LSB Industries, Inc. (NYSE: LXU)

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GLOBAL VALUE RESEARCH COMPANY
A Division Of Global Value Investment Corp

RESEARCH REPORT **PRICE TARGET: $14.10**

FOCUS PRODUCES STRONG RESULTS

This report should be read in conjunction with GVRC's initiation report, dated 7/31/2018 and LSB Industries, Inc.'s regulatory filings with the U.S. Securities and Exchange Commission.

Summary of Recent Developments

LSB Industries, Inc. ("LSB") reported financial results for the quarter ended September 30, 2018 reflecting substantial progress in improving operational reliability and efficiency at the company's chemical plants as well as materially improved product pricing. Although management believes significant work remains, plant on-stream rates suggest that several ongoing initiatives aimed at decreasing downtime and enhancing maintenance programs appear to be bearing fruit. Furthermore, domestic pricing for agricultural fertilizers has firmed substantially as markets come into balance after several tumultuous years.

On-stream rates at LSB's three owned production facilities are perhaps the most obvious reason for optimism: the facility in El Dorado, Arkansas ("El Dorado Facility") reported an on-stream rate of 89%, the facility in Cherokee, Alabama ("Cherokee Facility") reported an on-stream rate of 97%, and the facility in Pryor, Oklahoma ("Pryor Facility") reported an on-stream rate of 98%. On-stream rates are exclusive of five days of planned downtime at the El Dorado Facility and 35 days of planned downtime at the Cherokee Facility. During LSB's October 25, 2018 conference call, the company reported that all three ammonia plants were operating at full rates.

Revenue improved 8% in FQ3 2018 compared to FQ3 2017. Of the $79.8 million in reported revenue, 45% was attributable to the agriculture segment, 44% to the industrial segment, and 11% to the mining segment. In the agriculture segment, pricing for urea ammonium nitrate solutions (UAN), high-density ammonium nitrate prills (HDAN) and anhydrous ammonia improved 26%, 15%, and 42%, respectively, from FQ3 2017 to FQ3 2018. Pricing for ammonia products for the industrial and mining segments improved as well.

Global Value Research Company (GVRC) notes that LSB's improving operational results and firming product prices suggest that earnings may accelerate in the near future, and that the company's valuation on the basis of both its tangible book value (TBV) and a range of earnings-based measurements are attractive relative to the current stock price of $8.05. While the company's long-term value lies in its ability to produce attrac-

Stock Information

Current Price:	$8.05
52-Week Range:	$4.75-$10.05
Avg Daily Volume:	152,415
Dividend Yield:	-
Shares Out (MM):	28.6
Float %:	70.9%
Market Cap (MM):	$230.4
Total Debt (MM):	$416.0
Cash (MM):	$42.8
Enterprise Value (MM):	$883.3

Financial Metrics

TTM Revenue (MM):	$372.4
TTM EBIT (Adj., MM):	($41.3)
EV/EBIT:	N/A
Tangible BV/Share:	$11.27
P/TBV:	0.71x

Company Description

LSB Industries, Inc. engages in the manufacture, marketing, and sale of chemical products for use in agriculture, mining, and industrial markets. It owns and operates three chemical manufacturing facilities, located in El Dorado, Arkansas; Cherokee, Alabama; and Pryor, Oklahoma; and operates a chemical manufacturing facility in Baytown, Texas on behalf of Covestro AG. The company's products include anhydrous ammonia, urea, urea ammonium nitrate solutions, and high-density ammonium nitrate for agricultural applications; anhydrous ammonia, nitric acid commercial blends, concentrated nitric acid, mixed acid, diesel exhaust fluid, and sulfuric acid for industrial applications; and ammonium nitrate solutions, ammonium nitrate-ammonia solutions, and low-density ammonium nitrate for mining applications. The majority of the company's sales are conducted in North America. LSB Industries, Inc. was founded by Jack Golsen in 1968 and is headquartered in Oklahoma City, Oklahoma.

PLEASE SEE ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES ON PAGE 10.

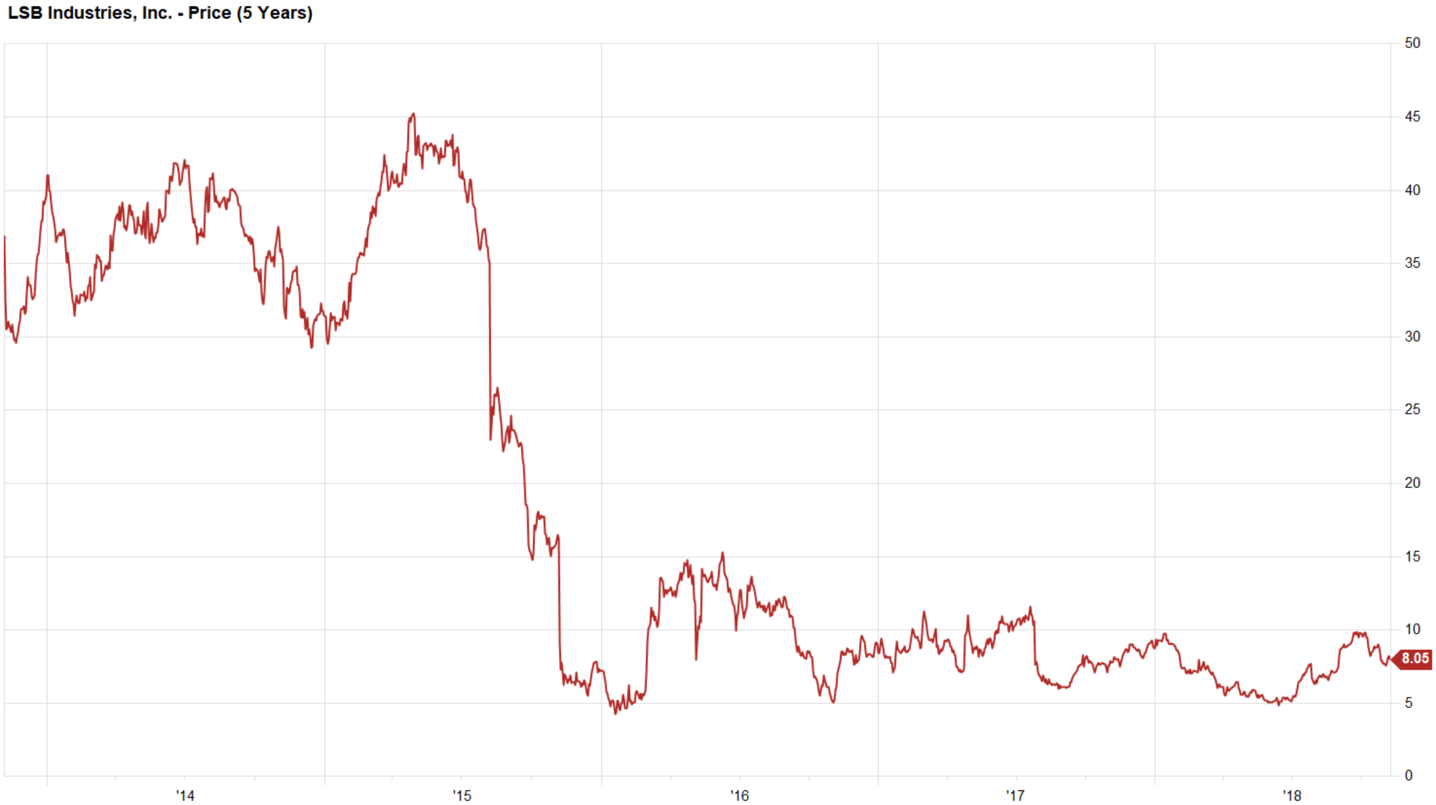

Figure 1: five-year performance chart. Source: FactSet; data as of 11/6/2018.

tive and consistent cash flow, GVRC assess LSB's TBV of approximately $11.30 as an appropriately conservative valuation metric until such earnings materialize. Considering substantial operational improvement, GVRC believes that a modest premium to TBV is justified and raises its target price from $12.30 to $14.10.

Financial Assessment

Balance Sheet

For the three months ended September 30, 2018 (FQ3 2018), LSB's current assets were $158.0 million, which consisted of $42.8 million in cash and cash equivalents, $58.3 million of trade accounts receivable, and $57.0 million of inventories, supplies, and other short-term assets. FQ3 2018 current assets were modestly higher than FQ2 2018 current assets of $143.9 million and slightly lower than FQ3 2017 current assets of $162.1 million. Long-term assets of $989.6 million consisted almost entirely of $980.6 million in property, plant, and equipment.

Current liabilities of $122.5 million compare favorably to current assets of $158.0 million (current ratio is 1.29). Both current assets (specifically, accounts receivable) and current liabilities (specifically, accrued litigation settlement) include offsetting amounts of $18.5 million related to a legal settlement reached in October 2018; when adjusted for this one-time entry, the current ratio improves to 1.34. Non-current liabilities of $664.6 million include $403.0 million of long-term debt and $194.6 million of redeemable preferred stock. LSB has a revolving credit facility in place with a limit of $50.0 million (prime + 0.50%) and the ability to expand the commitment amount by $25.0 million; as of FQ3 2018, there was no balance drawn against this facility, and available borrowings, based on eligible collateral less outstanding letters of credit, was $39.1 million.

Capitalization

As of FQ3 2018, LSB's capitalization included 28.6 million shares of common stock (with 2.6 million potentially dilutive shares), $416.0 million of debt ($0.3 million of short-term financing, $12.7 million of current portion of long-term debt, and $403.0 million of long-term debt), and four issues of preferred stock.

LSB's long-term debt is presented below. The first interest payment on the Senior Secured Notes due 2023, which were issued in April 2018, is approximately $19.0 million and will be paid in FQ4 2018. The Senior Promissory Note due 2019 will be retired in June 2019 and involves a final balloon payment of approximately $6.7 million. GVRC believes that between LSB's current assets, cash from operations and its revolving credit facility, the company has adequate liquidity for working capital and debt service requirements.

	Interest Rate	*Outstanding (thousands)*
Senior Secured Notes due 2023	9.625%	$400,000
Secured Promissory Note due 2019	5.730%	$7,416
Secured Promissory Note due 2021	5.250%	$8,899
Secured Promissory Note due 2023	6.350%	$15,180
Unamortized Discount and Debt Issuance Costs		($15,822)
		$415,673

LSB carries four issues of preferred stock. The amounts outstanding under the company's Series B 12% cumulative, convertible preferred stock ("Series B Preferred") and Series D 6% cumulative, convertible preferred stock ("Series D Preferred") are $2.0 million and $1.0 million, respectively. Since late 2015, dividend payments have accumulated rather than been paid to holders. Together, the annual dividend on the Series B Preferred and Series D Preferred is 10% of the aggregate par value of $3.0 million. As of FQ3 2018, accumulated dividends on these two issues were $0.9 million. Neither the Series B Preferred nor the Series D Preferred is redeemable at the preference of the holder.

As of FQ3 2018, 139,768 shares of Series E 14% cumulative, redeemable preferred stock ("Series E Preferred") were outstanding, with participation rights equal to 303,646 shares of common stock. LSB carried a liability of $194.6 million related to the Series E Preferred, and the aggregate liquidation preference was $205.0 million. The participation rights, which are bifurcated from the Series E Preferred for accounting purposes and recorded as a separate liability, were carried at $3.0 million. Originally redeemable beginning in August 2019, the earliest redeemable date was extended to October 2023 by an agreement reached in April 2018. To implement this extension, in October 2018, the Series E Preferred was exchanged for Series E-1 Preferred and the Series F redeemable preferred stock ("Series F Preferred," discussed below) was exchanged for Series F-1 Preferred; besides the extension of the earliest redeemable date, the terms of each respective issue did not change.

The one issued and outstanding share of Series F Preferred has no par value and an aggregate liquidation preference of $100. It entitles the holder to a number of votes equal to 456,225 shares of common stock. Eldridge Industries, through its subsidiary, Security Benefit Corporation (collectively, "Security Benefit"), is the holder of all of the issued and outstanding Series E Preferred and Series F Preferred. Security Benefit also is the largest holder of common stock (reported as LSB Funding LLC).

As LSB's operating reliability and financial results continue to improve, subject to the costs of retiring and reissuing securities, the company may be able to refinance its Senior Secured Notes due May 2023 and/or Series E Preferred with more attractively-priced capital. By mid-2020, as a result of EBITDA growth and a possible credit upgrade, GVRC expects that the company will have seriously evaluated alternate funding.

Income Statement

Note: On January 1, 2018, the company adopted ASC 606, an accounting method modification that generally eliminates revenue, cost of revenue, and certain operating expenses related to transactions in which the reporting company acts as an agent of a customer. ASC 606 generally has a minimal impact on profitability. LSB adopted ASC 606 using the modified retrospective adoption method, meaning its historical results were not restated. Therefore, revenue, gross profit, and certain other financial results in comparative periods may not be apt reference points for equivalent results in the current period.

For the three months ended September 30, 2018 (FQ3 2018), LSB generated $79.8 million in revenue: $36.0 million from the agriculture segment, $34.8 million from the industrial segment, and $9.0 million from the mining segment. The effect of ASC 606 on LSB's FQ3 2018 revenue was -$15.8 million; FQ3 2018 pre-adoption revenue of $95.6 million was slightly higher than FQ3 2017 reported revenue of $89.5 million (adjusted to exclude $2.9 million from a business sold in 2017). In FQ3 2018, the agriculture, industrial, and mining segments composed 45.1%, 43.6%, and 11.3% of revenue, respectively.

Gross profit and selling, general, and administrative expenses were minimally affected by the adoption of ASC 606, and operating income was not affected. FQ3 2018 gross profit was -$9.7 million, compared to -$7.3 million in FQ3 2017. FQ3 2018 selling, general, and administrative expenses were $9.1 million (which included $0.9 million in professional fees related to ongoing litigation), compared to $8.0 million in FQ3 2017. FQ3 2018 operating income was -$16.6 million, compared to -$15.4 million in FQ3 2017. $7.9 million related to turnaround expenses was included in cost of goods sold in FQ3 2018; while GVRC does not view this as an unusual expense, considering the need for regular plant turnarounds, its effect on periodic financial results is notable. Furthermore, certain non-recurring, non-capitalized expenses relating to certain initiatives associated with improving the reliability of plants, the company's procurement process, operating and maintenance procedures, and preventative maintenance programs were recognized during the period.

Because LSB's agriculture business is seasonal, the spring (March through June) and fall (September through November) planting seasons are expected to produce stronger results than the summer and winter seasons. Historically, financial results are strongest in the second quarter, followed by the first, fourth, and third quarters. The company's industrial and mining segments are significantly less seasonal, although quarterly results can be affected by the timing of orders.

Interest expense in FQ3 2018 of $11.0 million was higher than FQ3 2017 due to the April 2018 issuance of the Senior Secured Notes due 2023. GVRC believes that a quarterly interest expense of about $11 million is commensurate with LSB's debt structure.

Cash Flow

For the three months ended September 30, 2018 (FQ3 2018), LSB generated cash from operations of $5.4 million, which included net income of -$26.1 million, depreciation and amortization of $16.8 million and a change in accrued interest of $9.6 million. Cash from investing was -$5.1 million, including capital expenditures of -$11.9 million and sale of property, plant, and equipment of $6.0 million. Cash from financing was -$4.1 million, which was largely regular debt service.

LSB projects 2018 full-year capital expenditures of $34.0 million, which is in line with the company's normal annual capital expenditure range of $30 million to $35 million. Through FY 2021, most of this outlay will be spent on planned plant maintenance. Management anticipates that beginning in FY 2022, maintenance capital expenditures should fall to about $25 million annually in non-turnaround years, at which point GVRC expects incremental capital spending to upgrade plant assets.

Shareholders' Equity

Shareholders' equity has declined consistently since FQ3 2016 due to persistent net losses. A series of new domestic ammonia plants constructed over the past several years resulted in excess supply of many of LSB's core products; only recently has the market come into balance. Furthermore, operational challenges at LSB's facilities have hindered production, although GVRC believes that recent and ongoing physical plant improvements will largely remedy what seem to have been persistent issues. Improved plant operations and firming prices could lead to meaningful profitability, at which point GVRC expects that retained earnings will be employed in a manner that is accretive to shareholders.

Depreciation vs. Capital Expenditures

Depreciation of LSB's assets falls between $16 million and $19 million per quarter, or $64 million and $76 million annually. This compares to capital expenditures totaling between $30 million and $35 million annually. Although this relationship might suggest degradation of the capability of LSB's assets to produce, results suggest the contrary. GVRC believes that LSB's level of capital expenditures are appropriate to operate the business and even realize modest physical asset improvements over time, while recognizing that infrequent large capital outlays are likely necessary to a business such as that of LSB in the very-long-term.

Other Considerations

GVRC believes that a number of somewhat marginal developments are indicative of further operational improvements being made at LSB. Management has previously noted the collective effect of such changes on both cost savings and incremental revenue growth; GVRC is encouraged by the materialization of these initiatives.

- LSB has rationalized an initial target of vendors and suppliers, in the process renegotiating several supply agreements on more favorable terms. Savings are reflected in the cost of operations.
- Dyno Nobel, a manufacturer of explosives, has co-located an emulsion plant at the El Dorado Facility, and began purchasing product directly from the El Dorado Facility in October 2018.
- Under LSB's agreement with Covestro AG ("Covestro"), Covestro purchases all its requirements for nitric acid for use in its production facility in Baytown, Texas ("Baytown Facility") from LSB. In October 2018, Covestro announced an expansion at the Baytown Facility to increase production of methylene diphenyl diisocyanate, which requires nitric acid to synthesize. GVRC expects LSB will benefit from this expansion.
- Excess ammonia from the El Dorado Facility is injected into an ammonia pipeline owned by NuStar Energy, LP and is purchased by Koch Fertilizer, LLC under an offtake agreement expiring in May 2019. The agreement requires nine months' notice by either party to terminate; GVRC believes LSB is in the process of renegotiating this agreement on more favorable terms.

Plant Operations

Efficient operation of LSB's physical plant assets is critical to the company's financial performance. To measure operational reliability, LSB reports on-stream rates for each of its three owned facilities on a quarterly basis. On-stream rates measure the percent of time that the ammonia reactor at a plant operates. Because ammonia is the precursor for nearly every other product produced, this is a critical measure of plant performance. On-stream rates do not consider planned downtime for scheduled repairs, modification, or turnarounds (an overhaul that occurs every two to three years, depending on plant condition), but account for unplanned downtime for unscheduled repairs.

Several initiatives are underway to increase plant reliability. Upgrades to the company's maintenance management system have largely been completed, and preventative maintenance procedures on critical pieces of equipment should be in place by the end of FY 2018. Two external consultants have been retained to assist in a review of LSB's operating and maintenance procedures across the company's facilities. GVRC views this as an acceleration of the implementation of certain operational and maintenance enhancements rather than a deficiency of expertise. Furthermore, the hiring, retention, and ongoing training of qualified personnel at the plant level is a key focus of management. On the company's October 25, 2018 conference call, Executive Vice President of Manufacturing John Diesch commented, "I expect continued improvement as we upgrade our equipment and instrumentation along with the investments we are making in our people to the reliability in operations improvement process."

The El Dorado Facility's ammonia reactor operated at an 89% on-stream rate in FQ3 2018 after operating at a 62% on-stream rate in FQ2 2018. The plant's FQ3 2018 on-stream rate is attributable to 10 days of unplanned downtime to replace a steam turbine rotor and failed tubes on the waste heat boiler. The plant also underwent five days of planned downtime to replace and clean certain components. In 2019, the plant will undergo a brief turnaround (most of the scheduled work was pulled forward and performed during unplanned downtime in FQ2 2018), which will primarily involve vessel inspections. GVRC estimates this turnaround will last between 10 and 14 days and there will be very little capital cost associated. After the 2019 turnaround, the El Dorado Facility will be moved to a three-year turnaround schedule. As the El Dorado Facility is LSB's newest and most advanced facility, GVRC generally expects high on-stream rates there in the future.

The Cherokee Facility's ammonia reactor operated at a 97% on-stream rate in FQ3 2018 after operating at a 100% on-stream rate in FQ2 2018. The plant underwent a 35-day turnaround that was completed in August and involved major upgrades to the primary reformer, catalyst changes, inspections, and compressor overhauls. The Cherokee Facility is now on a three-year turnaround schedule, with the next turnaround planned for the third quarter of 2021.

The Pryor Facility's ammonia reactor operated at a 98% on-stream rate in FQ3 2018 after operating at a 65% on-stream rate in FQ2 2018. Substantial improvements have been made at the facility during previous planned and unplanned downtime, including the implementation of certain recommendations from two engineering studies completed in early 2018. In 2019, the plant will undergo a turnaround, during which a new urea reactor will be installed (most of the capital expenditures associated with this investment have been recognized). After the 2019 turnaround, the Pryor Facility will undergo a turnaround in 2021, after which GVRC anticipates it will be moved to a three-year turnaround schedule.

LSB operates the Baytown Facility under an agreement with Covestro. The Baytown Facility underwent a planned 35-day turnaround that was scheduled to be completed by the end of October. GVRC believes the relationship between LSB and Covestro to be strong.

Pricing and Volumes
Since late 2015, agricultural fertilizer prices have been challenged. As a result of inexpensive natural gas input pricing, several domestic ammonia plants were newly constructed or expanded, leading to a domestic oversupply of ammonia-based products and disruption of the distribution networks for these products. Although price recovery has been slow, firmer prices in FQ3 2018 compared to FQ3 2017 provided a significant tailwind to LSB's earnings. While GVRC refrains from speculating on forward commodity pricing, supply dynamics appear to have stabilized.

FQ3 2018 gross average selling prices (price per ton) for LSB's key agricultural products are presented below. Agriculture sales are highly seasonal, with demand peaking in the spring (March through June) and fall (September through November) planting seasons. Because fertilizer use is dependent on crop selection, soil conditions, weather patterns, and other environmental factors, almost all agriculture sales are based on spot pricing. In FQ3 2018, 45.1% of LSB's revenue was attributable to the agriculture segment.

	FQ3 2017	FQ4 2017	FQ1 2018	FQ2 2018	FQ3 2018	FQ4 2018*
UAN	$135	$153	$150	$192	$169	$180
HDAN	$230	$237	$247	$279	$259	$215
Ammonia	$216	$276	$326	$323	$294	$355

*Management Estimate
Source: Reported gross average selling prices (price per ton) are sourced from the appropriate period's 10-Q or 10-K report. Management estimate for future expected average selling prices are taken from the company's investor presentation dated October 25, 2018.

Sales into industrial and mining markets are frequently based on long-term contracts, and do not exhibit much seasonality. These contracts are generally structured as cost-plus arrangements, providing ample stability of earnings and foresight into production and distribution requirements. In FQ3 2018, 43.6% and 11.3% of LSB's revenue was attributable to the industrial and mining segments, respectively.

Although affected by plant downtime, volume of product sold is also an important consideration in LBS's financial results. To a certain extent, production can be shifted between products to opportunistically capitalize on price movements. Product sales volumes (tons sold) are presented below.

	FQ3 2017	FQ4 2017	FQ1 2018	FQ2 2018	FQ3 2018	FQ4 2018*
Agricultural Products						
UAN	114,670	97,852	102,202	110,336	83,898	110,000 - 120,000
HDAN	34,721	48,782	92,713	93,126	51,944	40,000 - 50,000
Ammonia	23,899	13,821	32,996	12,956	17,564	25,000 - 35,000
Industrial and Mining Products						
Ammonia	67,040	51,572	68,098	41,194	61,308	50,000 - 60,000
Nitric Acid**	21,319	25,375	20,213	33,504	21,388	25,000 - 35,000
LDAN/HDAN/AN Solution	36,476	35,074	33,513	48,001	34,852	35,000 - 45,000

*Outlook **Excluding Baytown Facility
Source: Product volumes (tons sold) are sourced from the appropriate period's 10-Q or 10-K report. Outlook for sales volumes is taken from the 2018 third quarter earnings news release dated October 24, 2018.

Management Assessment

Since GVRC's initiation report, dated July 31, 2018, there have not been changes to the company's executive management or the Board of Directors. GVRC believes that experienced management at both the corporate level and facility level is crucial to the success of the business. CEO Dan Greenwell, CFO Mark Behrman, and Executive Vice President of Manufacturing John Diesch assumed their current roles in September 2015, June 2015, and August 2016, respectively. GVRC believes that improved corporate performance and plant operations are largely attributable to this executive management team.

Both corporate and plant-level management have focused on driving a culture of responsibility and accountability across the organization. While difficult to measure, subtle changes hint at a shifting corporate culture. The ongoing implementation of preventative and predictive maintenance programs suggests a high level of attention to the company's physical assets. Improving onstream rates suggest data-driven performance and increased operational training may be yielding results. A continued emphasis on operational rigor as a core tenet of corporate culture should contribute to positive long-term results.

Only minor changes to LSB's significant shareholders have occurred since GVRC's initiation report. Security Benefit (reported as LSB Funding LLC) remains the largest shareholder; GVRC perceives Security Benefit to be a rational and well-capitalized investment group and is encouraged by its continued ownership.

Shareholders (from recent 13D, 13F, 13G, or proxy filings):	
LSB Funding LLC	14.2%
Tontine Associates LLC	9.8%
BlackRock Fund Advisors	9.2%
Robotti & Co. Advisors LLC	8.7%
Jack Golsen	5.8%
Dimensional Fund Advisors LP	5.1%
The Vanguard Group, Inc.	3.9%
Dan Greenwell	3.1%
Eidelman Virant Capital, Inc.	1.9%
Barry Golsen	1.8%
Top 10 Holders	**63.5%**

Competitive Positioning Update

LSB operates in a highly competitive industry against several larger companies. CF Industries Holdings, Inc., CVR Partners LP, Dyno Nobel, Koch Industries, Inc., Nutrien Ltd,. and Yara International ASA are notable competitors.

FQ3 2018 brought strong price improvement in LSB's agriculture segment compared to FQ3 2017, with pricing for anhydrous ammonia, UAN, and HDAN rising 42%, 26%, and 15% respectively. Higher Tampa ammonia spot pricing combined with healthy customer demand led to selling price improvements in the industrial and mining segments as well.

LSB's access to inexpensive natural gas feedstock is a particularly notable competitive advantage. At the El Dorado Facility and Cherokee Facility, feedstock pricing is approximated by Henry Hub spot pricing. However, at the Pryor Facility, LSB purchases feedstock at a substantial discount to Henry Hub pricing; this discount can approach 30%. Natural gas pricing in other parts of the world are substantially higher, with prices in western Europe and China over $10 per MMBtu, versus LSB's FQ3 2018 average natural gas cost of $2.65 per MMBtu. This price differential has significantly curtailed foreign ammonia imports to the United States.

Senior management remains confident about customer demand and pricing entering FQ4 2018 and FY 2019. On the company's October 25, 2018 conference call, CEO Dan Greenwell commented:

> Looking forward to the fourth quarter, we anticipate continued higher overall pricing for the products we sell relative to 2017, and an average ammonia on-stream rate for all of our facilities of approximately 94%. Looking out towards 2019, we believe it should be a year of substantial year-over-year performance improvement driv-

en by ongoing investment in the reliability of our facilities as we continue to implement enhanced operating and maintenance processes and procedures at our facilities, coupled with stable market demand and pricing conditions.

Valuation Analysis

Note: Global Value Research Company does not premise valuation on financial modeling of future results. Each company analyzed is treated as unique and its value is appraised based on its circumstances and those of the industry and macroeconomic environment in which it operates. Various metrics are used based on a company's characteristics and historical pricing.

For much of its existence, LSB operated as a diversified holding company for a collection of manufacturing and industrial entities. This confounds historic results of the company's chemical operations. The last significant non-chemical holding, a climate control business, was divested in mid-2016. Certain ownership interests in natural gas-producing properties were divested in mid-2017 and a small industrial machinery and components business was sold in late 2017. LSB's operational and financial characteristics are now clear, but historical data are of limited analytical value.

Due to LSB's persistent operating losses and inconsistent operational performance since mid-2015, GVRC believes a valuation based on earnings is currently inappropriate; however, GVRC expects that a future recovery in earnings will render an earnings-based valuation preferable. Considering the volatility of product pricing, the multiple exogenous events that could affect markets for ammonia-based products, and LSB's ability to quickly change output volumes to opportunistically capitalize on price changes, GVRC refrains from forecasting future earnings.

Although market participants seem to fixate on leading indicators of demand for agricultural products and the pricing of these products, GVRC recognizes that LSB's industrial and mining operations have historically constituted more than 50% of its revenue. Because the company's relationships with industrial and mining customers typically involve long-term contractual agreements based on cost-plus pricing, GVRC firmly believes that LSB's future success is less dependent on product pricing than it is on achieving higher production rates.

LSB has historically traded at a multiple of both earnings and TBV. Since FQ3 2016, the first full quarter as a primarily chemical business, LSB has traded at an average of 0.59x TBV. The company now trades at about 0.69x FQ3 2018 TBV of approximately $11.30 per share (fully diluted). Asset-based valuations for LSB's peer companies span a wide range: over the past 10 years, CF Industries Holdings, Inc. has traded at a P/TBV multiple ranging from 2.0x to 12.0x; CVR Partners, LP has traded at a P/TBV multiple ranging from 0.7x to 4.5x; and Yara International ASA has traded at a P/TBV multiple ranging from 1.1x to 3.2x. However, in strong pricing environments, an asset-based valuation should become secondary to an earnings-based valuation. During such periods, it is not uncommon for ammonia chemical manufacturing companies to trade at several times TBV.

GVRC recognizes that ongoing financial losses have eroded shareholders' equity and TBV, which are now $360.5 million and $351.6 million, respectively. However, considering encouraging signs of improved plant operations and stronger product pricing, GVRC anticipates that the company will begin to show modest but consistent profitability on an operating level.

LSB has a *raison d'etre* due to the longstanding demand for ammonia-based chemical products in numerous agricultural, industrial, and mining applications. Access to both inexpensive natural gas feedstock and important end markets provides the company with a competitive edge over many domestic and nearly all international competitors.

The margin of safety in an investment in LSB lies in its current price relative to the value of its assets. The company's assets, which GVRC believes are carried on its balance sheet at a fair value, are difficult to replace, necessary for the synthesis of ammonia and ammonia-based products, and would command substantial value in a private transaction. Considering the replacement value of these assets, which GVRC estimates is between $35.00 and $45.00 per share, GVRC views the sale of the company to a competitor at a price providing sufficient downside protection to shareholders as a worst-case scenario.

GVRC is raising its price target from 1.0x TBV to a range of 1.0x – 1.5x TBV. GVRC believes this range is appropriate and conservative considering operational improvement and firming product prices. To arrive at a target price of $14.10, a midpoint 1.25x TBV multiple is applied to the TBV of approximately $11.30 per share. However, based on both LSB's earnings potential and the replacement value of LSB's assets, GVRC believe shares could eventually trade substantially higher.

Risks, Catalysts and Expectations

Since GVIC's initiation report, no new significant risks to the business have emerged. Arguably, several risk factors previously discussed have subsided: capital expenditures that are outpaced handily by depreciation appear to be adequately maintaining, and even improving, LSB's operational capabilities. Management's execution on key initiatives is evident, diminishing concerns about follow-through on certain undertakings. The company's leverage remains a concern, but liquidity based on upcoming debt service requirements does not appear to be an issue at this point.

While several obvious catalysts exist, GVRC believes that the most meaningful source of price appreciation will come from evidence of consistent plant operations. Operations appear to be improving, although additional data supporting high on-stream rates is necessary to validate the success of preventative and predictive maintenance programs and revised operational procedures. Further improvements in product pricing or signs of strength in LSB's end markets may also provide additional confidence in the company's future results.

GVRC expects that the progress demonstrated in FQ3 2018 is indicative that changes implemented over the past few years are beginning to bear fruit. Operational and maintenance improvements will be ongoing for some time, although GVRC anticipates on-stream rates will become more consistent and trend towards the company's stated goal of about 95%. As natural gas input prices remain low and product pricing stabilizes, the leveragability of LSB's production assets should become evident. Once the company's earnings validate the business's success, GVRC expects shares will command a substantially higher valuation.

LSB trades at a 43% discount to GVRC's target price of $14.10. GVRC believes this discount to intrinsic value presents a compelling case for investment and an attractive entry point for patient, opportunistic investors. While additional evidence of operational reliability will be crucial to demonstrating LSB's long-term economic viability, GVRC remains cautiously optimistic that the company has reached an inflection point.

About Global Value Research Company

Global Value Research Company is the investment research division of Global Value Investment Corp, a research and advisory firm serving individual and institutional clients. Founded in 2007 in Milwaukee, Wisconsin, the firm currently operates additional offices in Boston, Massachusetts; Charleston, South Carolina; and Hyderabad, India. Global Value Research Company espouses the value investing principles pioneered by Ben Graham and David Dodd, providing comprehensive fundamental analysis of publicly traded companies around the world. Our research process focuses on diligently examining company financial statements, understanding competitive positioning, assessing industry and macroeconomic trends, and speaking with company senior management on an ongoing basis. Further information about Global Value Research Company's services can be obtained by contacting the firm directly.

Global Value Investment Corp, through its subsidiaries, beneficially owns less than 5% of the common stock outstanding of LSB Industries, Inc.

Analyst Certification

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