Robert Dunn

Michael Wolleben

Hidden Opportunities

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

- ✓ Headwaters Inc. (NYSE: HW), primarily a manufacturer of building products and a distributor of fly ash, reports three distinct operating segments: (1) Building Products (59% of sales and 55% of EBITDA in F2015); (2) Construction Materials (39% and 44%); and (3) Energy Technology (2% and 1%).

- ✓ In our view, HW will move to sell its non-core Energy Technology assets in F2016-F2017 but could look to further eliminate its conglomerate operating structure by separating its two core businesses, which have minimal operating synergies, via spin-off, Morris Trust transaction, or sale. (Note: In the event of an asset sale, HW estimates it has tax assets to shield about $250 million of pre-tax profits.)

- ✓ While HW's businesses are well run, with solid market positions, and both should continue to enjoy secular/cyclical tailwinds in coming years, in our view a separation could improve underlying performance, in terms of growth, margins, and/or capital allocation, providing incremental value above any potential re-rating, particularly of the Construction Materials segment, which has about a 50% share of an attractive market and generates operating margins of ~20%. In that regard, HW trades at 8x F2017E EBITDA, which we think implies a conglomerate discount to the sum of its parts. Moreover, on a standalone basis each entity could reasonably be forecast to attract acquisition interest and fetch premium multiples from strategic buyers.

- ✓ Considering peer valuations and recent M&A multiples as well as management's financial guidance/commentary, respective value of $13 per share and $17 per share can be assigned to HW's Building Products and Construction Materials businesses. (The Energy Technology segment is ascribed minimal value but could offer upside optionality in a strategic sale.) Accounting for corporate costs of ~$3.50 per share as well as projected net debt of ~$3 per share yields a sum-of-the-parts value of roughly $24 per share.

Headwaters Inc.

(NYSE: HW)

Date (1/4/16)

Price $16.39/share

Market capitalization $1.25B

Building Products: $13 per share

Construction Materials: $17 per share

Energy Tech/Corp. Costs: ($3 per share)

Net Debt: ($3 per share)

SOTP: $24 per share

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

Headwaters Inc. (NYSE: HW), based in South Jordan, UT, operates three distinct business segments (see Background #1): (1) Building Products (59% of revenue and 55% of EBITDA in September-ending F2015), which produces a wide-range of residential housing products; (2) Construction Materials (39% and 44%, respectively), which primarily sells fly ash, a material produced by utilities that can be used as a partial replacement for concrete in the production of cement; and (3) Energy Technology (2% and 1%), which is a non-core energy-upgrade business that remained following the divestiture of HW's coal cleaning business as well as the sale of its 51% interest in an ethanol joint venture in 2012-2013.

Background #1 Headwaters: Consolidated Selected Financial Items, F2012–F2017E
($ in millions)

	F2012	F2013	F2014	F2015	F2016E	F2017E
Revenue:						
Building products	$339.6	$394.3	$472.4	$523.6	$568.2	$613.6
Construction materials	$281.7	$293.0	$309.3	$352.3	$396.3	$435.9
Energy technology	$11.5	$15.3	$9.7	$19.4	$16.5	$18.6
Total	**$632.8**	**$702.6**	**$791.4**	**$895.3**	**$981.0**	**$1,068.1**
Operating income (loss):						
Building products	$25.6	$34.2	$46.9	$64.4	$73.9	$83.1
Construction materials	$40.3	$43.5	$51.5	$65.0	$77.4	$87.4
Energy technology	($6.0)	($1.9)	($6.8)	$0.7	$0.3	$0.7
Corporate	($25.4)	($21.4)	($24.8)	($28.0)	($28.0)	($28.0)
Total	**$34.4**	**$54.4**	**$66.7**	**$102.1**	**$123.6**	**$143.1**
EBITDA:						
Building products	$61.3	$71.3	$86.3	$101.4	$113.6	$126.0
Construction materials	$53.6	$56.3	$65.2	$80.1	$93.3	$107.0
Energy technology	($3.8)	$0.2	($5.1)	$2.1	$1.5	$2.0
Corporate	($25.2)	($21.1)	($24.6)	($27.5)	($27.5)	($27.5)
Total	**$85.9**	**$106.7**	**$121.9**	**$156.1**	**$180.9**	**$207.5**
Adjusted EBITDA (excl. stock-based comp.)	*$102.7*	*$116.2*	*$137.8*	*$165.6*	*$186.9*	*$213.5*
Operating margin:						
Building products	7.5%	8.7%	9.9%	12.3%	13.0%	13.5%
Construction materials	14.3%	14.9%	16.6%	18.4%	19.5%	20.0%
Energy technology	-52.6%	-12.7%	-70.6%	3.8%	2.0%	3.5%
EBITDA margin:						
Building products	18.0%	18.1%	18.3%	19.4%	20.0%	20.5%
Construction materials	19.0%	19.2%	21.1%	22.7%	23.5%	24.5%
Energy technology	-32.7%	1.4%	-52.7%	10.8%	9.0%	10.5%

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

For context, the company recently guided to F2016 adjusted EBITDA of $175-$190 million; the current consensus forecasts for F2016 and F2017 EBITDA are $189 million and $210 million, respectively. Underlying HW's forecast is the assumption that single-family housing starts and repair & remodel (RNR) activity will grow in the high single digits and low single digits, respectively. As well, HW expects mid-single-digit growth in both fly ash volume and pricing. Capital expenditures are expected to be $45-$50 million and free cash flow is projected to be $80-$85 million in F2016 (see Background #2). While acquisitions are not included in HW's financial guidance, management indicates that the pipeline of tuck-in deals is robust and that they are likely to be the primary use of near-term cash flow. Anecdotally, management indicates that, all else being equal, it sees the business as generating contribution margins on incremental revenue of better than 40%.

Background #2 Headwaters: Consolidated F2016 Financial Guidance and General Assumptions
($ in millions)

Financial guidance:	
F2016 EBITDA	$175-$190 million
Capital expenditures	$45-$50 million
Free cash flow	$80-$85 million
Growth Assumptions:	
Single-family growth	Up high single digits
R&R growth	Up low single digits
Fly ash volume	Up mid single digits
Fly ash prices, net	Up mid single digits

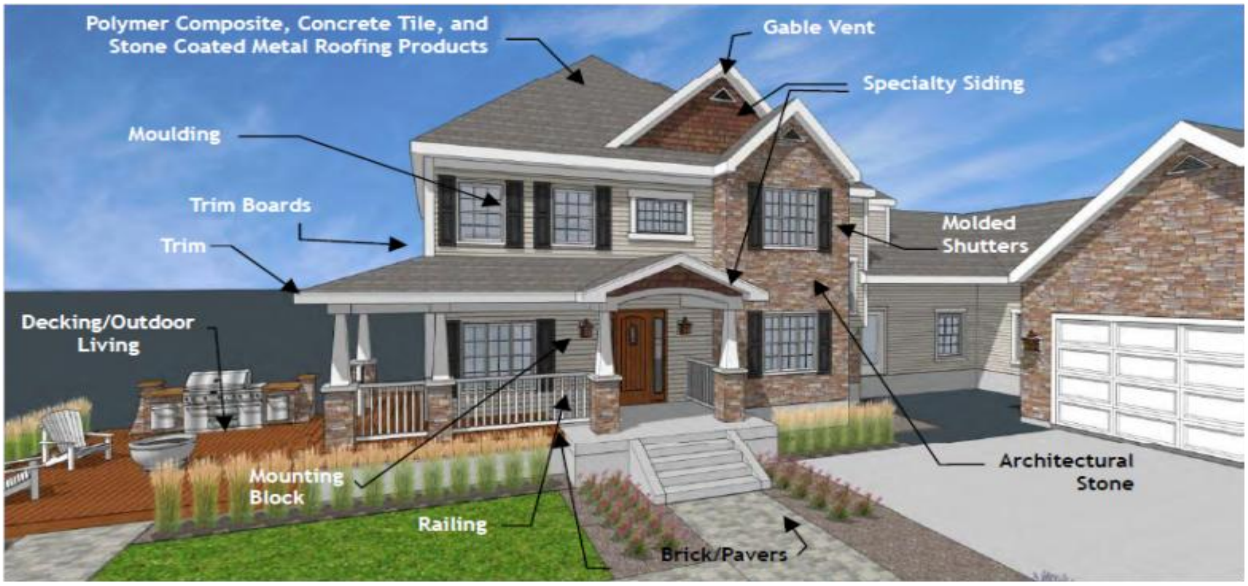
Source: Company reports.

Building Products

The Building Products segment, which accounted for 59% of consolidated revenue and 55% of total EBITDA in F2015, comprises four primary product divisions: (1) siding & trim products (34% of segment sales in F2015), which provides specialty siding, trim, trim boards, shutters, and vents via a range of brands, including Atlantic Premium Shutters, Builders Edge, Kleer Lumber, Mid-America Siding, Tapco Tools, and Vantage; (2) manufactured stone products (29%), which provides architectural stone for use as veneer on building exteriors under the Eldorado Stone, StoneCraft, and Dutch Quality Stone brands; (3) concrete blocks (21%), which is a regional masonry business focused on the commercial building sector in Texas; and (4) roofing products (16% of segment sales in F2015), which offers specialty roofing products, such as stone-coated metal, polymers, and cement tile, via the Entegra, InSpire, Aledora, Gerard, and Allmet brands (see Background #3).

Notably, HW's buildings products enjoy market-leading positions, with its siding, stone, and block products capturing estimated national/regional market shares of 75%, 30%, and 65%, respectively. The company operates a network of 27 manufacturing/distribution locations in both the U.S. and the Philippines to serve a customer base consisting of one- and two-step wholesale distributors (65% of sales); retailers, such as Home Depot (MYSE: HD); and contractors.

Background #3 Headwaters: Product Offering Portfolio of Building Products Segment



Source: Company reports.

With ~75% of segment revenue exposed to residential housing, HW is well positioned to benefit from an ongoing recovery in both new home construction and repair & remodel (RNR) activity. To that end, macro data seems supportive of management's contention that we remain in the mid-cycle portion of a multi-year housing recovery, as the National Association of Home Builders (NAHB) is projecting residential remodeling activity will increase 2.4% in 2016 (on top of a ~2.3% increase in 2015), while single-family housing production is expected to grow 39% in 2016 (following about 10% growth in 2015). Specifically related to HW's roofing products, industry consultant LEK Consulting predicts that demand for specialty roofing products will grow ~9% per year from 2013-2018. On the block front, management does not expect any significant impact from the recent decline in oil prices recovery on its block business, which is centered in Texas but commercially/institutionally focused.

For F2016, HW management forecasts single-family housing starts will be up in the high single digits, which it admits could be conservative, and that RNR activity will grow in the low single digits. Anecdotally, HW thinks housing remains in a mid-cycle phase and that with current capacity utilization at less than 60%, the company should continue to realize strong incremental contribution margins.

In F2015, segment revenue increased almost 11% to $524 million, while segment EBITDA advanced roughly 17.5% to $101 million as the segment margin expanded 110 basis points to 19.4% (see Background #4). Organic growth was about 5% as product introductions helped drive advances across the portfolio and offset weakness in international sales, which were hurt by currency headwinds. Operating leverage was driven, in part, by lower raw material, transportation, and energy costs.

Background #4 Headwaters: Building Products Segment, Selected Items (F2013-F2017E)
($ in millions)

	F2013	F2014	F2015	F2016E	F2017E
Buildings products:					
Revenue	**$394.3**	**$472.4**	**$523.6**	**$568.2**	**$613.6**
Operating income	$34.2	$46.9	$64.4	$73.9	$83.1
Depreciation & amortization	$37.1	$39.4	$36.9	$39.8	$43.0
EBITDA	**$71.3**	**$86.3**	**$101.4**	**$113.6**	**$126.0**
Operating margin	8.7%	9.9%	12.3%	13.0%	13.5%
Incremental operating margin	15.8%	16.3%	34.2%	21.2%	20.3%
EBITDA margin	**18.1%**	**18.3%**	**19.4%**	**20.0%**	**20.5%**
Capital expenditures	$21.5	$25.3	$25.5	$31.2	$30.7
Cap ex (as % of rev.)	5.4%	5.4%	4.9%	5.5%	5.0%
Assets	$306.7	$412.0	$412.9	$443.2	$478.6

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

Assuming annual top-line growth of about 8.0%-8.5% and incremental margins around ~20%, which seems reasonable given management commentary and industry trends, it can be projected that segment sales and EBITDA could reach $614 million and $126 million, respectively, in F2017 (see Background #4).

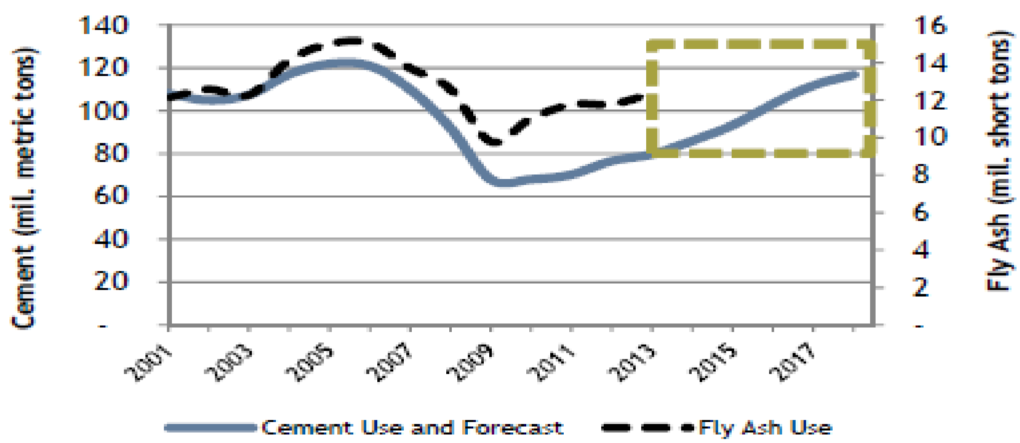
Construction Materials

The Construction Materials segment, which comprised 39% of revenue and 44% of EBITDA in F2015, markets and sells fly ash for use in concrete. (The company also provides a range of industrial services to utilities, such as landfill management.) Fly ash is a natural by-product of coal combustion that can be used as a partial replacement for cement in the production of concrete. In addition to being cheaper than cement by 20%-60% (depending on location and transport costs), it also increases the end-product's strength, its durability (in terms of reduced permeability and resistance to corrosion), its workability and its ultimate life-span. According to the most recent data, in 2013 fly ash replaced approximately 16% of Portland cement, the most common type, that otherwise would have been used in concrete. As well, according to a report from the American Road and Transportation Builders Association, the use of coal ash (versus 100% cement) saves the federal government and the states more than $5 billion in infrastructure costs annually. To a degree, fly ash is also viewed as a more environmentally friendly alternative, as it uses substantially less water and emits less carbon dioxide compared with cement production.

In late 2014, the Environmental Protection Agency (EPA) issued its long-awaited (since 2010) Clean Power Plan Final Rule for regulation of coal ash disposal as a "non-hazardous" material under the Subtitle D of the Resource Conservation and Recovery Act (RCRA), which was an important regulatory success for HW (and the industry) that exempted the beneficial use of coal ash from a lengthy federal regulatory process and reinforced the EPA's support for the beneficial use of fly ash in concrete to the marketplace. (With increased certainty on the regulatory front and secular industry tailwinds, which we describe in more detail below, HW thinks that over time the substitution rate for fly ash in concrete could realistically increase from the current 16% level to the 20%-25% range.)

HW is the largest supplier of fly ash to the construction industry with, by all accounts, a ~50% market share, which is roughly twice the combined share of the two next largest players, Boral and Lafarge (which recently merged with Holcim). HW has revenue-sharing relationships in the form of 5-20-year contacts, which generally offer HW about 70% of net revenue after transportation costs, with more than 100 utilities (i.e., coal-fired power plants) in 35 states to transport, store, and sell/dispose of fly ash; to that end, the company operates a nationwide network of storage and transportation infrastructure, including 25 terminals, 850 railcars, and 100 trucks. (Anecdotally, management indicates that its ash suppliers tend to be the newer, more efficient plants, which to a degree limits the potential impact on HW from the ongoing consolidation among coal-fired power plants.)

Background #5 Domestic Cement Consumption and Fly Ash Use



Source: Company reports, Portland Cement Association (PCA), and American Coal Ash Association (ACAA).

Clearly, demand for HW's wares is tied to the wider cement industry (see Background #5), which is experiencing a tightening supply/demand dynamic that should increasingly benefit HW in the coming years. For context, the Portland Cement Association (PCA) estimates that demand for cement will grow about 6.5% in 2016 and approach 100 million tons, which will likely outstrip total domestic cement production capacity of ~95 million tons. (Longer term, the PCA expects cement consumption could top 120 million tons by 2018 and reach ~190 million tons by 2035, which, given what appears to be declining domestic production capabilities due, in part to increasing federal regulations, such as the National Emission Standards for Hazardous Air Pollutants (NESHAP), would set up a supply/demand gap of nearly 100 million tons. Notably, at the previous peak in 2005-2006 cement consumption was ~128 million tons.) This industry dynamic has resulted in an environment of rising cement prices, which looks set to accelerate in F2016-F2017 and should drive increased volume to HW as construction firms seek to expand the use of lower-cost substitutions (e.g., fly ash), as well as allow for incremental price increases. For its part, HW sees mid-single-digit growth in both volume and pricing for fly ash in F2016, which it admits is likely to be somewhat conservative. On the margin front, given anticipated volume, pricing, and incremental margin trends, HW has anecdotally articulated an EBITDA margin target of ~25% over the next one to two years.

In F2015, segment revenue increased almost 14% to $352 million, driven by almost 10% fly ash volume growth and net price increases of 5%, while segment EBITDA improved almost 23% to $80 million, as the segment EBITDA margin widened 160 basis points to 22.7%. Assuming about 10%-12% annual top-line growth and incremental margins of ~25%, segment sales and EBITDA could be reasonably projected to improve to $436 million and $107 million, respectively, in F2017 (see Background #6).

The recently signed five-year, $305 billion federal highway bill could present upside to near-term expectations by unlocking pent-up demand for infrastructure projects. Looking into F2016, the potential passage of a highway bill in the state of California, which mandates that fly ash replace 25% of cement in road construction, with the primary supplier being HW, could also be an incremental boon for HW.

Background #6 Headwaters: Construction Materials Segment, Selected Items (F2013-F2017E)
($ in millions)

	F2013	F2014	F2015	F2016E	F2017E
Construction materials:					
Revenue	**$293.0**	**$309.3**	**$352.3**	**$396.3**	**$435.9**
Operating income	$43.5	$51.5	$65.0	$77.4	$87.4
Depreciation & amortization	$12.8	$13.7	$15.2	$15.9	$19.6
EBITDA	**$56.3**	**$65.2**	**$80.1**	**$93.3**	**$107.0**
Operating margin	14.9%	16.6%	18.4%	19.5%	20.0%
Incremental operating margin	28.8%	48.9%	31.4%	28.3%	25.0%
EBITDA margin	**19.2%**	**21.1%**	**22.7%**	**23.5%**	**24.5%**
Capital expenditures	$4.9	$5.7	$5.9	$11.9	$10.9
Cap ex (as % of rev.)	1.7%	1.8%	1.7%	3.0%	2.5%
Assets	$358.7	$325.1	$294.1	$326.9	$359.6

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

Energy Technology

The Energy Technology segment, which contributed 2% of sales and 1% of EBITDA in F2015, is a heavy oil upgrading business, which remained with HW following the divestiture of HW's coal cleaning business in 2013. HW uses its proprietary and patented HCAT hydrocracking technology to increase the conversion (or throughput) of "bottom of the barrel" feedstocks for refiners. (Note: the segment holds 124 issued patents and has an additional 55 pending.)

In F2015, segment revenue roughly doubled to $19 million, while segment EBITDA improved to $2.1 million from a loss of $5 million as the segment margin rose to 10.8%. Results in this business are lumpy, and while it could be reasoned that results should improve as the business scales, we take a conservative view, particularly considering that we expect HW will move to divest the business in the coming year or two (see Background #7).

Background #7 Headwaters: Energy Technology Segment, Selected Items (F2013-F2017E)
($ in millions)

	F2013	F2014	F2015	F2016E	F2017E
Energy technology:					
Revenue	**$15.3**	**$9.7**	**$19.4**	**$16.5**	**$18.6**
Operating income	($1.9)	($6.8)	$0.7	$0.3	$0.7
Depreciation & amortization	$2.2	$1.7	$1.4	$1.2	$1.3
EBITDA	**$0.2**	**($5.1)**	**$2.1**	**$1.5**	**$2.0**
Operating margin	-12.7%	-70.6%	3.8%	2.0%	3.5%
EBITDA margin	**1.4%**	**-52.7%**	**10.8%**	**9.0%**	**10.5%**
Capital expenditures	$0.6	$0.5	$0.3	$0.3	$0.4
Cap ex (as % of rev.)	4.2%	4.9%	1.7%	2.0%	2.0%
Assets	$34.5	$22.7	$45.7	$38.0	$41.8

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

Balance Sheet and Cash Flow

At the end of F2015, HW had net debt of roughly $420 million, including $143 million of cash and $562 million of debt (see Background #8), and an adjusted leverage ratio of 2.5x, which was within management's 2.5x-3.0x target and down from 6.7x in F2011. In 3Q 2015, HW refinanced its debt structure, which served to reduce overall leverage and lower borrowing costs (to around 5%) as well as push out any significant maturities until 2019. Indeed, HW indicated that its annual interest expense run rate was about $31 million at the end of F2015 (compared with $47 million in F2014). Notably, we think Headwaters could look to further refinance its debt structure in the near term, as the company's 7.25% notes are redeemable in January 2016.

The company also had roughly $162 million of net operating losses (NOLs) and $25 million of other tax credits and carry-forwards; all told, HW estimates that it has shields for roughly $250 million of future pre-tax profit.

Background #8 Headwaters: Balance Sheet Snapshot
($ in millions)

	F2014	F2015
Cash	**$152.5**	**$142.6**
Current portion of long-term debt	$0.0	($4.3)
Long-term debt	($592.5)	($558.1)
Senior secured term loan (LIBOR plus 3.5%, March 2022)	$0.0	$414.5
7.25% senior notes (January 2019)	$147.2	$147.8
7.625% senior notes (March 2015)	$396.1	$0.0
8.75% convertible senior notes (Feb. 2015)	$49.2	$0.0
Total debt	($592.5)	($562.3)
Net debt	**($439.9)**	**($419.7)**
Leverage ratio	3.6x	2.7x
Adjusted leverage ratio	3.2x	2.5x
NOL's (expire 2016-2035)		$162.1
Tax credit carry-forwards (expire 2028-2033)		$25.0
Total approx. pre-tax profit shield		**$250.0**

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

In F2015, HW generated $63 million in cash from operations, including the drag of an about $97 million deferred income tax valuation allowance, and deployed $36 million toward capital expenditures and less than $6 million on acquisitions. For F2016, HW projects capital spending of $45-$50 million and free cash flow of $80-$85 million. Assuming a similar level of capital spending in F2017, HW could be projected to generate cumulative free cash flow of about $166 million in F2016-F2017 (see Background #9). While acquisitions are indicated to be HW's preferred use of near-term cash flow, they are not included in the company's financial guidance, and we simply assume that F2016-F2017 free cash flow pads the company's cash balance.

Background #9 Headwaters: Sources and Uses of Cash Flow

($ in millions; shares in millions)

	F2013	F2014	F2015	F2016E	F2017E
Net income	$7.1	$16.1	$131.7	$56.5	$68.4
Depreciation & amortization	$52.3	$55.1	$54.0	$57.3	$64.4
Other	($0.9)	($10.8)	($122.3)	$15.0	$0.0
Cash flow from operations	**$58.6**	**$60.4**	**$63.4**	**$128.8**	**$132.7**
Capital expenditures, net	**($28.3)**	**($34.9)**	**($35.9)**	**($48.5)**	**($46.9)**
Purchase of PP&E	($29.1)	($35.8)	($36.9)	($48.5)	($46.9)
Proceeds from PP&E	$0.8	$0.9	$0.9	-	-
Free cash flow	**$30.2**	**$25.5**	**$27.4**	**$80.3**	**$85.8**
Acquisitions	($43.3)	($95.6)	($5.7)	-	-
Stock repurchases	$78.0	$0.0	$0.0	-	-
Diluted shares	71.3	74.5	75.6	75.6	75.6

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

Management, Corporate Governance and Institutional Shareholders

HW's chief executive officer, Kirk Benson (64), is also the company's chairman and has served in those capacities since April 1999. Mr. Benson controls about 3.9% of the outstanding stock, including stock appreciation rights, and all HW directors and executives, as a group, own about 6.1% of HW's outstanding shares. The company's seven-member Board, of which six are deemed independent, includes three classes of directors who typically stand for staggered elections every three years. Independent directors chair each of HW's Board committees, including nominating & governance, audit, and compensation. That said, the Board has the ability to issue and designate the terms of one or more series of preferred stock, including the adoption of a "poison pill."

HW's top-10 institutional shareholders do not currently include any overtly activist shareholders (see Background #10) although Gates Capital, who also has stakes in Eagle Materials and USG Corp., is a self-described "event-driven value investor".

Background #10 Headwaters: Top-10 Institutional Shareholders

(shares in millions)

Institutional shareholder	Shares held	% ownership			
Wellington Management	9.1	12.3%	Gates Capital Management	2.3	3.2%
BlackRock Inc.	6.6	8.6%	Bank of New York Mellon	1.7	2.4%
RS Investment Management	4.7	6.4%	Northern Trust Corp.	1.4	1.9%
Vanguard Group	4.2	5.7%	State Street Corp.	1.4	1.9%
Dimensional Fund Advisors	2.7	3.6%	Skyline Asset Management	1.3	1.8%

Source: Bloomberg.

The Breakup

In our view, HW will likely complete its exit from the energy business via the sale of its Energy Technology unit, which although small could be valuable to the right strategic buyer, in F2016-F2017. Moreover, the company could also look to further unwind its conglomerate operating structure by separating its two remaining businesses, via traditional spin-off, Morris Trust transaction, or outright sale. (In the event of an asset sale, HW could likely utilize ~$250 million in tax shields to offset potential gains.) While HW's Building Products and Construction Materials businesses are generally well run, with solid market positions, and both should continue to enjoy secular/cyclical tailwinds in coming years, a separation could serve to improve underlying performance, in terms of growth, margins, and/or capital allocation, providing incremental value above any potential re-rating, particularly for the Construction Materials segment, which has about a 50% market share and generates operating margins of ~20%. In that regard, HW trades at 8x F2017E EBITDA, which we think implies a conglomerate discount to the sum of its parts. As well, on standalone basis it could be reasonably suggested that HW's businesses each would attract acquisition interest and could fetch premium multiples from strategic buyers.

The Breakdown

As discussed earlier in this report, HW recently provided initial F2016 guidance, forecasting adjusted EBITDA of $175-$190 million; the current consensus forecast for F2016 and F2017 EBITDA is about $189 and $210 million, respectively. (Note: The company's adjusted EBITDA calculation excludes stock-based compensation, which is an expense that we include in order to better reflect our view of the company's earnings power.)

Breakdown #1 Headwaters: Adjusted F2012-F2015 Results and F2016-F2017E Forecasts

($ in millions)

	F2012	F2013	F2014	F2015	F2016E	F2017E
Revenue:						
Building products	$339.6	$394.3	$472.4	$523.6	$568.2	$613.6
Construction materials	$281.7	$293.0	$309.3	$352.3	$396.3	$435.9
Energy technology	$11.5	$15.3	$9.7	$19.4	$16.5	$18.6
Total	**$632.8**	**$702.6**	**$791.4**	**$895.3**	**$981.0**	**$1,068.1**
Operating income (loss):						
Building products	$25.6	$34.2	$46.9	$64.4	$73.9	$83.1
Construction materials	$40.3	$43.5	$51.5	$65.0	$77.4	$87.4
Energy technology	($6.0)	($1.9)	($6.8)	$0.7	$0.3	$0.7
Corporate	($25.4)	($21.4)	($24.8)	($28.0)	($28.0)	($28.0)
Total	**$34.4**	**$54.4**	**$66.7**	**$102.1**	**$123.6**	**$143.1**
EBITDA:						
Building products	$61.3	$71.3	$86.3	$101.4	$113.6	$126.0
Construction materials	$53.6	$56.3	$65.2	$80.1	$93.3	$107.0
Energy technology	($3.8)	$0.2	($5.1)	$2.1	$1.5	$2.0
Corporate	($25.2)	($21.1)	($24.6)	($27.5)	($27.5)	($27.5)
Total	**$85.9**	**$106.7**	**$121.9**	**$156.1**	**$180.9**	**$207.5**
Adjusted EBITDA (excl. stock-based comp.)	*$102.7*	*$116.2*	*$137.8*	*$165.6*	*$186.9*	*$213.5*
Operating margin:						
Building products	7.5%	8.7%	9.9%	12.3%	13.0%	13.5%
Construction materials	14.3%	14.9%	16.6%	18.4%	19.5%	20.0%
Energy technology	-52.6%	-12.7%	-70.6%	3.8%	2.0%	3.5%
EBITDA margin:						
Building products	18.0%	18.1%	18.3%	19.4%	20.0%	20.5%
Construction materials	19.0%	19.2%	21.1%	22.7%	23.5%	24.5%
Energy technology	-32.7%	1.4%	-52.7%	10.8%	9.0%	10.5%

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

Building Products Segment

Per company filings, HW’s primary public competitors in the siding, architectural stone, and roofing markets include Ply Gem (NYSE: PGEM), Boral Limited (Boral Material Technologies) (ASX BLD), and Owens Corning (NYSE: OC). In terms of additional public valuation comparisons, one could include members of the wider building products peer group, such as Builders FirstSource (NASDAQ: BLDR), James Hardie Industries (ASX JHX), Louisiana-Pacific Corp. (NYSE: LPX), Masco Corp. (NYSE: MAS), Quanex Building Products (NYSE: NX), and Trex Company Inc. (NYSE: TREX). On average, the peer group trades at ~8x 2017E EBITDA (see Breakdown #2).

Breakdown #2 Headwaters: Public Comparables for HW’s Buildings Products Segment

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

		Building Products								
	Headwaters Inc. (NYSE: HW)	Boral Material Tech. (ASX BLD)	Builders FirstSource (NASDAQ: BLDR)	James Hardie Industries (ASX JHX)	Louisiana-Pacific Corp. (NYSE: LPX)	Masco Corp. (NYSE: MAS)	Owens Corning (NYSE: OC)	Ply Gem Holdings (NYSE: PGEM)	Quanex Building Products (NYSE: NX)	Trex Co. Inc. (NYSE: TREX)
Share Price *(12/31/2015)*	**$16.39**	**$4.30**	**$11.08**	**$12.71**	**$18.01**	**$28.30**	**$47.30**	**$12.54**	**$20.85**	**$38.04**
FD Shares Out. (mn.)	76	744	109	445	143	336	117	68	34	31
Market Capitalization	1,239	3,197	1,211	5,662	2,573	9,522	5,515	852	708	1,174
Net Debt	420	630	1,926	507	306	1,890	1,938	974	34	46
Enterprise Value	**1,659**	**3,827**	**3,137**	**6,169**	**2,879**	**11,599**	**7,492**	**1,826**	**743**	**1,220**
F2015E Sales	2,032	3,596	3,727	1,724	1,902	7,324	5,361	1,876	646	437
F2016E Sales	2,083	3,319	6,505	1,892	2,206	7,554	5,625	2,035	998	486
F2017E Sales	1,068	3,486	7,329	2,118	2,468	8,054	5,931	2,297	1,068	538
F2015E Net Income	132	173	5	246	(63)	394	275	37	16	50
F2016E Net Income	57	180	86	274	64	476	342	81	29	62
F2017E Net Income	68	206	208	322	149	568	410	119	39	71
2017E Net Income Margin	3.3%	6.2%	3.2%	17.0%	6.7%	7.5%	7.3%	5.8%	3.9%	14.7%
2017E EBITDA Margin	19.4%	13.7%	7.2%	26.1%	14.0%	16.0%	17.4%	12.9%	12.4%	24.4%
Shareholders' Equity	238	2,716	155	(264)	1,023	28	3,774	(81)	421	108
Price/book	5.2x	1.2x	7.8x	NM	2.5x	NM	1.5x	NM	1.7x	10.9x
Assets	1,747	4,521	3,038	1,978	2,210	5,727	7,511	1,311	517	233
EV/assets	0.9x	0.8x	1.0x	3.1x	1.3x	2.0x	1.0x	1.4x	1.4x	5.2x
Average, ex. HW	***1.9x***									
F2017E Free cash flow	85.8	225.0	250.6	239.8	195.5	537.4	421.1	104.0	61.8	53.0
Free cash flow yield	5.2%	5.9%	8.0%	3.9%	6.8%	4.6%	5.6%	5.7%	8.3%	4.3%
F2015E EPS	$1.13	$0.22	$0.12	$0.55	($0.40)	$1.17	$2.34	$0.55	$0.46	$1.63
F2016E EPS	$0.75	-	$0.81	$0.63	$0.48	$1.47	$2.92	$1.19	$0.80	$1.98
Price F2015E EPS	21.9x	NM	13.7x	20.2x	37.5x	19.3x	16.2x	10.5x	26.1x	19.2x
F2017E EPS	$0.90	-	$1.71	$0.74	$1.05	$1.79	$3.43	$1.74	$1.07	$2.25
Price F2016E EPS	18.1x	NM	6.5x	17.2x	17.2x	15.8x	13.8x	7.2x	19.5x	16.9x
Average, ex. HW	***14.3x***									
F2015E EBITDA		392.9	210.3	431.5	57.5	1,048.9	825	176	66	94
F2016E EBITDA	180.9	441.0	420.0	477.1	232.2	1,145.4	935.5	228.3	117.2	114.5
EV/EBITDA	9.2x	8.7x	7.5x	12.9x	12.4x	10.1x	8.0x	8.0x	6.3x	10.7x
Average, ex. HW	***9.4x***									
F2017E EBITDA	207.5	479.1	524.6	552.9	346.2	1,291.0	1,033.5	295.3	132.0	131.5
EV/EBITDA	8.0x	8.0x	6.0x	11.2x	8.3x	9.0x	7.2x	6.2x	5.6x	9.3x
Average, ex. HW	***7.9x***									

Source: Company reports, Bloomberg, and Insitutional Research Group estimates. NM: Not measureable.

Applying the ~8x peer multiple to F2017E segment EBITDA of $126.0 million yields a segment value of $1 billion, or ~$13 per share (see Breakdown #3). (Note: One could argue that the 8x multiple is somewhat conservative, given that the BP segment's margin profile is at the high end of the peer group and more in-line with TREX and JHX, which trade at 9.0x-11.0x.)

Breakdown #3 Headwaters: Estimated Value of Building Products Based on F2017E EBITDA

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

		Building Products	
F2016E Revenue		$568.2	
Revenue Growth Est.		8.0%	
F2017E Revenue		$613.6	
Operating margin		13.5%	
Operating Income		$83.1	
D&A		$43.0	
F2017E EBITDA		**$126.0**	
EBITDA Margin		20.5%	
Multiple	7.0x	**8.0x**	9.0x
EV	$882.2	**$1,008.3**	$1,134.3
Shares Outstanding	75.6	75.6	75.6
Per Share Basis	$11.67	**$13.34**	$15.00

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

Construction Materials Segment

Per company filings, HW's competitors in the Construction Materials space include both fly ash and cement producers, such as Boral Limited (Boral Material Technologies) (ASX BLD), Cemex (NYSE: CX), Eagle Materials (NYSE: EXP), and Lafarge North America, a division of the recently merged LafargeHolcim (VX LHN). For additional valuation context, building materials and recycling peers, such as Martin Marietta (NYSE: MLM), Vulcan Materials (NYSE: VMC), and Waste Management (NYSE: WM), could also be included. This peer group currently trades at roughly 8.6x (see Breakdown #4).

Breakdown #4 Headwaters: Public Comparables for HW's Construction Materials Segment

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

		Construction Materials						
	Headwaters Inc. (NYSE: HW)	Boral Material Tech. (ASX BLD)	Cemex SAB (NYSE: CX)	Eagle Materials (NYSE: EXP)	Lafargeholcim Ltd. (VTX LHN)	Martin Marietta Materials (NYSE: MLM)	Vulcan Materials (NYSE: VMC)	Waste Management (NYSE: WM)
Share Price (12/31/2015)	**$16.39**	**$4.30**	**$5.57**	**$60.43**	**$50.22**	**$136.58**	**$94.97**	**$53.37**
FD Shares Out. (mn.)	76	744	1,347	50	607	66	133	446
Market Capitalization	1,239	3,197	7,501	3,024	30,479	9,033	12,661	23,829
Net Debt	420	630	14,675	503	18,875	1,269	1,811	8,937
Enterprise Value	**1,659**	**3,827**	**23,343**	**3,528**	**53,906**	**10,304**	**14,472**	**32,788**
F2015E Sales	2,032	3,596	14,110	1,066	30,071	331	3,467	13,057
F2016E Sales	2,083	3,319	14,695	1,149	31,314	3,634	3,907	13,459
F2017E Sales	1,068	3,486	15,407	1,262	32,352	3,997	4,356	13,760
F2015E Net Income	132	690	(108)	172	1,017	321	266	1,122
F2016E Net Income	57	180	152	167	1,557	458	443	1,254
F2017E Net Income		206	409	222	2,197	583	609	1,359
2016E Net Income Margin	3.3%	5.9%	2.7%	17.6%	6.8%	14.6%	14.0%	9.9%
2016E EBITDA Margin	19.4%	13.7%	20.3%	35.2%	21.5%	29.4%	29.5%	27.3%
Shareholders' Equity	238	2,716	9,402	1,070	32,295	4,253	4,363	5,257
Price/book	5.2x	1.2x	0.8x	2.8x	0.9x	2.1x	2.9x	4.5x
Assets	1,747	4,521	32,944	1,920	78,748	7,438	8,317	20,402
EV/assets	0.9x	0.8x	0.7x	1.8x	0.7x	1.4x	1.7x	1.6x
Average, ex. HW	***1.3x***							
F2016E Free cash flow	85.8	225.0	483.6	258.6	3,226.2	493.6	524.2	1,535.1
Free cash flow yield	5.2%	5.9%	2.1%	7.3%	6.0%	4.8%	3.6%	4.7%
		$0.22	($0.01)	$3.42	-	$4.77	$2.05	$2.57
F2015E EPS	$0.75	-	$0.01	$3.55	-	$7.09	$3.30	$2.76
Price F2015E EPS	21.9x	NM	NM	17.0x	NM	19.3x	28.8x	19.3x
F2016E EPS	$0.90	-	$0.03	$4.45	-	$9.42	$4.64	$2.96
Price F2016E EPS	18.1x	NM	NM	13.6x	NM	14.5x	20.5x	18.0x
Average, ex. HW	***16.6x***							
F2015E EBITDA		392.9	3,573.7	272.7	5,696.1	800.4	804.3	3,415.4
F2016E EBITDA	180.9	441.0	2,844.3	366.6	6,281.4	1,003.7	1,043.6	3,597.7
EV/EBITDA	9.2x	8.7x	8.2x	9.6x	8.6x	10.3x	13.9x	9.1x
Average, ex. HW	***9.8x***							
F2017E EBITDA	207.5	479.1	3,128.1	444.2	6,949.1	1,175.2	1,282.9	3,754.7
EV/EBITDA	8.0x	8.0x	7.5x	7.9x	7.8x	8.8x	11.3x	8.7x
Average, ex. HW	***8.6x***							

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

As mentioned earlier, given its dominant market position (50% share), attractive margins (EBIT margins of 20%), and solid cash flow profile (capex 2%-3% of revenue), it is reasonable to assume that on a standalone basis HW's fly ash business would attract acquisition attention and fetch a premium multiple, particularly from a strategic acquirer. In that regard, recent deals in the materials space have garnered purchase multiples, on average, of about 12x (see Breakdown #5). In 2012, EGL purchased some cement and fly ash assets from LaFarge for $446 million or about 2.5x revenue.

Breakdown #5 Headwaters: Recent Materials-Focused M&A Activity, Selected
($ in millions)

Date	Target	Acquirer	Purchase Price	TTM EBITDA	FTM EBITDA	TTM EBITDA multiple	FTM EBITDA multiple
Feb-07	Florida Rock	Vulcan	$4,600	$402	$371	11.4x	12.4x
Apr-07	Rinker	Cemex	$15,300	$1,468	$1,377	10.4x	11.1x
Jul-14	Texas Industries	Martin Marietta	$2,700	$122.5	$205	22.0x	13.2x
Average						14.6x	**12.2x**

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

Applying a 12x take-out multiple to F2017E EBITDA of $107 million yields a segment value of almost $1.3 billion, or about $17 per share (see Breakdown #6). [Notably, if one were to simply apply even the peer multiple it would imply a segment value of more than $12 per share and a sum of the parts value of more than $19 (an almost 20% return from the current quote).]

Breakdown #6 Headwaters: Estimated Value of Construction Materials Based on F2017E EBITDA
($ in millions, except per share amounts; shares in millions)

		Construction Materials	
F2016E Revenue		$396.3	
Revenue Growth Est.		10.0%	
F2017E Revenue		$435.9	
Operating margin		20.0%	
Operating Income		$87.4	
D&A		$19.6	
F2017E EBITDA		**$107.0**	
EBITDA Margin		24.5%	
Multiple	9.0x	**12.0x**	14.0x
EV	$962.8	**$1,283.7**	$1,497.7
Shares Outstanding	75.6	75.6	75.6
Per Share Basis	$12.73	**$16.98**	$19.81

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

To test the validity of the 12x multiple, a leverage buyout offer (LBO) exercise could be employed, assuming the buyer contributes 15% of the acquisition price and funds the balance with debt yielding 5%. Operationally, for this exercise, revenue growth is presumed to decelerate to 1% from an initial 12.5%, with EBITDA margins remaining stable in the 23.5%-25.0% range, which seems reasonable (if not conservative) given management's margin commentary and the potential operating synergies. Capital expenditures are assumed to remain at 2.5% 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 12x EBITDA. Given these assumptions, an internal rate of return (IRR) of roughly 25% could be achieved (see Breakdown #7). Indeed, under static assumptions a purchase multiple of up to about 18x could support a better than 20% IRR.

Breakdown #7 Headwaters: Potential LBO Analysis of Construction Materials Segment

($ in millions)

F2017E EBITDA	$ 107.0
Purchase Multiple	12.0x
Purchase Price	$ 1,283.7
% Debt used	85%
$ Debt used	$ 1,091.2
$ Equity investment	$ 192.6
Interest rate	5.0%

Entry	**9/30/2016**	**$ (192.6)**
Exit	**9/30/2021**	**$ 592.8**
	IRR	**25.2%**

	F2015A	F2016E	F2017E	F2018E	F2019E	F2020E	F2021E
Revenue	$ 352.3	$ 396.3	$ 435.9	$ 468.6	$ 492.1	$ 506.8	$ 511.9
Rev growth		12.5%	10.0%	7.5%	5.0%	3.0%	1.0%
EBITDA		$ 93.3	$ 107.0	$ 117.2	$ 123.0	$ 126.7	$ 128.0
EBITDA Margin		23.5%	24.5%	25.0%	25.0%	25.0%	25.0%
Less:							
Interest Expense	5.0%		54.56	53.50	52.15	50.60	48.91
Taxes	39%		20.4	24.8	27.6	29.7	30.8
Cap Ex	2.5%		10.9	11.7	12.3	12.7	12.8
FCF available for debt			21.1	27.1	30.9	33.8	35.4
Opening Debt Balance			1,091.2	1,070.1	1,043.0	1,012.0	978.3
Ending Debt Balance		1,091.2	1,070.1	1,043.0	1,012.0	978.3	942.9
Estimated Valuation		$ 1,119.5	$ 1,283.7	$ 1,405.9	$ 1,476.2	$ 1,520.4	$ 1,535.6
Less: Debt		1,091.2	1,070.1	1,043.0	1,012.0	978.3	942.9
Implied Equity Value		$ 28.3	$ 213.6	$ 362.9	$ 464.1	$ 542.1	$ 592.8
Debt/EBITDA		11.7x	10.0x	8.9x	8.2x	7.7x	7.4x
EBITDA-CapEx		$ 93.29	$ 96.08	$ 105.44	$ 110.71	$ 114.03	$ 115.17
FCF margin		23.5%	22.0%	22.5%	22.5%	22.5%	22.5%

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

Energy Technology Segment

Per company filings, HW's Energy Technology business competes with technology segments at many major firms in the petroleum, chemical, and energy complexes, including Chevron (NYSE: CVX), which trades at about 5x 2017E EBITDA. Anecdotally, industry analysts suggest that HW's commercially-viable, patented technology could be very valuable to a strategic acquirer and command a premium multiple. Nevertheless, we simply apply a 5x multiple to estimated F2017 EBITDA of about $2 million to derive an about $10 million value, or $0.13 per share (see Breakdown #8).

Breakdown #8 Headwaters: Estimated Value of Energy Technology Based on F2017E EBITDA
($ in millions, except per share amounts; shares in millions)

		Energy Technology	
F2016E Revenue		$16.5	
Revenue Growth Est.		12.5%	
F2017E Revenue		$18.6	
Operating margin		3.5%	
Operating Income		$0.7	
D&A		$1.3	
F2017E EBITDA		**$2.0**	
EBITDA Margin		10.5%	
Multiple	4.0x	**5.0x**	6.0x
EV	$7.8	**$9.8**	$11.7
Shares Outstanding	75.6	75.6	75.6
Per Share Basis	$0.10	**$0.13**	$0.15

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

Accounting for corporate costs of about $27.5 million, capitalized at the weighted average multiple ~10x applied to segment earnings, as well as projected net debt of roughly $254 million, yields a sum-of-the-parts valuation of almost $1.8 billion, or about $24 per share (Breakdown #9).

Breakdown #9 Headwaters: Sum-of-the-Parts Fair Value Estimate

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

	Building Products	Construction Materials	Energy Technology	Corporate Costs	Enterprise Value	Net Debt	Market Cap
F2017E Revenue	**$613.6**	**$435.9**	**$18.6**				
Operating margin	13.5%	20.0%	3.5%				
Operating income	**$83.1**	**$87.4**	**$0.7**				
D&A	$43.0	$19.6	$1.3				
F2017E EBITDA	**$126.0**	**$107.0**	**$2.0**	**($27.5)**		**($253.6)**	
EBITDA margin	20.5%	24.5%	10.5%				
Multiple	**8.0x**	**12.0x**	**5.0x**	**9.8x**		1.0x	
EV	**$1,008.3**	**$1,283.7**	**$9.8**	**($269.4)**	**$2,032.3**	**($253.6)**	**1,778.7**
Shares outstanding	75.6	75.6	75.6	75.6		75.6	75.6
Per share basis	**$13.34**	**$16.98**	**$0.13**	**($3.56)**		**($3.35)**	**$23.53**

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

The Wrap-Up

In our view, HW will likely move to divest the remainder of its Energy Technology businesses in F2016-F2017 but, in addition, could look to eliminate its conglomerate operating structure by separating its two remaining businesses, via traditional spin-off, Morris Trust transaction, or outright sale. While the Building Products and Construction Materials businesses are generally well run, with solid market positions, and both should continue to enjoy secular/cyclical tailwinds in coming years, a separation could improve underlying performance, in terms of growth, margins and/or capital allocation, providing incremental value above any potential re-rating, particularly for the Construction Materials segment, which has about a 50% market share and generates operating margins of ~20%. In that regard, HW trades at ~8x F2017E EBITDA, which we think implies a conglomerate discount to the sum of its parts. Moreover, on a standalone basis it could be reasonably suggested that each of HW's businesses, particularly the high-margin Construction Materials, should attract acquisition interest and fetch premium multiples from strategic buyers.

Considering peer valuations and recent M&A multiples as well as management's financial guidance/commentary, respective values of $13 per share and $17 per share can be assigned to HW's Building Products and Construction Materials businesses. Accounting for corporate costs of ~$3.50 per share as well as projected net debt of about $250 million, a sum-of-the parts (SOTP) value of roughly $24 per share can be derived, which implies roughly 45% of potential upside (with further upside optionality from the potential sale of the Energy Technology business, to which we ascribe minimal value, at a premium multiple).

Potential future catalysts include the exploration of strategic alternatives, including a separation/sale of the company's businesses, acquisitions, and a further refinancing of the balance sheet, as well as the realization of incremental operating leverage given the solid secular and cyclical tailwinds in the company's two core operating segments. Potential risks include management execution as well as increasing regulation (both state and federal), legal expenses, competition, raw material prices, and/or an economic recession.