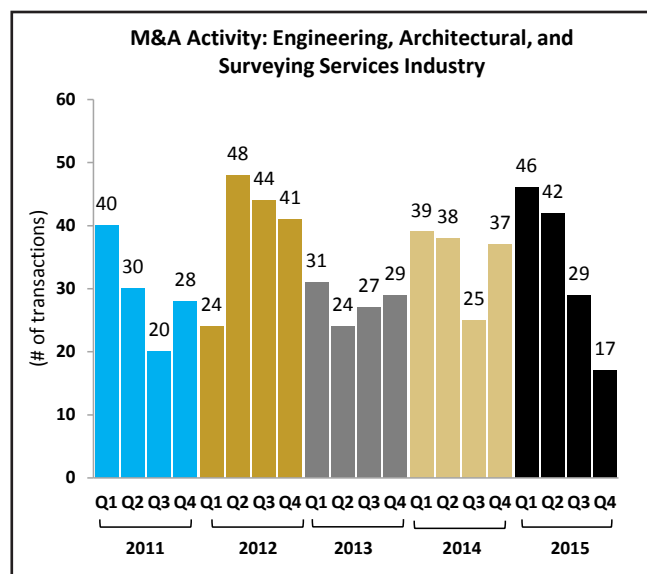
Southeast

Announce/ Close Date	Acquirer	Target	Target Location/Headquarters	Deal Notes
7/9/2015	Wantman Group, Inc.	Bridge Design Associates, Inc. - <i>Structural engineering services for architects, engineers, developers, and private owners</i>	Headquartered in Royal Palm Beach, Florida	Wantman Group acquired Bridge Design Associates on July 9, 2015. The acquisition of Bridge Design Associates will give Wantman Group another 11 employees, including Bridge Design Associates founder Brian Rheault. The Bridge Design Associates employees will move into Wantman Group's headquarters building once its expansion is completed in 2016.
7/21/2015	DLR Group, Inc.	Sorg Architects, Inc. - <i>Architectural and other design services</i>	Headquartered in Washington, DC	DLR Group, Inc. agreed to acquire Sorg Architects on July 21, 2015. Sorg Architects' office in Washington, D.C. will merge into DLR Group as DLR Group Sorg. Suman Sorg will continue to lead design for the Washington, D.C. location. Nikki Sorg will lead operations and Rachel Chung will manage the design studio. Sorg Architects will operate as DLR Group Sorg and the firms will strategically integrate operations by the end of DLR Group's fiscal year in September. A separate Sorg Architects location in New Delhi, India was not part of the transaction.
7/28/2015	Salas O'brien Engineers, Inc.	HESM&A, Inc. - <i>Mechanical, electrical, fire protection, lighting design, and general aspects</i>	Headquartered in Atlanta, Georgia	Salas O'brien Engineers, Inc. acquired HESM&A Inc. on July 28, 2015. HESM&A will now be known as HESM&A Salas O'Brien. HESM&A will continue to operate locally with the same authority and decision-making. All of the HESM&A shareholders will now be shareholders of the combined organization.
8/10/2015	Yonker Environmental Protection Co.,Ltd.	Integrated Science & Technology, Inc. - <i>Environmental consulting and engineering services</i>	Headquartered in Marietta, Georgia	Yonker Environmental Protection Co.,Ltd. acquired a 51% stake in Integrated Science & Technology, INC on August 10, 2015,
8/11/2015	Goodwyn, Mills and Cawood, Inc.	Infinity Architecture Inc. - <i>Architectural solutions primarily for university athletic facilities, and academic buildings</i>	Headquartered in Montgomery, Alabama	Goodwyn, Mills & Cawood, Inc. acquired Infinity Architecture on August 11, 2015.
12/1/2015	Gibbs & Cox, Inc.	Donald L. Blount and Associates, Inc. - <i>Naval architecture and marine engineering</i>	Headquartered in Chesapeake, Virginia	Gibbs & Cox, Inc. acquired Donald L. Blount and Associates, Inc. on December 1, 2015. Merritt Allen of Vox Optima acted as public relations advisor on the transaction.
12/7/2015	Cooper Carry, Inc.	The Johnson Studio - <i>Architecture and design services</i>	Headquartered in Atlanta, Georgia	Cooper Carry, Inc. agreed to acquire The Johnson Studio on December 7, 2015. The Johnson Studio will retain its name. Bill Johnson, founder of The Johnson Studio, will continue to lead the restaurant design practice and will collaborate with Cooper Carry's seven Hospitality Studio principals in seeking synergistic opportunities.
12/13/2015	LS3P Associates Ltd.	Hubbard Architecture LLC - <i>Architecture and planning services</i>	Headquartered in Myrtle Beach, South Carolina	LS3P Associates Ltd. acquired Hubbard Architecture LLC on December 13, 2015. The transaction is effective January 1, 2016. As a result of the transaction, Hubbard Architecture will blend its operations into LS3P Associates Ltd. with LS3P Associates Ltd. retaining its name. The Myrtle Beach office will operate as LS3P Hubbard for a transitional period of no more than one year.
12/14/2015	Vanasse Hangen Brustlin, Inc.	GT Hill Planners Corporation - <i>Environmental planning and surveying services</i>	Headquartered in Atlanta, Georgia	Vanasse Hangen Brustlin, Inc. acquired GT Hill Planners, Corp. on December 14, 2015. Vanasse Hangen and GT Hill will do business as VHB in Georgia. Erin Murphy, President of GT Hill, will serve as Managing Director of the Atlanta office, Todd Hill will serve as Environmental Services Manager, and Pat Smeeton will serve as Senior Project Manager at Vanasse Hangen. Both firms will remain in their current office locations.
12/16/2015	Mercury Systems, Inc.	Lewis Innovative Technologies, Inc. - <i>Electronic engineering design services</i>	Headquartered in Decatur, Alabama	Mercury Systems, Inc. acquired Lewis Innovative Technologies, Inc. on December 16, 2015. Mercury Systems intends to maintain Lewis Innovative presence in the Huntsville, Alabama tech corridor.

International

Announce/Close Date	Acquirer	Target	Target Location/Headquarters	Deal Notes
7/21/2015	Hatch Ltd.	Lapointe Engineering Ltd. - Project management, design and maintenance engineering	Headquartered in Kitimat, British Columbia, Canada	Hatch Ltd. acquired Lapointe Engineering Ltd. on July 21, 2015.
7/26/2015	HDR Architecture, Inc.	CEI Architecture Planning Interiors Inc. - Integrated architectural, planning, and interior design consulting	Headquartered in Vancouver, British Columbia, Canada	HDR Architecture, Inc. agreed to acquire CEI Architecture Planning Interiors Inc. on July 13, 2015.
8/25/2015	WSP Global Inc.	MMM Group Limited - Planning, engineering, geomatics, and environmental and advisory - Reported Enterprise Value = CAD 322.3 million - Reported Revenue = CAD 202.8 million - Reported Revenue Multiple = 1.59x	Headquartered in Thornhill, Ontario, Canada	WSP Global Inc. entered into an agreement to acquire MMM Group Limited from OMERS Strategic Investments and others for approximately CAD 430 million on August 25, 2015. Under the terms of the agreement, shareholders of MMM may elect to receive part or all of the consideration in the form of shares of WSP. The majority investor indicated that it would elect to receive its consideration in cash. The acquisition and other related transaction costs are being financed through a combination of approximately CAD 175 million of public offering, approximately CAD 125 million of private placement and funds drawn under the corporation's current credit facilities. For the trailing 12-month period ended July 11, 2015, MMM had net revenues of approximately CAD 269 million. The purchase price multiple is estimated to be approximately 8.9 times the trailing 12-month normalized EBITDA of MMM for the 12-month period ended July 11, 2015. Upon closing of the acquisition, David Ackert, President and Chief Executive Officer of WSP Canada will continue as President and Chief Executive Officer of WSP Canada. Hugo Blasutta, Chief Executive Officer of MMM will join the corporate team of WSP Global.
11/30/2015	Monteith & Sutherland Ltd.	James D. Nisbet Land Surveyors - Land surveying and engineering services	Headquartered in Sarnia, Ontario, Canada	Monteith & Sutherland, Ltd. acquired James D. Nisbet Land Surveyors in November 2015. 50 employees are now on staff.
12/9/2015	Cementation Canada Inc.	Merit Consultants International Inc. - Construction management services	Headquartered in Vancouver, British Columbia, Canada	Cementation Canada Inc. acquired Merit Consultants International Inc. on December 9, 2015. Jay Collins will continue as President of Merit Consultants International.

Source Data Provided by Capital IQ as of 4/5/2016



Data from Capital IQ shows M&A activity in the AEC market slowed significantly in the second half of 2015, with 46 deals closed or announced. This compares to 88 deals during the first two quarters of the year and 62 deals during the second half of 2014. Although the latest data indicates AEC M&A activity is cooling, our anecdotal information suggests the market is still extremely active. Many of our clients continue to look at acquisition opportunities and a number have been sold. So what gives?

If we look at the year in aggregate, the number of deals reported by Capital IQ for 2015 was 134 versus 139 in 2014, so the timing of some of the deal announcements likely played a role in the numbers. In addition, many of the deals being completed in the industry are extremely small, a number of which are never captured by M&A databases. Meanwhile, the market dynamics really haven't changed at all. There is still significant fragmentation in the AEC market, so continued consolidation is likely. An aging ownership demographic, continued low interest rates, and strong balance sheets are also expected to continue to drive strong M&A activity in 2016.

AEC INDEX FINANCIAL PERFORMANCE

In the previous edition of *The Keystone*, firms in the AEC Index were optimistic about revenue growth over the next twelve months and based on data for the latest twelve months as of March 2016, it appears those expectations were fairly accurate. With a few notable exceptions from some of the largest and most well-known names in the AEC industry, revenue growth over the last twelve months has been relatively strong, resulting in a median increase of 6.9%.

As referenced in the previous section, some AEC industry revenue growth has been fueled by significant M&A activity. Specifically, AECOM and WSP reported revenue increases of 70.3% and 74.4%, respectively, due to major acquisitions. On the flip side, we see the likes of Fluor, Jacobs, Stantec, Tetra Tech, IBI, and Ecology & Environment reporting revenue declines for the last twelve months. In other words, 12 of the 18 companies in the AEC Index experienced growth over the past twelve months and six realized declines. Interestingly, while most of the companies are anticipating growth over the next twelve months, projections have been lowered relative to six months ago, resulting in a current median expected growth rate of 3.9%.

In terms of EBITDA growth, we see significant increases across the AEC Index for the last twelve months. However, although only four firms reported declines, three of those declines are rather significant! While EBITDA growth for Stantec was down 13.3% during the latest twelve months, Fluor, Jacobs, and Cardno experienced declines of 20.8%, 23.4%, and 51.1%, respectively. Nevertheless, all but Fluor expect EBITDA growth over the next twelve months.

As for EBITDA margin, we did not see much movement during the past six months. In aggregate, the last twelve month measures remained quite consistent with the median EBITDA margin unchanged at 8.0% and the average up by a percentage point to 9.2%. Over the next twelve months, the expectation is clearly for improving margins with 10 of the 14 companies providing forward looking projections anticipating increases.

	Revenue				EBITDA				EBITDA Margin	
	LTM	LTM ▲	NTM	NTM ▲	LTM	LTM ▲	NTM	NTM ▲	LTM	NTM
Fluor Corporation	18,114	-15.9%	18,846	4.0%	1,116	-20.8%	1,079	-3.3%	6.2%	5.7%
AECOM	18,077	70.3%	18,857	4.3%	987	65.8%	1,078	9.1%	5.5%	5.7%
Jacobs Engineering Group ¹	12,115	-4.6%	12,029	-0.7%	593	-23.4%	704	18.6%	4.9%	5.9%
Amec Foster Wheeler plc	8,045	29.3%	8,004	-0.5%	491	4.3%	552	12.5%	6.1%	6.9%
WSP Global Inc.	4,371	74.4%	3,577	-18.2%	298	56.1%	380	27.6%	6.8%	10.6%
ARCADIS NV	3,714	16.4%	3,761	1.3%	261	10.0%	333	27.5%	7.0%	8.8%
WS Atkins plc ¹	2,769	2.4%	2,872	3.7%	230	17.5%	273	19.0%	8.3%	9.5%
Stantec Inc.	1,711	-4.5%	1,939	13.3%	210	-13.3%	269	28.0%	12.3%	13.9%
Tetra Tech, Inc.	1,703	-6.1%	1,856	9.0%	183	25.0%	217	18.5%	10.7%	11.7%
Cardno Limited	1,050	1.9%	908	-13.5%	50	-51.1%	57	15.5%	4.7%	6.3%
VSE Corp.	534	25.9%	NA	NA	77	28.8%	NA	NA	14.4%	NA
TRC Companies Inc.	430	11.4%	NA	NA	44	35.5%	NA	NA	10.2%	NA
Exponent Inc. ¹	296	2.4%	318	7.7%	74	10.8%	83	11.5%	25.1%	26.0%
IBI Group Inc.	236	-8.5%	243	3.2%	27	28.4%	27	1.7%	11.4%	11.3%
Versar Inc. ¹	175	58.2%	NA	NA	6	NA	NA	NA	3.4%	NA
NV5 Global, Inc.	155	42.7%	195	25.9%	18	70.0%	22	24.3%	11.6%	11.4%
Willdan Group, Inc. ¹	134	33.4%	152	13.6%	11	57.1%	12	12.0%	8.1%	8.0%
Ecology & Environment ¹	124	-2.6%	NA	NA	10	422.9%	NA	NA	7.9%	NA
Average	4,097	18.1%	5,254	3.8%	260	42.6%	363	15.9%	9.2%	10.1%
Median	1,376	6.9%	2,405	3.9%	130	25.0%	271	17.0%	8.0%	9.2%

\$ in millions

Source Data Provided by Capital IQ as of 4/5/2016

LTM = Latest Twelve Months

NTM - Next Twelve Months

¹As of Q3 2015 (most recent available)



EXPERIENCED PROFESSIONALS

Chartwell has significant experience working with companies in the AEC industry. Our professionals understand the financial operations of companies in this sector.

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AEC INDEX MARKET PERFORMANCE

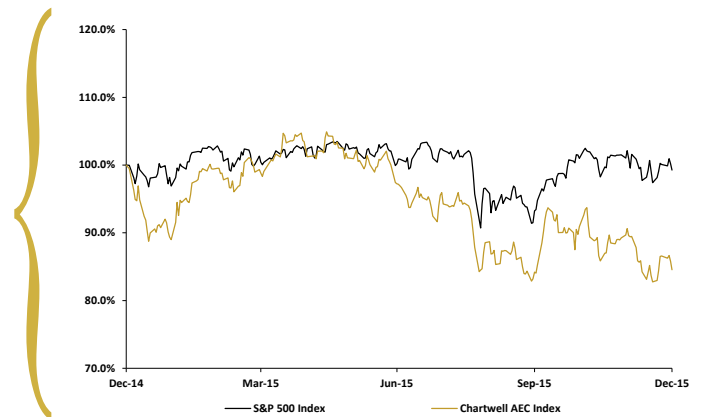
Enterprise Value						Equity Value		
	Index	Ticker	Enterprise Value	LTM ▲	Q2 - Q4 ▲	Equity Value	LTM ▲	Q2 - Q4 ▲
Fluor Corporation	NYSE	FLR	5,649	-33.6%	-19.6%	6,687	-29.4%	-14.4%
AECOM	NYSE	ACM	8,616	-6.4%	-8.4%	4,547	-2.7%	-8.6%
Jacobs Engineering Group	NYSE	JEC	5,364	-9.8%	1.6%	5,163	-11.5%	1.2%
Amec Foster Wheeler plc	LSE	AMFW	3,896	-39.0%	-40.3%	2,467	-51.6%	-50.7%
WSP Global Inc.	TSX	WSP	3,608	12.0%	5.8%	3,028	13.6%	7.2%
ARCADIS NV	ENXTAM	ARCAD	2,216	-28.8%	-25.8%	1,671	-32.0%	-26.6%
WS Atkins plc	LSE	ATK	2,152	17.2%	1.1%	2,332	12.1%	0.7%
Stantec Inc.	TSX	STN	2,529	-6.1%	-16.4%	2,334	-9.8%	-15.1%
Tetra Tech, Inc.	Nasdaq	TTEK	1,603	-9.7%	-0.3%	1,536	-8.1%	-0.6%
Cardno Limited	ASX	CDD	304	-57.2%	-53.3%	185	-59.7%	-55.0%
VSE Corp.	Nasdaq	VSEC	591	38.7%	6.7%	334	-5.3%	16.2%
TRC Companies Inc.	NYSE	TRR	394	116.6%	45.2%	285	48.4%	-7.7%
Exponent Inc.	Nasdaq	EXPO	1,135	23.4%	11.4%	1,286	21.2%	10.5%
IBI Group Inc.	TSX	IBG	152	-18.0%	-16.8%	35	23.1%	13.0%
Versar Inc.	AMEX	VSR	41	-2.4%	-9.5%	30	-1.6%	-21.5%
NV5 Global, Inc.	Nasdaq	NVEE	166	120.8%	-1.7%	179	138.8%	-6.6%
Willdan Group, Inc.	Nasdaq	WLDN	56	-38.1%	-32.1%	66	-35.7%	-24.4%
Ecology & Environment	Nasdaq	EEL	37	-6.6%	-16.1%	44	12.1%	-1.8%
Average			2,139	4.1%	-9.4%	1,789	1.2%	-10.2%
Median			1,369	-6.5%	-9.0%	1,411	-4.0%	-7.1%

\$ in millions

Source Data Provided by Capital IQ as of 4/5/2016

LTM = Latest Twelve Months

After beginning 2015 on a down note, the AEC Index recovered relative to the S&P 500 by March but declined between June and September and never recovered. Overall, the market cap weighted index was down 10.0% for the year while the median decline was 4.0%. As shown in the table above, the downturn in equity value was significant for a number of the largest firms and, as such, was a major drag on the index as whole. Interestingly, five of the seven smallest firms saw increases in market cap over the past twelve months.



IMPLIED MARKET MULTIPLES

RECENT & UPCOMING EVENTS

March 3	The ESOP Association Wisconsin Chapter Annual Conference <i>Madison, WI</i>
March 3-4	The ESOP Association Professional ESOP Forum <i>Washington, DC</i>
March 10	The ESOP Association Illinois Chapter Annual Conference <i>Champaign, IL</i>
April 11-14	National Center for Employee Ownership Annual Conference <i>Minneapolis, MN</i>
April 17-20	ACEC National Annual Convention & Legislative Summit <i>Washington, DC</i>
May 19-20	The ESOP Association Annual Conference <i>Washington, DC</i>
July 6-8	Employee Owned S Corporations of America Federal Policy Conference <i>Washington, DC</i>

	Enterprise Value/Revenue					Equity Value/EBITDA				
	5 Year	Q4 2014	Q2 2015	Q4 2015	Q2 2016E	5 Year	Q4 2014	Q2 2015	Q4 2015	Q2 2016E
Fluor Corporation	0.33x	0.38x	0.35x	0.32x	0.31x	6.6x	5.7x	5.2x	5.2x	5.3x
AECOM	0.43x	0.49x	0.60x	0.48x	0.46x	7.8x	8.7x	11.1x	8.8x	8.1x
Jacobs Engineering Group ¹	0.50x	0.47x	0.44x	0.44x	0.45x	8.3x	7.7x	6.5x	9.0x	7.6x
Amec Foster Wheeler plc	0.72x	0.81x	1.01x	0.48x	0.49x	9.2x	10.7x	13.4x	7.9x	7.0x
WSP Global Inc.	1.05x	1.15x	0.93x	0.77x	0.95x	12.2x	15.1x	13.8x	11.4x	8.9x
ARCADIS NV	0.72x	0.88x	0.83x	0.64x	0.63x	9.6x	11.8x	11.6x	9.0x	7.1x
WS Atkins plc ¹	0.58x	0.69x	0.79x	0.78x	0.75x	8.0x	9.6x	10.2x	9.4x	7.9x
Stantec Inc.	1.45x	1.53x	1.70x	1.49x	1.32x	10.8x	11.3x	13.1x	12.1x	9.5x
Tetra Tech, Inc.	0.88x	0.97x	0.96x	0.94x	0.86x	10.0x	12.0x	10.7x	8.7x	7.4x
Cardno Limited	0.73x	0.62x	0.58x	0.39x	0.45x	7.3x	6.3x	5.4x	8.3x	7.2x
VSE Corp.	0.82x	1.02x	1.24x	1.13x	NA	6.4x	7.3x	8.8x	7.8x	NA
TRC Companies Inc.	0.54x	0.44x	0.73x	0.55x	NA	6.8x	5.2x	7.8x	5.4x	NA
Exponent Inc. ¹	2.95x	3.19x	3.45x	3.84x	3.57x	12.6x	13.7x	14.0x	15.3x	13.7x
IBI Group Inc.	1.00x	0.76x	0.73x	0.71x	0.69x	8.9x	9.3x	8.8x	6.2x	6.1x
Versar Inc. 1	0.29x	0.36x	0.37x	0.23x	NA	4.7x	*154.0x	21.2x	6.8x	NA
NV5 Global, Inc.	NA	0.71x	1.54x	1.11x	0.88x	NA	7.3x	14.6x	9.6x	7.7x
Willdan Group, Inc. ¹	0.41x	0.90x	0.69x	0.42x	0.37x	8.1x	13.0x	7.9x	5.1x	4.6x
Ecology & Environment ¹	0.34x	0.31x	0.35x	0.30x	NA	12.9x	21.0x	7.0x	3.8x	NA
Average	0.81x	0.87x	0.96x	0.83x	0.87x	8.8x	10.3x	10.6x	8.3x	7.7x
Median	0.72x	0.73x	0.76x	0.59x	0.66x	8.3x	9.6x	10.5x	8.5x	7.5x

Source Data Provided by Capital IQ as of 4/5/2016

¹As of Q3 2015 (most recent available)

As previously discussed, EBITDA growth for the last twelve months was strong for most of the firms in the AEC Index. However, the market did not necessarily reward that growth as the median EBITDA multiple declined from 10.5x six months ago to 8.5x as of December 31, 2015. In fact, with only four exceptions, multiples were down across the board, reflecting an overall hesitancy in the AEC industry and the decline in market cap discussed previously.

Looking ahead, the forward multiples reflect the anticipated growth in EBITDA as the median multiple stands at 7.5x, which is below the five year historical average of 8.3x. The lower forward looking multiple indicates there may be upside in the overall index if the EBITDA growth projections are met. In addition, strong growth in certain market sectors may bolster investor confidence. However, that might not be enough to offset instability in the oil and gas sector which will likely continue to weigh on the AEC industry until crude oil prices improve significantly.

