

- ✓ Harsco Corp. (NYSE: HSC), an industrial services & engineering concern, reports three distinct operating segments: (1) Metals & Minerals (65% of sales and 62% of EBITDA in 2015); (2) Industrial (21% and 20%); and (3) Rail (14% and 18%). As well, HSC has a 29% stake in a joint venture, Brand Energy & Infrastructure. The stock trades at 5.1x 2016E EBITDA.
- ✓ HSC recently indicated that it would explore strategic options for its Metals & Minerals (M&M) segment, which we think will ultimately result in a spin-off or sale of the business. Comparatively, M&M is lower margin as well as more cyclical and capital intensive than the Industrial and Rail businesses, where growth prospects are better and whose returns on invested capital are near 50%. We also expect HSC to monetize its stake in the Brand JV over next several years. Despite potential catalysts, cyclical weakness in HSC's end-markets, particularly energy and mining, as well as overstated balance sheet concerns, have weighed heavily on the shares, which our analysis suggests now reflect a compelling discount to the sum value of HSC's parts.
- ✓ Considering peer valuations and recent M&A multiples as well as management's financial guidance/commentary, respective value of \$12 per share, \$6 per share, and \$7 per share can be assigned to HSC's Metals & Minerals, Industrial, and Rail businesses. Accounting for corporate costs of \$3 per share and projected net debt of \$13 per share yields a sum-of-the-parts value of roughly \$10 per share. (Upside optionality of \$2-\$3 per share could be assigned to the potential monetization of HSC's stake in Brand.)
- ✓ Potential catalysts include the separation of HSC's M&M business, monetization of the Brand JV stake, improvement in end-market demand, and/or execution toward HSC's profitability/leverage goals. Risks include a lack of execution on internal initiatives, further deterioration in fundamentals, customer bankruptcies, covenant breaches, and/or commodity/currency fluctuations.

Harsco Corp. (NYSE: HSC)

Date (2/4/16)

Price \$6.53/share

Market capitalization \$525M

Metals & Minerals: \$12 per share

Industrial: \$6 per share

Rail: \$7 per share

Corp. Costs/Net Debt: (\$16 per share)

SOTP: \$10 per share*

*SOTP may not add due to rounding

NOTE: This publication does not advocate for breakups. However, authors select companies for this report based on the potential for a future transaction. In many cases, these companies have or could come under activist investor pressure, media scrutiny, or general market speculation that a spin-off or asset sale is possible.



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The Background

Harsco Corp. (NYSE: HSC), based in Camp Hill, PA, was formed in 1956 but has origins dating back to 1835. Today, Harsco operates three distinct business segments (see Background #1): (1) Metals & Minerals (65% of revenue and 62% of EBITDA in the first nine-months of 2015), which provides on-site mill services and resource recovery to metals manufacturers; (2) Industrial (21% and 20%, respectively), which produces highly engineered products, primarily to the energy market; and (3) Rail (14% and 18%), which provides track maintenance services and equipment to railroads. The company also has a 29% stake in Brand Energy & Infrastructure, a joint venture with a private equity sponsor.

Background #1 Harsco: Consolidated Selected Financial Items, 2012-2016E

(\$ in millions; calendar years ending December)

				9 mos.	9 mos.		
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>	<u>2015E</u>	<u>2016E</u>
Revenue:							
Metals & Minerals	\$1,404.1	\$1,359.0	\$1,377.6	\$1,062.2	\$862.9	\$1,102.1	\$1,019.4
Industrial	\$352.6	\$366.0	\$412.5	\$310.7	\$281.9	\$367.2	\$348.8
Rail	<u>\$352.0</u>	<u>\$286.2</u>	<u>\$275.6</u>	<u>\$201.3</u>	<u>\$190.9</u>	<u>\$261.8</u>	\$327.3
Total	\$3,046.0	\$2,896.5	\$2,065.7	\$1,574.2	\$1,335.7	\$1,731.1	\$1,695.5
Operating income (adjusted):							
Metals & Minerals	\$99.7	\$97.9	\$93.7	\$73.8	\$50.5	\$60.4	\$56.1
Industrial	\$58.1	\$59.0	\$64.7	\$50.0	\$45.4	\$56.9	\$54.1
Rail	\$54.7	\$36.7	\$37.7	\$33.6	\$40.8	\$44.5	\$50.7
Corp.	<u>(\$36.8)</u>	<u>(\$41.4)</u>	<u>(\$40.8)</u>	<u>(\$31.4)</u>	<u>(\$27.0)</u>	<u>(\$40.0)</u>	<u>(\$40.0)</u>
Total	\$175.7	\$152.2	\$155.3	\$126.0	\$109.7	\$121.8	\$120.9
EBITDA (adjusted):							
Metals & Minerals	\$262.8	\$256.7	\$251.7	\$195.3	\$154.9	\$192.7	\$178.4
Industrial	\$61.2	\$62.3	\$69.6	\$53.7	\$49.9	\$62.4	\$59.3
Rail	\$64.8	\$47.1	\$43.3	\$37.7	\$45.5	\$51.1	\$58.9
Corp.	<u>(\$30.8)</u>	<u>(\$55.4)</u>	<u>(\$41.2)</u>	<u>(\$31.6)</u>	(\$23.9)	<u>(\$34.0)</u>	<u>(\$34.0)</u>
Total	\$358.0	\$310.7	\$323.3	\$255.1	\$226.3	\$272.1	\$262.6
Operating margin (adjusted):							
Metals & Minerals	7.1%	7.2%	6.8%	6.9%	5.9%	5.5%	5.5%
Industrial	16.5%	16.1%	15.7%	16.1%	16.1%	15.5%	15.5%
Rail	15.5%	12.8%	13.7%	16.7%	21.4%	17.0%	15.5%
EBITDA margin (adjusted):							
Metals & Minerals	18.7%	18.9%	18.3%	18.4%	17.9%	17.5%	17.5%
Industrial	17.3%	17.0%	16.9%	17.3%	17.7%	17.0%	17.0%
Rail	18.4%	16.4%	15.7%	18.7%	23.8%	19.5%	18.0%
Capital expenditures:							
Metals & Minerals	\$189.4	\$173.2	\$186.8	\$120.0	\$72.7	\$110.2	\$101.9
Industrial	\$3.7	\$3.9	\$9.3	\$5.9	\$12.5	\$16.5	\$7.0
Rail	\$4.1	\$3.5	\$3.1	\$2.5	\$1.6	\$3.1	\$3.3
Corp.	<u>\$4.7</u>	<u>\$2.6</u>	<u>\$8.8</u>	<u>\$6.8</u>	<u>\$4.8</u>	<u>\$7.5</u>	<u>\$7.5</u>
Total	\$201.9	\$183.3	\$208.0	\$135.2	\$91.6	\$137.4	\$119.7

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For context, the company's most recent guidance, after consistent reductions over the course of 2015 amid deteriorating end-market fundamentals, calls for adjusted EBIT of \$125-\$130 million, free cash flow of \$50-\$60 million, and adjusted EPS of \$0.46-\$0.50 for full year 2015 (see Background #2). The company will report 4Q 2015 results on February 26, 2015, with a conference call at 9 a.m. Considering difficult market conditions, we think it appropriate to take a conservative approach to near-term financial results; to that end, our forecasts track below the low end of guidance as well as current consensus estimates. Thus, our 2015 and 2016 EBITDA estimates of \$272 million and \$263 million trail current consensus of \$281 million and \$291.5 million, respectively.

Longer term, HSC has articulated 2017 financial targets that endeavor to achieve annual EBITDA of \$440-\$480 million and free cash flow of \$115-\$150 million. The company also will look to reduce its leverage ratio to the 2.0x-2.5x range as well as boost its return on invested capital to 10%-12% (see Background #3). The achievement of these targets assumes: (1) a return to modest growth in HSC's end-markets; (2) Rail continues to secure major new contracts; (3) limited growth capital is deployed in Metals & Minerals; (4) price and efficiency gains exceed inflation; (5) currency rates and commodity demand stabilize; and (6) the Brand JV performs in-line with initial plans. The targets do not include the impact of any potential acquisitions/divestitures, although management has indicated a willingness to be opportunistic (but disciplined) in the Industrial and Rail sectors.

Background #2 Harsco: Consolidated 2015E Financial Guidance

	Initial	1Q 2015	2Q 2015	Current
	2/26/2015	<u>5/6/2015</u>	<u>8/5/2015</u>	<u>11/9/2015</u>
Adjusted operating income	\$155-\$170 million	\$145-\$160 million	\$120-\$135 million	\$125-\$130 million
Free cash flow	\$75-\$100 million	\$75-\$100 million	\$60-\$80 million	\$50-\$60 million
Net interest expense	\$48-\$52 million	\$48-\$52 million	\$48-\$52 million	\$44-\$46 million
Equity income from JV	\$4-\$6 million	\$4-\$6 million	\$4-\$6 million	less than \$1 million
Taxrate	35%-37%	35%-37%	42%-44%	44%-46%
Adjusted EPS	\$0.73-\$0.91	\$0.68-\$0.82	\$0.41-\$0.55	\$0.46-\$0.50
Adjusted ROIC	7.5%-8.5%	7.0% -8.0%	6.0%-6.5%	6.0%-6.5%

Source: Company reports.

Background #3 Harsco: Consolidated 2017 Financial Targets (\$ in millions)

	<u>2014</u>	<u>2017</u>
EBITDA	\$323 million	\$440-\$480 million
EBITDA, net capex	\$149 million	\$270-320 million
Free cash flow	\$52 million	\$115-\$150 million
Leverage ratio	2.6x	2.0x - 2.5x
EBITDA interest coverage	7.0x	8.0x - 11.0x
ROIC	7%	10%-12%

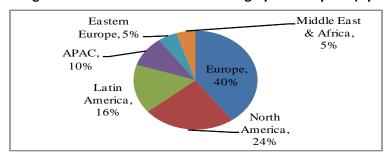
Source: Company reports.

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Metals & Minerals

The Metals & Minerals (M&M) segment, which accounted for 65% of consolidated revenue and 62% of total EBITDA in 2015, provides outsourced, on-site services, including logistics, product quality improvement, and resource recovery to steel producers, such as Arcelor Mittal (NYSE: MT), as well as aluminum, copper, nickel, and zinc concerns, allowing them to focus on their own core businesses. Specifically, the Metals business provides customers with support through every phase of the metal-producing process, ranging from pre-production raw material handling to post-production slag handling and metal recovery. The company employs long-term contracts with its customers; at year-end 2014 these contracts were estimated by the company to generate future revenue of ~\$4.5 billion, of which 42% is expected to be recognized in 2016-2018. The Minerals business extracts high-value metallic materials, such as nickel, from stainless steel byproducts to be reused or sold to third parties, as well as developing commercial technologies for customers, including agriculture fertilizers. The Minerals business also mines coal slag from power plants to produce industrial abrasives used to clean/maintain bridges and ships as well as roofing granules, which are sold to residential roofing manufacturers for use primarily in the replacement market. The company serves roughly 70 customers at 170 sites in about 35 countries (see Background #4).

Background #4 Metals & Minerals: Geographic Footprint (By Percentage of Revenue)



Source: Company reports.

In May 2014, following three years of declining results (see Background #8), driven in part by a historical focus on growth (rather than profitability), inconsistent on-site execution, and deteriorating fundamentals in the global steel industry, HSC's new CEO, Nicholas Grasberger, who was promoted in April 2014 following the previous chief executive's departure to lead Xylem (NYSE: XYL), unveiled a turnaround initiative dubbed Project Orion, which aimed to improve M&M's growth, profitability, cash flow, and financial returns (see Background #5). The strategy focused on operating efficiency, cost controls, and the standardization of best practices globally (as opposed to regionally), as well as entailing a site-by-site review of the company's portfolio (and bidding processes) to identify, rectify, or exit contracts that were underperforming financial expectations. In terms of specific financial benchmarks, management initially targeted total annualized cost savings of ~\$40 million as well as setting the longer-term goal of achieving \$1.3-\$1.4 billion of revenue, adjusted operating margins of 10%-11%, and returns on invested capital of 8%-9% (see Background #5).

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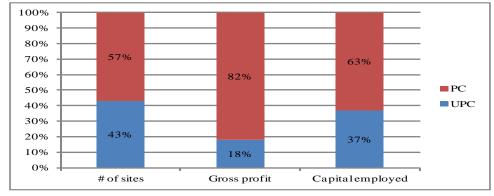
Background #5 Harsco: Metals & Minerals Segment Long-Term Financial Targets

	<u>2014</u>	Long-term goals
Revenue	\$1.4 billion	\$1.3-\$1.4 billion
Adj. operating margin	~7%	10% - 11%
Free cash flow	\$2 million	\$130-\$150 million
ROIC	5%	8% - 9%
ROIC, ex-goodwill	~9%	12% - 13%

Source: Company reports.

On the underperforming contract (UPC) front, HSC's review initially indicated that about 40% of its roughly 170 sites, accounting for a more modest 20% of gross profit (see Background #6), were underperforming financial expectations and that the company would conduct site-by-site analysis focused on either renegotiating contract terms to ensure acceptable returns or taking steps toward exiting the relationship.

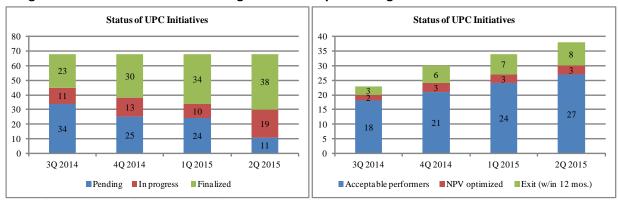
Background #6 Metals & Minerals: Underperforming Contracts (UPC) Versus Performing (PC) (2014)



Source: Company reports.

Since then, issues at more than 60% of the original underperformers have been addressed, and these sites are expected to generate improved returns; management expects to address performance at all of the remaining sites by the middle of 2016 (see Background #7).

Background #7 Metals & Minerals: Progress at Underperforming Sites



Source: Company reports.

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HSC recently indicated that in addition to the ~\$37 million of annualized savings already realized under Project Orion, of which ~\$23 million has been compensation-related, management is now targeting an incremental \$20-\$25 million of annual cost savings, of which the majority should be realized during 2016.

In the first nine months of 2015, M&M revenue declined about 19% to \$863 million, while adjusted segment EBITDA declined a similar amount to \$155 million as margins deteriorated 50 basis points to 17.9%. Results reflected the company's ongoing exit from underperforming sites as well as reduced customer steel production (as measured by liquid steel tons, or LSTs), customer shutdowns, commodity price deflation, and currency fluctuations. Looking into the seasonally weak December-quarter, M&M segment operating income is estimated to have declined year-over-year, as similar trends, in terms of lower LSTs, site exits, and customer shutdowns, more than offset Orion-related cost reductions, whose impact management expects to ramp up in 2016. In that regard, we project full year revenue will decline about 20% to \$1.1 billion, with adjusted EBTIDA of about \$193 million based on an 80-basis-point deterioration in segment margin to 17.5% (see Background #8).

Background #8 Harsco: Metals & Minerals Segment, Selected Items (2011-2016E) (\$ in millions)

(\$ 111 1111110113)					9 mos.	9 mos.			
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>	2015E	<u>2016E</u>	Long-term target
Metals & Minerals:									
Revenue	\$1,588.3	\$1,404.1	\$1,359.0	\$1,377.6	\$1,062.2	\$862.9	\$1,102.1	\$1,019.4	\$1,350.0
Operating income (as reported)	\$109.6	\$99.7	\$95.3	\$14.7	\$42.4	\$25.9	\$33.1	\$56.1	\$141.7
Site exit & contract charges	-	-	-	\$61.7	\$22.4	\$12.3	\$15.0	-	-
Project Orion charges	-	-	-	\$12.0	\$8.8	-	-	-	-
Brazilian labor claim reserves	-	-	-	\$5.3	\$0.1	-	-	-	-
Salt cake disposal charges	-	-	-	-	-	\$7.0	\$7.0	-	-
Subcontractor settlement	-	-	-	-	-	\$4.2	\$4.2	-	-
Multi-employer pension charge	-	-		-	-	\$1.1	\$1.1	-	-
Bad debt expense	-	-	\$2.6	-	-	-	-	-	-
Adjusted operating income	\$109.6	\$99.7	\$97.9	\$93.7	\$73.8	\$50.5	\$60.4	\$56.1	\$141.7
Depreciation & amortization	<u>\$183.8</u>	<u>\$163.1</u>	<u>\$158.8</u>	<u>\$158.0</u>	<u>\$121.5</u>	<u>\$104.4</u>	\$132.2	<u>\$122.3</u>	<u>\$155.2</u>
Adjusted EBITDA	\$293.4	\$262.8	\$256.7	\$251.7	\$195.3	\$154.9	\$192.7	\$178.4	\$297.0
Adjusted operating margin	6.9%	7.1%	7.2%	6.8%	6.9%	5.9%	5.5%	5.5%	10.5%
Adjusted EBITDA margin	18.5%	18.7%	18.9%	18.3%	18.4%	17.9%	17.5%	17.5%	22.0%
Capital expenditures	\$212.0	\$189.4	\$173.2	\$186.8	\$120.0	\$72.7	\$110.2	\$101.9	\$135.0
Cap ex (as % of rev.)	13.3%	13.5%	12.7%	13.6%	11.3%	8.4%	10.0%	10.0%	10.0%

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

For 2016, global steel demand, according to the World Steel Association, is expected to see modest growth of less than 1% (following a nearly 2% decline in 2015). For its part, management expects that the market pressures experienced in 2015, in terms of lower LSTs and commodity prices, will persist into 2016 but that those headwinds can be offset by the company's ongoing cost initiatives associated with Project Orion. To that end, management anecdotally expects that

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M&M segment operating income for 2016 should be generally consistent with 2015 (i.e., a flat year-over-year comparison). For our part, considering the challenging underlying fundamentals, we prefer to take a somewhat conservative approach and model 2016 revenue and EBITDA experiencing about a 7.5% decline to \$1 billion and \$178 million, respectively (see Background #8).

Simply to provide context on the segment's longer-term earnings power, at the mid-point of HSC's long-term financial goals, which target revenue of \$1.3-\$1.4 billion and operating margins of 10%-11%, annual EBITDA could approach \$300 million (see Background #8).

Industrial

The Industrial segment, which accounted for 21% of consolidated revenue and 20% of EBITDA in 2015, comprises three business: (1) Air-X-Changers (AXC), which is about 55% of segment revenue and produces air-cooled heat exchangers, sold largely to natural gas and petrochemical customers; (2) IKG, which is ~34% of segment revenue and manufactures industrial metal grating products, which are used primarily in industrial flooring and safety applications in the energy, paper, and chemical sectors; and (3) Patterson-Kelley (PK), which accounts for ~11% of segment revenue and makes boilers and water heaters largely for the commercial construction market. Roughly 80% of segment revenue is derived from the United States, with an additional 15% from Mexico and Canada; accordingly, management sees ample room to expand, organically and by acquisition, in both the \$900 million North American air-cooled heat exchanger market and the \$1.1 billion North American commercial boiler market. That said, the company has recently indicated a willingness to expand its presence in international markets, such as Australia. At the end of 2014, the backlog in the Industrial segment was \$146.9 million, which marked an increase from \$84 million in 2013.

While the segment's longer-term growth opportunities in large and fragmented markets remain robust, the businesses, particularly AXC and IKG, are undoubtedly exposed to difficulties in the energy markets; reflecting that exposure, during the first nine months of 2015, segment revenue declined more than 9% to \$282 million, driven by lower demand for both heat exchangers and boilers, while adjusted EBITDA declined to about \$50 million (from \$54 million) despite a 40-basis-point expansion in the EBITDA margin to 17.7%. (Note: the operating margin was flat at 16.1% due to lower overhead costs.) For full year 2015, we project revenue of \$367 million, down 11%, and adjusted EBITDA of ~\$62 million, which reflects a 17% margin.

For 2016, while management recently indicated some "green shoots" in terms of a stabilization of order rates in the grating business and in coolers, as well as a modest improvement in orders for boilers, the company prudently anticipates that macro weakness will continue and remains committed to taking steps to improve internal efficiencies; for instance, during the course of 2015, HSC consolidated its five manufacturing facilities into one central location in Tulsa, OK. For our part, a cautious stance in 2016 seems appropriate; to that end, we project a top-line decline of 5% to \$348.8 million but a flat margin comparison at 17%, which implies full year segment EBITDA of ~\$59 million (see Background #9).

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Background #9 Harsco: Industrial Segment, Selected Items (2011-2016E)

(\$ in millions)

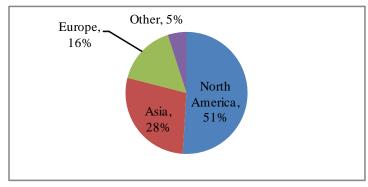
					9 mos.	9 mos.		
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>	<u>2015E</u>	<u>2016E</u>
<u>Industrial:</u>								
Revenue	\$306.1	\$352.6	\$366.0	\$412.5	\$310.7	\$281.9	\$367.2	\$348.8
Operating income	\$50.7	\$58.1	\$59.0	\$64.7	\$50.0	\$45.4	\$56.9	\$54.1
Depreciation & amortization	<u>\$2.8</u>	<u>\$3.1</u>	<u>\$3.3</u>	<u>\$4.9</u>	<u>\$3.7</u>	<u>\$4.5</u>	<u>\$5.5</u>	<u>\$5.2</u>
EBITDA	\$53.5	\$61.2	\$62.3	\$69.6	\$53.7	\$49.9	\$62.4	\$59.3
Operating margin	16.5%	16.5%	16.1%	15.7%	16.1%	16.1%	15.5%	15.5%
EBITDA margin	17.5%	17.3%	17.0%	16.9%	17.3%	17.7%	17.0%	17.0%
Capital expenditures	\$4.9	\$3.7	\$3.9	\$9.3	\$5.9	\$12.5	\$16.5	\$7.0
Cap ex (as % of rev.)	1.6%	1.0%	1.1%	2.3%	1.9%	4.4%	4.5%	2.0%

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

Rail

The Rail segment, which accounted for 14% of total revenue and 18% of EBITDA in 2015, supplies equipment and services for the construction, maintenance, and repair of railway track, primarily to privately held and government-owned railroads well as well as to urban transit systems around the world (see Background #10). Equipment manufacturing is the largest contribution to segment sales, which allows for a strong installed base of recurring aftermarket business for services and parts, each accounting for roughly 30% of segment revenue.

Background #10 Rail: Geographic Footprint (By Percentage of Revenue)



Source: Company reports.

The company sees a large market share opportunity in the \$6 billion maintenance-of-way (or MOW) market, and management expects to grow the Rail segment significantly via incremental contract wins as well as by acquisitions over the next several years. On the contract front, following the completion of a large contract with China Railway Corp. in 2013, the company secured two \$100 million-plus contracts with the federal railway system of Switzerland (SBB),

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which began to ramp up in 4Q 2015, but with the bulk of the deliveries coming in 2016-2017. Moreover, the company indicates that it continues to bid on other large multiyear contracts in Europe. For our part, after about a 5% decline to \$262 million in 2015E, we project a 25% jump (due to the Swiss contract) in segment sales to \$327 million in 2016, which, along with a normalized margin assumption of 18%, implies 2016E EBITDA of \$59 million (see Background #11).

Background #11 Harsco: Rail Segment, Selected Items (2011-2016E) (\$ in millions)

					9 mos.	9 mos.		
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>	<u>2015E</u>	<u>2016E</u>
Rail:								
Revenue	\$300.0	\$352.0	\$286.2	\$275.6	\$201.3	\$190.9	\$261.8	\$327.3
Operating income (as reported)	\$58.7	\$54.7	\$27.7	\$37.1	\$33.0	\$40.8	\$44.5	\$50.7
Grinder impairment charge	-	-	\$9.0	\$0.6	\$0.6	-	-	-
Adjusted operating income	\$58.7	\$54.7	\$36.7	\$37.7	\$33.6	\$40.8	\$44.5	\$50.7
Depreciation & amortization	<u>\$10.1</u>	<u>\$10.1</u>	<u>\$10.4</u>	<u>\$5.6</u>	<u>\$4.1</u>	<u>\$4.7</u>	<u>\$6.5</u>	<u>\$8.2</u>
Adjusted EBITDA	\$68.9	\$64.8	\$47.1	\$43.3	\$37.7	\$45.5	\$51.1	\$58.9
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Adjusted operating margin	19.6%	15.5%	12.8%	13.7%	16.7%	21.4%	17.0%	15.5%
Adjusted EBITDA margin	23.0%	18.4%	16.4%	15.7%	18.7%	23.8%	19.5%	18.0%
Conital arman diturna	\$4.5	\$4.1	\$3.5	\$3.1	\$2.5	\$1.6	\$3.1	\$3.3
Capital expenditures								
Cap ex (as % of rev.)	1.5%	1.2%	1.2%	1.1%	1.3%	0.8%	1.2%	1.0%

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

Brand Energy & Infrastructure Joint Venture

In November 2013, HSC sold its Infrastructure business into a strategic joint venture with private equity firm Clayton, Dubilier & Rice (CD&R), which combined HSC's Infrastructure assets with Brand Energy & Infrastructure Services, a CD&R-owned entity. In return, HSC received \$300 million in cash, two Board seats, and a 29% equity interest in the venture. As part of the transaction, HSC is required to make annual payments of ~\$14 million until either the eighth year after closing or until Brand achieves \$487 million of trailing-12-month annual EBITDA for three consecutive quarters.

Brand primarily provides scaffolding, coating, insulation, refractory, forming & shoring and fireproofing services in five key energy and infrastructure market segments, including: (1) Downstream (about 50% of business); (2) Upstream/Midstream; (3) Power Generation; (4) Industrial; and (5) Infrastructure. Management has indicated that in 2013, the JV generated ~\$315 million of total EBITDA, which increased to ~\$360 million in 2014 but fell back to 2013 levels in 2015, due primarily to market conditions and currency. Management notes that Brand's outsized exposure to the downstream market and use of long-term contracts somewhat mitigates the ongoing impact of the capital expenditure cuts that have occurred in the energy

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sector. At the end of 3Q 2015, the book value of HSC's equity investment in Brand was \$264.7 million (compared with its initial underlying equity of ~\$225 million in the net assets of Brand).

As is customary with private-equity transactions, HSC's financial partner, CD&R, could be expected to monetize Brand at some point over the next several years. For its part, assuming compound annual EBITDA growth of about 10%, \$200-\$300 million of debt reduction, and an 8x exit multiple, HSC estimates its exit proceeds will be about \$500-\$650 million (i.e., 29% of Brand's total expected equity value of \$1.7-\$2.2 billion).

Balance Sheet and Cash Flow

At the end of 3Q 2015, HSC had net debt of roughly \$801 million, including \$58 million of cash and \$859 million of debt (see Background #12), and an adjusted leverage ratio of 2.7x.

In October 2015, following the withdrawal of a proposed note offering, HSC repaid \$250 million of 2.7% notes due October 2015 with funds from its \$500 million revolving credit facility; at the time, the company indicated it was evaluating longer-term financing options. In November 2015, HSC announced that as of 1Q 2016 it would reduce its quarterly dividend to \$0.05 per share (from \$0.205 per share). Subsequently, in December 2015, HSC successfully amended its credit agreement, which expanded its total credit availability to \$600 million (from \$500 million), pushed out the facilities maturity until 2019 (from 2017), and raised the required leverage ratio covenant to 4.0x through 2016 (from 3.75x) and to 3.75x-3.50x in 2017. The new facility, which includes a \$350 million revolver and a \$350 million term loan (previously a \$500 million revolver), was issued via a consortium of 13 banks, led by Citigroup (NYSE: C).

Background #12 Harsco: Balance Sheet Snapshot

(\$ in millions)

Short term debt Long-term debt (LTD) Current maturities of LTD Cotal debt Net debt Leverage ratio (TTM)	<u>3Q 2015</u>				
Cash	\$58.0				
Short term debt	(\$14.9)				
Long-term debt (LTD)	<u>(\$822.4)</u>				
Current maturities of LTD	(\$21.9)				
Total debt	(\$859.2)				
Net debt	(\$801.2)				
Leverage ratio (TTM)	2.7x				
Leverage ratio (2015)	2.9x				
Pension obligations	(\$306.0)				
Book value of Brand	\$264.2				

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

In 2014, HSC generated \$52 million of free cash flow (see Background #14). For 2015, the company expects FCF of \$50-\$60 million (see Background #13). Longer term, HSC has



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articulated a 2017 free cash flow target of \$115-\$150 million. For our part, we expect HSC to generate FCF of \$51 million in 2015 and \$64 million in 2016, based on a capital spending budget of ~\$110 million (see Background #14). While HSC indicates it is open to opportunistic acquisition opportunities in Industrial and Rail, we assume the main use of cash flow, near term, will be to pay the \$0.05 quarterly dividend and to bolster the company's net leverage position.

Background #13 Harsco: Free Cash Flow Guidance (\$ in millions)

	Low \$171 (\$122) \$1	<u> 2015</u>		
	Low	<u>High</u>		
Net cash from operations	\$171	\$176		
(-) Capital expenditures	(\$122)	(\$118)		
(+) Asset sales	<u>\$1</u>	<u>\$2</u>		
Free cash flow	\$50	\$60		

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

Background #14 Harsco: Sources and Uses of Cash Flow

(\$ in millions; shares in millions)

				9 mos.	9 mos.		
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>	<u>2015E</u>	<u>2016E</u>
Net income	(\$253.2)	(\$216.7)	(\$17.8)	\$25.1	\$14.1	\$42.3	\$41.7
Depreciation & amortization	\$182.3	\$178.6	\$174.5	\$133.8	\$119.3	\$150.3	\$141.7
Cash flow from operations	\$198.9	\$188.3	\$226.7	\$185.3	\$89.1	\$167.6	\$173.5
(-) Maintenance capital expenditures	(\$137.8)	(\$128.3)	(\$133.2)	(\$87.9)	(\$67.3)	(\$90.2)	(\$89.8)
(-) Growth capital expenditures	(\$127.2)	(\$117.8)	(\$75.6)	(\$47.2)	(\$24.3)	(\$47.2)	(\$29.9)
(+) Strategic capital expenditures	\$12.8	\$5.9	\$6.9	\$3.4	\$0.3	\$0.3	\$0.0
(+) Sale of assets	\$49.8	\$19.0	\$27.4	\$23.6	\$20.8	\$20.8	\$10.0
(+) Infrastructure divestiture impact	\$43.0	\$53.0	-	-	-	-	-
Free cash flow	\$39.4	\$19.9	\$52.1	\$77.1	\$18.6	\$51.3	\$63.8
Dividends	(\$66.1)	(\$66.2)	(\$66.3)	(\$49.7)	(\$49.3)	(\$65.8)	(\$16.4)
Acquisitions	(\$0.7)	(\$2.8)	(\$26.3)	(\$26.2)	(\$7.7)	(\$7.7)	-

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The Breakup

Harsco Corp. recently announced that it was exploring strategic options for its Metals & Minerals business, which we think will ultimately result in a spin-off or sale of the business. Clearly, the performance of HSC's M&M segment, which has been going through a turnaround and is highly exposed to the difficult fundamentals facing the global steel industry, has weighed on HSC shares over the last two years. In fact, HSC shares are down 77% since the beginning of 2014 (versus a 4.5% increase in the S&P 500 Index), a performance that has been highly correlated with the Market Vector Steel ETF (NYSEARCA: SLX), as illustrated in Breakup #1. The shares currently trade at roughly 5.1x 2016E EBITDA. Given that, we think a separation of M&M would facilitate a decoupling of the shares from the SLX, which is near an all-time low, as well as help investors focus on the value of the company's Rail and Industrial businesses, which account for nearly 40% of total EBITDA and are higher margin, less capital intensive, and generate superior returns with better growth prospects compared to the M&M segment. Moreover, we expect that HSC will move to monetize its 29% stake in the Brand Energy & Infrastructure joint venture. Proceeds from potential transactions could likely be deployed toward both accretive internal and external investments.



Breakup #1 Relative Price Performance of HSC (White) Versus SLX (Green) Since January 2014

Source: Bloomberg.

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The Breakdown

As discussed earlier in this report, HSC's most recent guidance calls for adjusted EBIT of \$125-\$130 million, free cash flow of \$50-\$60 million, and adjusted EPS of \$0.46-\$0.50 for full year 2015. The company has also articulated a 2017 EBITDA target of \$440-\$480 million. Considering the difficult market conditions, we think it appropriate to take a conservative approach to near-term financial results; to that end, our forecasts track below the low end of this guidance as well as current consensus estimates. Thus, our 2015 and 2016 EBITDA estimates of \$272 million and \$263 million trail current consensus of \$281 million and \$291.5 million, respectively. (Note: HSC will report 4Q 2015 results on February 26, 2015, with a conference call at 9 a.m.)

Breakdown #1 Harsco: Adjusted 2012-2014 Results and 2015-2016E Forecasts (\$ in millions)

				9 mos.	9 mos.		
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>	<u>2015E</u>	<u>2016E</u>
Revenue:							
Metals & Minerals	\$1,404.1	\$1,359.0	\$1,377.6	\$1,062.2	\$862.9	\$1,102.1	\$1,019.4
Industrial	\$352.6	\$366.0	\$412.5	\$310.7	\$281.9	\$367.2	\$348.8
Rail	\$352.0	<u>\$286.2</u>	<u>\$275.6</u>	<u>\$201.3</u>	<u>\$190.9</u>	<u>\$261.8</u>	\$327.3
Total	\$3,046.0	\$2,896.5	\$2,065.7	\$1,574.2	\$1,335.7	\$1,731.1	\$1,695.5
Operating income (adjusted):							
Metals & Minerals	\$99.7	\$97.9	\$93.7	\$73.8	\$50.5	\$60.4	\$56.1
Industrial	\$58.1	\$59.0	\$64.7	\$50.0	\$45.4	\$56.9	\$54.1
Rail	\$54.7	\$36.7	\$37.7	\$33.6	\$40.8	\$44.5	\$50.7
Corp.	<u>(\$36.8)</u>	<u>(\$41.4)</u>	<u>(\$40.8)</u>	(\$31.4)	(\$27.0)	(\$40.0)	<u>(\$40.0)</u>
Total	\$175.7	\$152.2	\$155.3	\$126.0	\$109.7	\$121.8	\$120.9
EBITDA (adjusted):							
Metals & Minerals	\$262.8	\$256.7	\$251.7	\$195.3	\$154.9	\$192.7	\$178.4
Industrial	\$61.2	\$62.3	\$69.6	\$53.7	\$49.9	\$62.4	\$59.3
Rail	\$64.8	\$47.1	\$43.3	\$37.7	\$45.5	\$51.1	\$58.9
Corp.	<u>(\$30.8)</u>	<u>(\$55.4)</u>	(\$41.2)	(\$31.6)	(\$23.9)	(\$34.0)	(\$34.0)
Total	\$358.0	\$310.7	\$323.3	\$255.1	\$226.3	\$272.1	\$262.6
Operating margin (adjusted):							
Metals & Minerals	7.1%	7.2%	6.8%	6.9%	5.9%	5.5%	5.5%
Industrial	16.5%	16.1%	15.7%	16.1%	16.1%	15.5%	15.5%
Rail	15.5%	12.8%	13.7%	16.7%	21.4%	17.0%	15.5%
EBIIDA margin (adjusted):							
Metals & Minerals	18.7%	18.9%	18.3%	18.4%	17.9%	17.5%	17.5%
Industrial	17.3%	17.0%	16.9%	17.3%	17.7%	17.0%	17.0%
Rail	18.4%	16.4%	15.7%	18.7%	23.8%	19.5%	18.0%
<u>Capital expenditures:</u>							
Metals & Minerals	\$189.4	\$173.2	\$186.8	\$120.0	\$72.7	\$110.2	\$101.9
Industrial	\$3.7	\$3.9	\$9.3	\$5.9	\$12.5	\$16.5	\$7.0
Rail	\$4.1	\$3.5	\$3.1	\$2.5	\$1.6	\$3.1	\$3.3
Corp.	<u>\$4.7</u>	<u>\$2.6</u>	<u>\$8.8</u>	<u>\$6.8</u>	<u>\$4.8</u>	<u>\$7.5</u>	<u>\$7.5</u>
Total	\$201.9	\$183.3	\$208.0	\$135.2	\$91.6	\$137.4	\$119.7

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Breakdown #2 Harsco: Public Comparables

(\$ in millions, except per share amounts; shares in millions)

		Industrial												Rail		
	Corp. (NYSE: (N	Actuant Corp. (NYSE: ATU)	AO Smith (NYSE: AOS)	Briggs & Stratton (NYSE: BGG)	Crane Co. (NYSE: CR)	Curtiss- Wright (NYSE: CW)	EnPro Industries (NYSE: NPO)	IDEX Corp. (NYSE: IEX)	IIT Corp. (NYSE: IIT)	Kennametal Inc. (NYSE: KMI)	Rexnord Corp. (NYSE: RXN)	Valmont Industries (NYSE: VMI)	Woodward Inc. (NASDAQ: WWD)	Zylem Inc. (NYSE: XYL)	Wabtec Corp. (NYSE: WAB)	Babcock International (BAB LON)
(stock prices as of 2/3/16 clo	se)															
Share Price	\$6.53	\$22.16	\$67.97	\$19.37	\$47.23	\$66.94	\$41.98	\$71.84	\$32.03	\$17.53	\$16.55	\$105.56	\$45.00	\$35.67	\$63.73	\$12.80
FD Shares Out. (mn.)	80.4	60.2	88.0	43.1	58.1	45.7	22.2	76.5	89.5	79.6	101.4	23.0	63.2	179.4	96.5	504.2
Market Capitalization	525.0	1,334.0	5,982.7	835.8	2,742.4	3,060.6	930.0	5,497.1	2,866.7	1,395.5	1,677.7	2,432.0	2,844.4	6,398.0	6,148.5	6,453.7
Net Debt	801.2	416.1	(396.2)	257.9	435.4	711.0	594.2	512.8	(504.7)	567.7	1,488.8	454.6	802.6	664.0	242.8	2,117.3
Enterprise Value	1,326.2	1,750.1	5,586.5	1,093.7	3,177.8	3,771.5	1,524.2	6,009.9	2,365.6	1,992.6	3,166.5	2,932.6	3,647.0	7,062.0	6,392.6	8,600.3
2014A Sales	2,066	1,400	2,356	1,859	2,925	2,243	1,219	2,148	2,655	2,837	2,050	3,123	2,001	3,916	3,045	6,446
2015E Sales	1,731	1,249	2,537	1,895	2,741	2,207	1,223	2,021	2,453	2,647	1,945	2,657	2,038	3,656	3,316	6,945
2016E Sales	1,696	1,186	2,732	1,891	2,706	2,273	1,267	2,024	2,510	2,054	1,991	2,605	2,061	3,772	3,498	7,095
2014A Net income	58	139	208	38	262	170	31	289	220	178	117	212	169	362	367	420
2015E Net income	42	108	280	64	243	181	52	277	229	76	143	131	181	336	399	513
2016E Net income	42	78	308	59	237	197	59	278	236	63	152	144	175	364	429	566
2016E Net income margin	2.5%	6.6%	11.3%	3.1%	8.8%	8.7%	4.7%	13.7%	9.4%	3.1%	7.6%	5.5%	8.5%	9.7%	12.3%	8.0%
2016E EBITDA margin	16.0%	14.6%	16.9%	7.8%	16.9%	18.3%	13.1%	24.9%	16.0%	18.2%	18.5%	12.9%	16.5%	16.2%	19.2%	12.6%
Shareholders' Equity	273	665	1,442	531	1,151	1,320	484	1,443	1,367	1,154	566	1,066	1,143	2,043	1,985	3,441
ROE	15.3%	11.7%	21.4%	11.2%	20.6%	14.9%	12.3%	19.3%	17.3%	5.5%	26.8%	13.5%	15.3%	17.8%	21.6%	16.4%
Price/book	1.9x	2.0x	4.1x	1.6x	2.4x	2.3x	1.9x	3.8x	2.1x	1.2x	3.0x	2.3x	2.5x	3.1x	3.1x	1.9x
2015E EPS	\$0.49	\$1.30	\$3.13	\$1.43	\$4.13	\$3.83	\$2.44	\$3.55	\$2.52	\$0.96	\$1.40	\$5.67	\$2.74	\$1.85	\$4.10	\$1.06
Price 2015E EPS	13.3x	17.0x	21.7x	13.5x	11.4x	17.5x	17.2x	20.2x	12.7x	18.3x	11.8x	18.6x	16.4x	19.3x	15.5x	12.1x
Average, ex. HSC		16.6x													13.8x	
2016E EPS	\$0.53	\$1.56	\$3.50	\$1.38	\$4.01	\$4.29	\$2.66	\$3.65	\$2.68	\$0.82	\$1.51	\$6.33	\$2.83	\$2.03	\$4.39	\$1.16
Price 2016E EPS	12.3x	14.2x	19.4x	14.0x	11.8x	15.6x	15.8x	19.7x	12.0x	21.4x	11.0x	16.7x	15.9x	17.6x	14.5x	11.0x
Average, ex. HSC		15.8x													12.8x	
2015E EBITDA	272	174	463	148	458	415	166	503	402	374	368	336	339	611	671	893
EV/EBITDA	4.9x	10.1x	12.1x	7.4x	6.9x	9.1x	9.2x	11.9x	5.9x	5.3x	8.6x	8.7x	10.8x	11.6x	9.5x	9.6x
Average, ex. HSC		9.0x													9.6x	
2016E EBITDA	263	191	517	153	456	446	172	508	424	241	394	363	356	656	695	946
EV/EBITDA	5.1x	9.2x	10.8x	7.2x	7.0x	8.5x	8.8x	11.8x	5.6x	8.3x	8.0x	8.1x	10.2x	10.8x	9.2x	9.1x
Average, ex. HSC		8.8x													9.1x	
Dividend	\$0.20	\$0.04	\$0.96	\$0.54	\$1.32	\$0.52	\$0.20	\$1.28	\$0.47	\$0.80	-	\$1.50	\$0.44	\$0.56	\$0.32	\$0.37
Dividend yield	3.1%	0.2%	1.4%	2.8%	2.8%	0.8%	0.5%	1.8%	1.5%	4.6%	NM	1.4%	1.0%	1.6%	0.5%	2.9%
Average, ex. HSC		1.7%													1.7%	
Free cash flow (2016E)	\$63.8	\$113.1	\$244.6	\$42.6	\$209.6	\$246.9	\$65.7	\$325.0	\$252.6	\$124.7	\$224.7	\$202.8	\$138.3	\$354.2	\$387.2	\$397.4
FCF yield	4.8%	6.5%	4.4%	3.9%	6.6%	6.5%	4.3%	5.4%	10.7%	6.3%	7.1%	6.9%	3.8%	5.0%	6.1%	4.6%



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Metals & Minerals Segment

HSC's principal competitors at M&M are a number of privately held businesses, making a relative valuation comparison difficult. That said, we think the October 2013 purchase of TMS International, which previously traded on the NYSE under the ticker TMS, by The Pritzker Organization is the most relevant recent transaction by which to gauge a potential valuation. To that end, Pritzker paid \$17.50 per share (plus debt), or roughly \$1 billion, for TMS, which was about 6.5x 2013 EBITDA and about 6.0x the consensus 2014 EBITDA projection of \$168 million.

Applying a 5.5x multiple, which represents a modest discount to the TMS deal's forward valuation, to 2016E segment EBITDA of \$178 million yields a segment value of almost \$1 billion, or ~\$12 per share (see Breakdown #3).

Breakdown #3 Harsco: Estimated Value of Metals & Minerals Based on 2016E EBITDA

(\$ in millions, except per share amounts; shares in millions)

	<u>M</u>	<u>etals & Miner</u>	<u>als</u>
2015E Revenue		\$1,102.1	
Revenue growth est.		<u>-7.5%</u>	
2016E Revenue		\$1,019.4	
Operating margin		<u>5.5%</u>	
Operating income		\$56.1	
<u>D&A</u>		<u>\$122.3</u>	
2016E EBITDA		\$178.4	
EBITDA margin		17.5%	
Applied multiple	<u>5.0x</u>	<u>5.5x</u>	<u>6.0x</u>
Enterprise value	\$892.0	\$981.2	\$1,070.4
Shares outstanding	80.4	<u>80.4</u>	80.4
Per share basis	\$11.09	\$12.20	\$13.31

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Industrial Segment

HSC's Industrial business could, per filings, be grouped with a broad group of capital goods/industrial machinery peers, which on average trade at 8.8x 2016E EBITDA (see Breakdown #2).

Applying a slightly discounted multiple of 8.5x multiple to 2016E EBITDA of \$59 million yields a segment value of roughly \$500 million, or about \$6 per share (see Breakdown #4).

Breakdown #4 Harsco: Estimated Value of Industrial Based on 2016E EBITDA

(\$ in millions, except per share amounts; shares in millions)

		<u>Industrial</u>	
2015E Revenue		\$367.2	
Revenue growth est.		<u>-5.0%</u>	
2016E Revenue		\$348.8	
Operating margin		<u>15.5%</u>	
Operating income		\$54.1	
<u>D&A</u>		<u>\$5.2</u>	
2016E EBITDA		\$59.3	
EBITDA margin		17.0%	
Applied multiple	<u>7.5x</u>	<u>8.5x</u>	<u>9.5x</u>
Enterprise value	\$444.7	\$504.0	\$563.3
Shares outstanding	<u>80.4</u>	<u>80.4</u>	80.4
Per share basis	\$5.53	\$6.27	\$7.01

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

To test the validity of the 8.5x multiple we run a leveraged buyout (LBO) model, which assumes the buyer contributes 15% of the acquisition price and funds the balance with debt yielding 5%. Operationally, revenue growth is presumed to range in the 1.0%-2.5% range following an initial decline of 5% in 2016E, with EBITDA margins remaining relatively stable at 17.0%. Capital expenditures are assumed to trend at 2% of revenue, and free cash flow is applied entirely to the reduction of debt. The exit valuation multiple, at the conclusion of the five-year period, is set equal to the purchase multiple of 8.5x EBITDA. Given these assumptions, an internal rate of return (IRR) of almost 25% could be achieved (see Breakdown #5). Indeed, under static assumptions a purchase multiple of up to about 11x could support a better than 20% IRR.

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Breakdown #5 Harsco: Potential LBO Analysis of Industrial Segment

,	
2016E EBITDA	\$ 59.3
Purchase Multiple	8.5x
Purchase Price	\$ 504.0
% Debt used	85%
\$ Debt used	\$ 428.4
\$ Equity investment	\$ 75.6
Interest rate	5.0%

(\$ in millions)

Entry	12/31/2016	\$ (75.6)
Exit	12/31/2021	\$ 227.4

IRR 24.6%

	F2	2015A	F	2016E	F	2017E	F	2018E	F 2	2019E	F2	2020E	F	2021E
Revenue	\$	367.2	\$	348.8	\$	357.5	\$	366.5	\$	375.6	\$	383.1	\$	387.0
Rev growth				-5.0%		2.5%		2.5%		2.5%		2.0%		1.0%
EBITDA			\$	59.3	\$	60.8	\$	62.3	\$	63.9	\$	65.1	\$	65.8
EBITDA Margin				17.0%		17.0%		17.0%		17.0%		17.0%		17.0%
Less:														
Interest Expense		5.0%				21.42		20.58		19.67		18.70		17.67
Taxes		39%				15.3		16.3		17.2		18.1		18.8
Cap Ex		2.0%				7.2		7.3		7.5		7.7		7.7
FCF available for debt						16.9		18.1		19.4		20.7		21.6
Opening Debt Balance						428.4		411.6		393.4		374.0		353.3
Ending Debt Balance				428.4		411.6		393.4		374.0		353.3		331.7
Estimated Valuation			\$	504.0	\$	516.6	\$	529.5	\$	542.8	\$	553.6	\$	559.2
Less: Debt				428.4		411.6		393.4		374.0		353.3		331.7
Implied Equity Value			\$	75.6	\$	105.1	\$	136.1	\$	168.8	\$	200.3	\$	227.4
Debt/EBITDA				7.2x		6.8x		6.3x		5.9x		5.4x		5.0x
EBITDA-CapEx			\$	59.30	\$	53.63	\$	54.97	\$	56.34	\$	57.47	\$	58.04
FCF margin				17.0%		15.0%		15.0%		15.0%		15.0%		15.0%

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Rail Segment

Similar to the M&M segment, HSC's primary competitors in the MOW space tend to be privately held global and regional players, making relative valuation comparisons difficult. While not perfect comparisons, one could reference publically traded Wabtec Corp. (NYSE: WAB) and Babcock International (BAB LON) as potential comps, which trade at ~9.0x 2016E EBITDA (see Breakdown #2). That said, the 2013 acquisition of direct competitor Nordco by Greenbriar Equity Group at an estimated 11x-12x EBITDA could also provide a reference point for a potential valuation of the business.

Applying a middle-ground 10x multiple to 2016E EBITDA of \$59 million yields a segment value of roughly \$589 million, or about \$7 per share (see Breakdown #6).

Breakdown #6 Harsco: Estimated Value of Rail Based on F2016E EBITDA

(\$ in millions, except per share amounts; shares in millions)

		<u>Rail</u>	
2015E Revenue		\$261.8	
Revenue growth est.		<u>25.0%</u>	
2016E Revenue		\$327.3	
Operating margin		15.5%	
Operating income		\$50.7	
<u>D&A</u>		<u>\$8.2</u>	
2016EEBITDA		\$58.9	
EBITDA margin		18.0%	
Applied multiple	<u>8.0x</u>	<u>10.0x</u>	<u>12.0x</u>
Enterprise value	\$471.3	\$589.1	\$706.9
Shares outstanding	<u>80.4</u>	<u>80.4</u>	<u>80.4</u>
Per share basis	\$5.86	\$7.33	\$8.79

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

Again, simply to test the validity of the 10x multiple we run an LBO model assuming a buyer contributes 15% of the acquisition price and funds the remainder with debt yielding 5%. Operationally, revenue growth is presumed to decelerate to 1%-2% following the initial ramp-up of HSC's contract with the Swiss government in 2016-2017, with EBITDA margins trending at a normalized 18%. Capital expenditures are assumed to remain at ~1% of revenue, and free cash flow is applied entirely to the reduction of debt. The exit valuation multiple, at the conclusion of the five-year period, is set equal to the purchase multiple of 10x EBITDA. Given these assumptions, an internal rate of return (IRR) of 28% could be achieved (see Breakdown #7). Indeed, under static assumptions, a purchase multiple of up to about 17x could support a better than 20% IRR.

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F2017E EBITDA	\$ 58.9
Purchase Multiple	10.0x
Purchase Price	\$ 589.1
% Debt used	85%
\$ Debt used	\$ 500.8
\$ Equity investment	\$ 88.4
Interest rate	5.0%

(\$ in millions)

]	Entry	12/31/2016	\$ (88.4)	
]	Exit	12/31/2021	\$ 302.0	
		IRR	27.8%	

	F2	2015A	F	2016E	F	2017E	F	2018E	F2	2019E	F	2020E	F	2021E
Revenue	\$	261.8	\$	327.3	\$	360.0	\$	367.2	\$	374.6	\$	378.3	\$	382.1
Rev growth				25.0%		10.0%		2.0%		2.0%		1.0%		1.0%
EBITDA			\$	58.9	\$	63.0	\$	66.1	\$	67.4	\$	68.1	\$	68.8
EBITDA Margin				18.0%		18.0%		18.0%		18.0%		18.0%		18.0%
Less:														
Interest Expense		5.0%				25.04		24.06		22.96		21.79		20.57
Taxes		39%				14.8		16.4		17.3		18.1		18.8
Cap Ex		1.0%				3.6		3.7		3.7		3.8		3.8
FCF available for debt						19.6		22.0		23.4		24.5		25.6
Opening Debt Balance	;					500.8		481.2		459.2		435.8		411.4
Ending Debt Balance				500.8		481.2		459.2		435.8		411.4		385.8
Estimated Valuation			\$	589.1	\$	630.0	\$	661.0	\$	674.2	\$	681.0	\$	687.8
Less: Debt				500.8		481.2		459.2		435.8		411.4		385.8
Implied Equity Value			\$	88.4	\$	148.8	\$	201.8	\$	238.4	\$	269.6	\$	302.0
Debt/EBITDA				8.5x		7.6x		6.9x		6.5x		6.0x		5.6x
EBITDA-CapEx			\$	58.91	\$	59.40	\$	62.43	\$	63.68	\$	64.31	\$	64.96
FCF margin				18.0%		16.5%		17.0%		17.0%		17.0%		17.0%

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

Accounting for corporate costs of about \$34 million, capitalized at the weighted average multiple of ~7x applied to segment earnings, as well as projected net debt of roughly \$1.06 billion (including under-funded pension liabilities), yields a sum-of-the-parts valuation of \$777 million, or about \$10 per share (Breakdown #8).

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Breakdown #8 Harsco: Sum-of-the-Parts Fair Value Estimate

(\$ in millions, except per share amounts; shares in millions)

						Net Debt	
	Metals &			Corp.	Enterprise	& Other	<u>Market</u>
	<u>Minerals</u>	<u>Industrial</u>	<u>Rail</u>	<u>Costs</u>	<u>Value</u>	<u>Liabilities</u>	<u>Cap</u>
2016E Revenue	\$1,019.4	\$348.8	\$327.3				
Operating margin	<u>5.5%</u>	<u>15.5%</u>	<u>15.5%</u>				
Operating income	\$56.1	\$54.1	\$50.7				
<u>D&A</u>	<u>\$122.3</u>	<u>\$5.2</u>	<u>\$8.2</u>				
2016EEBITDA	\$178.4	\$59.3	\$58.9	(\$34.0)		(\$1,059.9)	
EBITDA margin	<u>17.5%</u>	<u>17.0%</u>	18.0%				
Applied multiple	5.5x	8.5x	10.0x	7.0x		1.0x	
Enterprise value	\$981.2	\$504.0	\$589.1	(\$237.8)	\$1,836.5	(\$1,059.9)	<u>776.7</u>
Shares outstanding	80.4	<u>80.4</u>	<u>80.4</u>	<u>80.4</u>		<u>80.4</u>	<u>80.4</u>
Per share basis	\$12.20	\$6.27	\$7.33	(\$2.96)		(\$13.18)	\$9.66

Source: Company reports, Bloomberg, and Institutional Research Group estimates.

Upside optionality of \$2-\$3 per share could be presented by the potential monetization of HSC's 29% stake in Brand Energy & Infrastructure, assuming the mid-point of HSC's expected exit proceeds of \$575 million, a cost base of \$225 million, and a tax rate of 40% discounted at 10% per year over five years, which would imply a roughly average private-equity hold period of about 7 years (see Breakdown #9).

Breakdown #9 Harsco: Estimated Net Present Value of HSC's 29% JV Stake in Brand

(\$ in millions, except per share amounts; shares in millions)

HSC's estimated exit proceeds	\$500	\$650			
Assumed pre-tax proceeds	\$57	75.0			
Cost basis	\$225.0				
Taxrate	39%				
Es timated after-tax proceeds	\$43	38.5			
less "knock-out" payments	(\$7	0.0)			
Discount rate	10)%			
Net present value	\$20	08.0			
Diluted shares	80	0.4			
Value per share	\$2	.59			

"Valuing possible breakups by providing sum-of-the-parts analysis."

The Wrap-Up

HSC's stock is down almost 80% over the last two years amid deteriorating end-market fundamentals, particularly in mining and energy, as well as increasing concerns over the balance sheet. The shares currently trade at ~5x 2016E EBITDA. Clearly, the performance of HSC's largest segment, Metals & Minerals, particularly its exposure to the steel industry, has been a key driver of the decline, as the shares have been highly correlated with (but have underperformed) the SLX. In our view, the recently commenced strategic review of the M&M segment is likely to result in a separation that not only decouples HSC from the SLX but also allows investors to focus on the Industrial and Rail businesses, which have better growth prospects as well as higher operating margins and financial returns. Moreover, we expect the company will monetize its stake in the Brand JV over the next several years, which would provide incremental capital that could be accretively allocated to both internal and external investments.

Considering peer valuations and recent M&A multiples, as well as management's financial guidance/commentary, respective value of \$12 per share, \$6 per share, and \$7 per share can be assigned to HSC's Metals & Minerals, Industrial, and Rail businesses. Accounting for corporate costs of \$3 per share and projected net debt of \$13 per share yields a sum-of-the-parts value of roughly \$10 per share, which implies more than 50% upside before any additional optionality presented by the potential monetization of HSC's stake in Brand.

Potential catalysts include the separation of HSC's M&M business, monetization of the Brand JV stake, improvement in end-market demand, and/or execution in working toward HSC's profitability/leverage goals. Risks include a lack of execution on internal initiatives, further deterioration in fundamentals, customer bankruptcies, covenant breaches, and/or commodity/currency fluctuations.