STEEL DYNAMICS 2017 ANNUAL REPORT

DRIVE

SAFETY | CULTURE | CUSTOMER COMMITMENT | GROWTH | INNOVATION | FINANCIAL STRENGTH

DRIVE

TWENTY FIVE

Founded in 1993, today Steel Dynamics is one of the largest and most diversified domestic steel producers and metals recyclers in the United States.

We are extremely proud of our accomplishments and look forward to celebrating our 25th anniversary during 2018. We are thankful to all who have contributed to the safety and performance of our growing company.

We differentiate ourselves through an exceptional and unique operating culture, a diversified and value-added product portfolio, a low-cost operating base, and an entrepreneurial spirit that permeates our entire organization. These factors drive us forward, and create long-term value for all those involved with our company – and we thank you.

RIGHT

Liquid pig iron from our Iron Dynamics facility is being poured into the electric arc furnace at our Butler Flat Roll Division.

ON BEHALF OF EVERYONE AT STEEL DYNAMICS

A LETTER FROM MARK D. MILLETT

CO-FOUNDER, PRESIDENT AND CEO

I thank our loyal customers, vendors, communities and shareholders for their continued support of our company. And my heartfelt thanks to our extraordinary employees for your passion, innovation and dedication to each other and to a spirit of excellence. The entire Steel Dynamics team achieved a strong performance during 2017. We achieved numerous milestones and performed at the top of our industry both operationally and financially. Most importantly, we did it safely.

$813 MILLION

Record 2017 Net Income

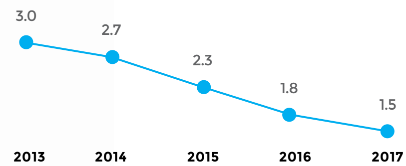
On many measures, 2017 was a record year. Our steel and fabrication operations achieved record annual shipments, increasing 2017 consolidated revenues to a record $9.5 billion.

We expanded profit margins within our steel and metals recycling operations and achieved record annual consolidated operating income of $1.1 billion and record net income of $813 million.

We generated cash flow from operations of $740 million, and record EBITDA of $1.4 billion during 2017. With the strength of our continued cash flow generation and execution of our long-term strategy, we believe we are in a strong position for continued growth.

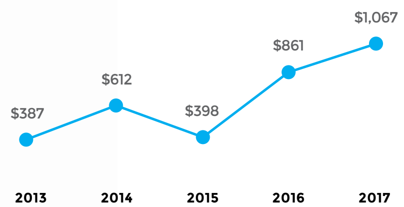
Total Recordable Safety Incident Rate

We achieved record safety performance in 2017.

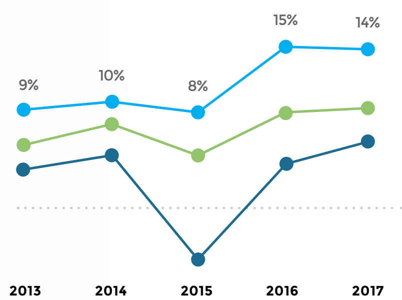


Record Adjusted Operating Income

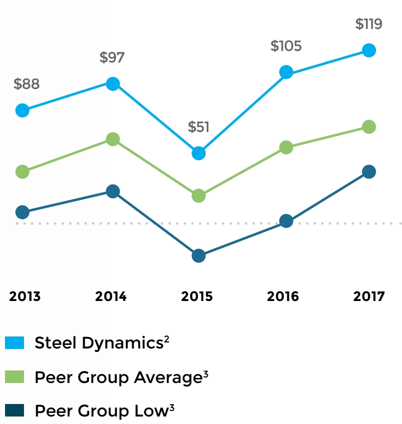
Data in millions of dollars



Consolidated EBITDA[1] Margin



Steel Operating Income per Steel Ton Shipped



SAFETY IS OUR #1 PRIORITY

The safety and welfare of our employees remains our number one priority. Nothing surpasses the importance of creating and maintaining a safe work environment. The team did a great job in 2017, achieving a seventh consecutive year of record safety performance, with industry-leading results. Each of our operating platforms improved their performance during the year. We reduced the total recordable incident rate by 17%. Clearly, the safety conversations and actions that are taking place throughout the company are having an impact, but I challenge each of us to remain focused and work towards our ultimate goal—a ZERO safety incident work environment. Safety is an integral part of our culture, and collectively, we must ensure every person is engaged in sustaining a safe work environment. Safety is our highest priority.

2017 OPERATING PLATFORMS

We once again outperformed our industry peers on a number of key business measures, including shareholder value creation, operating margin, EBITDA margin, return on invested capital, and for our steel operations, profitability per steel ton shipped. Our entrepreneurial culture is at the core of our success, and is driven by our extensive performance-based compensation philosophy for those on the plant floor through those in senior leadership. Employees are passionate about delivering quality products and excellent service to our customers. Our common goal of consistently achieving excellence in all we do is reflected in the esprit de corps that permeates our company. Whether driving toward industry-leading safety performance, implementing innovative technology in our manufacturing processes or ensuring we consistently exceed customer expectations, our employees vigorously pursue excellence.

[1] EBITDA is calculated as earnings before interest, taxes, depreciation and amortization (excludes non-cash asset impairment charges).
[2] Segment operating income (loss) excludes profit sharing costs and amortization of intangible assets.
[3] Peer group consists of Nucor, US Steel, AK Steel and Commercial Metals Company.


FB
6.85
CAPY.
LD.LMT.
LT.WT.

STEEL

Our steel operations achieved record annual 2017 steel shipments of 9.7 million tons.

Despite an increase in imports, the domestic steel industry benefited from improving demand. Coupled with our own strategic growth initiatives, we increased profit margins and volume during the year, resulting in record steel operating income of $1.1 billion.

We consistently realize higher production utilization than our peers, as a result of our diversified product portfolio and end markets, emphasis on higher value-added steels, unique supply-chain offerings, consistent customer focus and vertically connected businesses. Our annual production utilization rate was 92%, meaningfully higher than the domestic steel industry reported rate of 74%. With annual steel shipping capability of 11.4 million tons, we still have over 1.5 million tons of availability, and we currently have several initiatives underway to take advantage of that opportunity.

STEEL FABRICATION

Our steel fabrication operations achieved record annual shipments, as non-residential construction demand continued to improve during 2017. The team maintained their strong market position, as a result of superior customer service, a national geographic service capability and diversified product mix.

Operating income for our fabrication platform decreased slightly to $87 million in 2017, from $91 million in 2016—a strong performance, as record volume helped offset higher raw material steel input costs. However, our vertical connection provides a natural hedge, and the higher steel pricing environment benefited our steel operations to a much larger extent than it hindered the fabrication platform.

METALS RECYCLING

Our metals recycling platform achieved a strong performance in 2017.

Even though we sold certain non-core locations during the first quarter, the team maintained volume, increased profit margins and reduced costs throughout the year. Our metals recycling platform continued to work synergistically with our steel mills to ensure the supply of low-cost, high-quality raw materials. Supported by improved domestic steel utilization, the team achieved annual 2017 operating income of $71 million, more than double last year's performance.

$1.1

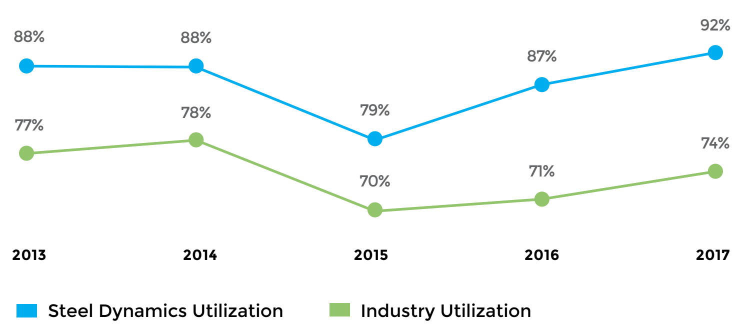
BILLION

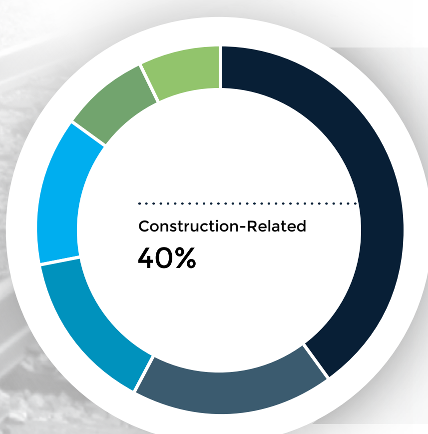
Record 2017 Steel Operating Income

LEFT

A specially configured rail train hauls 50 strings of our 1,600-foot continuous-welded rail produced at our Structural and Rail Division.

Steel Production Utilization





2017 Steel Operations End Markets

Construction-Related	40%
Other Manufacturing	18%
Automotive	14%
Equipment-Related	13%
Energy	8%
Non-Energy Pipe & Tube	7%

KEY GROWTH INITIATIVES

We continue to position our company for the future through new investments in our existing operations. During 2017, we executed several key initiatives to support our strategic growth and profitability strategies, some of which partially benefited 2017, and others that will have increased benefit in 2018 and beyond.

- We constructed a new $100 million state-of-the-art paint line at our Columbus Flat Roll Division in 2016, and began operations in the first quarter of 2017. The new line provides 250,000 tons of annual coating capability and further diversification into some of our highest-margin products. Complementing the two existing paint lines in Indiana, this new line produces high-quality, value-added construction and appliance-grade steel products. Columbus' geographic location also facilitates lower-cost access to the southern U.S. and Mexican markets. We believe the new paint line is on track to be running close to a full annualized rate by mid-year 2018.

- Columbus continues to be a significant earnings catalyst. The changes the team have made are transformational, and there are still more to come, including planned production gain, additional value-added product sales and additional cost savings. The successful market and product diversification achieved over the last several years is one of the key differentiators for our improved through-cycle profitability, and will continue to benefit the coming years, as well.

- In the second quarter 2017, we upgraded the hot roll galvanizing line at our Butler Flat Roll Division, adding 180,000 tons of value-added coating capability for a capital investment of only $15 million. Galvanized steel is one of our higher-margin product offerings.

Our long product steel operations have been more challenged as increasing imports have absorbed recent growth in demand. As we don't manage to hope, simply awaiting things to improve; we have initiated four meaningful diversification growth projects within these operations with an intent to improve utilization.

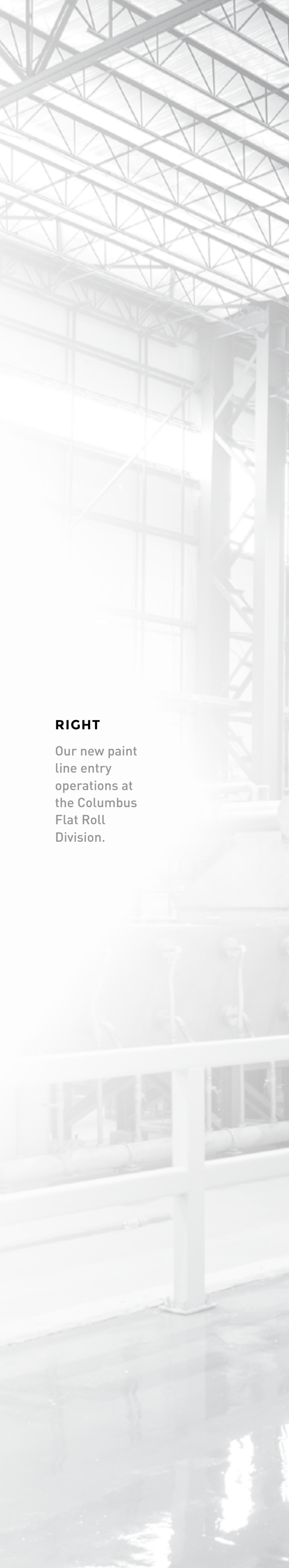
- At our Roanoke Bar Division, we are investing $28 million to cost-effectively utilize excess melting capability through the addition of a rolling mill and other equipment for the annual production of up to 200,000 tons of multi-strand slitting and reinforcing bar finishing. We expect to have strong market penetration, as Roanoke will be one of the largest independent producers of reinforcing bar in the Eastern and Mid-Atlantic regions. Shipments are expected to begin in the second quarter of 2018.

The next three initiatives are designed to increase our through-cycle utilization and profitability at our Structural and Rail Division, which ran at 75% of its capacity in 2017, through further product and market diversification. In aggregate, these initiatives are planned to provide over 500,000 tons of additional volume.

- First, we are increasing the production of SBQ quality blooms to send to our Engineered Bar Products Division, as it has excess rolling capacity. This is intended to improve through-cycle utilization at both facilities. We plan to increase this volume to an annualized rate of between 150,000 tons and 200,000 tons by mid-year 2019.

- Second, we are further diversifying our product offerings by recently introducing the production of large unequal leg angles and heavy flats which are used in the sector. We entered the market in the first quarter 2018 and plan to sell as much as 100,000 tons annually.

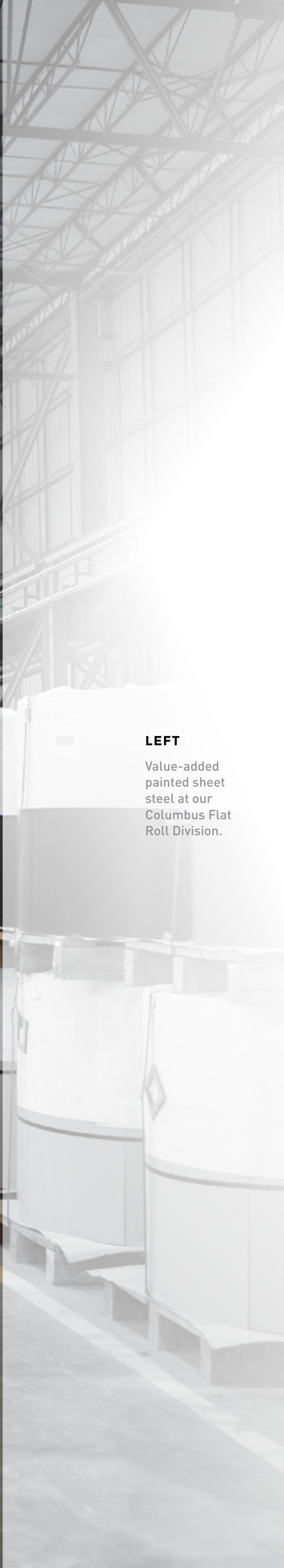
- Third, we are investing $75 million to utilize existing excess melting and casting capability through the addition of another rolling mill and other equipment. This expansion will further diversify our product portfolio and market sector exposure through the annual production of up to 240,000 tons of reinforcing bar, including coiled, custom "cut-to-length," and smooth bar. Our business model is intended to enhance the current customer supply-chain, providing meaningful logistic, yield and working capital benefits for the customer. In addition, we will be the largest independent reinforcing bar supplier in the Midwest region. We plan to begin operations in the first quarter 2019.



RIGHT

Our new paint line entry operations at the Columbus Flat Roll Division.


SDI
Steel Dynamics
Flat Roll Group



LEFT

Value-added painted sheet steel at our Columbus Flat Roll Division.

IGNITING OUR FUTURE

As we enter 2018, we remain confident that market conditions are in place to benefit domestic steel consumption. Domestic steel inventory levels have moderated. World steel demand and pricing have structurally improved, and we expect domestic steel demand to remain healthy and grow during 2018.

We believe that there will be continued growth in the construction sector, which is the largest domestic steel consuming sector. We believe North American automotive steel consumption will be steady, and we continue to gain momentum in that sector, which is the second largest domestic steel consumer. We also expect to see increased energy sector and general industrial steel consumption. We anticipate the recent 2017 Tax Reform and Jobs Act will also provide a stimulus for additional domestic fixed asset investment and related steel consumption. In combination with our own expansion initiatives, we believe there are firm drivers for growth in 2018.

We remain the lowest-cost domestic steel producer with one of the most diversified product offerings in the industry. The variability within our operating costs provides strong cash flow generation through all market cycles. We are poised for growth.

We assess opportunities for growth, not only for the benefit of top line revenue improvement, but more importantly, for the growth and consistency of profit margins. We are squarely focused in returning value to our employees, customers and shareholders through high-return organic and inorganic transactional growth initiatives, while also maintaining a positive dividend growth profile and continuing to execute our share repurchase program, as appropriate.

FOCUSING GROWTH IN THREE AREAS

- Organic projects to further diversify into value-added product capabilities, improve product offerings, improve efficiency, provide solid profitability returns and lever our core operating expertise.
- Inorganic opportunities to provide our steel mills with opportunities to send steel within our own captive downstream businesses to increase steel mill utilization during weak demand environments, increasing through-cycle profitability.
- Opportunities to provide additional steel production and finishing capabilities.

The passion and spirit of our employees compel us to a standard of excellence – to perform at the highest level. I thank each and every one of them for their hard work and dedication and remind them safety is always our first priority. We continue to focus on providing superior value for our employees, customers and shareholders and look forward to creating new opportunities for them in the years ahead.

Sincerely,

Mark D. Millett
Co-Founder, President and
Chief Executive Officer

STEEL DYNAMICS DIFFERENTIATED

SUPERIOR, UNIQUE CULTURE

Our entrepreneurial culture is at the core of our success, and is driven by our extensive, performance-based compensation philosophy for those on the plant floor all the way to the top. Over 60% of a plant floor employee's total potential compensation is "at risk" to both quality production and cost-effectiveness. Over 85% of our executive officers' total potential compensation is "at risk" to company-wide financial performance metrics that encourage long-term value creation.

Employees are passionate about delivering quality products and excellent service to our customers. Our common goal of consistently achieving excellence in all we do is reflected in the esprit de corps that permeates our company.

DIVERSIFIED, VALUE-ADDED PRODUCT PORTFOLIO— SYSTEMATIC ORGANIC AND INORGANIC GROWTH

We have one of the most diversified, high-margin product offerings of any domestic steel producer. We have a track record of growth, driving this diversification in both end market sectors and product offerings to sustain higher volume and profitability through varying market environments.

Over 65% of our 2017 total steel and fabrication sales were considered value-added.

VERTICAL INTEGRATION AND PULL-THROUGH VOLUME

Our vertical integration contributes to higher through-cycle steel production utilization. The power of pull-through volume, or steel that can be sourced as raw material from our own steel mills, is a significant contributor to higher steel production utilization rates. Our fabrication and manufacturing operations currently source steel from our steel mills. This pull-through strategy remains one of our focuses for growth.

A synergistic relationship also exists between our steel and metals recycling operations. Our metals recycling platform is the largest supplier of ferrous scrap raw material to our steel operations. This allows us to reduce company-wide working capital needs, as we keep less scrap at the steel mills. Additionally, as a consistent consumer of scrap from our metals recycling team, our steel mills help maintain steady sales volume for the platform.

LOW-COST, HIGHLY EFFICIENT OPERATIONS

Our product diversification and vertical integration contribute to our low cost profile. Coupled with our highly variable operating cost structure, and our focus toward continued operating innovation and efficiency, we remain one of the lowest-cost domestic steel producers.

SUSTAINABLE THROUGHOUT-CYCLE PERFORMANCE

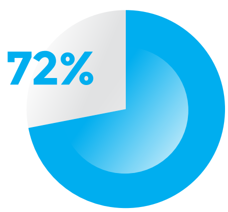
Based in part on our highly variable cost structure, adaptable value-added product mix and performance-driven compensation structure, we are able to consistently outperform our peers in all market environments, while providing strong cash flow generation.

STRONG CAPITAL FOUNDATION

All of the above factors drive a strong, adaptable financial foundation to responsibly support both current operations and continued strategic growth.

STEEL

2017 External Revenues



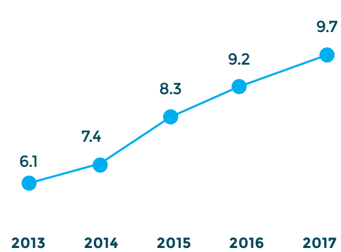
Total shipments of 9.7 million tons

Locations

- 6 EAF steel mills
- 8 galvanizing lines
- 3 paint lines and other downstream processing

Record Shipments

Millions of tons



Products

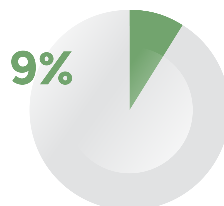
Hot roll, cold roll, coated and painted sheet steel, structural beams and shapes, engineered bars (SBQ), merchant bar (MBQ), threaded rod, specialty shapes and rail

End Markets

Construction, automotive, manufacturing, transportation, heavy and agriculture equipment, pipe and tube and energy

STEEL FABRICATION

2017 External Revenues



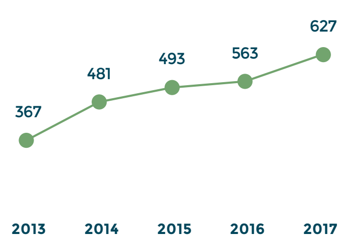
Total shipments of 627,000 tons

Locations

- 7 plants in North America
- 6 joist lines
- 5 deck lines

Record Shipments

Thousands of tons



Products

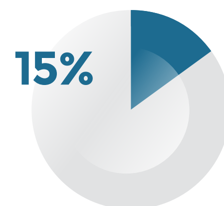
Joist and deck, including specialty deck

End Markets

Non-residential construction

METALS RECYCLING

2017 External Revenues



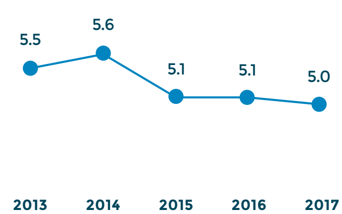
Total ferrous shipments of 5.0 million tons and nonferrous shipments of 1.1 billion pounds

Locations

- Numerous locations throughout the eastern half of the United States

Shipments

Millions of ferrous gross tons



Products

Ferrous and nonferrous scrap metals

End Markets

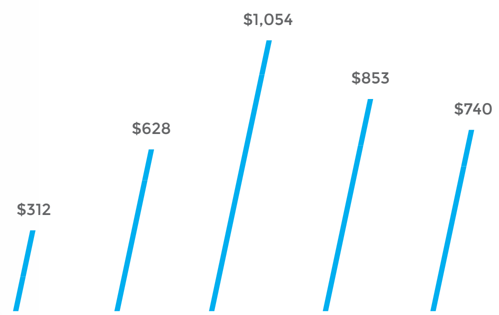
Steel-producing mini-mills (including Steel Dynamics mills), integrated steelmakers, foundries, secondary smelters and metals brokers

Engineered Bar Products Division,
Pittsboro, Indiana

NUMEROUS MILESTONES ACHIEVED

A LETTER FROM THERESA E. WAGLER
EXECUTIVE VICE PRESIDENT AND CFO

Operating Cash Flow | Millions of dollars



2017 was a tremendous year with numerous achievements, both operationally and financially. Most importantly, all were accomplished while also improving our safety performance. We executed our strategic initiatives, while further strengthening an already-firm financial foundation, and remain poised for continued growth. We focused on sustaining our position as a low-cost, highly efficient, customer-centric steel company and achieved another year of "best-in-class" financial and operating performance.

Annual 2017 revenues increased to a record $9.5 billion with higher average annual selling values across each of our three operating platforms, combined with record steel and steel fabrication shipments. Our steel operations achieved record 2017 earnings, as the team increased value-added sales, achieved record shipments and product pricing increased more than scrap raw material costs. Our metals recycling platform more than doubled its earnings in 2017 by maintaining solid volume, while decreasing operating costs, coupled with a rising scrap price environment. Our steel fabrication platform also had a solid 2017, however its profitability marginally declined as steel input costs rose throughout the year. Together we generated record operating income of $1.1 billion and record pretax income of $935 million. We also benefited from the Tax Reform and Jobs Act of 2017 through a one-time $181 million tax benefit recorded in the fourth quarter 2017, related to the revaluation of our deferred tax assets and liabilities. As we enter 2018, we currently anticipate our effective tax rate to decrease from our traditional 35% to between 24% and 25%.

Throughout both strong and weak market environments, our unique operating culture, diverse and value-added product portfolio, and low, highly variable cost structure, allow us to achieve strong cash flow generation. We generated $740 million of cash flow from operations in 2017.

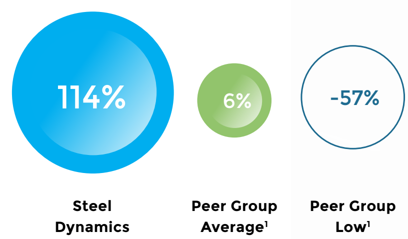
Our capital allocation strategy remains consistent and focused on disciplined growth through both organic investment and transactional opportunities within our core competencies. In 2017, we reinvested $165 million in our operations. For 2018, we currently plan to invest approximately $250 million for organic projects – of which a large portion is committed to our long product steel utilization growth initiatives mentioned earlier in Mark's letter. We successfully refinanced $350 million of our highest cost senior notes in 2017. This transaction is expected to reduce our annual interest burden by $8 million, and further strengthens and adds optionality to our long-term capital structure, supporting continued responsible, intentional growth. We maintain a disciplined approach to growth, creating shareholder value through sound capital allocation and an efficient balance sheet.

Based on our confidence in the strength of our cash generation and net earnings capability throughout-market cycles, we intend to maintain a positive dividend profile. From 2014 to 2017, we increased our annual cash dividend 35 percent, and we just increased our first quarter 2018 cash dividend another 21%.

As our net earnings grow, we plan to responsibly grow our cash dividends to shareholders. We have also returned additional value to shareholders through purchasing $252 million of our common stock during 2017, as a part of the $450 million board-authorized program initiated October 2016. We maintain a strong focus toward organic and inorganic transactional growth, but we also have optionality to utilize additional value-enhancing tools of capital allocation based on our strong through-cycle financial and operating foundation.

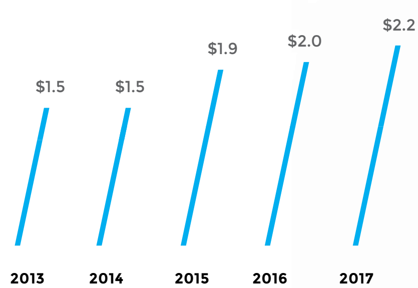
At December 31, 2017, we retained liquidity of over $2.2 billion, comprised of $1.0 billion in cash and $1.2 billion of available funding under our revolving credit facility. We achieved record EBITDA of $1.4 billion in 2017, with corresponding net leverage of just under 1.0 times – a profile that supports our strategic growth plans, while also maintaining appropriate debt levels.

3-Year Total Shareholder Return



[1]Peer group consists of Nucor, US Steel, AK Steel, Commercial Metals Company and Timken Steel.

Liquidity | Billions of dollars



21%

PERCENT INCREASE

21% cash dividend increase in the first quarter 2018.

Dividend increased in each of the last six years.

$1.4

BILLION

Record 2017 EBITDA

RIGHT

The OmniSource turbo mill allows for increased copper recovery from recycled materials.

OUR CURRENT OPERATIONS AND GROWTH STRATEGY ARE ALIGNED WITH A FOCUS TOWARD SUSTAINABILITY OF RESOURCES.

- Valuing our people through the importance of safety, respect and opportunities for development to benefit long-term success and growth of shareholder value.

- Valuing our communities, in part, through the positive impact of our charitable foundation and corporate donations, which benefit the communities in which we work and live, and the human impact of our employees through their encouraged volunteerism.

- Valuing our environment through our entire "Vertically Connected Sustainable Production Life-Cycle" and our commitment to high environmental standards in all areas.

Our overall financial strategy is to be the safest, most efficient producer of high-quality, broadly diversified, value-added steel products, creating the highest level of sustainable earnings for the long-term benefit of all involved—employees, families, communities, vendors, customers and shareholders. Through our exceptional operating culture, experienced employee base and performance-based incentive programs, we are uniquely positioned to take advantage of each opportunity. Our growth must be additive to consistent profit margins, counter-cyclical where possible, and be in areas where our culture of performance-based incentive compensation and ownership mentality can thrive. We are creating shareholder value through our responsible, efficient capital allocation strategy, with our intentional focus toward continued strategic growth.

As we look to 2018, we see opportunity. With our strong financial foundation, we are distinctively positioned to embrace the momentum from currently anticipated positive macro-economic conditions, coupled with our own growth initiatives. Thank you for your trust.

Sincerely,

Theresa E. Wagler

Theresa E. Wagler
Executive Vice President
and Chief Financial Officer

Social Stewardship

$15 MILLION

Steel Dynamics Foundation, Inc. distributions since inception in 2008.

$21 MILLION

Additional Steel Dynamics, Inc. company-wide charitable contributions over the last ten years.

LEFT

A team at New Millennium Building Systems welds a joist.

TOP

In 2017, Steel Dynamics was a full-flight sponsor for Honor Flight Northeast Indiana.

VALUING OUR ENVIRONMENT

We are one of the largest domestic steel producers and metal recyclers in the United States based on current estimated steelmaking capacity of 11.4 million tons and actual metals recycling volumes.

Our production process utilizes electric arc furnace steelmaking technology which revolutionized the way steel is made and recycled, requiring far fewer natural resources and significantly less energy, resulting in less emissions. Recycled ferrous scrap typically comprises more than 80% of the metallic melt mix in electric arc furnace steelmaking, in contrast to traditional blast furnace steelmaking, where the proportion of scrap has traditionally been between 25% to 35%. Ferrous materials represent the single largest raw material for our steel operations' manufacturing process, and represents approximately 60% of our costs. As such, we maintain a high-quality, secure supply through our metals recycling operations and Iron Dynamics (IDI) facility.

Our metals recycling operations include both ferrous and nonferrous scrap metal processing, transportation, marketing and brokerage services. In addition, we design, install and manage customized scrap management programs for industrial manufacturing companies at hundreds of locations throughout North America.

We also use advanced technologies and processes to reclaim additional ferrous and nonferrous materials from historical by-products of our production process.

We sell various grades of processed ferrous scrap primarily to steel mills and foundries. In addition, we are one of the largest domestic nonferrous scrap recyclers. We sell various grades of nonferrous metals such as copper, brass, aluminum and stainless steel, which are used in numerous industrial manufacturing processes, including our own copper rod production and aluminum alloy production facilities.

As we continue down the path of strategic growth, we recognize that being a good steward of our environment and of the communities where we work and live is essential. Just as we evaluate opportunities for future growth, we evaluate opportunities to improve our processes, equipment and technology to reduce our physical impact on the environment.

DID YOU KNOW?

11 MILLION TONS

Steel Dynamics reintroduced over 11 million tons of recycled ferrous scrap materials back into the manufacturing life cycle in 2017.

1.1 BILLION POUNDS

Our metals recycling operations reintroduced 1.1 billion pounds of nonferrous scrap materials back into the manufacturing life cycle in 2017.

334 THOUSAND TONS

In 2017, our fabrication operations purchased 660,000 tons of steel, of which 334,000 tons were purchased from our steel operations.

IRON DYNAMICS

IDI produces liquid pig iron and hot briquetted iron that serve as iron substitutes for our Butler Flat Roll Division.

+400 THOUSAND METRIC TONS

In 2017, IDI recycled over 400,000 metric tons of secondary materials and converted those materials into value-added iron substitutes.

259 THOUSAND METRIC TONS

IDI supplied our Butler Flat Roll Division with 259,000 metric tons of iron substitutes, in 2017.

BY THE NUMBERS

SELECTED FINANCIAL DATA (Millions of dollars, except share amounts)	2017	2016	2015	2014	2013
Net Sales	$ 9,539	$ 7,777	$ 7,594	$ 8,756	$ 7,373
Operating Income (Loss)	$ 1,067	$ 728	$ (73)	$ 320	$ 387
Adjusted Operating Income[1]	*$ 1,067*	*$ 861*	*$ 398*	*$ 612*	*$ 387*
Net Income (Loss) Attributable to SDI	$ 813	$ 382	$ (130)	$ 157	$ 189
Adjusted Net Income Attributable to SDI[1]	*$ 641*	*$ 472*	*$ 178*	*$ 323*	*$ 189*
Net Income (Loss) per Diluted Share	$ 3.36	$ 1.56	$ (0.54)	$ 0.67	$ 0.83
Adjusted Net Income per Diluted Share[1]	*$ 2.65*	*$ 1.92*	*$ 0.74*	*$ 1.35*	*$ 0.83*
Cash Flow from Operations	$ 740	$ 853	$ 1,054	$ 628	$ 312
Capital Expenditures	$ 165	$ 198	$ 115	$ 112	$ 187
Net Debt (long-term debt including current portion less cash and short-term investments)	$ 1,353	$ 1,515	$ 1,868	$ 2,620	$ 1,686
Shares Outstanding (thousands)	237,397	243,785	243,090	241,449	222,867
Dividends Declared per Share	$ 0.62	$ 0.56	$ 0.55	$ 0.46	$ 0.44

ADJUSTED EBITDA RECONCILIATION (Millions of dollars)	2017	2016	2015	2014	2013
EARNINGS BEFORE TAXES	$ 935	$ 564	$ (242)	$ 165	$ 263
Interest Expense	134	146	154	137	128
Interest Income	(10)	(5)	(1)	(2)	(5)
Depreciation	265	261	263	229	192
Amortization	29	29	25	28	32
Non-controlling Interests	7	22	15	65	26
EBITDA	$ 1,360	$ 1,017	$ 214	$ 622	$ 636
Unrealized Hedging (Gains)/Losses	5	1	3	(5)	5
Inventory Valuation	3	1	28	10	7
Equity-based Compensation	34	30	29	23	16
Asset Impairment Charge	3	123	432	213	2
ADJUSTED EBITDA	$ 1,405	$ 1,172	$ 706	$ 863	$ 666

ADJUSTED OPERATING INCOME RECONCILIATION (Millions of dollars)	2017	2016	2015	2014	2013
CONSOLIDATED OPERATING INCOME	$ 1,067	$ 728	$ (73)	$ 320	$ 387
Asset Impairment Charge	-	133	429	260	-
Minnesota Idle & Non-cash Inventory Charges	-	-	33	6	-
Iron Dynamics Outage	-	-	9	-	-
Non-cash Purchase Accounting	-	-	-	26	-
ADJUSTED OPERATING INCOME	$ 1,067	$ 861	$ 398	$ 612	$ 387

[1] 2017 adjusted net income excludes the one-time U.S. Federal Tax Cuts and Jobs Act of 2017 tax benefit and debt refinancing costs, 2016 excludes charges related to litigation settlement, non-cash asset impairment related to Mining Resources and Mesabi Mining operations, and debt refinancing and repayment activities costs. 2015 excludes non-cash asset impairment and other charges related to the company's metals recycling operations and debt refinancing costs. 2014 excludes non-cash asset impairment charges related to Mesabi Nugget operations and acquisition costs related to Columbus Flat Roll Division.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 0-21719

Steel Dynamics Inc.®

(Exact name of registrant as specified in its charter)

Indiana	**35-1929476**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
7575 West Jefferson Blvd, Fort Wayne, IN	**46804**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(260) 969-3500**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.0025 par value	Nasdaq Global Select Stock Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of ''large accelerated filer,'' ''accelerated filer,'' ''smaller reporting company,'' and ''emerging growth company'' in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated file ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company.)	Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant computed by reference to the price at which the common equity was last sold as of June 30, 2017, was approximately $5,979 million. Registrant has no non-voting shares. For purposes of this calculation, shares of common stock held by directors, officers and 5% stockholders known to the registrant have been deemed to be owned by affiliates, but this should not be construed as an admission that any such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of the registrant or that such person is controlled by or under common control with the registrant.

As of February 20, 2018, Registrant had outstanding 236,071,369 shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of registrant's definitive proxy statement referenced in Part III, Items 10 through 14 of this report, to be filed prior to May 1, 2018, are incorporated herein by reference.

STEEL DYNAMICS, INC.

Table of Contents

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PART I

Special Note Regarding Forward — Looking Statements

Throughout this report, or in other reports or registration statements filed from time to time with the Securities and Exchange Commission under the Securities Exchange Act of 1934, or under the Securities Act of 1933, as well as in documents we incorporate by reference herein or herefrom, or in press releases or oral statements made by our officers or Regulation FD authorized representatives, we may make statements that express our opinions, expectations, or projections regarding future events or future results, in contrast with statements that reflect present or historical facts. These predictive statements, which we generally precede or accompany by such typical conditional words as ''anticipate,'' ''intend,'' ''believe,'' ''estimate,'' ''plan,'' ''seek,'' ''project'' or ''expect,'' or by the words ''may,'' ''will,'' or ''should,'' are intended to operate as ''forward looking statements'' of the kind permitted by the Private Securities Litigation Reform Act of 1995, incorporated in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such forward-looking statements involve both known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. That legislation protects such predictive and cautionary statements by creating a ''safe harbor'' from liability in the event that a particular prediction does not turn out as anticipated.

While we always intend to express our best judgment when we make statements about what we believe will occur in the future, and although we base these statements on assumptions that we believe to be reasonable when made, these forward looking statements are not a guarantee of performance, and you should not place undue reliance on such statements. Forward-looking statements are subject to many uncertainties and other variable circumstances, many of which are outside of our control, that could cause our actual results and experience to differ materially from those we thought would occur.

The following listing represents some, but not necessarily all, of the factors that may cause actual results to differ from those we may have anticipated or predicted:

- United States or foreign trade policy affecting the amount of foreign steel imported in the United States, or adverse or less than satisfactory outcomes of pending and future trade cases alleging unlawful practices in connection with steel imports;
- increased price competition brought about by global steelmaking overcapacity;
- the adverse impact of periods of slower than anticipated economic growth or the risk of a new recession, resulting in a general decrease of or stagnating demand for our products;
- the weakening of demand for steel products within the non-residential and residential construction, automotive, manufacturing, appliance, pipe and tube, and other steel-consuming industries;
- conditions affecting steel or recycled metals consumption;
- cyclical changes in market supply and demand for steel and recycled metals;
- changes in the availability or cost of raw materials, such as recycled metals, iron substitute materials, including pig iron, iron concentrate, or other raw materials or supplies, which we use in our production processes;
- periodic fluctuations in the availability and cost of electricity, natural gas, or other utilities;
- the impact of, or changes in, environmental law or in the application of other legal or regulatory requirements upon our production processes or costs of production or upon those of our suppliers or customers, including actions by government agencies, such as the United States Environmental Protection Agency or related state agencies, upon our receipt of pending or future environmentally related construction or operating permits;
- the impact of United States government or various other governmental agencies introducing laws or regulatory changes in response to the subject of climate change and greenhouse gas emissions, including the introduction of carbon emissions limitations or trading mechanisms;

- increased price and other forms of competition from other steel producers, scrap processors and alternative materials;
- margin compression resulting from falling selling prices with no offsetting reduction in raw material costs, or our inability to pass increases in costs of raw materials and supplies, if any, onto our customers;
- margin compression resulting from falling prices with no offsetting reduction in raw material costs, or our inability to pass increases in costs of raw materials and supplies, if any, on to our customers;
- increased cybersecurity threats and vulnerabilities and increased global information technology security requirements, and a rise in sophisticated cyber crimes that pose a risk to the security of our operating systems and data networks and to the confidentiality, availability, and integrity of sensitive data, including intellectual property, proprietary information, financial information, customer, supplier and business partner information, and personally identifiable information;
- changes in our business strategies or development plans which we have adopted or may adopt, and any difficulty or inability to timely, costs efficiently and successfully consummate, implement, integrate or operate any planned or potential projects, acquisitions, joint ventures or strategic alliances;
- the impact of impairment charges;
- private or governmental liability claims or litigation, or the impact of any adverse litigation costs or outcome of any litigation on the adequacy of our reserves or the availability or adequacy of our insurance coverage;
- the occurrence of unanticipated equipment failures and plant outages;
- costs to idle facilities, idled facility carrying costs, or increased costs to resume production at idled facilities; and
- uncertainties involving new products or new technologies.

We also refer you to and urge you to carefully read the section entitled *Risk Factors* at Item 1A of this report to better understand some of the principal risks and uncertainties inherent in our businesses or in owning our securities, as well as the section entitled *Management Discussion and Analysis of Financial Condition and Results of Operations* at Item 7. You should also review the notes to consolidated financial statements under headings in Note 1 *Use of Estimates* and in Note 9 *Commitments and Contingencies*.

Any forward-looking statements which we make in this report or in any of the documents that are incorporated by reference herein or herefrom speak only as of the date of such statement, and we undertake no ongoing obligation to update such statements. Comparisons of results between current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

ITEM 1. BUSINESS

Our Company

Steel Dynamics, Inc. is one of the largest domestic steel producers and metal recyclers in the United States based on current estimated steelmaking and coating capacity of over 11 million tons and actual metals recycling volumes. The primary source of revenues are from the manufacture and sale of steel products, processing and sale of recycled ferrous and nonferrous metals, and fabrication and sale of steel joists and deck products.

We believe our strategic focus to drive value for shareholders, customers, employees and communities is differentiated through our six Core Operating and Leadership Principals:

- **Safety —** We are focused on providing a safe working environment for all employees. Our goal is to achieve zero injuries — no accidents, no lost workdays, and no injuries. Our industry-leading recordable incident rate has fallen to record levels each of the last five years, including an 18% drop in 2017, and 68% of our locations had zero recordable injuries in 2017.
- **Enhancing Customer Relationships and Commitment —** Our customers are our most important partners. We strive to be a preferred partner by providing quality products and solutions, exceeding both current expectations and future needs.
- **Sustaining Superior Operating Culture —** Success is not driven by state-of-the-art technology alone, but, more importantly, it is linked to managing the technology, and creating a culture in which to exploit it. Our entrepreneurial culture fosters an energetic, driven and innovative team, through respect, opportunity, open communication and performance-based compensation aligned to our strategy.
- **Strategic Growth, Intentional Margin Expansion and Consistency Through the Cycle —** We are focused on growth opportunities that provide sustainable, high profit margins within our areas of expertise, through both strong and weak market environments, with diversification in end markets and product offerings. We will leverage our existing facilities through capital-effective organic growth, greenfield expansion, and the continued exploration of new opportunities, including downstream production assets that utilize our steel products.
- **Driving Innovation —** We continually challenge the status quo, to drive innovation to improve safety, quality and productivity, implementing new technologies and processes to not only exceed current customer expectations, but to meet their future needs.
- **Financial Strength and Flexibility —** We have a disciplined focus on remaining a low-cost, highly efficient, customer-centric company generating best-in-class financial and operating performance that drives strong cash flow generation to support our current operations and continued growth.

Competitive Strengths/Business Strategies

We believe our financial strength and flexibility, coupled with our competitive advantages of maintaining a low, highly variable cost structure, producing a diversified value-added product offering, controlling a secure supply of recycled ferrous metals, fostering an entity-wide entrepreneurial culture and having an experienced senior management team and work force, positions us well to continue to strengthen our leadership position and execute our growth strategy.

One of the Lowest Cost Steel Producers in the United States; State-of-the-Art Facilities/Continue to Maintain Low Production Costs

We are focused on continuing to maintain and enhance one of the lowest operating cost structures in the North American steel industry. Our low operating costs are primarily a result of our efficient plant designs and operations, our high productivity rate, low ongoing maintenance cost requirements and strategic locations near our customers and sources of our primary raw material, ferrous scrap.

We will continue to drive innovative ways to use our equipment, enhance our productivity and explore new technologies to further improve our unit costs of production at each of our facilities. As one of the lowest cost producers in each of our three primary operating segments, we are able to better manage through cyclical and non-cyclical downturns, and to consistently maximize our profitability. We continuously seek to maximize the variability of our cost structure and to reduce per unit and fixed costs. Our incentive compensation plans at all employee levels are based on both divisional and consolidated company performance. Performance-based incentive compensation is designed to reward high productivity and efficient and safe use of physical resources and capital employed. Additionally, leveraging our existing facilities through capital effective organic growth and diversified product offerings allows us to maximize utilization of our current cost structure.

Secure Supply of High Quality Just-in-Time Ferrous Raw Materials

We maintain a secure supply of ferrous raw material resources through the benefit of our metals recycling operations and Iron Dynamics (IDI). Ferrous materials represent the single largest raw material component of our steel operations' manufacturing costs, at approximately 60% of such costs. During 2017, 2016, and 2015, OmniSource, our metals recycling operations, provided our steel operations with 38%, 40%, and 41%, respectively, of its ferrous scrap requirements. This represented 63%, 61%, and 54% of OmniSource's total ferrous scrap shipments during 2017, 2016, and 2015, respectively. During 2017, 2016, and 2015, our steel operations consumed 10.3 million, 9.9 million, and 8.8 million tons, respectively, of metallic materials, of which iron units, other than scrap, represented approximately 13%, 14%, and 12% in 2017, 2016, and 2015, respectively. IDI supplies 100% of its production to the Butler Flat Roll Division, representing 72%, 65%, and 66% of their iron units other than scrap in 2017, 2016, and 2015, respectively, through the transfer of liquid pig iron and hot briquetted iron, which are higher quality, energy-saving ferrous raw materials. We believe our metals recycling operations and IDI provide us with a high quality, cost effective, and secure raw material platform for effective working capital management.

Diversified Product Mix/Expanded Product Offerings

We are one of the most diversified steel companies in the United States, with very broad product offerings. We currently offer a broad range of steel products (more specifically enumerated in the Steel Operations Products and Sales by End Market later in this section), including:

Steel Operations:

Sheet Products. Hot roll, cold roll and coated steel, including a wide variety of specialty products, such as light gauge hot roll, galvanized, galvanneal, Galvalume®, Galfan®, and painted products.

Long Products. Structural steel beams, pilings, and standard and premium grade rail; engineered special-bar-quality of an expanding range of sizes and chemistries; various merchant-bar products including rounds, angles, flats, channels and reinforcing bar, and channels and specialty steel sections.

Steel Finishing. Turning, polishing, straightening, chamfering, threading, precision saw-cutting, cold draw and heat treating of bar products; and cutting to length, additional straightening, hole punching, shot blasting, welding and coating of beams, channels and specialty steel sections.

Metals Recycling Operations. An array of both ferrous and nonferrous scrap processing, scrap management, transportation, and brokerage products and services.

Steel Fabrication Operations. Steel joists and steel deck material, including specialty deck.

This diversified portfolio of products enables us to access a broad range of end-user markets, serve a broad customer base, and help mitigate our market exposure to any one product or end-user market, resulting in increased utilization. In addition, our value-added product offerings help to balance our exposure to commodity grade products supplied by other domestic steel, and to a larger extent in recent years, foreign manufacturers.

We will continue to seek additional opportunities and to collaborate with our customers to anticipate their future needs by further expanding our range of products and offerings, which may allow our customers the ability to more effectively and efficiently navigate their supply chain. One such opportunity is our soon to be completed $28 million investment at our Roanoke Bar Division, to utilize existing excess melting and casting capability with the addition of a rolling line to add approximately 200,000 tons annually of reinforcing bar capacity, including multi-strand slitting and finishing. Another opportunity is our on-going $75 million investment at our Structural and Rail Division to utilize excess melting and casting capability to produce up to 240,000 tons of various sizes of reinforcing bar including custom cut-to-length, smooth bar, and coiled.

Strategic Geographic Locations/Enter New Geographic Markets

The majority of our steelmaking facilities are in locations near sources of scrap materials and near our customer base, allowing us to realize freight savings for inbound scrap as well as for outbound steel products destined for our customers. This also allows us to provide consistent on-time delivery to our customer base with relatively short lead times, further enhancing our customer relationships. Our coated sheet steel products are also effectively available through our locations in Pittsburgh, Pennsylvania, Jeffersonville, Indiana and Columbus, Mississippi, due to river access. Recycled ferrous scrap and iron units represent the most significant component of our cost of steel manufacturing. We believe that our metals recycling facilities are in the regions that account for a majority of the total ferrous scrap produced in the United States. Our steel fabrication operations have a national footprint allowing us to serve the entire joist and deck domestic market and national accounts.

We may seek to enter new markets in strategic geographic locations that offer attractive growth opportunities within our areas of expertise.

Experienced Management Team and Unique Corporate Culture/Foster Entrepreneurial Culture

Our senior management team is highly experienced and has a proven track record in the steel, metals recycling, and steel fabrication industries. Management's objectives are closely aligned with our stockholders through meaningful stock ownership positions and performance-based compensation programs that are correlated to the company's profitability and operational performance in relationship to its steel manufacturing peers. Our entrepreneurial culture resonates throughout each of our operating segments. We emphasize decentralized decision making, with corporate risk oversight, and have established incentive compensation programs specifically designed to reward employee teams for their efforts toward identifying innovative ways to enhance productivity, improve profitability, and control costs.

We intend to continue to foster our entrepreneurial culture and emphasize decentralized operational decision making and responsibility, while continuing to maintain appropriate corporate policy and risk oversight. We reward teamwork, innovation, and operating efficiency, and will also continue to focus on maintaining the effectiveness of our incentive-based bonus plans that are designed to maximize overall productivity and align the interests of our management and employees with our stockholders.

Experienced Executive Management Team

Name	Age	Position
Mark D. Millett	58	Chief Executive Officer
Theresa E. Wagler	47	Executive Vice President and Chief Financial Officer
Russell B. Rinn	60	Executive Vice President Metals Recycling and President and COO of OmniSource Corporation
Chris A. Graham	53	Senior Vice President, Manufacturing Group
Glenn A. Pushis	52	Senior Vice President, Long Products Steel Group
Barry T. Schneider	49	Senior Vice President, Flat Roll Steel Group

Mark D. Millett, a co-founder of our company and director since inception, has been our President and Chief Executive Officer since January 2012. Prior to that, Mr. Millett has held various positions, including President and Chief Operating Officer, Executive Vice President of Metals Recycling and Ferrous Resources, President and Chief Operating Officer of OmniSource Corporation, and Executive Vice President and Chief Operating Officer for Flat Rolled Steels and Ferrous Resources. Mr. Millett was responsible for the design, construction, and start-up operation of our Butler, Indiana flat roll, melting and casting operations. Mr. Millett, prior to his co-founding of Steel Dynamics, served from 1981 to 1985 as chief metallurgist for Nucor Corporation's Darlington, South Carolina, division, charged with developing the world's first commercially viable thin-slab-casting process as the manager of that project at Nucor's Hazelett facility. In 1987, Mr. Millett was given the responsibility by Nucor for the design, construction, staffing, and operation of the melting and casting facility at Nucor's world's-first thin-slab casting facility at Crawfordsville, Indiana. Mr. Millett holds a bachelor's degree in metallurgy from the University of Surrey in England. Mr. Millett was named Steelmaker of the Year in 2014 by the Association of Iron and Steel Technology.

Theresa E. Wagler is our Executive Vice President and Chief Financial Officer since May 2007. Ms. Wagler joined the Steel Dynamics corporate finance team in 1998, and has held various finance and accounting positions, including Chief Accounting Officer and Vice President and Corporate Controller, and was appointed to her current position in May 2007. She is responsible for and oversees accounting, risk management, taxation, treasury, and information technology functions, as well as, financial planning and analysis, investor relations, and corporate communications. Prior to joining Steel Dynamics, Ms. Wagler served as Assistant Corporate Controller for Fort Wayne National Bank and as a certified public accountant with Ernst & Young LLP. She graduated cum laude from Taylor University with a bachelor's degree in accounting and systems analysis. In addition, Ms. Wagler serves as a director and chair of the audit committee of CF Industries Holdings, Inc., a public company, and also serves as a director and audit committee chair for Trine University.

Russell B. Rinn is our Executive Vice President for Metals Recycling, and President and Chief Operating Officer of OmniSource LLC (f/k/a OmniSource Corporation) since July 2011. Mr. Rinn is responsible for OmniSource's ferrous and nonferrous metals recycling operations in the eastern half of the United States, as well as sourcing, marketing, trading, and logistics activities spanning the nation. OmniSource procures metal scrap, processes it, and markets these recycled metals to external customers and supplies ferrous scrap to the company's steel mills. Prior to joining Steel Dynamics, Mr. Rinn was an Executive Vice President of Commercial Metals Company (CMC), a Texas-based mini-mill steel company. He has more than 30 years of experience in the steel and metals recycling industries. Mr. Rinn is a graduate of the Executive Program of the Stanford University Graduate School of Business and of the Management Development Program at the University of Michigan's Business School. He holds a Bachelor's degree in Finance, Marketing and Business Administration from Texas Lutheran University.

Chris A. Graham is our Senior Vice President, Manufacturing Group since March 2016. Since 2013, Mr. Graham served as a Vice President of Steel Dynamics and the President of New Millennium Building Systems fabrication operations. Mr. Graham is responsible for the company's fabrication operations and the company's other downstream manufacturing facilities. He will lead the company's strategic growth in the area of adding businesses that will utilize Steel Dynamics metal products as raw material in the manufacture of other products. Mr. Graham was part of the team that constructed the company's first steel mill in 1994. He held various leadership positions within the company's steel group prior to moving into the fabrication operations in 2007. He was responsible for four operating fabrication plants from 2007 to 2010, at which point he also became the team leader responsible for overseeing the restructuring and integration of three acquired fabrication facilities, and in 2014 was made responsible for the integration of the Columbus Flat Roll Division. Mr. Graham earned a bachelor's degree in business management from Western Governors University and an MBA from the University of Saint Francis.

Glenn A. Pushis is our Senior Vice President, Long Products Steel Group since March 2016. Since 2014, Mr. Pushis served as a Vice President overseeing the company's Butler Flat Roll Division and six flat roll coating facilities located in Indiana and Pennsylvania. Mr. Pushis is responsible for the company's four long product steel mills, which together have approximately 3.8 million tons of annual steelmaking capacity, producing specialized engineered bars, structural steel, railroad rail, merchant bars and other specialty steels, primarily serving the construction, transportation and industrial sectors. Mr. Pushis was also part of the team that constructed the company's first steel mill in 1994. He held various leadership positions within the company's steel group, including the positions of General Manager for the Engineered Bar Products Division from 2003 to 2007 and more recently, the Butler Flat Roll Division from 2007 to 2014. Mr. Pushis earned a bachelor's degree in mechanical engineering from Purdue University and his MBA from Indiana University.

Barry T. Schneider is our Senior Vice President, Flat Roll Steel Group since March 2016. Since 2014, Mr. Schneider served as a Vice President overseeing the company's Engineered Bar Products and Roanoke Bar steel divisions. Mr. Schneider is responsible for the company's two flat roll steel mills and eleven flat roll coating lines, which together have approximately 7.2 million tons of annual capacity, producing hot roll, cold roll and coated steel products, including a wide variety of specialty products, such as light gauge hot roll, galvanized and painted products. Mr. Schneider was also part of the team that constructed the company's first steel mill in 1994, serving in several engineering and operational roles in the melt shop during the company's first five years of operations. He was the manager of the Butler Flat Roll Division's hot strip mill and later the cold rolling and coating facilities from 2000 to 2007. Mr. Schneider then held the position of General Manager for the Engineered Bar Products Division from 2007 to 2014. Mr. Schneider earned a bachelor's degree in mechanical engineering and a master of science in engineering management from Rose-Hulman Institute of Technology.

Industry Segments

We have three reporting segments: steel operations, metals recycling operations, and steel fabrication operations. Refer to Notes 1 and 13 in the notes to consolidated financial statements in Part II, Item 8 of this Form 10-K for additional segment information.

Steel Operations Segment

Steel operations consist of our six electric arc furnace steel mills, producing steel from ferrous scrap and scrap substitutes, utilizing continuous casting, automated rolling mills and several downstream steel coating and bar processing lines, and IDI, our liquid pig iron production facility, that supplies solely the Butler Flat Roll Division. Our steel operations sell directly to end-users, steel fabricators, and service centers. These products are used in numerous industry sectors, including the construction, automotive, manufacturing, transportation, heavy and agriculture equipment, and pipe and tube (including OCTG) markets. Our steel operations accounted for 72% of our consolidated net sales during 2017 and 2016, and 69% in 2015. We are predominantly a domestic steel company, with only 5%, 4%, and 5% of our revenues generated from exported sales during 2017, 2016, and 2015, respectively.

Our steel operations consist primarily of steelmaking and coating operations. The following chart summarizes the locations and the current estimated production capacities of our facilities:

Steel Production Capacity (tons)	Steelmaking Capacity	Galvanizing	Painting
		(Included in Steelmaking Capacity)	
Sheet Products:			
Butler Flat Roll Division			
Butler, Indiana	3,200,000	785,000	240,000
Jeffersonville, Indiana		370,000	190,000
Columbus Flat Roll Division – Columbus, Mississippi	3,200,000	1,100,000	250,000
The Techs – Pittsburgh, Pennsylvania*	1,005,000	1,005,000	—
Long Products:			
Structural and Rail Division – Columbia City, Indiana	1,800,000	—	—
Engineered Bar Products Division – Pittsboro, Indiana	950,000	—	—
Vulcan Threaded Products Division – Pelham, Alabama**	120,000		
Roanoke Bar Division – Roanoke, Virginia		—	—
Merchant Bars	600,000	—	—
Billets	120,000	—	—
Steel of West Virginia – Huntington, West Virginia	355,000	40,000	—
	11,350,000	3,300,000	680,000

Note: Steelmaking capacities represent manufacturing capabilities based on mill configuration and related employee support. These capacities do not represent expected volumes in a given year. In addition, estimates of mill capacity are highly dependent on the specific product mix manufactured. Each of our mills can and do roll many different types and sizes of products; therefore, our capacity estimates assume a typical product mix.

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* The Techs galvanizing capacity is included in ''Steelmaking Capacity'' to represent the capability to utilize sheet steel substrate to produce galvanized sheet steel at their facilities.

** Vulcan Threaded Products bar finishing capacity is included in ''Steelmaking Capacity' to represent the capability to utilize steel long-product substrate to produce threaded rod, and cold draw and heat treat bar products at their facility.

The following chart summarizes our steel operations products and the percentage of sales tons by end market:

Markets

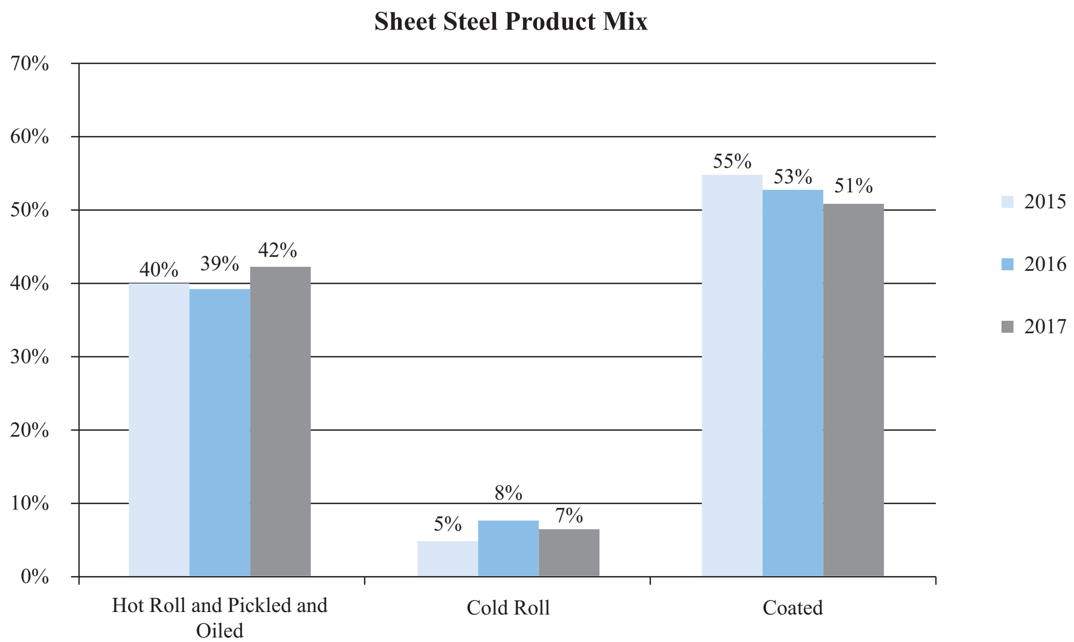
Steel Operations Products and Sales by End Market		Construction – Metal Building	Construction – Light Commercial & Residential	Construction – Heavy	Construction – Appliance & HVAC	Automotive	Heavy Equipment	Other Transportation, Including Rail	Agriculture	Energy	Pipe & Tube	Other Manufacturing
Steel Operations Sales by End Market (based on 2016 tons shipped)		11%	16%	7%	6%	14%	2%	8%	3%	8%	7%	18%
		40%										
Divisions and Products												
Sheet Steel Products:												
Butler and Columbus Flat Roll Divisions		●	●		●	●	●	●	●	●	●	●
Hot Roll (HR)	HR coils and pickled and oiled HR sheet steel											
Cold Roll (CR)	CR sheet steel											
Metallic Coated	HR galvanized, CR galvanized, HR galvannealed, CR galvannealed, and Galvalume® sheet steel products											
Painted	Painted sheet steel											
The Techs		●	●	●	●	●	●	●	●	●	●	●
Metallic Coated	HR galvanized, CR galvanized, and Galfan® sheet steel products											
Long Products:												
Structural and Rail Division			●	●			●	●		●		●
Structural Steel Beams	Wide Flange, American Standard, H-piling and Manufactured Housing Beams											
Rail	Standard strength carbon, intermediate alloy hardness, and premium rail grades											
Structural Shapes	Channels, angels and flat bars											
Engineered Bar Products Division				●		●	●	●	●	●	●	●
Special-Bar-Quality Merchant-Bar-Quality	Bar finishing Rounds Round-cornered squares											
Vulcan Threaded Products	Threaded bar Bar finishing Cold drawn and heat treated											
Roanoke Bar Division		●	●	●		●	●	●	●	●		●
Merchant Steel Light Structural Shapes	Angles Channels Flat bars Rounds, reinforcing bar, and squares											
Steel of West Virginia			●	●			●	●		●		●
Wide Flange Beams Standard Beams Channels Specialty Steel Sections	Guardrail posts Industrial lift truck components Mine rail Truck-trailer crossmembers Merchant sections Bulb flats Off-highway construction equipment											

SHEET STEEL PRODUCTS

Our sheet steel products, consisting of hot roll, cold roll and coated steel products are produced by our Butler and Columbus Flat Roll Divisions, and our several downstream coating lines, including The Techs. Our sheet steel operations represented 71%, 70%, and 65% of steel operations net sales in 2017, 2016, and 2015, respectively. We produced 7.1 million, 6.9 million, and 6.0 million tons of sheet steel at these facilities in 2017, 2016, and 2015, respectively.

IDI produces liquid pig iron and hot briquetted iron (HBI) that serves as a substitute for a portion of the metallic raw material mix that goes directly into our Butler Flat Roll Division electric arc furnaces to produce steel. IDI's primary focus is to maximize liquid pig iron production, due to the inherent economic benefits achieved at the steel mill when the material is used in the steelmaking process, such as reduced energy cost, reduced materials cost, and quicker melting cycles. During 2017 and 2016, respectively, IDI produced 259,000 and 255,000 metric tons, of which 90% and 98%, respectively, was liquid pig iron. We have used, and plan to continue to use, all of the facility's output internally.

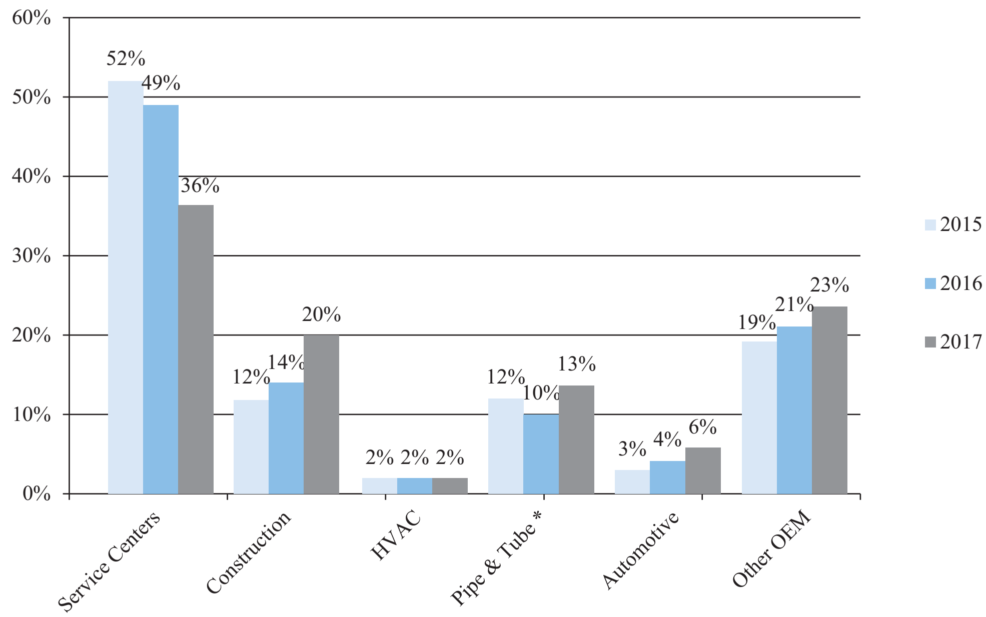
The following chart summarizes the types of sheet steel products sold by sales dollars, during the respective years:



Customers. Steel processors and service centers typically act as intermediaries between primary sheet steel producers and the many end-user manufacturers that require further processing of hot roll coils. The additional processing performed by the intermediate steel processors and service centers include pickling, galvanizing, cutting to length, slitting to size, leveling, blanking, shape correcting, edge rolling, shearing and stamping. We believe that our intermediate steel processor and service center customers will remain an integral part of our customer base. The Columbus Flat Roll Division allows us to capitalize on the industrial markets in the Southern United States and Mexico, as well as further expand our customer base in painted, and line and other pipe products. Galvanized flat roll products produced by our Butler and Columbus Flat Roll Divisions, and The Techs are similar and are sold to a similar customer base. However, The Techs specializes in the galvanizing of specific types of flat roll steels in primarily non-automotive applications, servicing a variety of customers in the heating, ventilation and air conditioning (HVAC), construction, agriculture and consumer goods markets. Our sheet steel operations also provide a significant portion of the sheet steel utilized in our steel fabrication operations.

The following chart summarizes the types of customers who purchased our sheet steel products, by sales dollars, during the respective years:

Sheet Steel Customers



* *Energy, included in Pipe & Tube, represents 5% of total sheet steel sales in 2017, and 2% in 2016 and 2015.*

LONG PRODUCTS

Our Structural and Rail Division is capable of producing a variety of parallel flange sections such as Wide Flange Beams, American Standard Beams, Manufactured Housing Beams, and H Piling and Channel sections for the construction, transportation and industrial machinery markets. Further diversification of the product mix occurred in 2017, to include flat bars and large unequal leg angles used in construction markets. They also produce standard strength carbon, intermediate alloy hardness, and premium grade rails in 40 to 320 feet length for the railroad industry. Our state-of-the-art heat treating system allows us to produce high quality premium rail, which has been certified by all Class I railroads. In addition, our rail-welding facility has the ability to weld (Continuous Welded Rail) in lengths up to 1,600 feet, which offers substantial savings to the railroads both in terms of initial capital cost and through reduced maintenance. We are currently constructing a $75 million expansion to utilize existing excess melting and casting capability to produce up to 240,000 tons of various sizes of reinforcing bar including custom cut-to-length, smooth bar, and coiled.

Our Engineered Bar Products Division is capable of producing a broad array of engineered special-bar-quality (SBQ), merchant-bar-quality (MBQ), rounded-cornered squares, and smaller-diameter engineered round bars. Adjacent to this mill, we have a bar finishing facility, which provides various downstream finishing operations for our SBQ steel bars. Processing operations include turning, polishing, straightening, chamfering, precision saw-cutting and heat-treating capabilities. In addition, non-destructive testing services are available, including eddy current, flux leakage and ultrasonic inspection. Vulcan Threaded Products, Inc. (Vulcan), produces threaded rod product, and cold drawn and heat treated bar, creating strategic pull-through demand of special-bar-quality products provided from our Engineered Bar Products Division.

Our Roanoke Bar Division primarily produces merchant bar products, including angles, merchant rounds, flats, channels, and reinforcing bar. We expect in early 2018 to complete our $28 million rolling line expansion project to utilize existing excess melting and casting capability to produce approximately 200,000 tons of reinforcing bar, with multi-strand slitting and finishing capabilities, making us the largest independent reinforcing bar producer in the region.

Steel of West Virginia primarily sells beams, channels and specialty steel sections, and frequently performs fabrication and finishing operations on its products, such as cutting to length, additional straightening, hole punching, shot blasting, welding, coating, and new in 2017 galvanizing. Through this additional finishing, we create custom finished products that are generally placed directly into our customers' assembly operations.

We produced the following long steel products at these facilities (tons):

	2017	2016	2015
Structural and Rail Division	1,353,699	1,298,724	1,204,953
Rail production (included above)	250,921	238,410	269,268
Engineered Bar Products Division	698,951	480,243	516,097
Roanoke Bar Division – finished	400,465	405,434	388,914
Roanoke Bar Division – billets	507,789	536,512	536,098
Steel of West Virginia	285,397	289,114	295,380

Customers. The principal customers for our structural steel products are steel service centers, steel fabricators and various manufacturers. Service centers, though not the ultimate end-user, provide valuable mill distribution functions to the fabricators and manufacturers, including small quantity sales, repackaging, cutting, preliminary processing and warehousing. The steel rail marketplace in the United States, Canada and Mexico is specialized and defined, with seven Class I railroads and a large distribution network.

SBQ products are principally consumed by cold finishers, forgers, intermediate processors, OEM manufacturers, steel service centers, and distributors, as well as pull through volume to Vulcan. Our MBQ products are sold primarily to steel service centers, as well as reinforcing bar distributors, joist producers, and OEMs. Some of the excess steel billet production at the Roanoke Bar Division is sold to mills without sufficient melting capacities, including our Steel of West Virginia facility. Our steel fabrication operations also purchase angles from Roanoke Bar Division. Steel of West Virginia's customers are primarily OEMs producing truck trailers, industrial lift trucks, merchant products, guardrail posts, manufactured housing, mining, and off-highway construction equipment. Steel of West Virginia's flexible manufacturing capabilities enable us to meet demand for a variety of custom-ordered and designed products. Many of these products are produced in small quantities for low volume end-uses resulting in a wide variety of customers, the largest of which are in the truck trailer and industrial lift truck industries.

Steel Competition. The markets in which we conduct business are highly competitive with an abundance of competition in the carbon steel industry from North American and foreign integrated and mini-mill steelmaking and processing operations. We compete in numerous industry sections, most significantly tied to the construction, automotive, and other manufacturing sectors. In many applications within these industry sections, steel competes with other materials, such as aluminum, cement, composites, plastics, carbon fiber, glass and wood. Some of our products are commodities, subject to their own cyclical fluctuations in supply and demand. However, we are focused on providing a broader range of diversified value-added products that de-emphasize commodity steel. The primary competitive influences on products we sell are price, quality and value-added services.

Global steelmaking capacity exceeds global consumption of steel products. Such excess capacity sometimes results in steel manufacturers in certain countries exporting steel at prices that are lower than prevailing domestic prices, and sometimes at or below their cost to produce. Excessive imports of steel in the United States, such as in 2017 and more so in 2015, intensifies price competition on the domestic steel industry which negatively affects our ability to increase our selling prices, and realize higher margins and profitability.

Metals Recycling Operations Segment

The metals recycling operations consists solely of OmniSource and includes both ferrous and nonferrous scrap metal processing, transportation, marketing, and brokerage services strategically located primarily in close proximity to our steel mills and other end-user scrap consumers throughout the eastern half of the United States. In addition, OmniSource designs, installs, and manages customized scrap management programs for industrial manufacturing companies at hundreds of locations throughout North America. Our metals recycling operations accounted for 15% of our consolidated net sales during 2017 and 2016 and 19% in 2015. Our steel mills utilize a portion of the ferrous scrap processed through OmniSource as raw material in our steelmaking operations, and the remainder is sold to other consumers, such as other steel manufacturers and foundries. This strategic symbiotic relationship with our own steelmaking operations provides valuable pull-through demand to OmniSource's ferrous scrap operations. In 2017, 2016, and 2015, OmniSource provided our steel operations with 38%, 40%, and 41%, respectively, of its ferrous scrap requirements.

We shipped the following from our metals recycling operations:

	2017	2016	2015
Ferrous metal total (gross tons)	4,952,973	5,070,380	5,139,506
Shipments to our steel mills	3,108,858	3,112,616	2,755,218
Percent of total to our steel mills	63%	61%	54%
Nonferrous metals (thousands of pounds)	1,086,799	1,103,505	1,082,777

We sell various grades of processed ferrous scrap primarily to steel mills and foundries. Ferrous scrap metal is the primary raw material for electric arc furnaces, such as our steel mills. In addition, we sell various grades of nonferrous metals such as copper, brass, aluminum and stainless steel, to aluminum, steel and ingot manufacturers, brass and bronze ingot makers, copper refineries and mills, smelters, specialty mills, alloy manufacturers, and other consumers.

We purchase ferrous and nonferrous scrap metals, processed and unprocessed, in a variety of forms for our metals recycling facilities.

Ferrous scrap comes from two primary sources:

- Manufacturers and industrial plants, metal fabrication plants, machine shops and factories, which generate ferrous scrap referred to as prompt or industrial scrap, and
- Scrap dealers, retail individuals, auto wreckers, demolition firms and others who provide steel and iron scrap, referred to as ''obsolete'' scrap. Obsolete scrap includes scrap recycled from end-of-life automobiles, appliances, railroad cars and railroad track materials, agricultural machinery and demolition scrap from obsolete structures, containers and machines and represents a significant source of scrap generation.

Nonferrous scrap comes from three primary sources:

- Manufacturers and other nonferrous scrap sources, which generate or sell scrap aluminum, copper, stainless steel, and other nonferrous metals,
- Producers of electric wire, telecommunication service providers, aerospace, defense and recycling companies that generate nonferrous scrap consisting primarily of copper wire, aluminum beverage cans, and various other metals and alloys, and
- Retail individuals who sell material directly to our facilities, which they collect from a variety of sources.

We do not purchase a significant amount of scrap metal from a single source or from a limited number of major sources. Market demand and the composition, quality, size, weight, and location of the materials are the primary factors that determine prices.

Products. Our metals recycling operations primarily involve the purchase, processing, and resale of ferrous and nonferrous scrap metals into reusable forms and grades. We process an array of ferrous products through a variety of methods, including sorting, shredding, shearing, cutting, torching, baling, briquetting, and breaking. Our major ferrous products include heavy melting steel, busheling, bundled scrap, shredded scrap and other scrap metal products, such as steel turnings and cast iron. These products vary in properties or attributes related to cleanness, size of individual pieces, and residual alloys. The necessary characteristics of the ferrous products are determined by the specific needs and requirements of the consumer and affect the individual product's relative value. We process various grades of nonferrous products, including aluminum, brass, copper, stainless steel, and other nonferrous metals. Additionally, we provide transportation logistics (truck, rail, and river barge), marketing, brokerage, and scrap management services.

Customers. We sell various grades of processed ferrous scrap to end-users, such as electric arc furnace steel mills, integrated steelmakers, foundries, secondary smelters, and metal brokers, who aggregate materials for other large users. Ferrous scrap metal is the primary raw material for electric arc furnaces, such as our steel mills. Most of our ferrous scrap customers purchase processed scrap through negotiated spot sales contracts which establish a quantity purchase for the month. The price we charge for ferrous scrap depends upon market demand and pricing, transportation costs, as well as the quality and grade of the scrap. We sell various grades of processed nonferrous scrap to end-users such as aluminum sheet and ingot manufacturers, brass and bronze ingot makers, copper refineries, mills, smelters, specialty steelmakers, alloy manufacturers, wire and cable producers, utilities, and telephone networks. The price we charge for nonferrous scrap depends upon market demand and pricing, transportation costs, as well as the quality and grade of the scrap.

Competition. Scrap is a global commodity influenced by conditions in a number of industrialized and emerging markets throughout Asia, Europe and North America. The markets for scrap metals are highly competitive, both in the purchase of raw or unprocessed scrap, and the sale of processed scrap. With regard to the purchase of unprocessed scrap, we compete with numerous independent recyclers, as well as smaller scrap companies engaged only in collecting obsolete scrap. In many cases, we also purchase unprocessed scrap metal from smaller scrap dealers and other processors. Successful procurement of materials is determined primarily by the price offered by the purchaser for the raw scrap and the proximity of our processing facility to the source of the raw scrap. Both ferrous and nonferrous scrap sells as a commodity in both domestic and international markets, which are affected, sometimes significantly, by relative economic conditions, currency fluctuations, and the availability and cost of transportation. Competition for sales of processed scrap is based primarily on the price, quality, and location of the scrap metals, as well as the level of service provided in terms of reliability and timing of delivery.

We also face potential competition for sales of processed scrap from other producers of steel products, such as electric arc furnace and integrated steel mills, some of which like us are also vertically integrated in the scrap metals recycling business. In addition, other steel mills may compete with us in attempting to secure scrap supply through direct purchasing from our scrap suppliers. Scrap metal processors also face competition from substitutes for prepared ferrous scrap, such as pre-reduced iron pellets, HBI, pig iron, direct reduced iron (DRI), and other forms of processed iron. The availability and relative prices of substitutes for ferrous scrap could result in a decreased demand for processed ferrous scrap and could result in lower prices and/or lower demand for our scrap products.

The industry is highly fragmented with many smaller family-owned companies, many regional scrap companies, along with a number of national and global companies, each of which has multiple locations in areas in which OmniSource also operates. No single scrap metals recycler has a significant market share in the domestic market.

Steel Fabrication Operations Segment

Our steel fabrication operations include seven New Millennium Building Systems plants that primarily serve the non-residential construction industry throughout the United States. We have a national operating footprint that allows us to serve the entire domestic construction market, as well as national accounts, such as large retail chains.

Steel fabrication operations accounted for 9% of our consolidated net sales during 2017, 2016, and 2015. We sold 627,000, 563,000, and 493,000 tons of joist and deck products during 2017, 2016, and 2015, respectively. Our steel operations supply a substantial portion, approximately 51%, 59% and 63% in 2017, 2016, and 2015, respectively, of the steel utilized in our steel fabrication operations, providing strategic pull-through demand.

Products. Our steel fabrication operations produce steel building components, including steel joists, girders, trusses (six locations), and steel deck (five locations). Our joist products include bowstring, arched, scissor, double-pitched and single-pitched joists. Our deck products include a full range of steel roof, form, composite floor, specialty architectural, floor systems, and bridge deck.

Customers and Markets. Our primary steel fabrication operations customers are non-residential steel fabricators. Other customers include metal building companies, general construction contractors, developers, brokers and governmental entities. Our customers are located throughout the United States, including national accounts. The steel joist and deck market in the United States was approximately 2.0 million, 1.9 million tons, and 1.7 million tons in 2017, 2016, and 2015, respectively, based on trade association estimates. Based on this information, our steel fabrication operations' growth rate has outpaced the steel joist and deck market growth resulting in our market share of approximately 33% in 2017, and 31% in 2016 and 2015. We believe we are well positioned with our national footprint to continue to grow as the non-residential construction market continues to expand, and we have available capacity that can be deployed as needed.

Competition. We compete with other North American joist and steel deck producers primarily on the basis of price, quality, customer service, and proximity to the customer. Our national footprint allows us to service the entire domestic non-residential construction market, as well as national accounts such as large retail chains, and certain specialty deck customers.

Other Operations

Other operations consists of subsidiary operations that are below the quantitative thresholds required for reportable segments and primarily consist of our idled Minnesota ironmaking operations and smaller joint ventures. Also included in "Other" are certain unallocated corporate accounts, such as the company's senior secured credit facility, senior notes, certain other investments and certain profit sharing expenses.

Sources, Availability, and Cost of Steel and Other Operations' Raw Materials

Scrap Metals. The principal raw material of our steel operations is scrap metal derived from, among other sources "home scrap", generated internally at steel mills themselves; industrial scrap, generated as a by-product of manufacturing; and "obsolete" scrap recycled from end-of-life automobiles, appliances, railroad cars and railroad track materials, agricultural machinery and demolition scrap from obsolete structures, containers and machines.

Ferrous scrap typically comprises more than 80% of the metallic melt mix in electric arc furnace steelmaking, in contrast to integrated mill steelmaking, where the proportion of scrap has traditionally been approximately 25% to 35%. Depending upon the scrap substitute material that may be available from time to time, and the relative cost of such material, the percentage of scrap used in our steelmaking operations could be increased or reduced in our metallic melt mix.

Many variables can impact ferrous scrap prices, all of which reflect the pushes and pulls of the supply demand equation. These factors include the level of domestic steel production (high quality low-residual scrap is a by-product of steel manufacturing activity), the level of exports of scrap from the United States, and the amount of obsolete scrap production. In addition, domestic ferrous scrap prices generally have a strong correlation and spread to global pig iron pricing. Generally, as domestic steel demand increases, so does scrap demand and resulting scrap prices. The reverse is also normally, but not always, true with scrap prices following steel prices downward when supply exceeds demand. Scrap prices declined sharply in 2015 due to domestic scrap competition, the strong United States dollar tempering scrap exports, decreasing global pig iron prices, and lower steel mill utilization rates resulting from excessive record levels of steel imports. These excess sheet steel imports declined during 2016 with duties levied pursuant to the trade case rulings from the United States International Trade Commission, resulting in increased domestic steel mill utilization, resulting in improved scrap pricing. Steel imports once again rose during 2017, mostly related to structural and pre-fabricated structural long products, but also cold roll and coated sheet steel, causing pressure on steel selling prices in those markets. However, scrap prices continued to climb in 2017 due to strong domestic steel mill utilization and lower scrap exports, combined with additional supply from DRI projects and prime scrap. When scrap prices greatly accelerate, this can challenge one of the principal elements of an electric arc furnace based steel mill's traditional lower cost structure — the cost of its metallic raw material.

The following table provides pricing per gross ton from American Metal Market (AMM) and Ryan's Notes (Pig Iron) estimates for ferrous materials used in steel production:

Iron Units. In addition to scrap, DRI, HBI, pig iron, and iron nuggets are used in our electric arc furnace steel mill production. During 2017, 2016, and 2015, we consumed 10.3 million, 9.9 million and 8.8 million tons, respectively, of metallic materials in our steelmaking furnaces, of which, iron units other than scrap, represented approximately 13%, 14% and 12% of the tons, respectively. Of these iron substitute units consumed, our IDI operation supplies 100% of its production to the Butler Flat Roll Division mill, representing 72%, 65% and 66% of their iron units in 2017, 2016, and 2015, respectively.

Energy Resources

Electricity. Electricity is a significant input required in the electric arc furnaces in our steelmaking operations (excluding The Techs and Vulcan), representing 6%, 7% and 6% of steel production costs of goods sold in 2017, 2016, and 2015, respectively. We have entered into fixed price electricity contracts for the Butler Flat Roll Division, Columbus Flat Roll Division, Roanoke Bar Division and Steel of West Virginia, while our Engineered Bar Products Division has a combination of fixed pricing and market pricing for the various components of the electrical services (demand charge, energy charge, riders, etc.). Our Structural and Rail Division purchases electricity at current market prices and through forward contracts at fixed prices.

Patents and Trademarks

We currently do not own any material patents or patent applications for technologies that are in use in our production processes. We have the following major registered trademarks, as follows:

- the mark ''SDI'' and a chevron alone;
- the mark ''SDI'' and a chevron and ''Steel Dynamics, Inc.'' to the right of the chevron;
- the mark ''SDI'' and a chevron and ''Steel Dynamics'' to the right of the chevron;
- the mark ''OmniSource Corporation'' with the circle logo design;
- the slogan ''The Best in Metals Recycling'';
- the mark ''The Techs''; and
- the mark ''New Millennium Building Systems, LLC.''

Research and Development

Our research and development activities have consisted of efforts to expand, develop and improve our products and operating processes, and our efforts to develop and improve alternative ironmaking technologies through IDI. Most of these research and development efforts have been conducted in-house by our employees.

Environmental Matters

Our operations are subject to substantial and evolving local, state, and federal environmental, health and safety laws and regulations concerning, among other things, emissions to the air, discharges to surface and ground water and to sewer systems, and the generation, handling, storage, transportation, treatment and disposal of solid and hazardous wastes and secondary materials. Our operations are dependent upon permits regulating discharges into the air or into the water or the use and handling of by-products in order to operate our facilities. We dedicate considerable resources aimed at achieving compliance with federal and state laws concerning the environment. While we do not currently believe that our future compliance efforts with such provisions will have a material adverse effect on our results of operations, cash flows or financial condition, this is subject to change in the ever-evolving regulatory environment in which we operate.

Since the level of enforcement of environmental laws and regulations, or the nature of those laws that may be enacted from time to time are subject to changing social or political pressures, our environmental capital expenditures and costs for environmental compliance may increase in the future. In addition, due to the possibility of unanticipated regulatory or other developments, the amount and timing of future environmental expenditures may vary substantially from those currently anticipated. The cost of current and future environmental compliance may also place United States steel producers at a competitive disadvantage with respect to foreign steel producers, which may not be required to undertake equivalent costs in their operations.

Pursuant to the Resource Conservation and Recovery Act, or RCRA, which governs the treatment, handling and disposal of solid and hazardous wastes, the United States Environmental Protection Agency, or United States EPA, and authorized state environmental agencies may conduct inspections to identify alleged violations or areas where there may have been releases of solid or hazardous constituents into the environment and require the facilities to take corrective action to remediate any such releases. RCRA also allows citizens to bring certain suits against regulated facilities for potential damages and cleanup. Our steelmaking and certain other facilities generate wastes subject to RCRA. Our operations produce various by-products, some of which, for example electric arc furnace or EAF dust, are often categorized as hazardous waste, requiring special handling for disposal or for the recovery of metallics. We collect such by-products in pollution control equipment, such as baghouses, and either recycle or appropriately dispose of these by-products. While we cannot predict the future actions of the regulators or other interested parties, the potential exists for required corrective action at these facilities, the costs of which could be substantial.

Under the Comprehensive Environmental Response, Compensation and Liability, known as ''CERCLA'' or ''Superfund,'' the United States EPA and, in some instances, private parties have the authority to impose joint and several liability for the remediation of contaminated properties upon generators of waste, current and former site owners and operators, transporters and other potentially responsible parties, regardless of fault or the legality of the original disposal activity. Many states have statutes and regulatory authorities similar to CERCLA and to the United States EPA. We have a number of material handling agreements with various contractors to properly dispose of or recycle our electric arc furnace dust and certain other by-products of our operations. However, we cannot assure that, even if there has been no fault by us, we may not still be cited as a waste generator by reason of an environmental cleanup at a site to which our by-products were transported.

The Clean Water Act and similar state laws apply to aspects of our operations and impose regulatory restrictions related to the discharge of wastewater, storm water and dredged or fill material. United States EPA, states and, in certain instances, private parties have the ability to bring suit alleging violations and seeking penalties and damages. The Clean Water Act's provisions can require new or expanded water treatment investments to be made and can limit or even prohibit certain current or planned activities at our operations.

The Clean Air Act and analogous state laws require many of our facilities to obtain and maintain air permits in order to operate. Air permits can impose new or expanded obligations to limit or prevent current or future emissions and to add costly pollution control equipment. Enforcement for alleged violations can be brought by the United States EPA, the states, and in certain instances private parties, and can result in penalties and injunctive relief.

In addition, there are a number of other environmental, health and safety laws and regulations that apply to our facilities and may affect our operations. By way of example and not of limitation, certain portions of the federal Toxic Substances Control Act, Oil Pollution Act, Safe Drinking Water Act and Emergency Planning and Community Right-to-Know Act, as well as state and local laws and regulations implemented by the regulatory agencies, apply to aspects of our facilities' operations. In some instances, we may also be subject to foreign governments' regulations and international treaties and laws. Many of these laws allow both the governments and citizens to bring certain suits against regulated facilities for alleged environmental violations. Finally, our operations could be subject to certain toxic tort suits brought by citizens or other third parties alleging causes of action such as nuisance, negligence, trespass, infliction of emotional distress, or other claims alleging personal injury or property damage.

Employees

We emphasize decentralized decision making and responsibility and have established performance-based incentive compensation programs specifically designed to enhance productivity, improve profitability, control costs and foster innovation. Our work force consisted of approximately 7,635 full time employees at December 31, 2017, of which approximately 9% were represented by collective bargaining agreements. The largest group of unionized employees is at Steel of West Virginia. The remaining unionized employees are located in four different OmniSource metals recycling locations, each of which has its own agreement. We believe that our relationship with our employees is good.

Available Information

Our internet website address is *www.steeldynamics.com*. We make available on our internet website, under "Investors," free of charge, as soon as reasonably practicable after such materials are electronically filed with, or furnished to, the Securities and Exchange Commission, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports, as well as press releases, ownership reports pursuant to Section 16(a) of the Securities Act of 1933, our Code of Ethics for Principal Executive Officers and Senior Financial Officers, our Code of Business Conduct and Ethics, and any amendments thereto or waivers thereof, as well as our Audit, Compensation and Nominating and Corporate Governance Committee Charters. We do not intend to incorporate the contents of our or any other website into this report.

ITEM 1A. RISK FACTORS

Many factors could have an effect on our financial condition, cash flows and results of operations. We are subject to various risks resulting from changing economic, environmental, political, industry, business and financial conditions. The factors described below represent our principal risks.

Risks Related to our Industry

Global steelmaking overcapacity and imports of steel into the United States have adversely affected, and may continue to adversely affect, United States steel prices, which may adversely affect our business, results of operations, financial condition and cash flows.

Global steelmaking capacity currently exceeds global consumption of steel products, which adversely affects United States and global steel prices. Such excess capacity sometimes results in steel manufacturers in certain countries exporting steel and steel products, including pre-fabricated long-product steel, at prices that are lower than prevailing domestic prices, and sometimes at or below their cost of production. Excessive imports of steel and steel products, including pre-fabricated steel, into the United States, such as in recent years, have exerted, and may continue to exert, downward pressure on United States steel and steel products prices, which adversely affects our business, results of operations, financial condition and cash flows. Furthermore, anticipated additional domestic steel capacity could increase this global overcapacity. This, in turn, may also adversely impact domestic demand for ferrous scrap and our ferrous metallics margins. United States steel producers compete with many foreign producers, including those in China, Vietnam and other Asian and European countries. Competition from foreign producers is typically strong and is periodically exacerbated by weakening of the economies of certain foreign steelmaking countries. Additionally, low iron ore prices, resulting in disruption of the scrap price correlation to iron ore, leads to reduced global costs to produce steel, further depressing steel import prices. A higher volume of steel exports to the United States tend to occur at depressed prices when steel producing countries experience periods of economic difficulty, decreased demand for steel products or excess capacity. The global steelmaking overcapacity is exacerbated by Chinese steel production capacity that far exceeds that country's demand and has made China a major global exporter of steel, resulting in weakened global steel pricing than otherwise would be expected.

In addition, we believe the downward pressure on, and periodically depressed levels of, United States steel prices in recent years have been further accentuated through imports of steel involving dumping and subsidy abuses by foreign steel producers. Some foreign steel producers are owned, controlled or subsidized by foreign governments. As a result, decisions by these producers with respect to their production, sales and pricing are sometimes influenced to a greater degree by political and economic policy considerations than by prevailing market conditions, realities of the marketplace or consideration of profit or loss. However, while some tariffs, duties and quotas have been put into effect for certain steel products imported from a number of countries that have been found to have been unfairly pricing steel imports to the United States, some foreign steel subject to these duties, tariffs and quotas circumvent the penalties by processing in or transporting through a foreign country not subject to the penalties. Additionally, there is no assurance that already imposed tariffs, duties and quotas will remain in place or that new ones, even if justified, will be levied and even when imposed many of these are only short-lived. When such tariffs, duties or quotas expire or if others are further relaxed or repealed, or if relatively higher United States steel prices make it attractive for foreign steelmakers to export their steel products to the United States, despite the presence of duties, tariffs or quotas, the resurgence of substantial imports of foreign steel could create downward pressure on United States steel prices.

Our industry, as well as the industries of many of our customers and suppliers upon whom we are dependent, is affected by domestic and global economic factors including periods of slower than anticipated economic growth and the risk of a new recession.

Our financial results are substantially dependent not only upon overall economic conditions in the United States and globally, including Europe and in Asia, but also as they may affect one or more of the industries upon which we depend for the sale of our products. Global actions, including political actions, could result in changing economic conditions in the United States and globally, the effects of which are not known at this time. Additionally, periods of slower than anticipated economic growth could reduce customer confidence and adversely affect demand for our products and further adversely affect our business, results of operations, financial condition and cash flows. Metals industries have historically been vulnerable to significant declines in consumption and product pricing during periods of economic downturn or continued uncertainty, including the pace of domestic non-residential construction activity.

Our business is also dependent upon certain industries, such as construction, automotive, manufacturing, transportation, heavy and agriculture equipment, and pipe and tube (including OCTG) markets, and these industries are also cyclical in nature. Therefore, these industries may experience their own fluctuations in demand for our products based on such things as economic conditions, raw material and energy costs, consumer demand and infrastructure funding decisions by governments. Many of these factors are beyond our control. As a result of volatility in our industry or in the industries we serve, we may have difficulty increasing or maintaining our level of sales or profitability. If our industry or the industries we serve were to suffer a downturn, then we may experience an adverse effect on our business, results of operations, financial condition and cash flows.

A prospective decline in consumer and business confidence and spending, which is often coupled with reductions in the availability of credit or increased cost of credit, as well as volatility in the capital and credit markets, could adversely affect the business and economic environment in which we operate and the profitability of our business. We are also exposed to risks associated with the creditworthiness of our suppliers and customers. If the availability of credit to fund or support the continuation and expansion of our customers' business operations is curtailed or if the cost of that credit is increased the resulting inability of our customers or of their customers to either access credit or absorb the increased cost of that credit could adversely affect our business by reducing our sales or by increasing our exposure to losses from uncollectible customer accounts. A disruption of the credit markets could also result in financial instability of some of our suppliers and customers. The consequences of such adverse effects could include the interruption of production at the facilities of our customers, the reduction, delay or cancellation of customer orders, delays or interruptions of the supply of raw materials we purchase, and bankruptcy of customers, suppliers or other creditors. Any of these events may adversely affect our business, results of operations, financial condition and cash flows.

Our level of production and our sales and earnings are subject to significant fluctuations as a result of the cyclical nature of the steel industry and some of the industries we serve.

The steel manufacturing business is cyclical in nature, and the selling price of the steel we make may fluctuate significantly due to many factors beyond our control. Furthermore, a number of our products are commodities, subject to their own cyclical fluctuations in supply and demand in both metal consuming and metal generating industries, including the construction and manufacturing industries. The timing, magnitude and duration of these cycles and the resulting price fluctuations are difficult to predict. The sale of our manufactured steel products is directly affected by demand for our products in other cyclical industries, such as construction, automotive, manufacturing, transportation, heavy and agriculture equipment, and pipe and tube (including OCTG) markets. Economic difficulties, stagnant or slow global economies, supply/demand imbalances and currency fluctuations in the United States or globally could decrease the demand for our products or increase the amount of imports of steel into the United States, which could decrease our sales, margins and profitability.

The scrap metal recycling industry has historically been, and is expected to remain, highly cyclical and this could have a material adverse effect on our metals recycling operations' results.

Scrap metal prices remain volatile, and operating results within the metals recycling industry in general have historically been, and are expected to remain, highly cyclical in nature. Similarly, but not necessarily paralleling the price fluctuations in the steel business, the purchase prices for automobile bodies and various other grades of obsolete and industrial scrap, as well as the selling prices for processed and recycled scrap metals we utilize in our own manufacturing process, or which we resell to others through our metals recycling operations, are also volatile. During periods of excess domestic supply or increased imports, scrap metal prices may become or remain depressed and adversely affect the sales, profitability and margins of our scrap business. As a metals recycler, we may attempt to respond to changing recycled metal selling prices by adjusting the scrap metal purchase prices we pay to others, but our ability to do this may be limited by competitive or other factors during periods of low scrap prices, when inbound scrap flow may slow considerably, as scrap generators hold on to their scrap in hopes of getting higher prices later. As such, a prolonged period of low scrap prices could reduce our ability to obtain, process, and sell recycled materials, and this could adversely affect our metals recycling operations' results. Conversely, periodic increased foreign demand for scrap can result in an outflow of available domestic scrap, as well as resulting higher scrap prices domestically that cannot always be passed on to domestic scrap consumers, thereby further reducing available domestic scrap flows and scrap margins, all of which could adversely affect our sales and profitability of our metals recycling operations. Additionally, during periods of high demand and resulting higher scrap prices, ferrous scrap consumers may seek and develop ferrous scrap alternatives, including pig iron and DRI. The availability and pricing of these scrap alternatives in the domestic market may have a longer term impact on scrap pricing, particularly in prime grades, which could adversely affect our sales, profitability and margins.

Volatility and major fluctuations in scrap metal, pig iron, zinc and graphite electrode prices and availability, and our potential inability to pass higher costs on to our customers may constrain operating levels and reduce profit margins.

Steel producers require large amounts of raw materials, including scrap metal and scrap substitute products such as pig iron, pelletized iron and other supplies such as zinc, graphite electrodes and ferroalloys. Our principal raw material is scrap metal derived primarily from end-of-life automobiles, industrial scrap, railroad cars, railroad track materials, agricultural machinery and demolition scrap from obsolete structures, containers and machines. The prices for scrap are subject to market forces largely beyond our control, including demand by United States and international steel producers, freight costs and speculation. The prices for scrap have varied significantly in the past, may vary significantly in the future and do not necessarily fluctuate in tandem with the price of steel. Moreover, some of our integrated steel producer competitors are not as dependent as we are on scrap as a part of their raw material melt mix, which, during periods of high scrap costs relative to the cost of blast furnace iron used by the integrated producers, give them a raw material cost advantage over mini-mills. While our vertical integration into the metals recycling business, through our OmniSource operations, and into the ironmaking business, through our IDI facility, should enable us to continue being a cost-effective supplier to our own steelmaking operations, for some of our metallics requirements, we will still need to rely on other metallics and raw material suppliers, as well as upon general industry supply conditions for the balance of our needs.

Purchase prices for auto bodies, scrap metal and scrap substitute products such as pig iron that we consume, and selling prices for scrap and recycled metals that we sell to third parties are volatile and beyond our control. While OmniSource attempts to respond to changing recycled metal selling prices through adjustments to its metal purchase prices, its ability to do so is limited by competitive and other market factors. Changing prices could potentially impact the volume of scrap metal available to us and the volume and realized margins of processed metals we sell.

The availability and prices of raw materials may also be negatively affected by new or existing laws and regulations, allocation by suppliers, interruptions in production, accidents or natural disasters, changes in exchange rates, global price fluctuations, the availability and cost of transportation, and competing uses for raw materials. As a major producer of galvanized steel products, we purchase and consume a large amount of zinc, which is currently at historically high prices, and may have an effect on our profit margins. Due to its use in other industries, demand for the primary raw material (needle coke) used in the production of graphite electrodes has recently expanded, leading to increased price of graphite electrodes, and possible shortage. Graphite electrodes are a critical raw material in our steelmaking. Any inability to secure a consistent supply of graphite electrodes could have an adverse effect on our business, financial condition, results of operations or prospects.

If prices for ferrous metallics increase by a greater margin than corresponding price increases for the sale of our steel products, we may not be able to recoup such cost increases from increases in the selling prices of steel products. Conversely, depressed prices for ferrous scrap may constrain its supply, which may adversely affect our metals recycling operations and also the availability of certain grades of scrap for our steelmaking operations. Additionally, our inability to pass on all or any substantial part of any cost increases during periods of rapidly rising scrap prices, through scrap or other surcharges, or to provide for our customers' needs because of the potential unavailability of key raw materials or other inputs, may result in production slow downs or curtailments or may otherwise have a material adverse effect on our business, financial condition, results of operations or prospects.

The cost and availability of electricity and natural gas are also subject to volatile market conditions.

Steel producers like us consume large amounts of energy, inasmuch as mini-mills melt ferrous scrap in electric arc furnaces and use natural gas to reheat steel or steel billets for rolling into finished products. We rely on third parties for the supply of energy resources we consume in our steelmaking activities. The prices for and availability of electricity, natural gas, oil and other energy resources are also subject to volatile market conditions, often affected by weather conditions as well as political and economic factors beyond our control. As large consumers of electricity and gas, we must have dependable delivery in order to operate. Accordingly, we are at risk in the event of an energy disruption, including power outages or power unavailability. Prolonged blackouts or brownouts or disruptions caused by natural disasters or by political considerations would substantially disrupt our production. Since a significant portion of our finished steel products are delivered by truck, unforeseen fluctuations in the price of fuel attributable to fluctuations in crude oil prices would also have a negative impact on our costs or on the costs of many of our customers. In addition, changes in certain environmental regulations in the United States, including those that may impose output limitations or higher costs associated with climate change or greenhouse gas emissions legislation could substantially increase the cost of manufacturing and raw materials, such as energy, to us and other United States steel producers.

Fluctuations in the value of the United States dollar relative to other currencies may adversely affect our business.

Fluctuations in the value of the dollar can be expected to affect our business. A strong United States dollar, such as recently experienced, makes imported products less expensive, potentially resulting in more imports of steel products into the United States by our foreign competitors, while a weak United States dollar may have the opposite impact on imports.

Compliance with and changes in environmental and remediation requirements could result in substantially increased capital requirements and operating costs.

Existing laws or regulations, as currently interpreted or as may be interpreted in the future, as well as future laws or regulations, may have a material adverse effect on our results of operations and financial condition.

We are subject to comprehensive local, state, federal and international statutory and regulatory environmental requirements relating to, among other things:

- the generation, storage, treatment, handling and disposal of solid and hazardous waste and secondary materials;
- the discharge of materials into the air, including periodic changes to the National Ambient Air Quality Standards and to emission standards;
- the management, treatment and discharge of wastewater and storm water;
- the use and treatment of groundwater;
- the remediation of soil and groundwater contamination;
- climate change legislation or regulation;
- the need for and the ability to timely obtain air, water or other environmental permits;
- the timely reporting of certain chemical usage, content, storage and releases;
- the remediation and reclamation of land used for iron mining;
- natural resource damages; and
- the protection of our employees' health and safety.

Compliance with environmental laws and regulations, which affect our steelmaking, metals recycling, ironmaking, and copper and aluminum production operations, is a significant factor in our business. We are required to obtain and comply with environmental permits and licenses, and failure to obtain or renew or the violation of any permit or license could result in substantial fines and penalties, capital expenditures, operational changes, suspension of operations and/or the closure of a subject facility. Similarly, delays, increased costs and/or the imposition of onerous conditions to the securing or renewal of permits could have a material adverse effect on these operations.

Private parties might also bring claims against us under citizen suit provisions and/or for property damage or personal injury allegedly resulting from our operations. Moreover, legal requirements change frequently, are subject to interpretation and have tended to become more stringent over time. Uncertainty regarding adequate pollution control levels, testing and sampling procedures, and new pollution control technology are factors that may increase our future compliance expenditures. We are unable to predict the ultimate cost of future compliance with environmental requirements or their effect on our operations. Although we work hard to be in substantial compliance with all applicable laws and regulations, legal requirements frequently change and are subject to interpretation. New laws, regulations and changing interpretations by regulatory authorities, together with uncertainty regarding the application of existing requirements are among the factors that may increase our future expenditures to comply with environmental requirements. The cost of complying with existing laws or regulations as currently interpreted or reinterpreted in the future, or with future laws or regulations, may have a material adverse effect on our results of operations and financial condition.

Our manufacturing and metals recycling operations produce significant amounts of by-products, some of which are handled as solid or hazardous waste. For example, our steel mills generate electric arc furnace (EAF) dust, which the United States Environmental Protection Agency (United States EPA) and other regulatory authorities classify as hazardous waste and regulate accordingly unless recycled in an exempt manner.

In addition, the primary feed materials for the shredders operated by our metals recycling operations include automobile bodies and obsolete household appliances. A portion of the feed materials consist of unrecyclable material known as shredder residue. If laws or regulations, the interpretation of the laws or regulations, or testing methods change with regard to EAF dust or shredder residue or other by-products created by our operations, we may incur significant additional expenditures.

Federal and state environmental laws enable the United States EPA, state agencies and certain private parties to recover from owners, operators, generators and transporters the cost of investigation and cleanup of sites at which wastes or hazardous substances were disposed. In connection with these laws, we may be required to clean up contamination discovered at our sites including contamination that may have been caused by former owners or operators of the sites, to conduct additional cleanup at sites that have already had some cleanup performed, and/or to perform cleanup with regard to sites formerly used in connection with our operations.

In addition, we may be required to pay for, or to pay a portion of, the costs of cleanup at sites to which we sent materials for disposal or recycling, notwithstanding that the original disposal or recycling activity may have complied with all regulatory requirements then in effect. Under certain laws, a party can be held jointly and severally liable for all of the cleanup costs associated with a disposal site. In practice, a liable party often splits the costs of cleanup with other potentially responsible parties. We have received notices from the United States EPA, state agencies and third parties that we have been identified as potentially responsible for the cost of investigating and cleaning up a number of disposal sites. In most cases, many other parties are also named as potentially responsible parties.

Because cleanup liability can in some cases be imposed retroactively on activities that occurred many years ago, and because the United States EPA and state agencies are still discovering sites that pose a threat to public health or the environment, we can provide no assurance that we will not become liable for significant costs associated with investigation and remediation of cleanup sites.

Increased regulation associated with climate change and greenhouse gas (GHG) emissions could impose significant costs on both our steelmaking and metals recycling operations.

The United States government or various governmental agencies may introduce regulatory changes in response to the potential impacts of climate change. International treaties or agreements may also result in increasing regulation of GHG emissions, including the introduction of carbon emissions limitations or trading mechanisms. Any such regulation regarding climate change and greenhouse gas, or GHG emissions, could impose significant costs on our operations and on the operations of our customers and suppliers, including increased energy, capital equipment, emissions controls, environmental monitoring and reporting and other costs in order to comply with current or future laws or regulations concerning and limitations imposed on our operations by virtue of climate change and GHG emissions laws and regulations. Any adopted future climate change and GHG regulations could negatively impact our ability, and that of our customers and suppliers, to compete with companies situated in areas not subject to or not complying with such limitations.

From a medium and long-term perspective, we are likely to see an increase in costs relating to our assets that emit significant amounts of greenhouse gases as a result of these regulatory initiatives. These regulatory initiatives may impact our operations directly or through our suppliers or customers. Until the timing, scope and extent of any future regulation becomes known, we cannot predict the effect on our financial condition, operating performance and ability to compete.

Risks Related to the Business

Our senior secured credit facility contains, and any future financing agreements may contain, restrictive covenants that may limit our flexibility.

Restrictions and covenants in our existing debt agreements, including our senior secured credit facility, and any future financing agreements, may impair our ability to finance future operations or capital needs or to engage in other business activities. Specifically, these agreements may limit or restrict our ability to:

- incur additional indebtedness;
- pay dividends or make distributions with respect to our capital stock, in excess of certain amounts;
- repurchase or redeem capital stock;
- make some investments;
- create liens on property;
- make some capital expenditures;
- enter into transactions with affiliates or related persons;
- issue or sell stock of certain subsidiaries;
- sell or transfer assets; and
- enter into mergers, acquisitions or consolidations, or some joint ventures.

A breach of any of the restrictions or covenants could cause a default under our senior secured credit facility, our senior notes, or our other debt. A significant portion of our indebtedness then may become immediately due and payable if the default is not remedied.

Under our senior secured credit facility, we are required to maintain certain financial covenants tied to our leverage and profitability. Our ability to meet such covenants or other restrictions can be affected by events beyond our control. If a default were to occur, the lenders could elect to declare all amounts then outstanding to be immediately due and payable and terminate all commitments to extend further credit. If we are unable to repay those amounts, the lenders could proceed against the collateral granted to them to secure such indebtedness. We have pledged substantially all of our receivables and inventories and all shares of capital stock or other equity interests of our subsidiaries and intercompany debt held by us as collateral for our senior secured credit facility.

We may face significant price and other forms of competition from other steel producers, scrap processors and alternative materials, which could have a material adverse effect on our business, financial condition, results of operation or prospects.

The global markets in which steel companies and scrap processors conduct business are highly competitive and became even more so due to consolidations in the steel and scrap industries. Additionally, in many applications, steel competes with other materials, such as aluminum, cement, composites, plastics, carbon fiber, glass and wood. Increased use of alternative materials could decrease demand for steel and combined with increased competition could cause us to lose market share, increase expenditures or reduce pricing, any one of which could have a material adverse effect on our business, financial condition, results of operations or prospects. The global steel industry suffers from overcapacity, and that excess capacity intensifies price competition for some of our products. A decrease in the global demand for steel scrap, due to market or other conditions, generally causes a decrease in the price of scrap metals. A decrease in price could result in some scrap generators exiting the marketplace which could further decrease the availability of scrap. This shortage in availability of scrap could have a material adverse effect on both our steelmaking and our metals recycling operations and thus on our business, financial condition, results of operations or prospects.

We are subject to significant risks relating to changes in commodity prices and may not be able to effectively protect against these risks.

We are exposed to commodity price risk during periods where we hold scrap metal inventory for processing or resale. Prices of commodities, including scrap, can be volatile due to numerous factors beyond our control. In an increasing price environment for raw materials, competitive conditions may limit our ability to pass on price increases to our consumers. In a decreasing price environment for processed scrap, we may not have the ability to fully recoup the cost of raw materials that we procure, process, and sell to our customers. In addition, new entrants into the market areas we serve could result in higher purchase prices for raw materials and lower margins from our scrap. While we typically hedge certain commodities in which the futures market is well developed, we have not hedged positions in certain commodities where futures markets are not well established. Thus, our sales and inventory position will be vulnerable to adverse changes in commodity prices, which could materially adversely impact our operating and financial performance.

Availability of an adequate source of supply is required for our metals recycling operations.

We procure our scrap inventory from numerous sources. These suppliers generally are not bound by long-term contracts and have no obligation to sell recyclable metal to us. In periods of low industry prices, suppliers may elect to hold recyclable metal to wait for higher prices or intentionally slow their metal collection activities. If a substantial number of suppliers cease selling recyclable metal to us, we will be unable to recycle metal at desired levels and our results of operations and financial condition could be materially adversely affected. In addition, a slowdown of industrial production in the United States reduces the supply of industrial grades of metal to the metal recycling industry, resulting in our having less recyclable metal available to process and market.

We are subject to cybersecurity threats and may face risks to the security of our information technology.

Increased global cybersecurity and information technology security requirements, vulnerabilities, threats and a rise in sophisticated and targeted cybercrime pose a risk to the security and functionality of our systems, our information networks, and to the confidentiality, availability and integrity of sensitive data, including intellectual property, proprietary information, financial information, customer, supplier and business partner information, and personally identifiable information, any of which could have materially adverse economic consequences. Additionally, such cybersecurity vulnerabilities or attacks could result in an interruption of the functionality of our automated and electronically controlled manufacturing operating systems, which, if compromised, could cease, threaten, delay or slow down our ability to melt, roll or otherwise process steel or any of our other products for the duration of such interruption, which could have materially adverse economic consequences.

Although we believe we have adopted procedures and controls to adequately protect our sensitive data, networks and information and operating technology and systems, there can be no assurance that a system or network failure, or cybersecurity breach, will be prevented, whether due to attacks by cyber criminals or due to employee error or malfeasance. This could lead to system interruption, production delays or downtimes and operational disruptions, and the disclosure, modification or destruction of sensitive data, which could have an adverse effect on our reputation, customer, supplier and business partner relationships, financial results and results of operations, and could result in litigation or regulatory investigations or actions. Additionally, as cybersecurity threats continue to evolve and become more sophisticated, we may need to invest additional resources to protect the security of our systems and information networks.

We may face risks associated with the implementation of our growth strategy.

Our growth strategy subjects us to various risks. As part of our growth strategy, we may expand existing facilities, enter into new product or process initiatives, acquire or build additional plants, acquire other businesses and assets, enter into joint ventures, or form strategic alliances that we believe will complement our existing business. These transactions will likely involve some or all of the following risks:

- the risk of entering product or geographic markets in which we have little experience;
- the difficulty of competing for acquisitions and other growth opportunities with companies having materially greater financial resources than us;
- the inability to realize anticipated synergies or other expected benefits;
- the difficulty of integrating the new or acquired operations and personnel into our existing operations;
- the potential disruption of ongoing operations;
- the diversion of financial resources to new operations or acquired businesses;
- the diversion of management attention from other business concerns to new operations or acquired businesses;
- the loss of key employees, customers or suppliers of acquired businesses;
- the potential exposure to unknown liabilities;
- the inability of management to maintain uniform standards, controls, procedures and policies;
- the difficulty of managing the growth of a larger company;
- the risk of becoming involved in labor, commercial, or regulatory disputes or litigation related to the new operations or acquired businesses;
- the risk of becoming more highly leveraged;
- the risk of contractual or operational liability to other venture participants or to third parties as a result of our participation;
- the inability to work efficiently with joint venture or strategic alliance partners; and
- the difficulties of terminating joint ventures or strategic alliances.

These initiatives or transactions might be required for us to remain competitive, but we may not be able to complete any such transactions on favorable terms or obtain financing, if necessary. Future transactions may not improve our competitive position and business prospects as anticipated, and if they do not, our business, financial condition, results of operations or prospects may be adversely affected.

Impairment charges could adversely affect our results of operations.

Occasionally, assumptions that we have made regarding products or businesses we have acquired or sought to develop about the sustainability of markets we sought to exploit, or about industry conditions that underlie our decision making when we elected to capitalize a venture turn out differently than anticipated. In such instances, the fair value of such assets may fall below their carrying value recorded on our balance sheet.

Accordingly, we periodically test goodwill, and long-lived tangible and intangible assets to determine whether their estimated fair value is in fact less than their value recorded on our balance sheet. If we determine that the fair value of any of these assets, from whatever cause, is less than the value recorded on our balance sheet, we are required to incur non-cash asset impairment charges, such as those recorded in current and past years, that adversely affect our results of operations. There can be no assurances that continued market dynamics or other factors may not result in future impairment charges.

We are subject to litigation and legal compliance risks which could adversely affect our financial condition, results of operations and liquidity.

We are involved from time to time in various routine litigation matters, including administrative proceedings, regulatory proceedings, governmental investigations, environmental matters, and commercial and construction contract disputes, none of which at the present time are expected to have a material impact on our financial conditions, results of operations or liquidity. For additional information regarding legal proceedings please refer to Item 3. *Legal Proceedings*.

In addition to risks associated with our environmental and other regulatory compliance, our international operations are subject to complex foreign and United States laws and regulations, including the Foreign Corrupt Practices Act, regulations related to import-export controls, the Office of Foreign Assets Control, and other laws and regulations, each of which may increase our cost of doing business and expose us to increased risk.

Unexpected equipment downtime or shutdowns could adversely affect our business, financial condition, results of operations and prospects.

Interruptions in our production capabilities could adversely affect our production costs, products available for sale and earnings during the affected period. In addition to equipment failures, our facilities are also subject to the risk of catastrophic loss due to unanticipated events such as fires, explosions or violent weather conditions. Our manufacturing processes are dependent upon critical pieces of steelmaking equipment, such as our furnaces, continuous casters and rolling equipment, some of which are controlled by our information technology systems, as well as electrical equipment, such as transformers. This equipment may, on occasion, be out of service as a result of unanticipated failures or other events, including cyber attacks or system failures. We have experienced and may in the future experience plant shutdowns or periods of reduced production as a result of such equipment failures or other events. These disruptions could have an adverse effect on our business, financial condition, results of operations and prospects.

We have incurred, and may incur in the future, costs to idle facilities, idled facility carrying costs, or increased costs to resume production at idled facilities.

Our Minnesota ironmaking operations are indefinitely idled and should we in the future resume production, we would incur increased costs related to preparing for operation, performing any required repairs and maintenance, and training employees. Should economic or market conditions dictate, we may in the future idle additional facilities, which may require us to incur idling and carrying costs related to those facilities, as well as further increased costs should production be resumed at any idled facility, which could have an adverse effect on our financial results and results of operations.

Governmental agencies may refuse to grant or renew some of our licenses and permits.

We must receive licenses, air, water and other permits and approvals from state and local governments to conduct certain of our operations or to develop or acquire new facilities. Governmental agencies sometimes resist the establishment of certain types of facilities in their communities, including scrap metal collection and processing facilities. There can be no assurance that future approvals, licenses and permits will be granted or that we will be able to maintain and renew the approvals, licenses and permits we currently hold. Failure to do so could have a material adverse effect on our business, financial condition, results of operations and prospects.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The following table describes our more significant properties as of December 31, 2017. These properties are owned by us and not subject to any significant encumbrances, or are leased by us. We believe these properties are suitable and adequate for our current operations and are appropriately utilized. For additional information regarding our facilities please refer to Item 1. *Business.*

Operations	Location	Description	Site Acreage Owned	Site Acreage Leased
Steel Operations Segment*				
Butler Flat Roll Division:				
Butler Operations	Butler, IN	Flat Roll Steel Mill and Coating Facility	1,082	—
Jeffersonville Operations	Jeffersonville, IN	Flat Roll Steel Coating Facility	27	10
Iron Dynamics	Butler, IN	Liquid Ironmaking Facility	25	—
Columbus Flat Roll Division	Columbus, MS	Flat Roll Steel Mill and Coating Facility	277	1,422
The Techs	Pittsburgh, PA	Flat Roll Steel Coating Facilities	16	2
Structural and Rail Division	Columbia City, IN	Structural and Rail Steel Mill	699	—
Engineered Bar Division	Pittsboro, IN	Engineered Bar Steel Mill and Finishing Facility	310	—
Vulcan Threaded Products	Pelham, AL	Bar Steel Processing Facility	29	—
Roanoke Bar Division	Roanoke, VA	Merchant Bar Steel Mill	290	—
Steel of West Virginia	Huntington, WV	Specialty Shapes Steel Mill and Finishing Facility	49	6
Steel of West Virginia	Wurtland, KY		28	—
Steel of West Virginia	Memphis, TN		4	—
Metals Recycling Operations Segment				
OmniSource:				
Indiana	Multiple Cities	Ferrous and Nonferrous Scrap Processing	459	28
Michigan	Multiple Cities	Ferrous and Nonferrous Scrap Processing	189	—
North Carolina	Multiple Cities	Ferrous and Nonferrous Scrap Processing	346	—
Ohio	Multiple Cities	Ferrous and Nonferrous Scrap Processing	212	21
Oklahoma	Sand Springs, OK	Ferrous Scrap Processing	5	—
Tennessee	Johnson City, TN	Ferrous and Nonferrous Scrap Processing	33	—
Virginia	Multiple Cities	Ferrous and Nonferrous Scrap Processing	196	—
Steel Fabrication Operations Segment				
New Millennium Building Systems:				
Joist and Deck Operations	Butler, IN	Steel Joist and Deck Fabrication Facility	95	—
Joist Operations	Fallon, NV	Steel Joist Fabrication Facility	53	—
Joist and Deck Operations	Hope, AR	Steel Joist and Deck Fabrication Facility	73	—
Joist Operations	Juarez, MX	Steel Joist Fabrication Facility	17	—
Joist and Deck Operations	Lake City, FL	Steel Joist and Deck Fabrication Facility	75	—
Deck Operations	Memphis, TN	Deck Fabrication Facility	19	—
Joist and Deck Operations	Salem, VA	Steel Joist and Deck Fabrication Facility	63	—
Other Operations				
Corporate Headquarters	Fort Wayne, IN	Office Building (116,000 square feet)	20	—
SDI LaFarga, LLC	New Haven, IN	Copper Wire Rod Facility	35	—
Mesabi Nugget	Hoyt Lakes, MN	Ironmaking Facility – Idled May 2015	**	**
Mesabi Mining	Hoyt Lakes, MN	Iron Ore Concentration and Grinding (Mining not developed) – Idled May 2015	**	**
Mining Resources	Chisholm, MN	Iron Ore Tailings Mining – Idled May 2015	***	***

* For 2017, our steel mill production utilization was 92% of our estimated annual steelmaking capability.

** The Mesabi Nugget and Mesabi Mining properties are located at the site of an open pit taconite mine on the Mesabi Iron Range near Hoyt Lakes, Minnesota. The site encompasses 7,981 acres of land owned outright by us (including mineral and surface rights) and land for which we acquired leasehold interests (including 774 acres of mineral and 624 acres of surface rights). The properties were purchased from Cleveland Cliffs, Inc. and were formerly operated by LTV Corporation.

*** Mining Resources has leases for iron-bearing materials on 916 acres of iron tailings basins located in Chisholm, Minnesota.

ITEM 3. LEGAL PROCEEDINGS

We are involved in various litigation matters, including administrative proceedings, regulatory proceedings, governmental investigations, environmental matters, and commercial and construction contract disputes, none of which are currently expected to have a material impact on our financial condition, results of operations, or liquidity.

We may also be involved from time to time in various governmental investigations, regulatory proceedings or judicial actions seeking penalties, injunctive relief, and/or remediation under federal, state and local environmental laws and regulations. The United States EPA has conducted such investigations and proceedings involving us, in some instances along with state environmental regulators, under various environmental laws, including RCRA, CERCLA, the Clean Water Act and the Clean Air Act. Some of these matters have resulted in fines or penalties, for which a total of $420,000 is recorded in our financial statements as of December 31, 2017.

ITEM 4. MINE SAFETY DISCLOSURES

Information required to be furnished pursuant to Item 4 concerning mine safety disclosure matters, if applicable, by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104), is included in Exhibit 95 to this annual report. There are no mine safety disclosures to report for the year ended December 31, 2017, therefore, no Exhibit 95 is required.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The information required by Item 5 with respect to securities authorized for issuance under equity compensation plans is set forth in Part III, Item 12 of this Form 10-K. Our common stock trades on The NASDAQ Global Select Stock Market under the symbol STLD. The reported high and low "intra-day" sales prices of our common stock and our dividend information for the two most recent fiscal years are set forth in the following table (in dollars):

	Common Stock Market Price		Dividends Declared
	High	Low	
2017			
First Quarter	$38.47	$32.55	$0.1550
Second Quarter	37.52	32.15	0.1550
Third Quarter	38.70	32.20	0.1550
Fourth Quarter	43.89	33.57	0.1550
2016			
First Quarter	$22.92	$15.32	$0.1400
Second Quarter	26.99	21.57	0.1400
Third Quarter	28.01	22.79	0.1400
Fourth Quarter	40.17	23.34	0.1400

As of February 20, 2018, we had 236,071,369 shares of common stock outstanding and held beneficially by approximately 23,500 stockholders based on our security position listing. Because many of the shares were held by depositories, brokers and other nominees, the number of registered holders (approximately 1,460) is not representative of the number of beneficial holders.

We declared our first quarterly cash dividend in July 2004 and continued quarterly dividends throughout 2017. Our board of directors, along with executive management, approves the payment of dividends on a quarterly basis. The determination to pay cash dividends in the future will be at the discretion of our board of directors, after taking into account various factors, including our financial condition, results of operations, outstanding indebtedness, current and anticipated cash needs and growth plans. In addition, the terms of our senior secured credit facility and the indentures relating to our senior notes restrict the amount of cash dividends we can pay.

Issuer Purchases of Equity Securities

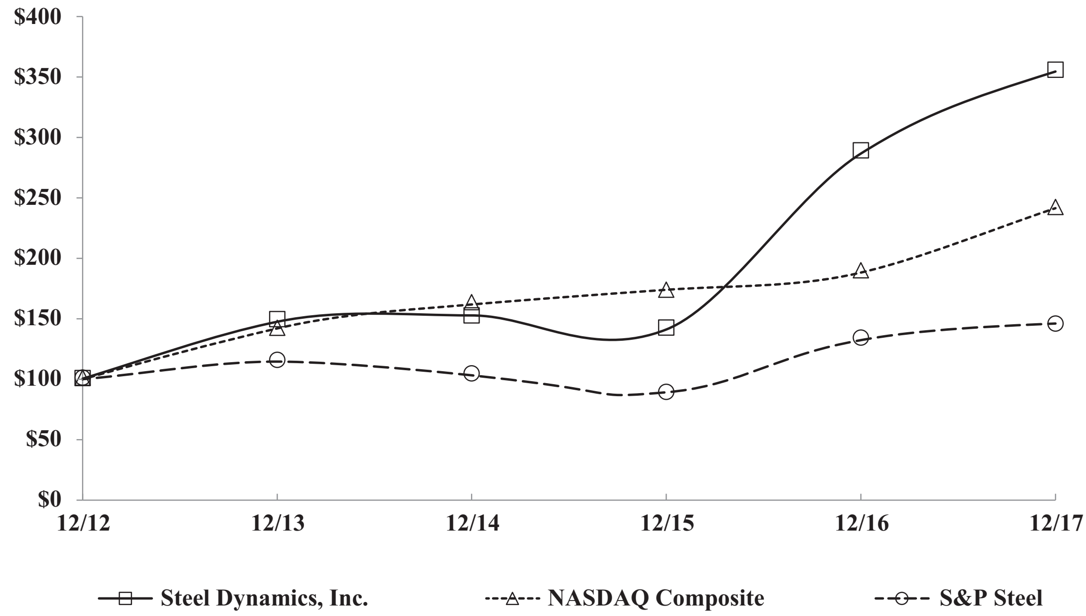
We purchased the following equity securities registered by us pursuant to Section 12 of the Exchange Act during the three months ended December 31, 2017.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program(1)	Maximum Dollar Value of Shares That May Yet be Purchased Under the Program *(in thousands)*(1)
Quarter ended December 31, 2017				
October 1 – 31	—	$ —	—	$187,812
November 1 – 30	211,461	37.83	211,461	179,812
December 1 – 31	185,258	38.26	185,258	172,724
	396,719		396,719	

(1) On October 18, 2016, we announced that our board of directors had authorized a share repurchase program of up to $450.0 million of our common stock. Our board of directors cancelled the previously authorized program with respect to which no shares had been repurchased for a number of years.

Total Return Graph

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Steel Dynamics, Inc., the NASDAQ Composite Index
and the S&P Steel Index



* $100 invested on 12/31/12 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth the selected consolidated financial and operating data of Steel Dynamics, Inc. The selected consolidated operating, other financial and balance sheet data, as of and for each of the years in the five-year period ended December 31, 2017, were derived from our audited consolidated financial statements. You should read the following data in conjunction with *Management's Discussion and Analysis of Financial Condition and Results of Operations* and our consolidated financial statements and notes appearing elsewhere in this Form 10-K.

You should also read the following information in conjunction with the data in the table on the following page:

- In the fourth quarter of 2017, we recorded a tax benefit related primarily to the impact of the revaluation of the company's deferred tax assets and liabilities as of December 31, 2017, using the lower federal tax rate enacted in the Tax Cuts and Jobs Act of 2017, which increased net income and net income attributable to Steel Dynamics, Inc. by $180.6 million, and basic and diluted earnings per share by $0.75.
- In the fourth quarter of 2016, we recorded a non-cash asset impairment charge associated with the company's Minnesota ironmaking operations and certain OmniSource assets, which reduced 2016 operating and pretax income by $132.8 million, net income by $89.5 million, net income attributable to Steel Dynamics, Inc. by $76.4 million, and basic and diluted earnings per share by $0.31.
- In the fourth quarter of 2015, we recorded a pretax non-cash asset impairment charge related to goodwill, trade name and certain other assets associated with OmniSource, which reduced 2015 operating income by $428.5 million, and net income and net income attributable to Steel Dynamics, Inc. by $268.7 million, and basic and diluted earnings per share by $1.11.
- In the fourth quarter 2014, we recorded a non-cash asset impairment charge associated with the company's Minnesota ironmaking operations, which reduced 2014 operating and pretax income by $260.0 million, net income by $179.1 million, net income attributable to Steel Dynamics, Inc. by $132.6 million, and basic and diluted earnings per share by $0.55.
- On September 16, 2014, we completed the acquisition of Severstal Columbus, LLC (Columbus Flat Roll Division). Columbus Flat Roll Division operations are reflected in our steel operations from the date of acquisition.
- For purposes of calculating our ''operational working capital'' for all periods presented, we consider amounts invested in trade receivables and inventories, less current liabilities other than income taxes payable and debt as reported on our consolidated balance sheets.

	Years Ended December 31,				
	2017	2016	2015	2014	2013
	(dollars and shares in thousands, except per share data)				
Operating data:					
Net sales	$9,538,797	$7,777,109	$7,594,411	$8,755,952	$7,372,924
Gross profit	1,582,014	1,334,864	731,718	966,211	719,144
Operating income (loss)	1,066,881	727,966	(72,784)	320,320	386,525
Asset impairment charges reflected in operating income (loss)	—	(132,839)	(428,500)	(260,000)	(308)
Net income (loss)	805,796	360,006	(145,170)	91,650	163,516
Net income (loss) attributable to Steel Dynamics, Inc.	812,741	382,115	(130,311)	157,024	189,314
Basic earnings (loss) per share	$ 3.38	$ 1.57	$ (0.54)	$ 0.68	$ 0.86
Weighted average common shares outstanding	240,132	243,576	242,017	232,547	220,916
Diluted earnings (loss) per share	$ 3.36	$ 1.56	$ (0.54)	$ 0.67	$ 0.83
Weighted average common shares and share equivalents outstanding	241,781	245,298	242,017	242,078	238,996
Dividends declared per share	$ 0.62	$ 0.56	$ 0.55	$ 0.46	$ 0.44
Capital expenditures	$ 164,935	$ 198,160	$ 114,501	$ 111,785	$ 186,843
Other data:					
Shipments:					
Steel operations segment (net tons)	9,726,977	9,245,946	8,328,150	7,358,366	6,119,884
Metals recycling operations segment					
Ferrous metals (gross tons)	4,952,973	5,070,380	5,139,506	5,566,238	5,505,995
Nonferrous metals (thousands of pounds)	1,086,799	1,103,505	1,082,777	1,173,771	1,052,494
Steel fabrication operations segment (net tons)	627,274	562,725	492,875	480,509	366,676
Steel operations segment production (net tons)	9,995,082	9,503,465	8,528,885	7,376,657	6,266,507
Shares outstanding (in thousands)	237,397	243,785	243,090	241,449	222,867
Number of employees	7,635	7,695	7,510	7,780	6,870
Balance sheet data:					
Cash and equivalents	$1,028,649	$ 841,483	$ 727,032	$ 361,363	$ 395,156
Operational working capital	1,552,156	1,301,405	1,246,408	1,723,208	1,405,736
Property, plant and equipment, net	2,675,904	2,787,215	2,951,210	3,123,906	2,226,134
Total assets	6,855,732	6,423,732	6,202,082	7,233,159	5,888,534
Long-term debt (including current maturities)	2,381,940	2,356,826	2,594,656	2,981,849	2,081,110
Equity	3,195,068	2,777,459	2,545,111	2,795,527	2,495,855

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

This report contains some predictive statements about future events, including statements related to conditions in the steel and metallic scrap markets, Steel Dynamics' revenues, costs of purchased materials, future profitability and earnings, and the operation of new or existing facilities. These statements, which we generally precede or accompany by such typical conditional words as "anticipate," "intend," "believe," "estimate," "plan," "seek," "project" or "expect," or by the words "may," "will," or "should," are intended to be made as "forward-looking," subject to many risks and uncertainties, within the safe harbor protections of the Private Securities Litigation Reform Act of 1995. These statements speak only as of this date and are based upon information and assumptions, which we consider reasonable as of this date, concerning our businesses and the environments in which they operate. Such predictive statements are not guarantees of future performance, and we undertake no duty to update or revise any such statements. Some factors that could cause such forward-looking statements to turn out differently than anticipated include: (1) the effects of uncertain economic conditions; (2) cyclical and changing industrial demand; (3) changes in conditions in any of the steel or scrap-consuming sectors of the economy which affect demand for our products, including the strength of the non-residential and residential construction, automotive, manufacturing, appliance, pipe and tube, and other steel-consuming industries; (4) fluctuations in the cost of key raw materials and supplies (including steel scrap, iron units, and energy costs) and our ability to pass on any cost increases; (5) the impact of domestic and foreign import price competition; (6) unanticipated difficulties in integrating or starting up new or acquired businesses; (7) risks and uncertainties involving product and/or technology development; and (8) occurrences of unexpected plant outages or equipment failures.

More specifically, we refer you to the sections titled *Special Note Regarding Forward-Looking Statements* at the beginning of Part I of this Report and *Risk Factors* set forth in Item 1A of this Report, as well as in other subsequent reports we file with the Securities and Exchange Commission, for a more detailed explanation of these and other factors and risks that may cause such predictive statements to turn out differently than expected or anticipated. These reports are available publicly on the Securities and Exchange Commission website, *www.sec.gov*, and on our website, *www.steeldynamics.com* under "Investors — SEC Filings".

Operating Statement Classifications

Net Sales. Net sales from our operations are a factor of volumes shipped, product mix and related pricing. We charge premium prices for certain grades of steel, product dimensions, certain smaller volumes, and for value-added processing or coating of our steel products. Except for the steel fabrication operations, we recognize revenues from sales and the allowance for estimated returns and claims from these sales at the time the title of the product transfers, upon shipment. Provision is made for estimated product returns and customer claims based on historical experience. If the historical data used in the estimates does not reflect future returns and claims trends, additional provision may be necessary. Our steel fabrication operations recognizes revenues utilizing a percentage of completion methodology based on steel tons used on completed units to date as a percentage of estimated total steel tons required for each contract.

Costs of Goods Sold. Our costs of goods sold represent all direct and indirect costs associated with the manufacture of our products. The principal elements of these costs are scrap and scrap substitutes (which represent the most significant single component of our consolidated costs of goods sold), steel, direct and indirect labor and related benefits, alloys, zinc, transportation and freight, repairs and maintenance, utilities such as electricity and natural gas, and depreciation.

Selling, General and Administrative Expenses. Selling, general and administrative expenses consist of all costs associated with our sales, finance and accounting, and administrative departments. These costs include, among other items, labor and related benefits, professional services, insurance premiums, and property taxes. Company-wide profit sharing and amortization of intangible assets are each separately presented in the statement of operations.

Interest Expense, net of Capitalized Interest. Interest expense consists of interest associated with our senior credit facilities and other debt net of interest costs that are required to be capitalized during the construction period of certain capital investment projects.

Other Expense (Income), net. Other income consists of interest income earned on our temporary cash deposits and investments; any other non-operating income activity, including income from non-consolidated investments accounted for under the equity method. Other expense consists of any non-operating costs, such as certain acquisition and financing expenses.

2017 Overview

Our consolidated results for 2017 benefited from improved demand in the domestic steel market, resulting in record steel shipments and sales compared to 2016, improved metal spreads from increased selling prices, and a resulting 19% increase in operating income. Underlying domestic steel consumption increased in 2017, as the construction and energy markets continued to improve throughout the year, the heavy and off-road equipment and general industrial manufacturing markets improved, and the automotive markets remained strong. However, steel imports rose again in 2017, most notably in structural and fabricated structural, but also in cold roll and coated sheet. Supported by increased domestic steel mill utilization compared to 2016, our metals recycling operations were able to maintain consistent volume and realize increased ferrous metal spreads, while also further reducing operating costs, resulting in improved operating income of almost 250%. The non-residential construction market continued to strengthen, resulting in record steel fabrication sales and shipments, however increasing selling prices were outpaced by higher steel input costs, resulting in compressed metal spread.

Our 2017 performance, both operationally and financially was one of Steel Dynamics, Inc. best years. We achieved numerous annual records, while continuing to focus on and improve company-wide safety.

Summary of significant achievements within our annual 2017 results:

- Record steel operations shipments of 9.7 million tons
- Record steel fabrication operations shipments of over 627,000 tons
- Record consolidated net sales of $9.5 billion
- Record consolidated operating income of $1.1 billion, and pretax income of $935 million

Consolidated operating income for 2017 increased $206.1 million, or 24%, to $1.1 billion, compared to $860.8 million in 2016, which excludes $132.8 million of non-cash asset impairment charge. Net income attributable to Steel Dynamics, Inc. for 2017 increased $354.1 million, or 77%, to $812.7 million, compared to 2016. Diluted earnings per share attributable to Steel Dynamics, Inc. for 2017 was $3.36, compared to $1.56 for 2016. Included in net income for 2017 was a one-time tax benefit of $180.6 million, or $0.75 per diluted share, resulting from our revaluation of our deferred tax assets and liabilities in connection with the U.S. Federal Tax Cuts and Jobs Act of 2017, and net income for 2016 was reduced by $76.4 million, or $0.31 per diluted share, of non-cash asset impairment charge.

2016 Overview

Our consolidated results for 2016 benefited from positive momentum in the sheet steel supply environment during the year, driving improved sheet steel volume and metal spreads, as well as increased metal spread and operating cost reductions in our metals recycling operations. Underlying domestic steel consumption remained relatively consistent, as the automotive markets were strong and construction improved throughout the year, while heavy equipment, agriculture and energy markets remained weak. Sheet steel import levels declined during 2016 as compared to 2015, amidst the duties that were levied during 2016 pursuant to the trade cases filed with the United States International Trade Commission, and customer inventory levels remained low compared to historical averages. Domestic steel mill utilization rates were flat in 2016 compared to 2015, resulting in lower ferrous volumes in our metals recycling operations, our metal spreads improved, particularly in nonferrous materials, and we benefited from continued operational cost containment efforts. The non-residential construction market for our steel fabrication operations was strong, resulting in record shipments; however, average selling prices contracted, outpacing declining steel input costs, resulting in compressed metal spread during 2016.

In the fourth quarter of 2016, we recorded a $127.3 million non-cash asset impairment charge, including amounts attributable to noncontrolling interests of $13.1 million, which reduced net income attributable to Steel Dynamics, Inc. by $72.9 million for the year ended December 31, 2016. Also, during the fourth quarter of 2016, a $5.5 million OmniSource goodwill impairment charge was recorded in conjunction with OmniSource entering into a definitive sale agreement with a third-party pertaining to certain OmniSource long-lived assets (classified and reported as held for sale as of December 31, 2016), inventory and spare parts. In the fourth quarter of 2015, we recorded a pretax non-cash impairment charge related to goodwill — $341.3 million, indefinite-lived intangible assets — $68.5 million, and certain other assets — $10.3 million, associated with OmniSource. This impairment charge reduced 2015 operating income by $428.5 million, and net income and net income attributable to Steel Dynamics, Inc. by $268.7 million.

Excluding the impact of the $132.8 million and $428.5 million in pretax non-cash asset impairment charges in 2016 and 2015, respectively, consolidated operating income increased $505.1 million, or 142%, to $860.8 million in 2016, compared to $355.7 million in 2015, and net income attributable to Steel Dynamics, Inc. increased $320.3 million, or 232%, to $458.6 million, or $1.87 per diluted share, during 2016, compared with net income of $138.3 million, or $0.57 per diluted share, during 2015. The impact of the $132.8 million pretax non-cash asset impairment charges, including amounts attributable to noncontrolling interests of $13.1 million, reduced 2016 net income attributable to Steel Dynamics, Inc. by $76.4 million and our diluted earnings per share by $0.31. The impact of the $428.5 million pretax non-cash asset impairment charge reduced 2015 net income attributable to Steel Dynamics, Inc. by $268.7 million and our diluted earnings per share by $1.11.

Segment Operating Results (***dollars in thousands***)

	Years Ended December 31,				
	2017	% Change	2016	% Change	2015
Net sales					
Steel Operations	$ 7,175,409	22%	$ 5,870,924	8%	$ 5,422,475
Metals Recycling Operations	2,813,004	30%	2,171,877	(7)%	2,337,716
Steel Fabrication Operations	824,425	17%	703,522	4%	673,399
Other	375,511	36%	276,912	(12)%	314,847
	11,188,349		9,023,235		8,748,437
Intra-company	(1,649,552)		(1,246,126)		(1,154,026)
	$ 9,538,797	23%	$ 7,777,109	2%	$ 7,594,411
Operating income (loss)					
Steel Operations	$ 1,098,630	19%	$ 926,954	130%	$ 403,216
Metals Recycling Operations(1)	71,052	248%	20,423	105%	(448,137)
Asset Impairment Charges Reflected in Metals Recycling(1)	—		*(5,500)*		*(428,500)*
Steel Fabrication Operations	87,295	(4)%	90,955	(22)%	115,947
Other(2)	(190,785)	37%	(301,116)	(102)%	(148,784)
Asset Impairment Charges Reflected in Other(2)	—		*(127,339)*		—
	1,066,192		737,216		(77,758)
Intra-company	689		(9,250)		4,974
	$ 1,066,881	47%	$ 727,966	1100%	$ (72,784)

(1) Metals recycling operations segment 2016 operating income of $20.4 million includes $5.5 million of pretax non-cash goodwill impairment charge, and 2015 operating loss of $448.1 million in 2015 includes $428.5 million of pretax non-cash goodwill and other related asset impairment charge.

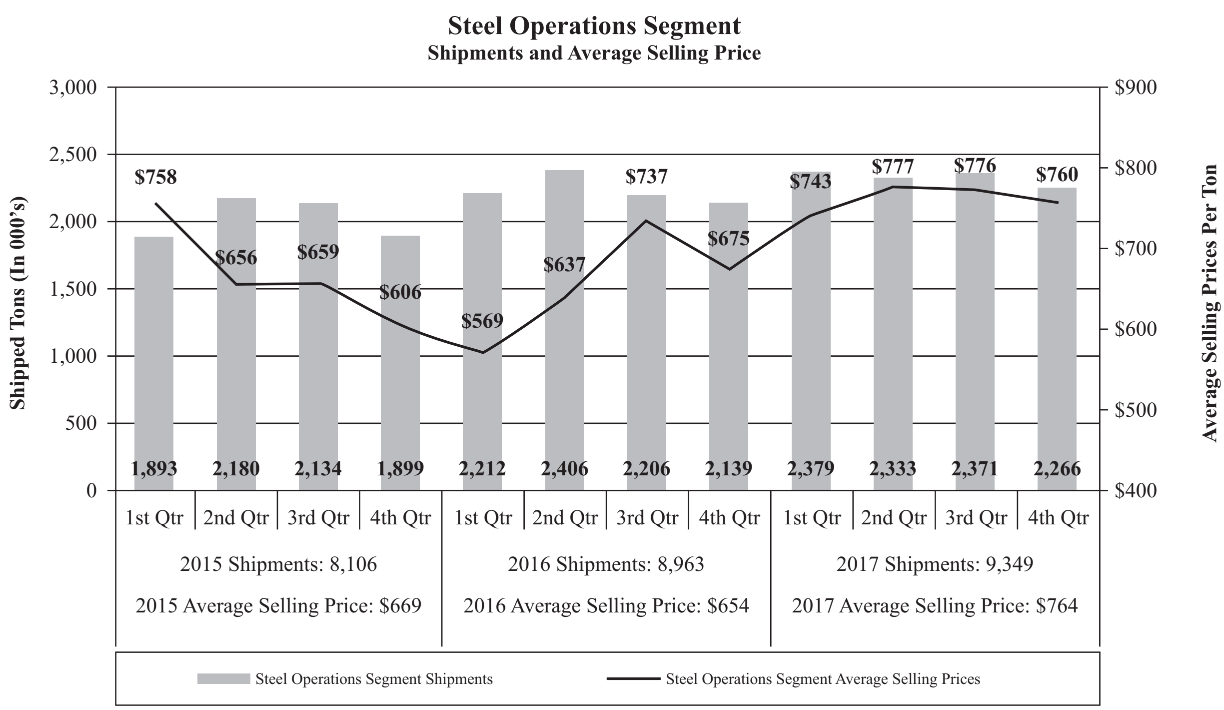
(2) Other operations consists of subsidiary operations that are below the quantitative thresholds required for reportable segments and primarily consist of our Minnesota ironmaking operations that have been idle since May 2015, and other smaller joint ventures. Also included in ''Other'' are certain unallocated corporate accounts, such as the company's senior secured credit facility, senior notes, certain other investments and certain profit sharing expenses. Other operations operating loss of $301.1 million in 2016 includes $127.3 million of pretax non-cash asset impairment charges related to our Minnesota ironmaking operations.

Steel Operations Segment

Steel Operations Segment. Steel operations consist of our electric arc furnace steel mills, producing sheet and long products steel from ferrous scrap and scrap substitutes, utilizing continuous casting, automated rolling mills with several downstream coating and bar processing lines, as well as IDI, our liquid pig iron production facility that supplies solely the Butler Flat Roll Division. Our steel operations sell directly to end-users, steel fabricators, and service centers. These products are used in numerous industry sectors, including the construction, automotive, manufacturing, transportation, heavy equipment and agriculture, and pipe and tube (including OCTG) markets (see Item 1 to this Form 10-K). Steel operations accounted for 72% of our consolidated net sales during 2017 and 2016, and 69% in 2015.

Steel Operations Segment Shipments (tons):

	Years Ended December 31,				
	2017	% Change	2016	% Change	2015
Total shipments	9,726,977	5%	9,245,946	11%	8,328,150
Intra-segment shipments	(378,081)		(282,610)		(222,025)
Steel Operations Segment shipments	9,348,896	4%	8,963,336	11%	8,106,125
External shipments	9,015,013	5%	8,558,331	11%	7,703,749



Segment Results 2017 vs. 2016

Underlying domestic steel consumption increased in 2017, as the construction and energy markets continued to improve throughout the year, the heavy and off-road equipment and general industrial manufacturing markets improved, and the automotive markets remained strong, as we continued to gain market share in this market, particularly at our Columbus Flat Roll Division. With domestic steel consumption increasing in 2017 over 2016, steel imports, particularly for long products but also cold roll and coated sheet, rose over 15% from 2016 levels, representing 27% of 2017 domestic consumption. In spite of increased imports, our steel mills utilization rate increased to 92% in 2017, as compared to 87% in 2016, with increases in both our sheet and long products steel utilization rates. Our steel utilization rates continue to outpace our domestic competitors, which averaged 74% during 2017, due to our diversified value-added product offerings. Net sales for the steel operations increased 22% in 2017, when compared to 2016, due to a 4% increase in steel operations shipments combined with an increase of $110 per ton, or 17%, in average selling prices. Sheet steel average selling prices increased 19% in 2017 compared to 2016, while long products rose 10%.

Metallic raw materials used in our electric arc furnaces represent our single most significant steel manufacturing cost, generally comprising approximately 60% of our steel operations' manufacturing costs, excluding the operations of The Techs and Vulcan, which purchase, rather than produce, the steel they further process. Our metallic raw material cost per net ton consumed in our steel operations increased $73, or 33%, compared to the same period in 2016, consistent with overall ferrous scrap market pricing.

Operating income for the steel operations increased 19%, to a record $1.1 billion, in 2017, compared to 2016, due to an 8% increase in metal spread (which we define as the difference between average selling prices and the cost of ferrous scrap consumed) on higher selling prices, coupled with increased steel shipments.

Segment Results 2016 vs. 2015

Overall steel operations performance in 2016 compared to 2015 benefited from positive momentum throughout the year in the sheet steel supply environment, as the excessively high levels of steel imports experienced in 2015 and 2014 declined approximately 15% in 2016 on a year-over-year basis. Duties levied in 2016 pursuant to the trade case rulings from the United States International Trade Commission, coupled with low customer inventories compared to historical levels, precipitated higher domestic steel shipments and higher utilization for our steel mills. Our steel mills utilization rate improved to 87% for 2016, as compared to 79% in 2015, with our sheet steel utilization rate improving to 99% in 2016 from 86% in 2015. The domestic steel demand outlook remained relatively unchanged throughout 2016, as automotive markets were strong and construction improved throughout the year, while heavy equipment, agriculture and energy markets remained challenged. Overall steel selling prices improved during the last three quarters of 2016 from the significant decline that occurred throughout 2015 and early 2016 as sheet steel imports declined. Net sales for the steel operations increased 8% in 2016, when compared to 2015, as an 11% increase in steel operations shipments more than offset a decrease of $15 per ton, or 2%, in average selling prices.

Our metallic raw material cost per net ton consumed in our steel operations decreased $35, or 14%, in 2016 compared to 2015, consistent with overall ferrous scrap market pricing.

Operating income for the steel operations increased 130%, to $927.0 million, in 2016, compared to 2015, due to an 11% increase in steel shipments coupled with a 5% increase in overall steel operations metal spread expansion. Sheet steel metal spread expanded 15%, while long products metal spread contracted 9%, as domestic overcapacity and an aggressive competitive environment continued.

Metals Recycling Operations Segment

Metals Recycling Operations Segment. Metals recycling operations consists solely of OmniSource and includes both ferrous and nonferrous scrap metal processing, transportation, marketing, and brokerage services, strategically located primarily in close proximity to our steel mills and other end-user scrap consumers throughout the eastern half of the United States. OmniSource designs, installs, and manages customized programs for industrial manufacturing companies at hundreds of locations throughout North America. Our steel mills utilize a large portion (between 54% and 63% for the periods presented) of the ferrous scrap sold by OmniSource as raw material in our steelmaking operations, and the remainder is sold to other consumers, such as other steel manufacturers and foundries. Metals recycling operations accounted for 15% of our consolidated net sales during 2017 and 2016 and 19% in 2015.

Metals Recycling Operations Segment Shipments:

	Years Ended December 31,				
	2017	% Change	2016	% Change	2015
Ferrous metal (gross tons)					
Total	4,952,973	(2)%	5,070,380	(1)%	5,139,506
Inter-company	(3,108,858)		(3,112,616)		(2,755,218)
External shipments	1,844,115	(6)%	1,957,764	(18)%	2,384,288
Nonferrous metals (thousands of pounds)					
Total	1,086,799	(2)%	1,103,505	2%	1,082,777
Inter-company	(140,678)		(111,947)		(85,410)
External shipments	946,121	(5)%	991,558	(1)%	997,367

Segment Results 2017 vs. 2016

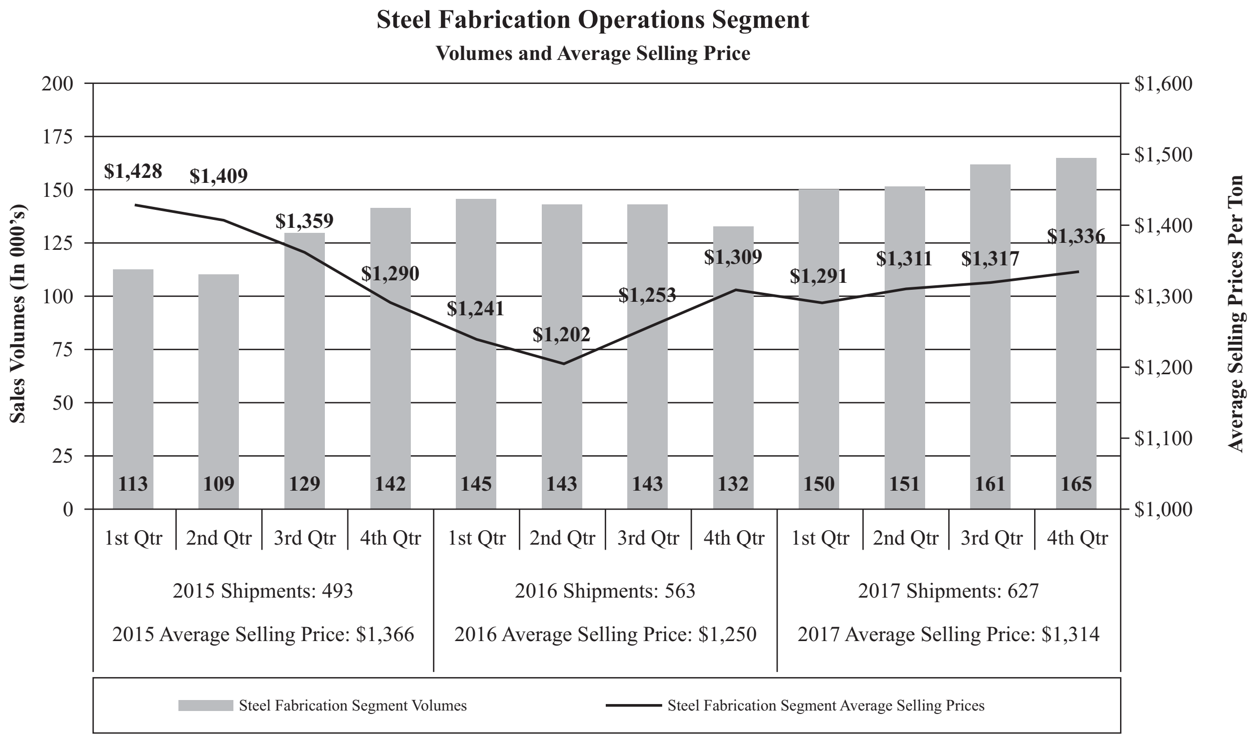
Metals recycling operations operating income in 2017 of $71.1 million increased $45.1 million, or almost 250%, compared to 2016 (excluding the impact in 2016 of a $5.5 million impairment charge). Net sales increased 30% in 2017 as compared to 2016, driven by increased ferrous and nonferrous pricing, which improved 39% and 29%, respectively, compared to 2016. We were able to maintain shipments close to 2016 levels despite the sale of some non-core locations in early 2017, as overall domestic steel mill utilization was 74% in 2017, compared to 70% in 2016. Metals recycling operations ferrous shipments to our steel mills increased to 63% of total tons shipped in 2017, compared to 61% in 2016. Ferrous metal spread (which we define as the difference between average selling prices and the cost of purchased scrap) improved 17% as selling prices increased throughout 2017, and we were able to achieve further reduced operating expenses.

Segment Results 2016 vs. 2015

Metals recycling operations operating income in 2016 of $25.9 million (excluding the impact of a $5.5 million asset impairment charge) was $45.6 million higher than 2015 (excluding the impact in 2015 of $428.5 million of impairment charges), due to our continued focus on reduction of operating costs, along with improved ferrous and nonferrous metal spreads. Net sales decreased 7% in 2016 compared to 2015, with ferrous and nonferrous selling prices decreasing 5% and 9%, respectively. While total ferrous and nonferrous shipments were comparable during 2016 and 2015, metal spreads increased 11% and 10%, respectively, as scrap costs declined more than selling prices, driving improved operating income during 2016. With improved utilization at our steel mills in 2016, the metals recycling operations ferrous shipments to our mills increased to 61% of total tons shipped in 2016, compared to 54% in 2015.

Steel Fabrication Operations Segment

Steel Fabrication Operations Segment. Steel fabrication operations include our New Millennium Building Systems' joist and deck plants located throughout the United States and in Northern Mexico. Revenues from these plants are generated from the fabrication of steel joists, trusses, girders and steel deck used within the non-residential construction industry. Steel fabrication operations accounted for 9% of our consolidated net sales during 2017, 2016 and 2015.



Segment Results 2017 vs. 2016

The overall non-residential construction market continued to improve throughout 2017, demonstrating a positive growth profile, as our fabrication operations achieved record shipments in 2017. Net sales of $824.4 million for the segment increased $120.9 million, or 17%, in 2017, compared to 2016, as volumes increased 11% and selling prices increased 5%. Our steel fabrication operations continued to realize strength in order activity and resulting shipments, as we continued to leverage our national operating footprint to sustain and improve market share, and market demand continued to improve.

The purchase of various steel products is the largest single cost of production for our steel fabrication operations, generally representing approximately two-thirds of the total cost of manufacturing. The average cost of steel consumed increased by 15% in 2017, consistent with increased selling prices discussed in the steel operations results, as compared to 2016, while average selling prices increased only 5%, resulting in metal spread (which we define as the difference between average selling prices and the cost of purchased steel) contracting 5%. Operating income decreased 4% to $87.3 million in 2017 compared to 2016, as increased shipments were more than offset by metal spread contraction.

Segment Results 2016 vs. 2015

The non-residential construction market was strong during 2016; however, decreased annual selling prices outpaced decreased overall steel input costs, resulting in metal spread compression. As a result of record shipments, which more than offset decreased selling prices, net sales for the steel fabrication operations increased $30.1 million, or 4%, in 2016, compared to 2015. Metal spread declined 10% in 2016, compared to

2015, as a $116 per ton, or 8%, decrease in average selling prices outpaced a 7% decrease in the average cost of steel consumed. This resulted in a 22% decrease in operating income to $91.0 million in 2016, as compared to $115.9 million in 2015.

Other Operations

Other operations consists of subsidiary operations that are below the quantitative thresholds required for reportable segments and primarily consist of our idled Minnesota ironmaking operations and smaller joint ventures. Also included in ''Other'' are certain unallocated corporate accounts, such as the company's senior secured credit facility, senior notes, certain other investments and certain profit sharing expenses.

During the fourth quarter of 2016 impairment indicators related primarily to Mining Resources and Mesabi Mining fixed assets within our Minnesota ironmaking operations resulted in a non-cash asset impairment charge of $127.3 million, including amounts attributable to noncontrolling interests of $13.1 million, which reduced net income attributable to Steel Dynamics, Inc. by $72.9 million for the year ended December 31, 2016.

Consolidated Results 2017 vs. 2016

Selling, General and Administrative Expenses. Selling, general and administrative expenses of $394.6 million during 2017 increased 6% from $374.0 million during 2016, representing approximately 4.1% and 4.8% of net sales, respectively. The increase in 2017 compared to 2016 is due most notably to increased performance-based incentive compensation, associated with our increased profitability. Profit sharing of $91.3 million in 2017, increased $21.0 million, or 28% over 2016, with our increased profitability.

Interest Expense, net of Capitalized Interest. During 2017, interest expense decreased $11.6 million to $134.4 million, when compared to 2016. The decrease in interest expense is due to lower interest rates on our senior notes outstanding. In the fourth quarter of 2016, we called and repaid $400.0 million of 6.125% senior notes due 2019 with 5.000% senior notes due 2026. Also in the fourth quarter of 2016, we early paid off the remaining $228.1 million of outstanding Senior Term Loan debt. In addition, in the second half of 2017, we called and repaid our $350.0 million of 6.375% senior notes due 2022 with 4.125% senior notes due 2025.

Other Expense (Income), net. Net other income of $2.8 million in 2017 included $14.6 million of expense associated with call premium and other financing costs associated with the tender and call of the Senior Notes due 2022, which were more than offset by other income, primarily interest. Net other expense of $17.8 million in 2016 included $16.5 million of expense associated with call premium and other financing costs associated with the tender and call of the Senior Notes due 2019.

Income Tax Expense (Benefit). During 2017, our income tax expense was $129.4 million at an effective income tax rate of 13.8%, as compared to income tax expense of $204.1 million resulting in an effective income tax rate of 36.2% during 2016. The lower effective tax rate in 2017 was due primarily to a one-time $180.6 million net federal tax benefit resulting from our revaluation of deferred tax assets and liabilities in connection with the enacted Tax Cuts and Jobs Act of 2017, and discrete tax benefits related to valuation allowance reductions, state tax refunds and equity-based compensation.

Included in the balance of unrecognized tax benefits of $16.7 million at December 31, 2017, are potential benefits of $12.5 million that, if recognized, would affect our effective tax rate. We recognize interest and penalties related to our tax contingencies on a net-of-tax basis in income tax expense. During the year ended December 31, 2017, we recognized expense from the increase of interest expense of $85,000, net of tax. In addition to the unrecognized tax benefits noted above, we had $4.8 million accrued for the payment of interest and penalties at December 31, 2017.

We file income tax returns in the United States federal jurisdiction as well as income tax returns in various state jurisdictions. We are subject to examination and proposed adjustments by the IRS for years 2010 and thereafter. At this time, we do not believe there will be any significant examination adjustments that would result in a material change to our financial position, results of operations or cash flows. It is reasonably possible that the amount of unrecognized tax benefits could change in the next twelve months as a result of these federal income tax audits, and state income tax audits. Based on the current audits in process, the payment of taxes as a result of audit settlements could be in an amount from zero to $3.3 million by the end of 2018. With the exception of the 2010 and 2011 federal returns, we are no longer subject to federal, state and local income tax examinations by tax authorities for years ended before 2012.

Consolidated Results 2016 vs. 2015

Selling, General and Administrative Expenses. Selling, general and administrative expenses of $374.0 million during 2016 increased 14% from $328.8 million during 2015, representing approximately 4.8% and 4.3% of net sales, respectively. The increase in 2016 compared to 2015 is due most notably to increased performance-based incentive compensation, associated with our increased profitability. Profit sharing of $71.3 million in 2016, increased $48.2 million over 2015, with our increased profitability.

Interest Expense, net of Capitalized Interest. During 2016, interest expense decreased $7.9 million to $146.0 million, when compared to 2015. The decrease in interest expense is due primarily to the call and prepayment of our $350.0 million 7⅝% Senior Notes due 2020, in the first quarter of 2015.

Other Expense (Income), net. During 2016, net other expense of $17.8 million included $16.5 million of expenses associated with call premium and other financing costs associated with the tender and call of the Senior Notes due 2019. Net other expense of $15.4 million in 2015 includes $16.7 million of expenses associated with tender and call premium and other financing costs associated with the tender and call of the Senior Notes due 2020.

Income Tax Expense (Benefit). During 2016, our income tax expense was $204.1 million at an effective income tax rate of 36.2%, as compared to a benefit of $96.9 million resulting in an effective income tax rate of 40.0% during 2015. The lower effective tax rate in 2016 was due primarily to benefits from other permanent tax benefit items, most notably the 2016 domestic manufacturing deduction, available in years with taxable income.

Liquidity and Capital Resources

Capital Resources and Long-term Debt. Our business is capital intensive and requires substantial expenditures for, among other things, the purchase and maintenance of equipment used in our steel, metals recycling, and steel fabrication operations, and to remain in compliance with environmental laws. Our short-term and long-term liquidity needs arise primarily from working capital requirements, capital expenditures, principal and interest payments related to our outstanding indebtedness, dividends to our shareholders, and acquisitions. We have met these liquidity requirements primarily with cash provided by operations and long-term borrowings, and we also have availability under our Revolver. Our liquidity at December 31, 2017, is as follows (in thousands):

Cash and equivalents	$1,028,649
Revolver availability	1,188,082
Total liquidity	$2,216,731

Our total outstanding debt increased $22.1 million during 2017, due to additional revolving credit facility borrowings at one of our controlled subsidiaries. Our total long-term debt to capitalization ratio (representing our long-term debt, including current maturities, divided by the sum of our long-term debt, redeemable noncontrolling interests, and our total stockholders' equity) decreased to 41.9% at December 31, 2017, from 44.9% at December 31, 2016.

In September 2017, we issued $350.0 million of 4.125% senior notes due 2025 (the "2025 Notes"), the proceeds of which, along with available cash, were used to fund the September 2017 tender to purchase at a redemption price of 103.563%, $182.9 million principal amount, plus accrued and unpaid interest to, but not including, the date of repurchase, of our 6.375% senior notes due 2022 (the "2022 Notes"), and the October 2017 call and repayment at a redemption price of 103.188% of the $167.1 million remaining outstanding principal amount of the 2022 Notes, plus accrued and unpaid interest to, but not including, the date of repayment.

Our November 2014 senior secured credit facility (Facility), which provides a $1.2 billion Revolver, matures November 2019. Subject to certain conditions, we have the opportunity to increase the Revolver size by at least $750.0 million. The Facility is guaranteed by certain of our subsidiaries; and is secured by substantially all of our and our wholly-owned subsidiaries' receivables and inventories, and by pledges of all shares of our wholly-owned subsidiaries' capital stock or other equity interests, and intercompany debt held by us as collateral. The Revolver is available to fund working capital, capital expenditures, and other general corporate purposes. The Facility contains financial covenants and other covenants pertaining to our ability (which may under certain circumstances be limited) to make capital expenditures; incur indebtedness; permit liens on property; enter into transactions with affiliates; make restricted payments or investments; enter into mergers, acquisitions or consolidations; conduct asset sales; pay dividends or distributions, or enter into other specified transactions and activities. Our ability to borrow funds within the terms of the Revolver is dependent upon our continued compliance with the financial and other covenants. At December 31, 2017, we had $1.2 billion of availability on the Revolver, $11.9 million of outstanding letters of credit and other obligations which reduce availability, and there were no borrowings outstanding.

The financial covenants under our Facility state that we must maintain an interest coverage ratio of not less than 2.50:1.00. Our interest coverage ratio is calculated by dividing our last-twelve-months (LTM) consolidated adjusted EBITDA (earnings before interest, taxes, depreciation, amortization, and certain other non-cash transactions as allowed in the Facility) by our LTM gross interest expense, less amortization of financing fees. In addition, a net debt (as defined in the Facility) to consolidated LTM adjusted EBITDA (net debt leverage ratio) of not more than 5.00:1.00 must be maintained. If the net debt leverage ratio exceeds 3.50:1:00 at any time, our ability to make certain payments as defined in the Facility (which includes cash dividends to stockholders and share purchases, among other things), is limited. At December 31, 2017, our interest coverage ratio and net debt leverage ratio were 10.75:1.00 and 1.35:1.00, respectively. We were, therefore, in compliance with these covenants at December 31, 2017, and we anticipate we will continue to be in compliance during the next twelve months.

Working Capital. We generated cash flow from operations of $739.6 million in 2017. Operational working capital (representing amounts invested in trade receivables and inventories, less current liabilities other than income taxes payable and debt) increased $250.7 million to $1.6 billion at December 31, 2017. Increases in volumes, pricing and profitability have resulted in increased accounts receivable and inventory, which have been partially offset by increases in accounts payable and accrued expenses. Operational working capital as a percentage of annual net sales is 16.3% at December 31, 2017, as compared to 16.7% at December 31, 2016.

Capital Investments. During 2017, we invested $164.9 million in property, plant and equipment, compared with $198.2 million during 2016. Our current estimated 2018 cash allocation plan includes the investment of approximately $250 million in capital expenditures in our existing and announced operations.

Cash Dividends. As a reflection of continued confidence in our current and future cash flow generation ability and financial position, we increased our quarterly cash dividend by 11% to $0.155 per share in the first quarter 2017 (from $0.140 per share in 2016), resulting in declared cash dividends of $148.2 million during 2017, compared to $136.5 million during 2016. We paid cash dividends of $145.6 million and $135.8 million during 2017 and 2016, respectively. Our board of directors, along with executive management, approves the payment of dividends on a quarterly basis. The determination to pay cash dividends in the future is at the discretion of our board of directors, after taking into account various factors, including our financial condition, results of operations, outstanding indebtedness, current and anticipated cash needs and growth plans. In addition, the terms of our Facility and the indentures relating to our senior notes may restrict the amount of cash dividends we can pay.

Other. During October 2016, our board of directors authorized a share repurchase program of up to $450 million of our common stock. Under the share repurchase program, purchases will take place, as and when, we determine in open market or private transactions made based upon the market price of our common stock, the nature of other investment opportunities or growth projects, our cash flows from operations, and general economic conditions. The share repurchase program does not require us to acquire any specific number of shares, and may be modified, suspended, extended or terminated by us at any time. We acquired 7.4 million shares of our common stock for $252.2 million during 2017, and 732,000 shares for $25.0 million during 2016, leaving $172.7 million available pursuant to this program. See Part II Other Information, Item 5 *Market For Registrant's Common Equity, Related Stockholder Matters And Issuer Purchases Of Equity Securities* for additional information.

Our ability to meet our debt service obligations and reduce our total debt will depend upon our future performance which, in turn, will depend upon general economic, financial and business conditions, along with competition, legislation and regulatory factors that are largely beyond our control. In addition, we cannot assure that our operating results, cash flows, access to credit markets and capital resources will be sufficient for repayment of our indebtedness in the future. We believe that based upon current levels of operations and anticipated growth, cash flows from operations, together with other available sources of funds, including if necessary borrowings under our Revolver through its term, will be adequate for the next twelve months for making required payments of principal and interest on our indebtedness, funding working capital requirements, and anticipated capital expenditures.

During 2017, we received benefits from state and local governments in the form of real estate and personal property tax abatements and credits of approximately $10.8 million. Based on our current abatements and incentive credits, and utilizing our existing long-lived asset structure, we estimate the remaining annual benefit to our future operations to be approximately $10.7 million, $9.4 million, $3.6 million, $3.5 million, $3.4 million, $3.0 million, and $2.6 million during the years 2018 through 2024, respectively.

Contractual Obligations and Other Long-Term Liabilities

We have the following minimum commitments under contractual obligations, including purchase obligations, as defined by the Securities and Exchange Commission. A "purchase obligation" is defined as an agreement to purchase goods or services that is enforceable and legally binding and that specifies all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Other long-term liabilities are defined as long-term liabilities that are reflected on our balance sheet under generally accepted accounting principles. Based on this definition, the following table includes only those contracts which include fixed or minimum obligations. It does not include normal purchases, which are made in the ordinary course of business. The following table provides aggregated information about outstanding contractual obligations and other long-term liabilities as of December 31, 2017 (in thousands):

	Payments Due By Period				
	Total	**2018**	**2019 & 2020**	**2021 & 2022**	**2023 & After**
Long-term debt[1]	$2,408,852	$ 28,795	$ 6,783	$ 706,882	$1,666,392
Estimated interest payments on debt[2]	743,754	124,049	243,039	194,902	181,764
Purchase obligations[3]	783,742	312,736	221,079	174,590	75,337
Construction commitments[4]	74,712	74,712	—	—	—
Lease commitments	53,814	16,036	22,105	9,919	5,754
Other commitments[5]	2,159	350	600	425	784
Total[6]	$4,067,033	$556,678	$493,606	$1,086,718	$1,930,031

(1) The long-term debt payment information presented above assumes that our senior notes remain outstanding until maturity. Refer to Note 3 *Long-term Debt* to the consolidated financial statements elsewhere in this report for additional information regarding these transactions, and our long-term debt.

(2) The estimated interest payments shown above assume interest rates of 5.125% on our $700.0 million senior unsecured notes due October 2021; 5¼% on our $400.0 million senior unsecured notes due April 2023; 5.500% on our $500.0 million senior unsecured notes due October 2024; 4.125% on our $350.0 million senior unsecured notes due September 2025; 5.00% on our $400.0 million senior unsecured notes due December 2026; 0.225% commitment fee on our available Revolver; and an average of 4.8% on our other debt of $58.9 million.

(3) Purchase obligations include commitments we have for the purchase of electricity, natural gas and its transportation, fuel, air products, electrodes, and zinc. These arrangements have "take or pay" or other similar commitment provisions. We have utilized such "take or pay" requirements during the past

three years under these contracts, except for certain air products at our Minnesota ironmaking operations which have been idle since May 2015.

(4) Construction commitments relate to firm contracts we have with various vendors for the completion of certain construction projects at our various divisions at December 31, 2017.

(5) Other commitments principally relate to deferred compensation plan obligations.

(6) We expect to make cash outlays in the future related to our unrecognized tax benefits; however, due to the uncertainty of the timing, we are unable to make reasonably reliable estimates regarding the period of cash settlement with the respective taxing authorities. Accordingly, unrecognized tax benefits and related interest and penalties of $21.5 million as of December 31, 2017, have been excluded from the contractual obligations table above. Refer to Note 4 *Income Taxes* to the consolidated financial statements elsewhere in this report for additional information.

Other Matters

Inflation

We believe that inflation has not had a material effect on our results of operations.

Environmental and Other Contingencies

We have incurred, and in the future will continue to incur, capital expenditures and operating expenses for matters relating to environmental control, remediation, monitoring and compliance. During 2017, we incurred costs related to the monitoring and compliance of environmental matters in the amount of approximately $39.1 million and capital expenditures related to environmental compliance of approximately $2.9 million. Of the costs incurred during 2017 for monitoring and compliance, approximately 77% were related to the normal transportation of certain types of waste produced in our steelmaking processes and other facilities, in accordance with legal requirements. We incurred combined environmental remediation costs of approximately $623,000 at all of our facilities during 2017. We have an accrual of $2.9 million recorded for environmental remediation related to our metals recycling operations, and $2.6 million related to Minnesota ironmaking operations. We believe, apart from our dependence on environmental construction and operating permits for our existing and any future manufacturing facilities, that compliance with current environmental laws and regulations is not likely to have a materially adverse effect on our financial condition, results of operations or liquidity. However, environmental laws and regulations evolve and change, and we may become subject to more stringent environmental laws and regulations in the future, such as the impact of United States government or various governmental agencies introducing regulatory changes in response to the potential of climate change.

Critical Accounting Policies and Estimates

Management's discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. We review the accounting policies we use in reporting our financial results on a regular basis. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent liabilities. We evaluate the appropriateness of these estimations and judgments on an ongoing basis. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Results may differ from these estimates due to actual outcomes being different from those on which we based our assumptions. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition and Allowance for Doubtful Accounts. Except for our steel fabrication operations, we recognize revenues from sales and the allowance for estimated returns and customer claims from these sales at the time title of the product transfers, upon shipment. Provision is made for estimated product returns and customer claims based on historical experience. If the historical data used in our estimates does not reflect future returns and claims trends, additional provision may be necessary. Our steel fabrication operations recognizes revenues using a percentage of completion methodology based on steel tons used on completed units to date as a percentage of estimated total steel tons required by each contract. The allowance for doubtful accounts for all operating segments is based on our best estimate of probable credit losses, along with historical experience, which estimates may or may not prove accurate.

We are exposed to credit risk in the event of nonpayment by our customers, which in steel operations are principally intermediate steel processors and service centers that sell our products to numerous industry sectors, including the construction, automotive, manufacturing, transportation, heavy and agriculture equipment, and pipe and tube (including OCTG) markets. Our metals recycling operations sell ferrous scrap to steel mills and foundries, and nonferrous scrap, such as copper, brass, aluminum and stainless steel to, among others, ingot manufacturers, copper refineries and mills, smelters, and specialty mills. Our steel fabrication operations sell fabricated steel joists and deck primarily to the non-residential construction market. We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments based on known credit risks, historical loss experience and current economic conditions affecting our customers. We mitigate our exposure to credit risk, which we generally extend initially on an unsecured basis, by performing ongoing credit evaluations and taking further action when necessary, such as requiring letters of credit or other security interests to support the customer receivable. If the financial condition of our customers were to deteriorate, resulting in the impairment of their ability to make payments, additional allowance may be required.

Inventories. We record inventories at lower of cost or net realizable value. Cost is determined using a weighted average cost method for raw materials and supplies, and on a first-in, first-out, basis for other inventory. We record amounts required, if any, to reduce the carrying value of inventory to its net realizable value as a charge to cost of goods sold. If product selling prices were to decline in future periods, further write-down of inventory could result, specifically raw material inventory such as scrap purchased during periods of peak market pricing.

Impairments of Long-Lived Tangible and Definite-Lived Intangible Assets. We review long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of such assets may not be fully recoverable. Impairment losses are recorded on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amounts. The impairment loss is measured by comparing the fair value of the asset to its carrying amount. We consider various factors and determine whether an impairment test is necessary, including by way of examples, a significant and prolonged deterioration in operating results and/or projected cash flows, significant changes in the extent or manner in which an asset is used, technological advances with respect to assets which would potentially render them obsolete, our strategy and capital planning, and the economic climate in markets to be served. When determining future cash flows and if necessary, fair value, we must make judgments as to the expected utilization of assets and estimated future cash flows related to those assets. We consider historical and anticipated future results, general economic and market conditions, the impact of planned business and operational strategies and all other available information at the time the estimates are made. Those estimates and judgments may or may not ultimately prove accurate.

A long-lived asset is classified as held for sale upon meeting specified criteria related to ability and intent to sell. An asset classified as held for sale is measured at the lower of its carrying amount or fair value less cost to sell. As of December 31, 2017 and 2016, the company reported $8.7 million and $29.3 million, respectively, of assets held for sale within other current assets in our consolidated balance sheet. An impairment loss is recognized for any initial or subsequent write-down of the asset held for sale to its fair value less cost to sell. For assets determined to be classified as held for sale in the year ended December 31, 2017 and 2016, the asset carrying amounts approximated their fair value less cost to sell. The company determined fair value using Level 3 fair value inputs as provided for under ASC 820, consisting of information provided by brokers and other external sources along with management's own assumptions.

Significant events occurred during the fourth quarter of 2016 that represented impairment indicators related primarily to Mining Resources and Mesabi Mining fixed assets within our Minnesota ironmaking operations. The company therefore undertook a fourth quarter 2016 assessment of the recoverability of the carrying amounts of primarily our Mining Resources and Mesabi Mining operation's fixed assets. With the company's outlook at the time of this 2016 assessment regarding future cash flows, the company concluded that the carrying amounts of the fixed assets were no longer fully recoverable, and they were in fact impaired. This 2016 assessment resulted in a non-cash asset impairment charge of $127.3 million, including amounts attributable to noncontrolling interests of $13.1 million, which reduced net income attributable to Steel Dynamics, Inc. by $72.9 million for the year ended December 31, 2016. The carrying values of the impaired assets were adjusted to their estimated fair values at that time as determined primarily on the cost approach, as well as expected future discounted cash flows (an income approach), using Level 3 fair value inputs as provided for under ASC 820.

Goodwill and Other Indefinite-Lived Intangible Assets.

Our goodwill relates to various business combinations and is allocated to the following reporting units at December 31 (in thousands):

	2017	2016
Steel Operations Segment		
Columbus Flat Roll Division	$ 19,682	$ 19,682
The Techs	142,783	142,783
Vulcan Threaded Products	7,824	7,824
Roanoke Bar Division	29,041	29,041
Metals Recycling Operations Segment		
OmniSource	90,638	97,096
Indiana Steel Mills	95,000	95,000
Steel Fabrication Operations Segment – New Millennium Building Systems	1,925	1,925
	$386,893	$393,351

At least once annually (as of October 1) or when indicators of impairment exist, the company performs an impairment test for goodwill. Goodwill is allocated to various reporting units, which are generally one level below the company's operating segments. We utilize a two-stepped approach to evaluate goodwill impairment. The first step of the test determines if there is potential goodwill impairment. In this step the company compares the fair value of the reporting unit to its carrying amount (which includes goodwill). The fair value of the reporting unit is determined by using an estimate of future cash flows utilizing a risk-adjusted discount rate to calculate the net present value of future cash flows (income approach), and by using a market approach based upon an analysis of valuation metrics of comparable peer companies, Level 3 inputs as provided for under ASC 820. If the fair value exceeds the carrying value, there is no impairment. If the carrying amount exceeds the fair value, the company performs the second step of the test, which measures the amount of impairment loss to be recorded. In the second step, the company compares the carrying amount of the goodwill to the implied fair value of the goodwill based on the net fair value of the recognized and unrecognized assets and liabilities of the reporting unit to which it is allocated. If the implied fair value is less than the carrying value, an impairment loss is recorded to the extent that the fair value of the goodwill is less than its carrying value.

Key assumptions used to determine the estimated fair value of each reporting unit under the discounted cash flows method (income approach) include: (a) expected cash flows for the five-year period following the testing date (including market share, sales volumes and prices, costs to produce and estimated capital needs); (b) an estimated terminal value using a terminal year growth rate determined based on the growth prospects of the reporting unit; and (c) a risk-adjusted discount rate based on management's best estimate of market participants' after-tax weighted average cost of capital and market risk premiums. Key assumptions used to determine the estimated fair value of each reporting unit under the market approach include the expected revenues and cash flows in the next year. We consider historical and anticipated future results, general economic and market conditions, the impact of planned business and operational strategies and all available information at the time the fair values of its reporting units are estimated. Those estimates and judgments may or may not ultimately prove accurate.

Goodwill and other indefinite-lived intangible assets acquired in past transactions are naturally more susceptible to impairment, primarily due to the fact that they are recorded at fair value based on operating plans and economic conditions at the time of acquisition. Consequently, if operating results and/or economic conditions deteriorate after an acquisition, it could result in the impairment of the acquired assets. A deterioration of economic conditions may not only negatively impact the estimated operating cash flows used in our cash flow models, but may also negatively impact other assumptions used in our analyses, including, but not limited to, the estimated cost of capital and/or discount rates. Additionally, we are required to ensure that assumptions used to determine fair value in our analyses are consistent with the assumptions a hypothetical marketplace participant would use. As a result, the cost of capital and/or discount rates used in our analyses may increase or decrease based on market conditions and trends, regardless of whether our actual cost of capital has changed. Therefore, we may recognize an impairment of an intangible asset or assets in spite of realizing actual cash flows that are approximately equal to or greater than our previously forecasted amounts.

At least once annually (as of October 1) or when indicators of impairment exist, we test indefinite-lived intangible assets for impairment through the comparison of the fair value of the specific intangible asset with its carrying amount. The fair value of the intangible asset is determined by using an estimate of future cash flows attributable to the asset and a risk-adjusted discount rate to compute a net present value of future cash flows (income approach). If the fair value is less than the carrying value, an impairment loss is recorded in an amount equal to the excess in carrying value.

Our fourth quarter 2017 annual goodwill impairment analyses did not result in any impairment charges. Management does not believe that it is reasonably likely that our reporting units will fail step one of a goodwill impairment test in the near term, as the determined fair value of the reporting units with goodwill exceeded their carrying value by more than an insignificant amount. We will continue to monitor operating results within all reporting units throughout the upcoming year to determine if events and circumstances warrant interim impairment testing. Otherwise, all reporting units will again be subject to the required annual impairment test during the fourth quarter of 2018. Changes in judgments and estimates underlying our analysis of goodwill for possible impairment, including expected future operating cash flows and discount rate, could decrease the estimated fair value of our reporting units in the future and could result in an impairment of goodwill.

In 2016, a $5.5 million OmniSource goodwill impairment charge was recorded in conjunction with OmniSource entering into a definitive sale agreement with a third-party pertaining to certain OmniSource long-lived assets (classified and reported as held for sale as of December 31, 2016), inventory and spare parts, as provided under ASC 350.

During our 2015 annual goodwill and indefinite-lived intangible asset impairment assessment, we determined that the fair value of OmniSource was less than its carrying value, and upon the completion of the impairment analysis, that the goodwill and trade name indefinite-lived assets were impaired. The OmniSource goodwill and trade name indefinite-lived intangible assets were written down to their respective fair values, resulting in pretax non-cash asset impairment charges of $341.3 million and $68.5 million, respectively, that are reflected in asset impairment charges in the consolidated statement of operations for the year ended December 31, 2015, within the metals recycling operations.

Income Taxes. We are required to estimate our income taxes as a part of the process of preparing our consolidated financial statements. This requires us to estimate our actual current tax exposure together with assessing temporary differences resulting from differing treatments of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not likely, we must establish a valuation allowance. We also establish reserves to reduce some or all of the tax benefit of any of our tax positions at the time we determine that the positions become uncertain. We adjust these reserves, including any impact on the related interest and penalties, in light of changing facts and circumstances, such as the progress of a tax audit. A number of years may elapse before a particular matter for which we have established a reserve is audited by a taxing authority and finally resolved. The number of years with open tax audits varies depending on the tax jurisdiction. The tax benefit that has been previously reserved because of a failure to meet the ''more likely than not'' recognition threshold would be recognized in our income tax expense in the first interim period when the uncertainty disappears. Settlement of any particular issue would usually require the use of cash.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk

In the normal course of business, we are exposed to interest rate changes. Our objectives in managing fluctuations in interest rates are to limit the impact of these rate changes on earnings and cash flows and to lower overall borrowing costs. To achieve these objectives, we may use interest rate swaps to manage net exposure to interest rate changes related to our portfolio of borrowings.

The following table represents the principal cash repayments and related weighted-average interest rates by maturity date for our long-term debt, as of December 31, 2017 (in thousands):

	Interest Rate Risk			
	Fixed Rate		Variable Rate	
	Principal	Average Rate	Principal	Average Rate
Expected maturity date:				
2018	$ 3,096	6.0%	$25,699	3.9%
2019	3,291	6.0	—	
2020	3,492	6.0	—	
2021	703,708	5.3	—	
2022	3,174	5.5	—	
Thereafter	1,666,392	5.0	—	
Total Debt Outstanding	$2,383,153	5.1%	$25,699	3.9%
Fair value	$2,474,833		$25,699	

Commodity Risk

In the normal course of business we are exposed to the market risk and price fluctuations related to the sale of our products and to the purchase of raw materials used in our operations, such as metallic raw materials, electricity, natural gas and its transportation services, fuel, air products, zinc, and electrodes. Our risk strategy associated with product sales has generally been to obtain competitive prices for our products and to allow operating results to reflect market price movements dictated by supply and demand.

Our risk strategy associated with the purchase of raw materials utilized within our operations has generally been to make some commitments with suppliers relating to future expected requirements for some commodities such as electricity, natural gas and its transportation services, fuel, air products, zinc, and electrodes. Certain of these commitments contain provisions which require us to ''take or pay'' for specified quantities without regard to actual usage for periods of up to 5 years for physical commodity requirements and commodity transportation requirements, and for up to 11 years for air products. Our commitments for these arrangements with ''take or pay'' or other similar commitment provisions for the years ending December 31 are as follows (in thousands):

2018	$312,736
2019	116,779
2020	104,300
2021	90,894
2022	83,696
Thereafter	75,337
	$783,742

We utilized such ‘‘take or pay’’ requirements during the past three years under these contracts, except for certain air products at our Minnesota ironmaking operations which have been idle since May 2015. We believe that production requirements will be such that consumption of the products or services purchased under these commitments will occur in the normal production process, other than certain air products related to our Minnesota ironmaking operations during the idle period. We also purchase electricity consumed at our Butler Flat Roll Division pursuant to a contract which extends through December 2018, which establishes an agreed fixed-rate energy charge per Mill/kWh consumed for each year through the expiration of the agreement.

In our metals recycling operations, we have certain fixed price contracts with various customers and suppliers for future delivery of nonferrous metals. Our risk strategy has been to enter into base metal financial contracts with the goal to protect the profit margin, within certain parameters, that was contemplated when we entered into the transaction with the customer or vendor. At December 31, 2017, we had a cumulative unrealized loss associated with these financial contracts of $7.7 million, substantially all of which have settlement dates in 2018. We believe the customer contracts associated with the financial contracts will be fully consummated.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Steel Dynamics, Inc. is responsible for the preparation and integrity of the company's consolidated financial statements and for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a – 15(f) of the Exchange Act, for the company (including its consolidated subsidiaries). We maintain accounting and internal control systems which are intended to provide reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition, transactions are executed in accordance with management's authorization, and accounting records are reliable for preparing financial statements in accordance with accounting principles generally accepted in the United States. We are dedicated to ensuring that we maintain the high standards of financial accounting and reporting that we have established. Our culture demands integrity and an unyielding commitment to strong internal control practices and policies.

Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with generally accepted accounting principles; and provide reasonable assurance that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not always prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies and procedures may deteriorate.

Under the supervision and with the participation of our management, including our principal executive officer and our principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting. The framework on which such evaluation was based upon is contained in the report entitled "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the "COSO criteria"). Based on that evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2017, the end of the period covered by this report.

/s/ Mark D. Millett	/s/ Theresa E. Wagler
Chief Executive Officer	*Executive Vice President and Chief Financial Officer*
(Principal Executive Officer)	*(Principal Financial Officer)*

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Steel Dynamics, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Steel Dynamics, Inc.'s internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the COSO criteria). In our opinion, Steel Dynamics, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Steel Dynamics, Inc. as of December 31, 2017 and 2016, the related consolidated statements of operations, equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and our report dated February 27, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Indianapolis, Indiana
February 27, 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Steel Dynamics, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Steel Dynamics, Inc. (the Company) as of December 31, 2017 and 2016, the related consolidated statements of operations, equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the ''financial statements''). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2017 and 2016, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 27, 2018 expressed an unqualified opinion thereon.

Basis of Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1999.

Indianapolis, Indiana
February 27, 2018

STEEL DYNAMICS, INC.

CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31, 2017	December 31, 2016
Assets		
Current assets		
Cash and equivalents	$1,028,649	$ 841,483
Accounts receivable, net of related allowances of $15,036 and $14,413 as of December 31, 2017, and December 31, 2016, respectively	846,415	703,565
Accounts receivable-related parties	22,422	26,219
Inventories	1,519,347	1,275,211
Other current assets	91,509	83,197
Total current assets	3,508,342	2,929,675
Property, plant and equipment, net	2,675,904	2,787,215
Restricted cash	16,939	18,060
Intangible assets, net of accumulated amortization of $269,868 and $294,676 as of December 31, 2017, and December 31, 2016, respectively	256,909	283,977
Goodwill	386,893	393,351
Other assets	10,745	11,454
Total assets	$6,855,732	$6,423,732
Liabilities and Equity		
Current liabilities		
Accounts payable	$ 473,765	$ 382,126
Accounts payable-related parties	15,683	13,070
Income taxes payable	3,696	5,593
Accrued payroll and benefits	195,909	164,543
Accrued interest	25,533	30,295
Accrued expenses	125,138	113,556
Current maturities of long-term debt	28,795	3,632
Total current liabilities	868,519	712,815
Long-term debt	2,353,145	2,353,194
Deferred income taxes	305,949	448,375
Other liabilities	21,811	20,649
Total liabilities	3,549,424	3,535,033
Commitments and contingencies		
Redeemable noncontrolling interests	111,240	111,240
Equity		
Common stock voting, $.0025 par value; 900,000,000 shares authorized; 265,003,133 and 264,130,544 shares issued; and 237,396,839 and 243,785,485 shares outstanding, as of December 31, 2017, and December 31, 2016, respectively	644	641
Treasury stock, at cost; 27,606,294 and 20,345,059 shares, as of December 31, 2017, and December 31, 2016 respectively	(665,297)	(416,829)
Additional paid-in capital	1,141,534	1,132,749
Retained earnings	2,874,693	2,210,459
Total Steel Dynamics, Inc. equity	3,351,574	2,927,020
Noncontrolling interests	(156,506)	(149,561)
Total equity	3,195,068	2,777,459
Total liabilities and equity	$6,855,732	$6,423,732

See notes to consolidated financial statements.

STEEL DYNAMICS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31, 2017	2016	2015
Net sales			
Unrelated parties	$9,364,213	$7,607,180	$7,407,233
Related parties	174,584	169,929	187,178
Total net sales	9,538,797	7,777,109	7,594,411
Costs of goods sold	7,956,783	6,442,245	6,862,693
Gross profit	1,582,014	1,334,864	731,718
Selling, general and administrative expenses	394,631	374,009	328,758
Profit sharing	91,309	71,285	23,064
Amortization of intangible assets	29,193	28,765	24,180
Asset impairment charge	—	132,839	428,500
Operating income (loss)	1,066,881	727,966	(72,784)
Interest expense, net of capitalized interest	134,399	146,037	153,950
Other expense (income), net	(2,753)	17,796	15,383
Income (loss) before income taxes	935,235	564,133	(242,117)
Income tax expense (benefit)	129,439	204,127	(96,947)
Net income (loss)	805,796	360,006	(145,170)
Net loss attributable to noncontrolling interests	6,945	22,109	14,859
Net income (loss) attributable to Steel Dynamics, Inc.	$ 812,741	$ 382,115	$ (130,311)
Basic earnings (loss) per share attributable to Steel Dynamics, Inc. stockholders	$ 3.38	$ 1.57	$ (0.54)
Weighted average common shares outstanding	240,132	243,576	242,017
Diluted earnings (loss) per share attributable to Steel Dynamics, Inc. stockholders, including the effect of assumed conversions when dilutive	$ 3.36	$ 1.56	$ (0.54)
Weighted average common shares and share equivalents outstanding	241,781	245,298	242,017
Dividends declared per share	$ 0.62	$ 0.56	$ 0.55

See notes to consolidated financial statements.

STEEL DYNAMICS, INC.

CONSOLIDATED STATEMENTS OF EQUITY
(in thousands)

	Shares		Common Stock	Treasury Stock	Additional Paid-In Capital	Retained Earnings	Noncontrolling Interests	Total Equity	Redeemable Noncontrolling Interests
	Common	Treasury							
Balances at January 1, 2015	241,449	19,971	$635	$(398,898)	$1,083,435	$2,227,843	$(117,488)	$2,795,527	$126,340
Proceeds from exercise of stock options, including related tax effect	737	10	1	(211)	10,975	—	—	10,765	—
Dividends declared	—	—	—	—	—	(133,227)	—	(133,227)	—
Noncontrolling investors, net	—	—	—	—	—	1,082	(2,269)	(1,187)	—
Equity-based compensation	904	(133)	2	2,654	15,843	(96)	—	18,403	—
Comprehensive and net loss	—	—	—	—	—	(130,311)	(14,859)	(145,170)	—
Balances at December 31, 2015	243,090	19,848	638	(396,455)	1,110,253	1,965,291	(134,616)	2,545,111	126,340
Proceeds from exercise of stock options, including related tax effect	556	12	3	—	9,834	—	—	9,837	—
Dividends declared	—	—	—	—	—	(136,472)	—	(136,472)	—
Noncontrolling investors, net	—	—	—	—	—	(356)	7,164	6,808	(15,100)
Share repurchases	(732)	732	—	(25,034)	—	—	—	(25,034)	
Equity-based compensation	871	(247)	—	4,660	12,662	(119)	—	17,203	—
Comprehensive and net income (loss)	—	—	—	—	—	382,115	(22,109)	360,006	—
Balances at December 31, 2016	243,785	20,345	641	(416,829)	1,132,749	2,210,459	(149,561)	2,777,459	111,240
Dividends declared	—	—	—	—	—	(148,231)	—	(148,231)	—
Share repurchases	(7,439)	7,439	—	(252,242)	—	—	—	(252,242)	—
Equity-based compensation	1,051	(178)	3	3,774	8,785	(276)	—	12,286	—
Comprehensive and net income (loss)	—	—	—	—	—	812,741	(6,945)	805,796	—
Balances at December 31, 2017	237,397	27,606	$644	$(665,297)	$1,141,534	$2,874,693	$(156,506)	$3,195,068	$111,240

See notes to consolidated financial statements.

STEEL DYNAMICS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2017	**2016**	**2015**
Operating activities:			
Net income (loss)	$ 805,796	$ 360,006	$ (145,170)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	298,999	296,109	294,595
Asset impairment charge	—	132,839	428,500
Equity-based compensation	36,197	31,656	30,181
Deferred income taxes	(135,899)	53,846	(99,323)
Other adjustments	14,068	20,676	19,886
Changes in certain assets and liabilities:			
Accounts receivable	(139,054)	(106,617)	311,302
Inventories	(242,883)	(115,575)	488,003
Other assets	4,188	12,053	(450)
Accounts payable	96,062	106,521	(227,092)
Income taxes receivable/payable	(33,889)	(13,921)	12,706
Accrued expenses	36,021	75,176	(59,513)
Net cash provided by operating activities	739,606	852,769	1,053,625
Investing activities:			
Purchases of property, plant and equipment	(164,935)	(198,160)	(114,501)
Acquisition of business, net of cash acquired	(6,192)	(123,351)	(45,000)
Other investing activities	32,022	8,618	16,874
Net cash used in investing activities	(139,105)	(312,893)	(142,627)
Financing activities:			
Issuance of current and long-term debt	620,041	473,903	207,930
Repayment of current and long-term debt	(609,914)	(728,993)	(625,924)
Dividends paid	(145,565)	(135,767)	(127,569)
Proceeds from exercise of stock options, including related tax effect	—	9,564	10,781
Purchases of treasury stock	(252,242)	(25,034)	—
Other financing activities	(25,655)	(19,098)	(10,547)
Net cash provided used in financing activities	(413,335)	(425,425)	(545,329)
Increase in cash and equivalents	187,166	114,451	365,669
Cash and equivalents at beginning of period	841,483	727,032	361,363
Cash and equivalents at end of period	$1,028,649	$ 841,483	$ 727,032
Supplemental disclosure information:			
Cash paid for interest	$ 135,381	$ 150,679	$ 160,190
Cash paid (refunded) for income taxes, net	$ 296,493	$ 159,950	$ (9,898)

See notes to consolidated financial statements.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of the Business and Summary of Significant Accounting Policies

Description of the Business

Steel Dynamics, Inc. (SDI), together with its subsidiaries (the company), is a domestic manufacturer of steel products and metals recycler. The company has three reporting segments: steel operations, metals recycling operations, and steel fabrication operations. Approximately 9% of the company's workforce in five locations is represented by collective bargaining agreements, and agreements affecting 0.4% of the company's employees at one location expire during 2018.

Steel Operations Segment

Steel operations include the company's Butler Flat Roll Division, Columbus Flat Roll Division, The Techs galvanizing lines, Structural and Rail Division, Engineered Bar Products Division, Vulcan Threaded Products, Inc. (Vulcan) — acquired August 1, 2016, Roanoke Bar Division, Steel of West Virginia, and Iron Dynamics (IDI), a liquid pig iron (scrap substitute) production facility that supplies solely the Butler Flat Roll Division. These operations include electric arc furnace steel mills, producing steel from ferrous scrap and scrap substitutes, utilizing continuous casting, automated rolling mills, with several downstream coating and bar processing lines. Steel operations accounted for 72% of the company's consolidated net sales during 2017 and 2016, and 69% in 2015.

Metals Recycling Operations Segment

Metals recycling operations consists solely of OmniSource Corporation (OmniSource), and includes both ferrous and nonferrous processing, transportation, marketing, brokerage, and scrap management services. Metals recycling operations accounted for 15% of the company's consolidated net sales during 2017 and 2016 and 19% in 2015.

Steel Fabrication Operations Segment

Steel fabrication operations include the company's New Millennium Building Systems' joist and deck plants located throughout the United States, and in Northern Mexico. Revenues from these plants are generated from the fabrication of trusses, girders, steel joists and steel deck used within the non-residential construction industry. Steel fabrication operations accounted for 9% of the company's consolidated net sales during 2017, 2016, and 2015.

Other

Other operations consists of subsidiary operations that are below the quantitative thresholds required for reportable segments and primarily consist of our Minnesota ironmaking operations that have been idle since May 2015, and other smaller joint ventures. Also included in ''Other'' are certain unallocated corporate accounts, such as the company's senior secured credit facility, senior notes, certain other investments and certain profit sharing expenses.

Our idle Minnesota ironmaking operations consist of Mesabi Nugget, (owned 83% by us); our wholly-owned iron concentrate and potential future iron mining operations, Mesabi Mining; and our wholly-owned (as of December 31, 2016) iron tailings operations, Mining Resources. As of December 31, 2016, the company acquired all $15.1 million of the Mining Resources noncontrolling investor's redeemable noncontrolling units for cancellation and discharge of all obligations owed to Mining Resources and termination of all existing agreements with the noncontrolling investor. Prior to this transaction, the company owned 82% of Mining Resources.

Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of SDI, together with its wholly- and majority-owned or controlled subsidiaries, after elimination of intercompany accounts and transactions.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

Noncontrolling interests represent the noncontrolling owner's proportionate share in the equity, income, or losses of the company's majority-owned or controlled consolidated subsidiaries.

Use of Estimates

These consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States, and accordingly, include amounts that require management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and in the notes thereto. Significant items subject to such estimates and assumptions include the carrying value of property, plant and equipment, intangible assets, and goodwill; valuation allowances for trade receivables, inventories and deferred income tax assets; unrecognized tax benefits; potential environmental liabilities; and litigation claims and settlements. Actual results may differ from these estimates and assumptions.

Revenue Recognition and Allowances for Doubtful Accounts

Except for the steel fabrication operations, the company recognizes revenues from sales and the allowance for estimated returns and claims from these sales at the time the title of the product transfers, upon shipment. Provision is made for estimated product returns and customer claims based on historical experience. If the historical data used in the estimates does not reflect future returns and claims trends, additional provision may be necessary. The company's steel fabrication operations recognize revenues utilizing a percentage of completion methodology based on steel tons used on completed units to date as a percentage of estimated total steel tons required for each contract. The allowance for doubtful accounts for all operating segments is based on the company's best estimate of probable credit losses, along with historical experience.

Cash and Equivalents

Cash and equivalents include all highly liquid investments with a maturity of three months or less at the date of acquisition. Restricted cash is primarily funds held in escrow as required by various insurance and government organizations.

Inventories

Inventories are stated at lower of cost or net realizable value. Cost is determined using a weighted average cost method for raw materials and supplies, and on a first-in, first-out basis for other inventory. Inventory consisted of the following at December 31 (in thousands):

	2017	2016
Raw materials	$ 675,715	$ 515,924
Supplies	374,515	383,134
Work in progress	128,565	103,606
Finished goods	340,552	272,547
Total inventories	$1,519,347	$1,275,211

Property, Plant and Equipment

Property, plant and equipment are stated at cost, which includes capitalized interest on construction in progress amounts, and is reduced by proceeds received from certain state and local government grants and other capital cost reimbursements. The company assigns each fixed asset a useful life ranging from 3 to 20 years for plant, machinery and equipment, and 10 to 40 years for buildings and improvements. Repairs and maintenance are expensed as incurred. Depreciation is provided utilizing the straight-line depreciation methodology, or the units-of-production depreciation methodology for certain production related assets, based on units produced, subject to a minimum and maximum level. Depreciation expense was $263.7 million, $260.6 million, and $263.2 million for the years ended December 31, 2017, 2016, and 2015, respectively. Refer to Impairment of Long-Lived Tangible and Definite-Lived Intangible Assets below in Note 1 for discussions regarding the impairments of various property, plant and equipment in 2016 and 2015.

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

The company's property, plant and equipment consisted of the following at December 31 (in thousands):

	2017	2016
Land and improvements	$ 314,854	$ 311,005
Buildings and improvements	723,504	709,809
Plant, machinery and equipment	4,035,717	3,975,560
Construction in progress	91,433	70,615
	5,165,508	5,066,989
Less accumulated depreciation	2,489,604	2,279,774
Property, plant and equipment, net	$2,675,904	$2,787,215

Intangible Assets

The company's intangible assets consisted of the following at December 31 (in thousands):

	2017	2016	Useful Life	Weighted Average Amortization Period
Customer and scrap generator relationships	$394,062	$446,688	5 to 25 years	21 years
Trade names	130,550	130,550	15 to 25 years	18 years
Other	2,165	1,415	3 to 5 years	4 years
	526,777	578,653		20 years
Less accumulated amortization	269,868	294,676		
	$256,909	$283,977		

The company utilizes an accelerated amortization methodology for customer and scrap generator relationships in order to follow the pattern in which the economic benefits of the amounts are anticipated to be consumed. Trade names are amortized using a straight-line methodology. Amortization of intangible assets was $29.2 million, $28.8 million, and $24.2 million for the years ended December 31, 2017, 2016, and 2015, respectively. Estimated amortization expense related to amortizable intangibles for the years ending December 31 is as follows (in thousands):

2018	$ 26,910
2019	24,823
2020	22,629
2021	20,840
2022	19,231
Thereafter	142,476
Total	$256,909

Impairment of Long-Lived Tangible and Definite-Lived Intangible Assets

The company reviews long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of such assets may not be fully recoverable. Impairment losses are recorded on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amounts. The impairment loss is measured by comparing the fair value of the assets to its carrying amount. The company considers various factors and determines whether an impairment test is necessary, including by way of examples, a significant and prolonged deterioration in operating results and/or projected cash flows, significant changes in

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

the extent or manner in which an asset is used, technological advances with respect to assets which would potentially render them obsolete, our strategy and capital planning, and the economic climate in markets to be served.

A long-lived asset is classified as held for sale upon meeting specified criteria related to ability and intent to sell. An asset classified as held for sale is measured at the lower of its carrying amount or fair value less cost to sell. As of December 31, 2017 and 2016, the company reported $8.7 and $29.3 million, respectively, of assets held for sale within other current assets in our consolidated balance sheet. An impairment loss is recognized for any initial or subsequent write-down of the asset held for sale to its fair value less cost to sell. For assets determined to be classified as held for sale in the year ended December 31, 2017 and 2016, the asset carrying amounts approximated their fair value less cost to sell. The company recorded a $10.3 million asset impairment charge in the consolidated statement of operations for assets determined to be classified as held for sale in the year ended December 31, 2015. The company determined fair value using Level 3 fair value inputs as provided for under ASC 820, consisting of information provided by brokers and other external sources along with management's own assumptions.

Significant events occurred during the fourth quarter of 2016, including the previously noted termination of all existing agreements with the Mining Resources noncontrolling investor, that represented impairment indicators related primarily to Mining Resources and Mesabi Mining fixed assets within our Minnesota ironmaking operations. The company therefore undertook a fourth quarter 2016 assessment of the recoverability of the carrying amounts of primarily our Mining Resources and Mesabi Mining operation's fixed assets. With the company's outlook at the time of this 2016 assessment regarding future cash flows, the company concluded that the carrying amounts of the fixed assets were no longer fully recoverable, and they were in fact impaired. This 2016 assessment resulted in a non-cash asset impairment charge of $127.3 million, including amounts attributable to noncontrolling interests of $13.1 million, which reduced net income attributable to Steel Dynamics, Inc. by $72.9 million for the year ended December 31, 2016. The carrying values of the impaired assets were adjusted to their estimated fair values at that time as determined primarily on the cost approach, as well as expected future discounted cash flows (an income approach), using Level 3 fair value inputs as provided for under ASC 820.

Goodwill

The company's goodwill is allocated to the following reporting units at December 31 (in thousands):

	2017	2016
Steel Operations Segment		
Columbus Flat Roll Division	$ 19,682	$ 19,682
The Techs	142,783	142,783
Vulcan Threaded Products	7,824	7,824
Roanoke Bar Division	29,041	29,041
Metals Recycling Operations Segment		
OmniSource	90,638	97,096
Indiana Steel Mills	95,000	95,000
Steel Fabrication Operations Segment – New Millennium Building Systems	1,925	1,925
	$386,893	$393,351

OmniSource goodwill decreased $6.5 million in 2017 in recognition of the 2017 tax benefit related to the normal amortization of the component of OmniSource tax-deductible goodwill in excess of book goodwill. In 2016, a $5.5 million OmniSource goodwill impairment charge was recorded in conjunction with OmniSource entering into a definitive sale agreement with a third-party pertaining to certain OmniSource long-lived assets

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

(classified and reported as held for sale as of December 31, 2016), inventory and spare parts, as provided under ASC 350. In 2015, a $341.3 million OmniSource goodwill impairment charge was recorded pursuant to the company's annual review for impairment of goodwill and indefinite-lived intangible assets, as discussed further under "Impairment of Goodwill and Indefinite-Lived Intangible Assets" below. Cumulative OmniSource goodwill impairment charges were $346.8 million at December 31, 2017 and 2016.

Impairment of Goodwill and Indefinite-Lived Intangible Assets

At least once annually (as of October 1) or when indicators of impairment exist, the company performs an impairment test for goodwill. Goodwill is allocated to various reporting units, which are generally one level below the company's operating segments. The company utilizes a two-stepped approach to evaluate goodwill impairment. The first step of the test determines if there is potential goodwill impairment. In this step, the company compares the fair value of the reporting unit to its carrying amount (which includes goodwill). The fair value of the reporting unit is determined by using an estimate of future cash flows utilizing a risk-adjusted discount rate to calculate the net present value of future cash flows (income approach), and by using a market approach based upon an analysis of valuation metrics of comparable peer companies, using Level 3 fair value inputs as provided for under ASC 820. If the fair value exceeds the carrying value, there is no impairment. If the carrying amount exceeds the fair value, the company performs the second step of the test, which measures the amount of impairment loss to be recorded. In the second step, the company compares the carrying amount of the goodwill to the implied fair value of the goodwill based on the net fair value of the recognized and unrecognized assets and liabilities of the reporting unit to which it is allocated. If the implied fair value is less than the carrying value, an impairment loss is recorded to the extent that the fair value of the goodwill is less than its carrying value.

At least once annually (as of October 1) or when indicators of impairment exist, the company tests indefinite-lived intangible assets for impairment through the comparison of the fair value of the specific intangible asset with its carrying amount. The fair value of the intangible asset is determined by using an estimate of future cash flows attributable to the asset and a risk-adjusted discount rate to compute a net present value of future cash flows (income approach). If the fair value is less than the carrying value, an impairment loss is recorded in an amount equal to the excess in carrying value.

During the company's 2015 annual goodwill and indefinite-lived intangible asset impairment analysis, the company determined that the fair value of OmniSource was less than its carrying value, and upon the completion of the second step of the impairment analysis, that the goodwill and trade name indefinite-lived intangible assets were impaired. The OmniSource goodwill and trade name indefinite-lived intangible assets were written down to their respective fair values at that time, resulting in non-cash asset impairment charge of $341.3 million and $68.5 million, respectively, that are reflected in asset impairment charge in the consolidated statement of operations for the year ended December 31, 2015, within the metals recycling operations. No impairment was identified during the company's 2017 and 2016 annual goodwill and indefinite-lived intangible asset impairment analysis.

Equity-Based Compensation

The company has several stock-based employee compensation plans which are more fully described in Note 6 *Equity-Based Incentive Plans*. Compensation expense for restricted stock units, deferred stock units, restricted stock, and performance awards is recorded over the vesting periods using the fair value as determined by the closing fair market value of the company's common stock on the grant date, and with respect to performance awards, an estimate of probability of award achievement during the performance period. The company recognizes forfeitures as they occur. Compensation expense for these stock-based employee compensation plans was $36.6 million, $30.4 million, and $27.1 million for the years ended December 31, 2017, 2016, and 2015, respectively.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

Income Taxes

The company accounts for income taxes and the related accounts under the liability method. Deferred tax liabilities and assets are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted rates expected to be in effect during the year in which the basis differences reverse.

Earnings Per Share

Basic earnings per share is based on the weighted average shares of common stock outstanding during the period. Diluted earnings per share assumes the weighted average dilutive effect of common share equivalents outstanding during the period applied to the company's basic earnings per share. Common share equivalents represent potentially dilutive restricted stock units, deferred stock units, restricted stock, and performance awards, and are excluded from the computation in periods in which they have an anti-dilutive effect. There were no anti-dilutive common stock equivalents as of and for the years ended December 31, 2017 and 2016. There were 1.5 million anti-dilutive common stock equivalents as of and for the year ended December 31, 2015.

The following table presents a reconciliation of the numerators and the denominators of the company's basic and diluted earnings per share computations for the years ended December 31 (in thousands, except per share data):

	2017			2016		
	Net Income (Numerator)	Shares (Denominator)	Per Share Amount	Net Income (Numerator)	Shares (Denominator)	Per Share Amount
Basic earnings per share	$812,741	240,132	$3.38	$382,115	243,576	$1.57
Dilutive common share equivalents	—	1,649		—	1,722	
Diluted earnings per share	$812,741	241,781	$3.36	$382,115	245,298	$1.56

	2015		
	Net Loss (Numerator)	Shares (Denominator)	Per Share Amount
Basic earnings per share	$(130,311)	242,017	$(0.54)
Dilutive common share equivalents	—	—	
Diluted earnings per share	$(130,311)	242,017	$(0.54)

Concentration of Credit Risk

Financial instruments that potentially subject the company to significant concentrations of credit risk principally consist of temporary cash investments and accounts receivable. The company places its temporary cash investments with high credit quality financial institutions and companies, and limits the amount of credit exposure from any one entity. The company is exposed to credit risk in the event of nonpayment by customers. The company mitigates its exposure to credit risk, which it generally extends initially on an unsecured basis, by performing ongoing credit evaluations and taking further action if necessary, such as requiring letters of credit or other security interests to support the customer receivable. Management's estimation of the allowance for doubtful accounts is based upon known credit risks, historical loss experience and current economic conditions affecting the company's customers. Customer accounts receivable are charged off when all collection efforts have been exhausted and the amounts are deemed uncollectible. Heidtman Steel Products (Heidtman), a related party, accounted for 2% and 3% of the company's net accounts receivable at December 31, 2017, and December 31, 2016.

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

Derivative Financial Instruments

The company recognizes all derivatives as either assets or liabilities in the consolidated balance sheets and measures those instruments at fair value. Derivatives that are not designated as hedges must be adjusted to fair value through earnings. Changes in the fair value of derivatives that are designated as hedges, depending on the nature of the hedge, are recognized as either an offset against the change in fair value of the hedged balance sheet item in the case of fair value hedges or as other comprehensive income in the case of cash flow hedges, until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in fair value is immediately recognized in earnings. The company offsets fair value amounts recognized for derivative instruments executed with the same counterparty under master netting agreements.

In the normal course of business, the company has derivative financial instruments in the form of forward contracts in various commodities, may have involvement with derivative financial instruments related to managing fluctuations in foreign exchange rates, and in the past has had derivative financial instruments related to managing fluctuations in interest rates. At the time of acquiring these financial instruments, the company designates and assigns these instruments as hedges of specific assets, liabilities or anticipated transactions. When hedged assets or liabilities are sold or extinguished, or the anticipated transaction being hedged is no longer expected to occur, the company recognizes the gain or loss on the designated hedged financial instrument.

The company routinely enters into forward contracts in various commodities, primarily nonferrous metals (specifically aluminum and copper) in our metals recycling operations, to reduce exposure to commodity related price fluctuations. The company does not enter into these derivative financial instruments for speculative purposes.

Recently Adopted/Issued Accounting Standards

In May 2014, the FASB issued ASU 2014-09, which is codified in ASC 606, *Revenue Recognition — Revenue from Contracts with Customers, which amends the guidance in former ASC 605, Revenue Recognition*. FASB has since issued clarifying guidance in the form of ASU 2016-08, *Revenue from Contracts with Customers: Principal versus Agent Consideration (Reporting Revenue Gross versus Net)*, ASU 2016-10, *Revenue from Contract with Customers: Identifying Performance Obligations and Licensing*, and ASU 2016-12, *Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients,* collectively (ASC 606). The core principle of ASC 606 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASC 606 also requires additional disclosures to help users of financial statements better understand the nature, amount, timing, and potential uncertainty of revenue that is recognized. ASC 606 guidance is effective for annual and interim periods beginning after December 15, 2017, but could have been early adopted for annual and interim periods ending after December 15, 2016, using a full retrospective or modified retrospective approach. The company has completed its adoption plan in which it identified revenue streams, and analyzed those revenue streams, based on a detailed review of its business and contracts, pursuant to the new accounting requirements. The company concluded that there will be no change in the amount or timing of revenue recognized under the new standard, or significant changes required to the company's functions, processes or systems. The company has adopted ASC 606 in the first quarter of 2018 using the modified retrospective approach.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of the Business and Summary of Significant Accounting Policies (Continued)

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842): which establishes a new lease accounting model that requires lessees to recognize a right of use asset and related lease liability for most leases having lease terms of more than 12 months (ASU 2016-02). Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases. This new guidance is effective for annual and interim periods beginning after December 15, 2018, but can be early adopted. The company is currently evaluating the impact of the provisions of ASU 2016-02, and anticipates adopting on January 1, 2019.

Note 2. Acquisition

Vulcan Threaded Products, Inc.

In August 2016, the company acquired 100% of Vulcan in Pelham, Alabama, for $113.0 million in cash from available funds. Vulcan is the nation's largest manufacturer and supplier of threaded rod products, and also produces cold drawn and heat treated bar. The acquisition of Vulcan is consistent with one of our target growth objectives — higher-margin downstream business opportunities that utilize our steel products in their manufacturing processes. Vulcan utilizes special-bar-quality products produced at our Engineered Bar Products Division. Post-closing operating results of Vulcan are reflected in the steel operations reporting segment.

Note 3. Long-Term Debt

The company's borrowings consisted of the following at December 31 (in thousands):

	2017	2016
5.125% senior notes due 2021	$ 700,000	$ 700,000
5 1/4% senior notes due 2023	400,000	400,000
5.500% senior notes due 2024	500,000	500,000
4.125% senior notes due 2025	350,000	—
5.000% senior notes due 2026	400,000	400,000
6 3/8% senior notes due 2022	—	350,000
Other obligations	58,852	36,791
Total debt	2,408,852	2,386,791
Less debt issuance costs	26,912	29,965
Total amounts outstanding	2,381,940	2,356,826
Less current maturities	28,795	3,632
Long-term debt	$2,353,145	$2,353,194

Financing Activity

In September 2017, the company issued $350.0 million of 4.125% senior notes due 2025 (the "2025 Notes"), the proceeds of which, along with available cash, were used to fund the September 2017 tender offer to purchase at a redemption price of 103.563% a total of $182.9 million principal amount, plus accrued and unpaid interest to, but not including, the date of repurchase, of the company's 6.375% senior notes due 2022 (the "2022 Notes"), and the October 2017 call and repayment at a redemption price of 103.188% of the $167.1 million remaining outstanding principal amount of the 2022 Notes, plus accrued and unpaid interest to, but not including, the date of repayment. The company recorded expenses related to tender and call premiums, write off of unamortized debt issuance costs, and other expenses of $14.6 million, which are reflected in other expenses in the consolidated statements of operations for the year ended December 31, 2017.

In December 2016, the company issued $400.0 million of 5.000% senior notes due 2026 (the "2026 Notes"), the proceeds of which, along with available cash, were used to fund the December 2016 tender offer to purchase at a redemption price of 103.388% a total of $266.3 million principal amount, plus accrued and unpaid interest to, but not including, the date of repurchase, of the company's 6.125% senior notes due 2019

Note 3. Long-Term Debt (Continued)

(the ''2019 Notes''), and the December 2016 call and repayment at a redemption price of 103.063% of the $133.7 million remaining outstanding principal amount of the 2016 Notes plus accrued and unpaid interest to, but not including, the date of repayment. In addition, the company repaid the remaining $228.1 million of outstanding senior secured term loan debt with available cash in December 2016, which was set to mature in November 2019. The company recorded expenses related to tender and call premiums, write off of unamortized debt issuance costs, and other expenses of $16.5 million, which are reflected in other expenses in the consolidated statement of operations for the year ended December 31, 2016.

In March 2015, the company called and repaid all $350.0 million of its outstanding 7⅝% Senior Notes due 2020 (the ''2020 Notes'') at a redemption price of 103.813% of the principal amount of the 2020 Notes, plus accrued and unpaid interest to, but not including, the date of redemption. The company recorded expenses related to call premiums, write off of unamortized debt issuance costs, and other expenses of $16.7 million, which are reflected in other expense in the consolidated statement of operations for the year ended December 31, 2015.

Senior Secured Credit Facility, due 2019

The company's November 2014 senior secured credit facility (''Facility''), which provides a $1.2 billion Revolver, matures November 2019. Subject to certain conditions, the company has the opportunity to increase the Revolver size by at least $750.0 million. The Facility is guaranteed by certain of the company's subsidiaries; and is secured by substantially all of the company's and its wholly-owned subsidiaries' receivables and inventories, and by pledges of all shares of the company's wholly-owned subsidiaries' capital stock or other equity interests, and intercompany debt held by the company as collateral. The Revolver is available to fund working capital, capital expenditures, and other general corporate purposes.

The Facility pricing grid is adjusted quarterly, and is based on the company's leverage of net debt (as defined in the Facility) to last-twelve-months (LTM) consolidated adjusted EBITDA (earnings before interest, taxes, depreciation, amortization, and certain other non-cash items as allowed in the Facility). The minimum pricing is LIBOR plus 1.00% or Prime, and the maximum pricing is LIBOR plus 2.00% or Prime plus 1.00%. In addition, the company is subject to an unused commitment fee of between 0.225% and 0.375% (based on leverage of net debt to LTM EBITDA) which is applied to the unused portion of the Revolver each quarter.

The Facility contains financial covenants and other covenants pertaining to the company's ability (which may under certain circumstances be limited) to make capital expenditures; incur indebtedness; permit liens on property; enter into transactions with affiliates; make restricted payments or investments; enter into mergers, acquisitions or consolidations; conduct asset sales; pay dividends or distributions, or enter into other specified transactions and activities. The company's ability to borrow funds within the terms of the Revolver is dependent upon its continued compliance with the financial and other covenants. At December 31, 2017, the company had $1.2 billion of availability on the Revolver, $11.9 million of outstanding letters of credit and other obligations which reduce availability, and no outstanding borrowings.

The financial covenants under the company's Facility state that it must maintain an interest coverage ratio of not less than 2.50:1.00. The company's interest coverage ratio is calculated by dividing its LTM consolidated adjusted EBITDA by its LTM gross interest expense less amortization of financing fees. In addition, a net debt (as defined in the Facility) to LTM consolidated adjusted EBITDA (net debt leverage ratio) of not more than 5.00:1.00 must be maintained. If the net debt leverage ratio exceeds 3.50:1:00 at any time, the company's ability to make certain payments as defined in the Facility (which includes cash dividends to stockholders and share purchases, among other things), is limited. At December 31, 2017, the company's interest coverage ratio and net debt leverage ratio were 10.75:1.00 and 1.35:1.00, respectively. The company was therefore in compliance with these covenants at December 31, 2017, and anticipates remaining in compliance during the next twelve months.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 3. Long-Term Debt (Continued)

Senior Unsecured Notes

We have five different tranches of senior unsecured notes (Notes) outstanding. These Notes are in equal right of payment with all existing and future senior unsecured indebtedness and are senior in right of payment to all subordinated indebtedness. These Notes contain provisions that allow the company to redeem the senior notes on or after the dates and at redemption prices (expressed as a percentage of principal amount) listed below. Additionally, these Notes generally allow the company to redeem some or all of the Notes by paying a "make-whole" premium any time prior to the dates listed below. The company may redeem up to 35% of each of the Notes at a redemption price and by the dates listed below using the proceeds from the sales of the company's common stock. See the key terms of each of the Notes outstanding below.

Issue	2021 Notes	2023 Notes	2024 Notes	2025 Notes	2026 Notes
Outstanding Balance	$700.0 million	$400.0 million	$500.0 million	$350.0 million	$400.0 million
Stated Interest Rate	5.125%	5¼%	5.500%	4.125%	5.000%
Semi-Annual Interest Payment Dates	April 1 and October 1	April 15 and October 15	April 1 and October 1	March 15 and September 15	June 15 and December 15
Equity Redemption Option Price & Date	N/A – date passed	N/A – date passed	N/A – date passed	104.125% September 15, 2020	105.000% December 15, 2019
"Make-Whole" Option Date	N/A – date passed	April 15, 2018	October 1, 2019	September 15, 2020	December 15, 2021
First Call Price & Date	N/A – date passed	102.625% April 15, 2018	102.750% October 1, 2019	102.063% September 15, 2020	102.500% December 15, 2021
Second Call Price & Date	101.281% October 1, 2018	101.750% April 15, 2019	101.833% October 1, 2020	101.031% September 15, 2021	101.667% December 15, 2022
Third Call Price & Date	100.000% October 1, 2019	100.875% April 15, 2020	100.917% October 1, 2021	100.000% September 15, 2022	100.833% December 15, 2023
Fourth Call Price & Date	—	100.000% April 15, 2021	100.000% October 1, 2022	—	100.000% December 15, 2024
Maturity Date	October 1, 2021	April 15, 2023	October 1, 2024	September 15, 2025	December 15, 2026

Other Obligations

Minnesota Economic Development State Secured Loans. Mesabi Nugget has loans from various Minnesota state agencies related to the construction and ultimate operation of Mesabi Nugget. These loans require monthly principal and interest payments at a 3.5% interest rate until February 2017, and then at 5.0% through maturity in 2027. Amounts due under these loans were $20.6 million and $22.3 million at December 31, 2017, and 2016, respectively.

Other Secured Loans. One of the company's controlled subsidiaries entered into financing agreements for certain equipment which bear interest at 6.0%, with monthly principal and interest payments required through maturities in 2027 and 2028. The outstanding principal balance of these agreements was $8.9 million and $9.5 million at December 31, 2017, and 2016, respectively.

One of the company's controlled subsidiaries has a secured credit agreement which provides a revolving variable rate credit facility of up to $40.0 million, subject to a borrowing base determined from eligible accounts receivable and inventory, and other cash flow restrictions. Interest, which was 3.9% at December 31, 2017, is payable monthly. Amounts due under this credit facility were $25.7 million at December 31, 2017. There were no amounts due under this credit facility at December 31, 2016.

Unsecured Loans. The company has an unsecured electricity transmission facility loan which bears interest at 8.1%, with monthly principal and interest payments required through maturity in 2022. The company has an unused $3.0 million stand-by letter of credit in conjunction with this loan. The outstanding principal balance was $3.6 million and $4.2 million as of December 31, 2017, and 2016, respectively.

Note 3. Long-Term Debt (Continued)

Outstanding Debt Maturities

Maturities of outstanding debt as of December 31, 2017, are as follows (in thousands):

2018	$ 28,795
2019	3,291
2020	3,492
2021	703,708
2022	3,174
Thereafter	1,666,392
	$2,408,852

The company capitalizes interest on all qualifying construction in progress assets. For the years ended December 31, 2017, 2016, and 2015, total interest costs incurred were $136.1 million, $148.5 million, and $154.4 million, respectively, of which $1.7 million, $2.5 million and $457,000, respectively, were capitalized.

Note 4. Income Taxes

The company files a consolidated federal income tax return. The current and deferred federal and state income tax expense (benefit) for the years ended December 31 is as follows (in thousands):

	2017	2016	2015
Current income tax expense	$ 269,387	$153,176	$ 6,391
Deferred income tax expense (benefit)	(139,948)	50,951	(103,338)
Total income tax expense (benefit)	$ 129,439	$204,127	$ (96,947)

A reconciliation of the statutory rates to the actual effective tax rates for the years ended December 31 are as follows:

	2017	2016	2015
Statutory federal tax rate	35.0%	35.0%	35.0%
Impact from Tax Reform	(19.3)	—	—
State income taxes, net of federal benefit	1.4	2.6	6.3
Domestic manufacturing deduction	(2.6)	(2.5)	—
Noncontrolling interests	0.3	1.4	(2.1)
Tax benefit of equity compensation	(1.1)	(1.0)	0.4
Other permanent differences	0.1	0.7	0.4
Effective tax rate	13.8%	36.2%	40.0%

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act of 2017 (the "TCJA Act") which, among other provisions, reduces the corporate income tax rate from 35% to 21%, effective January 1, 2018. The TCJA Act also includes a one-time transition tax related to cumulative foreign earnings, as the United States transitions from a worldwide tax system to a territorial tax system. During the fourth quarter of 2017, the company recorded a $180.6 million net tax benefit to reflect the impacts of the TCJA Act, including a $182.5 million tax benefit to revalue its net deferred tax assets and liabilities as of December 31, 2017, using the newly enacted rate, partially offset by tax expense of $1.9 million related to the transition tax on cumulative foreign earnings. While the company believes the $180.6 million tax benefit is a reasonable estimate of the impact of the TCJA Act, additional guidance and clarifications of the TCJA Act are expected to be provided in the future. Although the company does not anticipate any material adjustments, future tax expense or benefit related to the TCJA Act may need to be recorded as additional guidance and clarifications of the TCJA Act are provided. Once the company finalizes

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 4. Income Taxes (Continued)

certain tax positions when it files its 2017 US tax return, it will conclude whether any further adjustments are necessary and record the amounts as a component of tax expense (benefit) in the reporting period in which such adjustments are determined, which will be no later than the fourth quarter 2018.

Significant components of the company's deferred tax assets and liabilities at December 31 are as follows (in thousands):

	2017	2016
Deferred tax assets		
Accrued expenses and allowances	$ 16,322	$ 24,986
Inventories	4,109	11,805
Net operating loss carryforwards	33,693	48,920
Intangible assets	—	14,779
Other	8,074	8,491
	62,198	108,981
Less: valuation allowance	(20,714)	(33,427)
Total net deferred tax assets	41,484	75,554
Deferred tax liabilities		
Property, plant and equipment	(344,511)	(519,977)
Intangible assets	(1,292)	—
Other	(1,630)	(3,952)
Total deferred tax liabilities	(347,433)	(523,929)
Net deferred tax liability	$(305,949)	$(448,375)

Certain wholly-owned and controlled subsidiaries of the company file separate federal and state income tax returns. These subsidiaries have generated federal net operating loss carryforwards of $93.2 million which expire in 2032 to 2037, and state net operating loss carryforwards which principally expire in the years 2025 to 2037. Management has considered the scheduled reversal of the deferred tax liabilities, historical taxable losses, projected taxable income and tax planning strategies in determining that it is more likely than not that some of the deferred tax assets relating to the tax loss carryforwards of the subsidiaries will not be realized. Based on these evaluations, valuation allowances of $20.7 million and $33.4 million have been recorded as of December 31, 2017, and 2016, respectively. The $12.7 million decrease in valuation allowance in the year ended December 31, 2017, primarily relates to the change in future value due to the TCJA Act and the release of a valuation allowance in the amount of $4.3 million for certain state net operating loss carryforwards.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	2017	2016	2015
Balance at January 1	$19,107	$15,991	$17,338
Increases related to current year tax positions	300	300	—
Increases related to prior year tax positions	271	5,452	81
Decreases related to prior year tax positions	(863)	(535)	(719)
Settlements with taxing authorities	(2,066)	(2,101)	(70)
Lapses in statute of limitations	—	—	(639)
Balance at December 31	$16,749	$19,107	$15,991

Note 4. Income Taxes (Continued)

Included in the balance of unrecognized tax benefits at December 31, 2017, are potential benefits of $12.5 million that, if recognized, would affect the effective tax rate. The company recognizes interest and penalties related to its tax contingencies on a net-of-tax basis in income tax expense. During the year ended December 31, 2017, the company recognized expense from the increase of interest expense of $85,000, net of tax. In addition to the unrecognized tax benefits in the table above, the company had $4.8 million accrued for the payment of interest and penalties at December 31, 2017.

The company files income tax returns in the United States federal jurisdiction as well as income tax returns in various state jurisdictions. The company is subject to examination and proposed adjustments by the IRS for the calendar year 2010 and thereafter. At this time the company does not believe there will be any significant examination adjustments that would result in a material change to the company's financial position, results of operations or cash flows. It is reasonably possible that the amount of unrecognized tax benefits could change in the next twelve months as a result of these federal income tax audits, and other state income tax audits. Based on the current audits in process, the payment of taxes as a result of audit settlements could be in an amount from zero to $3.3 million by the end of 2018. With the exception of the 2010 and 2011 federal returns, the company is no longer subject to federal, state and local income tax examinations by tax authorities for years ended before 2012.

Note 5. Shareholders' Equity

Cash Dividends

The company declared cash dividends of $148.2 million, or $0.62 per common share, during 2017; $136.5 million, or $0.56 per common share, during 2016; and $133.2 million, or $0.55 per common share, during 2015. The company paid cash dividends of $145.6 million, $135.8 million and $127.6 million during 2017, 2016, and 2015, respectively.

Treasury Stock

During 2016, the company's board of directors authorized a share repurchase program of up to $450.0 million of the company's common stock in open market or private transactions, cancelling the previously authorized program. The share repurchase program does not require the company to acquire any specific number of shares and may be modified, suspended, extended or terminated by the company. The company repurchased 7.4 million shares for $252.2 million during 2017, and 732,000 shares for $25.0 million during 2016. At December 31, 2017, the company had remaining authorization to repurchase $172.7 million of additional shares. The share repurchase program does not have an expiration date.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 6. Equity-Based Incentive Plans

2015 Equity Incentive Plan (2015 Plan)

The 2015 Plan is designed to attract, motivate and retain qualified persons that are able to make important contributions to the company's success. To accomplish these objectives, the 2015 Plan provides for awards of equity-based incentives through granting of restricted stock units (RSUs), deferred stock units (DSUs), restricted stock awards, stock options, unrestricted stock awards, stock appreciation rights (SARs), and performance awards, such as long-term incentive compensation program (LTIP). The company's stockholders approved the 2015 Plan in May 2015, and 12.5 million shares of common stock were reserved for issuance upon exercise of equity grants through December 31, 2025. The 2015 Plan uses a fungible share concept under which any awards that are not a full-value award, such as stock options and SARs, will be counted against the share limit as one share for each share of common stock, and awards that are full-value awards, such as RSUs, DSUs, restricted and unrestricted stock awards, and performance awards, will be counted against the share limit as 2.09 shares for each share of common stock. At December 31, 2017, there were 5.3 million shares in the fungible share reserve still available for issuance.

Substantially all of the company's employees receive RSUs, which are granted annually in November at no cost to employees, vest 100% over the shorter of two years from grant date or upon the recipient reaching retirement eligible age (59½ years), and the stock is issued to employees upon vesting. The company satisfies RSUs with newly issued shares, and satisfies restricted stock awards, DSUs, and performance awards with treasury shares. In addition to the RSUs and LTIP awards granted during the three year period ended December 31, 2017, presented below, the company awarded 34,000, 60,000 and 51,000 DSUs in 2017, 2016 and 2015, respectively; and 200,000 and 86,000 SARs in 2017 and 2016, respectively.

Restricted Stock Units

A summary of the company's RSU activity and outstanding RSUs as of December 31, 2017, are presented below (dollars in thousands except grant date fair value):

	Number of RSUs	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value	Unrecognized Compensation
Outstanding RSUs as of January 1, 2015	2,011,226	$19.85	$39,702	$25,171
Granted	1,589,309	$16.70		
Vested	(1,197,403)	$18.13		
Forfeited	(124,428)	$19.89		
As of December 31, 2015	2,278,704	$18.55	$40,720	$27,615
Granted	852,063	$32.40		
Vested	(962,828)	$22.76		
Forfeited	(139,922)	$18.50		
As of December 31, 2016	2,028,017	$22.38	$72,157	$29,086
Granted	828,955	$36.29		
Vested	(1,364,593)	$18.50		
Forfeited	(78,737)	$23.52		
As of December 31, 2017 (nonvested)	1,413,642	$34.22	$60,970	$32,017

Note 6. Equity-Based Incentive Plans (Continued)

The weighted average remaining life before vesting of the outstanding RSUs as of December 31, 2017, is 1.37 years. The fair value of RSUs vesting during 2017, 2016, and 2015 was $58.8 million, $34.3 million, and $21.4 million, respectively, and was net-share settled such that the company withheld shares with value equivalent to the employees' minimum statutory obligation for the applicable income and other employment taxes, and remitted the cash to the appropriate taxing authorities. The total shares withheld in 2017, 2016, and 2015 were approximately 457,000, 338,000, and 427,000 shares, respectively, and were based on the value of the RSUs on their vesting dates as determined by the company's closing stock price.

Stock Options

Prior to 2012, substantially all of the company's employees were granted stock options at an exercise price of 100% of the fair market value of the company's common stock on the date of grant, which vested 100% six months after the date of grant, with a maximum term of five years. There have been no stock options granted since 2011, thus the five year maximum term of the 2011 grant has expired, no stock options remain outstanding or exercisable, and there is no unrecognized stock option compensation expense at December 31, 2016 or 2017. A summary of the company's stock option activity and certain information concerning the company's outstanding options are presented below.

	Number of Options	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value
Outstanding options as of January 1, 2015	1,398,515	$14.62	$5.61
Exercised	(753,159)	$14.75	$5.75
Forfeited	(49,411)	$15.02	$5.87
As of December 31, 2015	595,945	$14.43	$5.41
Exercised	(570,197)	$14.41	$5.40
Forfeited	(25,748)	$14.96	$5.62
As of December 31, 2016 and 2017	—	N/A	N/A

The aggregate intrinsic value of options exercised was $5.6 million and $4.0 million for the years ended December 31, 2016 and 2015, respectively.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 6. Equity-Based Incentive Plans (Continued)

Long-Term Incentive Compensation Program (LTIP)

The company maintains an LTIP performance-based program directed toward key senior executives of the company, as determined at the discretion of the Compensation Committee of the Board of Directors. Awards are in shares of the company's common stock using the stock price on the first day of the performance period to convert each key senior executive's predetermined multiple of annual base salary. The performance period is generally three years; however, certain transition awards were issued in 2013 and 2017 with shorter performance periods. Performance is measured in terms of equal portions of four growth and profitability measures, as compared to the same measures, similarly treated, of a pre-established group of steel sector competitors. Awards earned can range from zero to 100% of the shares awarded. Once earned on the basis of performance, one-third of the shares vest immediately, and the remaining shares vest in equal annual installments over an additional two-year service-based vesting period requirement. The Compensation Committee granted the following three-year performance period awards, and two-year and one-year performance period transition awards, which have been earned and have or will be issued over the vesting period as follows:

	Maximum Shares That Could Be Issued	Award Earned	Award Issued/Issuable	
2013 LTIP Award:				
Two-year performance period transition award	173,319	159,457	53,154	March 2015
			66,252	March 2016
			40,051	March 2017
Three-year performance period award	173,319	149,060	74,179	March 2016
			37,441	March 2017
			37,440	March 2018
2014 LTIP Award:				
Three-year performance period award	204,741	204,741	68,249	March 2017
			68,247	March 2018
			68,245	March 2019
2015 LTIP Award:				
Three-year performance period award	236,434	236,434	78,813	March 2018
			78,812	March 2019
			78,809	March 2020
2016 LTIP Award:				
Three-year performance period award	324,469	*	*	
2017 LTIP Award:				
Three-year performance period award	182,274	*	*	
Two-year performance period transition award	16,779	*	*	
One-year performance period transition award	28,379	25,541	8,514	March 2018
			8,514	March 2019
			8,513	March 2020

* Not yet earned as performance period not complete.

Note 6. Equity-Based Incentive Plans (Continued)

2013 Executive Incentive Compensation Plan (Executive Plan)

Pursuant to the company's existing Executive Plan, certain senior management members of the company are eligible to receive cash bonuses based on predetermined formulas. In the event the bonus exceeds the predetermined maximum cash payout, the excess bonus up to a fixed percentage of base salary is distributed in shares of the company's stock, of which one-third of the shares vest immediately and the remaining shares vest in equal annual installments over an additional two-year service-based vesting period requirement. The company's stockholders approved the Executive Plan in May 2013, and 2.5 million shares of company stock were reserved for issuance through February 28, 2018. At December 31, 2017, 2.1 million shares under the Executive Plan remained available for issuance. Pursuant to the Executive Plan, 117,000 shares were awarded with a market value of $5.3 million for the 2017 award year, 117,000 shares were awarded with a market value of $4.0 million for the 2016 award year, and no shares were awarded for the 2015 award year.

2014 Employee Stock Purchase Plan

The 2014 Employee Stock Purchase Plan allows eligible employees, at their election, to purchase shares of the company's stock at fair market value each month with a designated broker through payroll deductions. The maximum allowable payroll deduction for the plan, excluding company matching contributions, is $10,400 in any calendar year. The company provides matching contributions of 10% of employees' payroll deductions. The company's total expense for the plan was $558,000, $514,000, and $468,000 for the years ended December 31, 2017, 2016, and 2015, respectively.

Note 7. Derivative Financial Instruments

The company is exposed to certain risks relating to its ongoing business operations. The company utilizes derivative instruments to mitigate commodity margin risk, occasionally to mitigate foreign currency exchange rate risk, and have in the past to mitigate interest rate fluctuation risk. The company routinely enters into forward exchange traded futures and option contracts to manage the price risk associated with nonferrous metals inventory, as well as purchases and sales of nonferrous metals (primarily aluminum and copper). The company offsets fair value amounts recognized for derivative instruments executed with the same counterparty under master netting agreements.

Commodity Futures Contracts. If the company is ''long'' on futures contracts, it means the company has more futures contracts purchased than futures contracts sold for the underlying commodity. If the company is ''short'' on a futures contract, it means the company has more futures contracts sold than futures contracts purchased for the underlying commodity. The following summarizes the company's futures contract commitments as of December 31, 2017 (MT represents metric tons):

Commodity Futures	Long/Short	Total
Aluminum	Long	1,550 MT
Aluminum	Short	1,775 MT
Copper	Long	5,555 MT
Copper	Short	26,091 MT

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 7. Derivative Financial Instruments (Continued)

The following summarizes the location and amounts of the fair values reported on the company's balance sheets and gains or losses related to derivatives included in the company's consolidated statements of operations as of and for the years ended December 31 (in thousands):

		Asset Derivatives		Liability Derivatives	
		Fair Value		Fair Value	
	Balance sheet location	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
Derivative instruments designated as fair value hedges –					
Commodity futures	Other current assets	$1,211	$2,910	$ 5,364	$1,300
Derivative instruments not designated as hedges –					
Commodity futures	Other current assets	1,579	1,150	5,142	783
Total derivative instruments		$2,790	$4,060	$10,506	$2,083

The fair value of the above derivative instruments along with required margin deposit amounts with the same counterparty under master netting agreements totaled $5.6 million and $3.2 million at December 31, 2017, and 2016, respectively, and are reflected in other current assets in the consolidated balance sheets.

	Location of gain (loss) recognized in income on derivatives	Amount of gain (loss) recognized in income on derivatives	Hedged items in fair value hedge relationships	Location of gain (loss) recognized in income on related hedged items	Amount of gain (loss) recognized in income on related hedged items
For the Year Ended December 31, 2017					
Derivatives in fair value hedging relationships –					
Commodity futures . .	Costs of goods sold	$ 5,763	Firm commitments	Costs of goods sold	$ 1,814
			Inventory	Costs of goods sold	3,008
Derivatives not designated as hedging instruments –					$ 4,822
Commodity futures . .	Costs of goods sold	$(18,784)			
For the Year Ended December 31, 2016					
Derivatives in fair value hedging relationships –					
Commodity futures . .	Costs of goods sold	$ 3,596	Firm commitments	Costs of goods sold	$(3,901)
			Inventory	Costs of goods sold	(538)
Derivatives not designated as hedging instruments –					$(4,439)
Commodity futures . .	Costs of goods sold	$ (8,450)			

Note 7. Derivative Financial Instruments (Continued)

	Location of gain (loss) recognized in income on derivatives	Amount of gain (loss) recognized in income on derivatives	Hedged items in fair value hedge relationships	Location of gain (loss) recognized in income on related hedged items	Amount of gain (loss) recognized in income on related hedged items
For the Year Ended December 31, 2015					
Derivatives in fair value hedging relationships –					
Commodity futures	Costs of goods sold	$ (4,254)	Firm commitments	Costs of goods sold	$2,084
			Inventory	Costs of goods sold	1,269
Derivatives not designated as hedging instruments –					$3,353
Commodity futures	Costs of goods sold	$16,261			

Derivatives accounted for as fair value hedges had ineffectiveness resulting in losses of $3,000 and $191,000, and gains of $90,000 for the years ended December 31, 2017, 2016, and 2015, respectively. Losses excluded from hedge effectiveness testing of $938,000, $652,000, and $991,000 increased cost of goods sold for the years ended December 31, 2017, 2016, and 2015, respectively.

Note 8. Fair Value Measurements

Accounting standards provide a comprehensive framework for measuring fair value and sets forth a definition of fair value and establishes a hierarchy prioritizing the inputs to valuation techniques, giving the highest priority to quoted prices in active markets for identical assets and liabilities and the lowest priority to unobservable value inputs. Levels within the hierarchy are defined as follows:

- Level 1 — Unadjusted quoted prices for identical assets and liabilities in active markets;
- Level 2 — Quoted prices for similar assets and liabilities in active markets (other than those included in Level 1) which are observable for the asset or liability, either directly or indirectly; and
- Level 3 — Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The following table sets forth financial assets and liabilities measured at fair value on a recurring basis in the consolidated balance sheet and the respective levels to which the fair value measurements are classified within the fair value hierarchy as of December 31 (in thousands):

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2017				
Commodity futures – financial assets	$ 2,790	$—	$ 2,790	$—
Commodity futures – financial liabilities	10,506	—	10,506	—
December 31, 2016				
Commodity futures – financial assets	$ 4,060	$—	$ 4,060	$—
Commodity futures – financial liabilities	2,083	—	2,083	—

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 8. Fair Value Measurements (Continued)

The carrying amounts of financial instruments including cash and equivalents approximate fair value. The fair values of commodity futures contracts are estimated by the use of quoted market prices, estimates obtained from brokers, and other appropriate valuation techniques based on references available. The fair value of long-term debt, including current maturities, as determined by quoted market prices (Level 2), was approximately $2.5 billion for December 31, 2017 and 2016 (with a corresponding carrying amount in the consolidated balance sheet of $2.4 billion at December 31, 2017 and 2016).

Note 9. Commitments and Contingencies

The company has entered into certain commitments with suppliers which are of a customary nature. Commitments have been entered into relating to future expected requirements for such commodities as electricity, natural gas and its transportation services, fuel, air products, zinc and electrodes. Certain commitments contain provisions which require that the company "take or pay" for specified quantities at fixed prices without regard to actual usage for periods of up to 5 years for physical commodity requirements and commodity transportation requirements, and for up to 11 years for air products. The company utilized such "take or pay" requirements during the past three years under these contracts, except for certain air products at our Minnesota ironmaking operations which have been idle since May 2015. The company believes that production requirements will be such that consumption of the products or services purchased under these commitments will occur in the normal production process, other than certain air products related to Minnesota ironmaking operations during the idle period.

The company's commitments for these agreements with "take or pay" or other similar commitment provisions for the years ending December 31 are as follows (in thousands):

2018	$312,736
2019	116,779
2020	104,300
2021	90,894
2022	83,696
Thereafter	75,337
	$783,742

At December 31, 2017, the company has outstanding commitments of $74.7 million related to ongoing construction of property, plant, and equipment related primarily to steel operations. The company's commitments for operating leases are discussed in Note 12.

The company is involved in various routine litigation matters, including administrative proceedings, regulatory proceedings, governmental investigations, environmental matters, and commercial and construction contract disputes, none of which are expected to have a material impact on the company's financial condition, results of operations, or liquidity.

Note 10. Transactions with Affiliated Companies

The company sells flat roll products to and occasionally purchases ferrous materials from Heidtman. The president and chief executive officer of Heidtman was a member of the company's board of directors through May 2017. Transactions with Heidtman for the years ended December 31, are as follows (in thousands):

	2017	2016	2015
Sales	$150,981	$142,624	$162,742
Percentage of consolidated net sales	2%	2%	2%
Accounts receivable	19,354	20,737	30,627
Purchases	10,684	9,017	11,429
Accounts payable	663	494	431

Note 10. Transactions with Affiliated Companies (Continued)

The company also purchases and sells recycled and scrap metal with other smaller affiliated companies. These transactions are as follows (in thousands):

	2017	2016	2015
Sales	$ 23,603	$ 27,305	$ 24,436
Accounts receivable	3,068	5,483	3,645
Purchases	219,975	165,091	178,102
Accounts payable	15,020	12,576	6,199

Note 11. Retirement Plans

The company sponsors several 401(k) retirement savings and profit sharing plans (Plans) for eligible employees, which are considered ''qualified plans'' for federal income tax purposes. The company's total expense for the Plans was $92.5 million, $64.7 million, and $21.0 million for the years ended December 31, 2017, 2016, and 2015, respectively. The company's profit sharing component is 8% of consolidated pretax income excluding noncontrolling interests and other items. The resulting company profit sharing component was $80.7 million, $59.3 million, and $17.7 million for the years ended December 31, 2017, 2016, and 2015, respectively; of which $64.5 million, $47.5 million, and $14.1 million, respectively, was directed by the company's board of directors to be contributed to the Plans, with the remaining amounts each year paid directly in cash to the Plans' participants.

Note 12. Leases

The company has operating leases relating principally to transportation and other equipment and real estate. Certain leases include escalation clauses and/or purchase options. The company paid $18.9 million for operating leases for the years ended December 31, 2017, and $15.1 million for the years ended December 31, 2016 and 2015, respectively. At December 31, 2017, future minimum payments for all non-cancelable operating leases with an initial or remaining term of one year or more are as follows (in thousands):

2018	$16,036
2019	12,609
2020	9,496
2021	5,868
2022	4,051
Thereafter	5,754
	$53,814

Note 13. Segment Information

The company's operations are primarily organized and managed by reportable operating segments, which are steel operations, metals recycling operations, and steel fabrication operations. The segment operations are more fully described in Note 1 to the consolidated financial statements. Operating segment performance and resource allocations are primarily based on operating results before income taxes. The accounting policies of the reportable segments are consistent with those described in Note 1 to the consolidated financial statements. Intra-segment sales and any related profits are eliminated in consolidation. Amounts included in the category ''Other'' are from subsidiary operations that are below the quantitative thresholds required for reportable segments and primarily consist of our Minnesota ironmaking operations and several small joint ventures. In addition, ''Other'' also includes certain unallocated corporate accounts, such as the company's senior secured credit facility, senior notes, certain other investments and certain profit sharing expenses.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 13. Segment Information (Continued)

The company's segment results are as follows (in thousands):

For The Year Ended December 31, 2017	Steel Operations	Metals Recycling Operations	Steel Fabrication Operations	Other	Eliminations	Consolidated
Net Sales						
External	$6,613,944	$1,204,188	$823,630	$ 373,212	$ —	$9,014,974
External Non-United States	317,819	205,853	151	—	—	523,823
Other segments	243,646	1,402,963	644	2,299	(1,649,552)	—
	7,175,409	2,813,004	824,425	375,511	(1,649,552)	9,538,797
Operating income (loss)	1,098,630	71,052	87,295	(190,785)[(1)]	689[(2)]	1,066,881
Income (loss) before income taxes	1,014,863	64,638	81,046	(226,001)	689	935,235
Depreciation and amortization	227,752	48,830	11,507	10,910	—	298,999
Capital expenditures	128,749	25,998	7,506	2,682	—	164,935
As of December 31, 2017						
Assets	$4,257,167	$1,011,298	$384,402	$1,334,361[(3)]	$ (131,496)[(4)]	$6,855,732

Footnotes related to the year ended December 31, 2017, segment results (in millions):

(1)	Corporate SG&A	$ (49.4)
	Company-wide equity-based compensation	(36.5)
	Profit sharing	(87.6)
	Minnesota ironmaking operations	(12.8)
	Other, net	(4.5)
		$ (190.8)
(2)	Gross profit increase from intra-company sales	$ 0.7
(3)	Cash and equivalents	$1,003.2
	Accounts receivable	9.4
	Inventories	58.8
	Income tax receivable	57.3
	Property, plant and equipment, net	160.9
	Intra-company debt	13.4
	Other	31.4
		$1,334.4
(4)	Elimination of intercompany receivables	$ (106.1)
	Elimination of intra-company debt	(13.4)
	Other	(12.0)
		$ (131.5)

Note 13. Segment Information (Continued)

For The Year Ended December 31, 2016	Steel Operations	Metals Recycling Operations	Steel Fabrication Operations	Other	Eliminations	Consolidated
Net Sales						
External	$5,399,275	$1,007,781	$700,852	$ 271,828	$ —	$7,379,736
External Non-United States	235,436	161,560	189	188	—	397,373
Other segments	236,213	1,002,536	2,481	4,896	(1,246,126)	—
	5,870,924	2,171,877	703,522	276,912	(1,246,126)	7,777,109
Operating income (loss)	926,954	20,423(5)	90,955	(301,116)(1)	(9,250)(3)	727,966
Income (loss) before income taxes	836,818	8,378(5)	82,776	(354,589)	(9,250)	564,133
Depreciation and amortization	213,227	56,483	10,952	15,652	(205)	296,109
Capital expenditures	160,767	29,443	3,123	4,827	—	198,160
As of December 31, 2016						
Assets	$4,126,448	$1,038,946	$340,902	$1,054,448(3)	$ (137,012)(4)	$6,423,732

Footnotes related to the year ended December 31, 2016, segment results (in millions):

(1)	Corporate SG&A	$ (48.9)
	Company-wide equity-based compensation	(30.4)
	Profit sharing	(66.4)
	Minnesota ironmaking operations	(15.8)
	Minnesota ironmaking operations non-cash. asset impairment charges ($127.3 net of eliminating amounts)	(129.1)
	Other, net	(10.5)
		$(301.1)
(2)	Gross profit decrease from intra-company sales	$ (11.1)
	Non-cash asset impairment charges	1.8
		$ (9.3)
(3)	Cash and equivalents	$ 775.7
	Accounts receivable	2.0
	Inventories	35.4
	Income tax receivable	25.3
	Property, plant and equipment, net	168.5
	Intra-company debt	12.1
	Other	35.4
		$1,054.4
(4)	Elimination of intercompany receivables	$ (112.3)
	Elimination of intra-company debt	(12.1)
	Other	(12.6)
		$ (137.0)

(5) Includes $5.5 million of non-cash goodwill impairment charges.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 13. Segment Information (Continued)

For The Year Ended December 31, 2015	Steel Operations	Metals Recycling Operations	Steel Fabrication Operations	Other	Eliminations	Consolidated
Net Sales						
External	$4,935,549	$1,249,061	$671,323	$ 283,965	$ —	$7,139,898
External Non-United States	267,963	183,942	2,051	557	—	454,513
Other segments	218,963	904,713	25	30,325	(1,154,026)	—
	5,422,475	2,337,716	673,399	314,847	(1,154,026)	7,594,411
Operating income (loss)	403,216	(448,137)(3)	115,947	(148,784)(1)	4,974(2)	(72,784)
Income (loss) before income taxes	312,402	(465,426)(3)	108,795	(202,862)	4,974	(242,117)
Depreciation and amortization	205,827	65,640	9,587	13,746	(205)	294,595
Capital expenditures	71,752	21,874	3,395	17,480	—	114,501

Footnotes related to the year ended December 31, 2015, segment results (in millions):

(1)	Corporate SG&A	$ (37.8)
	Company-wide equity-based compensation	(27.1)
	Profit sharing	(17.7)
	Minnesota ironmaking operations	(55.7)
	Other, net	(10.5)
		$(148.8)
(2)	Gross profit increase from intra-company sales	$ 5.0

(3) Includes $428.5 million of pretax non-cash asset impairment charges.

Note 14. Condensed Consolidating Information

Certain 100% owned subsidiaries of SDI have fully and unconditionally guaranteed jointly and severally all the indebtedness relating to the issuance of the company's senior unsecured notes due 2021, 2023, 2024, 2025 and 2026. Following are the company's condensed consolidating financial statements, including the guarantors, which present the financial position, results of operations, and cash flows of (i) SDI (in each case, reflecting investments in its consolidated subsidiaries under the equity method of accounting), (ii) the guarantor subsidiaries of SDI, (iii) the non-guarantor subsidiaries of SDI, and (iv) the eliminations necessary to arrive at the information on a consolidated basis. The following statements should be read in conjunction with the accompanying consolidated financial statements, and notes thereto.

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 14. Condensed Consolidating Information (Continued)

Condensed Consolidating Balance Sheets (in thousands)

As of December 31, 2017	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Cash and equivalents	$1,001,405	$ 20,441	$ 6,803	$ —	$1,028,649
Accounts receivable, net	274,968	1,426,036	37,387	(869,554)	868,837
Inventories	685,103	752,151	91,890	(9,797)	1,519,347
Other current assets	73,748	16,005	5,962	(4,206)	91,509
Total current assets	2,035,224	2,214,633	142,042	(883,557)	3,508,342
Property, plant and equipment, net	859,419	1,618,438	198,047	—	2,675,904
Intangible assets, net	—	225,503	31,406	—	256,909
Goodwill	—	379,069	7,824	—	386,893
Other assets, including investments in subs	2,512,594	6,622	5,505	(2,497,037)	27,684
Total assets	$5,407,237	$4,444,265	$ 384,824	$(3,380,594)	$6,855,732
Accounts payable	$ 168,282	$ 316,676	$ 101,948	$ (97,458)	$ 489,448
Accrued expenses	222,023	254,196	10,243	(136,186)	350,276
Current maturities of long-term debt	731	—	56,454	(28,390)	28,795
Total current liabilities	391,036	570,872	168,645	(262,034)	868,519
Long-term debt	2,326,466	—	169,799	(143,120)	2,353,145
Other liabilities	(661,839)	869,196	24,868	95,535	327,760
Total liabilities	2,055,663	1,440,068	363,312	(309,619)	3,549,424
Redeemable noncontrolling interests	—	—	111,240	—	111,240
Common stock	644	1,727,859	14,908	(1,742,767)	644
Treasury stock	(665,297)	—	—	—	(665,297)
Additional paid-in capital	1,141,534	128,076	797,196	(925,272)	1,141,534
Retained earnings (deficit)	2,874,693	1,148,262	(745,326)	(402,936)	2,874,693
Total Steel Dynamics, Inc. equity	3,351,574	3,004,197	66,778	(3,070,975)	3,351,574
Noncontrolling interests	—	—	(156,506)	—	(156,506)
Total equity	3,351,574	3,004,197	(89,728)	(3,070,975)	3,195,068
Total liabilities and equity	$5,407,237	$4,444,265	$ 384,824	$(3,380,594)	$6,855,732

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 14. Condensed Consolidating Information (Continued)

As of December 31, 2016	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Cash and equivalents	$ 766,685	$ 54,677	$ 20,121	$ —	$ 841,483
Accounts receivable, net	229,148	1,257,245	23,689	(780,298)	729,784
Inventories	587,319	639,148	58,696	(9,952)	1,275,211
Other current assets	45,049	36,062	4,447	(2,361)	83,197
Total current assets	1,628,201	1,987,132	106,953	(792,611)	2,929,675
Property, plant and equipment, net	899,370	1,679,751	208,094	—	2,787,215
Intangible assets, net	—	251,919	32,058	—	283,977
Goodwill	—	385,527	7,824	—	393,351
Other assets, including investments in subs	2,769,884	7,335	5,832	(2,753,537)	29,514
Total assets	$5,297,455	$4,311,664	$ 360,761	$(3,546,148)	$6,423,732
Accounts payable	$ 141,089	$ 265,764	$ 89,659	$ (101,316)	$ 395,196
Accrued expenses	198,085	220,917	8,793	(113,808)	313,987
Current maturities of long-term debt	674	700	29,347	(27,089)	3,632
Total current liabilities	339,848	487,381	127,799	(242,213)	712,815
Long-term debt	2,324,298	—	168,566	(139,670)	2,353,194
Other liabilities	(293,711)	1,219,444	42,482	(499,191)	469,024
Total liabilities	2,370,435	1,706,825	338,847	(881,074)	3,535,033
Redeemable noncontrolling interests	—	—	111,240	—	111,240
Common stock	641	1,727,859	14,908	(1,742,767)	641
Treasury stock	(416,829)	—	—	—	(416,829)
Additional paid-in capital	1,132,749	128,076	779,678	(907,754)	1,132,749
Retained earnings (deficit)	2,210,459	748,904	(734,351)	(14,553)	2,210,459
Total Steel Dynamics, Inc. equity	2,927,020	2,604,839	60,235	(2,665,074)	2,927,020
Noncontrolling interests	—	—	(149,561)	—	(149,561)
Total equity	2,927,020	2,604,839	(89,326)	(2,665,074)	2,777,459
Total liabilities and equity	$5,297,455	$4,311,664	$ 360,761	$(3,546,148)	$6,423,732

Note 14. Condensed Consolidating Information (Continued)

Condensed Consolidating Statements of Operations (in thousands)

For the year ended December 31, 2017	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Net sales	$3,702,597	$10,366,526	$597,789	$(5,128,115)	$9,538,797
Costs of goods sold	2,994,257	9,399,996	577,205	(5,014,675)	7,956,783
Gross profit	708,340	966,530	20,584	(113,440)	1,582,014
Selling, general and administrative	221,736	293,161	20,493	(20,257)	515,133
Operating income (loss)	486,604	673,369	91	(93,183)	1,066,881
Interest expense, net of capitalized interest	73,521	57,622	12,901	(9,645)	134,399
Other (income) expense, net	(2,305)	(9,937)	(156)	9,645	(2,753)
Income (loss) before income taxes and equity in net income of subsidiaries	415,388	625,684	(12,654)	(93,183)	935,235
Income taxes (benefit)	(69,961)	226,327	5,266	(32,193)	129,439
	485,349	399,357	(17,920)	(60,990)	805,796
Equity in net income of subsidiaries	327,392	—	—	(327,392)	—
Net loss attributable to noncontrolling interests	—	—	6,945	—	6,945
Net income (loss) attributable to Steel Dynamics, Inc.	$ 812,741	$ 399,357	$ (10,975)	$ (388,382)	$ 812,741

For the year ended December 31, 2016	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Net sales	$3,037,801	$8,356,727	$ 388,071	$(4,005,490)	$7,777,109
Costs of goods sold	2,428,863	7,522,791	390,313	(3,899,722)	6,442,245
Gross profit (loss)	608,938	833,936	(2,242)	(105,768)	1,334,864
Selling, general and administrative	196,442	281,071	16,103	(19,557)	474,059
Asset impairment charges	12,700	5,500	116,445	(1,806)	132,839
Operating income (loss)	399,796	547,365	(134,790)	(84,405)	727,966
Interest expense, net of capitalized interest	71,182	72,420	10,874	(8,439)	146,037
Other (income) expense, net	14,200	(5,363)	520	8,439	17,796
Income (loss) before income taxes and equity in net loss of subsidiaries	314,414	480,308	(146,184)	(84,405)	564,133
Income taxes (benefit)	69,454	180,990	(15,825)	(30,492)	204,127
	244,960	299,318	(130,359)	(53,913)	360,006
Equity in net loss of subsidiaries	137,155	—	—	(137,155)	—
Net loss attributable to noncontrolling interests	—	—	22,109	—	22,109
Net income (loss) attributable to Steel Dynamics, Inc.	$ 382,115	$ 299,318	$(108,250)	$ (191,068)	$ 382,115

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 14. Condensed Consolidating Information (Continued)

For the year ended December 31, 2015	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Net sales	$2,908,904	$8,132,043	$361,944	$(3,808,480)	$7,594,411
Costs of goods sold	2,515,621	7,646,411	420,281	(3,719,620)	6,862,693
Gross profit (loss)	393,283	485,632	(58,337)	(88,860)	731,718
Selling, general and administrative	128,929	254,106	11,893	(18,926)	376,002
Asset impairment charges	—	428,500	—	—	428,500
Operating income (loss)	264,354	(196,974)	(70,230)	(69,934)	(72,784)
Interest expense, net of capitalized interest	75,457	76,009	6,969	(4,485)	153,950
Other (income) expense, net	13,970	332	(3,404)	4,485	15,383
Income (loss) before income taxes and equity in net loss of subsidiaries	174,927	(273,315)	(73,795)	(69,934)	(242,117)
Income taxes (benefit)	(124,626)	61,571	(4,627)	(29,265)	(96,947)
	299,553	(334,886)	(69,168)	(40,669)	(145,170)
Equity in net loss of subsidiaries	(429,864)	—	—	429,864	—
Net loss attributable to noncontrolling interests	—	—	14,859	—	14,859
Net income (loss) attributable to Steel Dynamics, Inc.	$ (130,311)	$ (334,886)	$ (54,309)	$ 389,195	$ (130,311)

Condensed Consolidating Statements of Cash Flows (in thousands)

For the year ended December 31, 2017	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Net cash provided by (used in) operating activities	$ 171,300	$ 594,279	$(31,719)	$ 5,746	$ 739,606
Net cash used in investing activities	(62,534)	(73,021)	(8,301)	4,751	(139,105)
Net cash provided by (used in) financing activities	125,954	(555,494)	26,702	(10,497)	(413,335)
Increase (decrease) in cash and equivalents	234,720	(34,236)	(13,318)	—	187,166
Cash and equivalents at beginning of period	766,685	54,677	20,121	—	841,483
Cash and equivalents at end of period	$1,001,405	$ 20,441	$ 6,803	$ —	$1,028,649

Note 14. Condensed Consolidating Information (Continued)

For the year ended December 31, 2016	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Net cash provided by operating activities	$ 326,216	$ 517,699	$ 6,057	$ 2,797	$ 852,769
Net cash used in investing activities	(161,043)	(140,027)	(9,578)	(2,245)	(312,893)
Net cash provided by (used in) financing activities	(35,365)	(404,971)	15,463	(552)	(425,425)
Increase (decrease) in cash and equivalents	129,808	(27,299)	11,942	—	114,451
Cash and equivalents at beginning of period	636,877	81,976	8,179	—	727,032
Cash and equivalents at end of period	$ 766,685	$ 54,677	$20,121	$ —	$ 841,483

For the year ended December 31, 2015	Parent	Guarantors	Combined Non-Guarantors	Consolidating Adjustments	Total Consolidated
Net cash provided by operating activities	$436,012	$ 594,437	$ 19,388	$ 3,788	$1,053,625
Net cash used in investing activities	(64,457)	(82,751)	(15,703)	20,284	(142,627)
Net cash provided by (used in) financing activities	9	(511,400)	(9,866)	(24,072)	(545,329)
Increase (decrease) in cash and equivalents	371,564	286	(6,181)	—	365,669
Cash and equivalents at beginning of period	265,313	81,690	14,360	—	361,363
Cash and equivalents at end of period	$636,877	$ 81,976	$ 8,179	$ —	$ 727,032

Note 15. Quarterly Financial Information (unaudited, in thousands, except per share data)

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2017:				
Net Sales	$2,368,216	$2,390,720	$2,443,382	$2,336,479
Gross profit	472,154	392,518	396,518	320,824
Operating income	334,566	265,353	271,015	195,947
Net income	198,666	152,947	151,012	303,171
Net income attributable to Steel Dynamics, Inc.	200,817	153,933	153,258	304,733
Earnings per share:				
Basic	0.83	0.64	0.64	1.28
Diluted	0.82	0.63	0.64	1.28
2016:				
Net Sales	$1,741,301	$2,023,902	$2,101,310	$1,910,596
Gross profit	236,036	380,383	408,503	309,942
Operating income	131,965	256,122	283,855	56,024
Net income	61,318	140,443	154,413	3,832
Net income attributable to Steel Dynamics, Inc.	62,737	141,969	157,397	20,012
Earnings per share:				
Basic	0.26	0.58	0.65	0.08
Diluted	0.26	0.58	0.64	0.08

STEEL DYNAMICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 15. Quarterly Financial Information (unaudited, in thousands, except per share data) (Continued)

The fourth quarter of 2017 net income and net income attributable to Steel Dynamics, Inc. reflects $180.6 million of tax benefit related primarily to the impacts of the revaluation of the company's deferred tax liabilities as of December 31, 2017, using the lower federal tax rate enacted in the Tax Cuts and Jobs Act of 2017.

The fourth quarter of 2016 reflects non-cash asset impairment charges associated with the company's Minnesota ironmaking operations and certain OmniSource goodwill, which reduced operating and pretax income by $132.8 million, net income by $89.5 million and net income attributable to Steel Dynamics, Inc. by $76.4 million. The fourth quarter of 2016 also reflects non-operating expenses of $16.5 million associated with call premiums and the write off of deferred financing costs related to the refinancing of $400.0 million of outstanding 6.125% Senior Notes due 2019 with $400.0 million 5.000% Senior Notes due 2026, and repayment of the $228.1 million outstanding senior secured term debt.

Earnings per share are computed independently for each of the quarters presented. Therefore, the sum of the quarterly earnings per share may not equal the total for the year.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures.

As required, we carried out an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act). Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of December 31, 2017, the end of the period covered by this annual report, our disclosure controls and procedures were designed to provide and were effective to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management's report on our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) and the independent registered public accounting firm's related audit report are included in Item 8 of this Form 10-K and are incorporated herein by reference.

(b) Changes in Internal Control Over Financial Reporting

No changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended December 31, 2017, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Our Management's Report on Internal Control Over Financial Reporting, as of December 31, 2017, can be found on page 52 of this Form 10-K, and the related Report of Independent Registered Public Accounting Firm, Ernst & Young LLP, can be found on page 53 of this Form 10-K, each of which is incorporated by reference into this Item 9A.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERANCE

The information required to be furnished pursuant to Item 10 with respect to directors, executive officers, code of ethics, and audit committee and audit committee financial experts is incorporated herein by reference from the section entitled ‘‘Governance of the Company’’ and ‘‘Election of Directors’’ in our Proxy Statement for the 2018 Annual Meeting of Stockholders, which we will file with the Securities and Exchange Commission no later than 120 days after the end of our fiscal year.

ITEM 11. EXECUTIVE COMPENSATION

The information required to be furnished pursuant to Item 11 with respect to executive compensation is incorporated herein by reference from the section entitled ‘‘Executive Compensation and Related Information’’ in our Proxy Statement for the 2018 Annual Meeting of Stockholders, which we will file with the Securities and Exchange Commission no later than 120 days after the end of our fiscal year.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information relating to security ownership of certain beneficial owners and management required by Item 12 is incorporated herein by reference from the section entitled ‘‘Security Ownership of Directors and Executive Officers’’ and ‘‘Security Ownership of Certain Beneficial Owners’’ in our Proxy Statement for the 2018 Annual Meeting of Stockholders, which we will file with the Securities and Exchange Commission no later than 120 days after the end of our fiscal year. The Equity Compensation Plan Information required by Item 12 is set forth in the table below.

Equity Compensation Plan Information

Our stockholders approved the *Steel Dynamics, Inc. 2015 Equity Incentive Plan* at our annual meeting of stockholders held May 21, 2015 (2015 Plan). Our stockholders approved the *Steel Dynamics, Inc. 2013 Equity Incentive Compensation Plan* (2013 Plan) at our annual meeting of stockholders held May 16, 2013. The following table summarizes information about our equity compensation plans at December 31, 2017:

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights(1)	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders: 2015 Plan, and Predecessor 2006 Plan	2,351,600	$31.57	5,335,377
2013 Plan	195,322	—	2,034,230
Equity compensation plans not approved by security holders	—	—	—

(1) The weighted average exercise price for the 2015 Plan (and 2006 Predecessor Plan) does not take into account 1,413,145 RSU’s, 216,568 DSU’s, and 435,907 LTIP’s issuable upon expiration of the vesting or deferral periods, which have no exercise price.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required to be furnished pursuant to Item 13 with respect to certain relationships and related transactions is incorporated herein by reference from the sections entitled ''Statement of Policy for the Review, Approval or Ratification of Transactions with Related Persons,'' and ''Governance of the Company — Director Independence'' in our Proxy Statement for the 2018 Annual Meeting of Stockholders, which we will file with the Securities and Exchange Commission no later than 120 days after the end of our fiscal year; and from Note 10 *Transactions with Affiliated Companies* to our consolidated financial statements as of December 31, 2017 and 2016, and each of the three years in the periods ended December 31, 2017, 2016, and 2015, included in Item 8 of this Form 10-K Annual Report for the fiscal year ended December 31, 2017.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required to be furnished pursuant to Item 14 with respect to principal accountant fees and services is incorporated herein by reference from the sections entitled ''Audit and Non-Audit Fees'' and ''Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditor'' in our Proxy Statement for the 2018 Annual Meeting of Stockholders, which we will file with the Securities and Exchange Commission no later than 120 days after the end of our fiscal year.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as a part of this report:

1. Financial Statements: See the Audited Consolidated Financial Statements of Steel Dynamics Inc. included as part of Item 8 and described in the Index on page 51 of this Report.

2. Financial Statement Schedules: All schedules for which provision is made in the applicable regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable and therefore have been omitted.

(b) Exhibits:

Reference is made to the Exhibit Index preceding the signature pages hereto, which Exhibit Index is hereby incorporated into this item.

ITEM 16. FORM 10-K SUMMARY

None.

EXHIBIT INDEX

Articles of Incorporation

3.1a	Amended and Restated Articles of Incorporation of Steel Dynamics, Inc., incorporated herein by reference from Exhibit 3.1a to our Registration Statement on Form S-1, SEC File No. 333-12521, effective November 21, 1996.
3.1b	Amendment to Article IV of the Amended and Restated Articles of Incorporation of Steel Dynamics, Inc., effective November 2, 2006, increasing the authorized shares to 200 million, incorporated herein by reference from Exhibit 3.1b to our report on Form 10-Q filed May 7, 2008.
3.1c	Amendment to Article IV of the Amended and Restated Articles of Incorporation of Steel Dynamics, Inc., effective March 27, 2008, increasing the authorized common shares to 400 million, incorporated herein by reference from Exhibit 3.1c to our report on Form 10-Q, filed May 7, 2008.
3.1d	Amendment to Article IV of the Amended and Restated Articles of Incorporation of Steel Dynamics, Inc., effective June 2, 2009, increasing the authorized common shares to 900 million, incorporated herein by reference from Exhibit 3.1 to our Form 8-K filed June 2, 2009.
3.2a	Amended and Restated Bylaws of Steel Dynamics, Inc., incorporated herein by reference from Exhibit 3.1 to our Form 8-K filed July 6, 2006.
3.2b	Amendment adding Section 3.15 to Amended and Restated Bylaws of Steel Dynamics, Inc., incorporated herein by reference from Exhibit 3.2b to our Form 10-Q filed August 7, 2009.
3.2c	Amendment replacing Article XI of the Amended and Restated Bylaws of Steel Dynamics, Inc., incorporated herein by reference from Exhibit 3.2c to our Form 10-Q filed November 9, 2017.

Instruments Defining the Rights of Security Holders, Including Indentures

4.20	Indenture relating to our issuance of $400 million of 5¼% Senior Notes due 2023, among Steel Dynamics, Inc., as Issuer, the Initial Subsidiary Guarantors, and Wells Fargo Bank, National Association, as Trustee, dated as of March 26, 2013, incorporated herein by reference from Exhibit 4.20 to our Form 8-K filed March 28, 2013.
4.23	Indenture dated September 9, 2014, relating to our issuance of $700 million of 5.125% Senior Notes due 2021, among Steel Dynamics, Inc., as Issuer, the Initial Subsidiary Guarantors named therein, and Wells Fargo Bank, National Association, as Trustee, incorporated herein by reference from Exhibit 4.23 to our Form 8-K filed September 12, 2014.
4.24	Indenture dated September 9, 2014, relating to our issuance of $500 million 5.500% Senior Notes due 2024, among Steel Dynamics, Inc., as Issuer, the Initial Subsidiary Guarantors named therein, and Wells Fargo Bank, National Association, as Trustee, incorporated herein by reference from Exhibit 4.24 to our Form 8-K filed September 12, 2014.
4.27	Indenture dated December 6, 2016, relating to our issuance of $400 million 5.000% Senior Notes due 2026, among Steel Dynamics, Inc., as Issuer, the Initial Subsidiary Guarantors named therein, and Wells Fargo Bank, National Association, as Trustee, incorporated herein by reference from Exhibit 4.27 to our Form 8-K filed December 8, 2016.
4.30	Indenture dated September 13, 2017, relating to our issuance of $350 million 4.125% Senior Notes due 2025, among Steel Dynamics, Inc., as Issuer, the Initial Subsidiary Guarantors named therein, and Wells Fargo Bank, National Association, as Trustee, incorporated herein by reference from Exhibit 4.30 to our Form 8-K filed September 13, 2017.

Material Contracts

10.2	Loan Agreement between Indiana Development Finance Authority and Steel Dynamics, Inc. re Taxable Economic Development Revenue bonds, Trust Indenture between Indiana Development Finance Authority and NBD Bank, N.A., as Trustee Loan Agreement between Indiana Development Finance Authority and Steel Dynamics, Inc., incorporated herein by reference from Exhibit 10.12 to Registrant's Registration Statement on Form S-1, File No. 333-12521, effective November 21, 1996.
10.20†	Steel Dynamics, Inc., Change in Control Benefit Plan, incorporated herein by reference from our Exhibit 10.20 to our 8-K filed December 4, 2012.
10.41b†	Amended and Restated Steel Dynamics, Inc. 2006 Equity Incentive Plan, as approved by shareholders on May 17, 2012, incorporated herein by reference from our Exhibit 10.41b to our 8-K filed August 21, 2012.
10.41c†	Steel Dynamics, Inc. Long-Term Incentive Compensation Program, adopted August 15, 2012, incorporated herein by reference from our Exhibit 10.41c to our 8-K filed August 21, 2012.
10.52†	Director Agreement between the Company and Keith E. Busse, dated October 14, 2011, incorporated herein by reference from Exhibit 10.52 to our Form 8-K filed October 20, 2011.
10.53†	2013 Executive Incentive Compensation Plan, approved by stockholders on May 16, 2013, incorporated herein by reference from our May 16, 2013, Notice of Annual Meeting of Stockholders filed March 27, 2013.
10.54	Second Amended and Restated Credit Agreement dated as of November 14, 2014, Among Steel Dynamics, Inc. as Borrower and the Initial Lenders, Initial Issuing Bank and Swing Line Bank Named or Described Herein as Initial Lenders, Initial Issuing Banks and Swing Line Bank, and PNC Bank, National Association as Collateral Agent, PNC Bank, National Association as Administrative Agent, and Bank of America, N.A. and Wells Fargo Bank, National Association as Syndication Agents, and Merrill Lynch, Pierce, Fenner & Smith Incorporated, PNC Capital Markets LLC and Wells Fargo Securities, LLC, as Joint Lead Arrangers and Joint Bookrunners, and JPMorgan Chase Bank, N.A., Citizens Bank, N.A., Morgan Stanley Senior Funding, Inc. and Sun Trust Bank, as Documentation Agents, incorporated herein by reference from Exhibit 10.54 to our Form 8-K filed November 20, 2014.
10.55†	Steel Dynamics, Inc. 2014 Employee Stock Purchase Plan, incorporated herein by reference from our May 15, 2014, Notice of Annual Meeting and Stockholders filed March 27, 2014.
10.57†	2015 Equity Incentive Plan, as approved by shareholders on May 21, 2015, incorporated herein by reference from our May 21, 2015, Notice of Annual Meeting of Stockholders filed March 30, 2015.

Other

12.1*	Computation of Ratio of Earnings to Fixed Charges
21.1*	List of our Subsidiaries
23.1*	Consent of Ernst & Young LLP.
24.1	Powers of attorney (see signature pages on pages 96 and 97 of this Report).
95**	Mine Safety Disclosures

Executive Officer Certifications

31.1*	Certification of Chief Executive Officer required by Item 307 of Regulation S-K as promulgated by the Securities and Exchange Commission and pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer required by Item 307 of Regulation S-K as promulgated by the Securities and Exchange Commission and pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

32.1*	Certification of Chief Executive Officer Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

XBRL Documents

101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Document
101.DEF*	XBRL Taxonomy Extension Definition Document
101.LAB*	XBRL Taxonomy Extension Label Document
101.PRE*	XBRL Taxonomy Presentation Document

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* Filed concurrently herewith

** Inapplicable for purposes of this report

† Indicates a management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of Securities Exchange Act of 1934, Steel Dynamics, Inc. has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

February 27, 2018

STEEL DYNAMICS, INC.

By: /s/ Mark D. Millett

Mark D. Millett
Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Mark D. Millett and Theresa E. Wagler, either of whom may act without the joinder of the other, as his true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him, and in his name, place and stead, in any and all capacities to sign any and all amendments, and supplements to this 2017 Annual Report on Form 10-K, filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and performs each and every act and thing requisite and necessary to be done, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue thereof. **Pursuant to the requirements of the Securities Exchange Act of 1934, this 2017 Annual Report on Form 10-K has been signed below by the following persons on behalf of Steel Dynamics, Inc. and in the capacities and on the dates indicated.**

Signatures	Title	Date
/s/ MARK D. MILLETT Mark D. Millett	Chief Executive Officer and Director *(Principal Executive Officer)*	February 27, 2018
/s/ THERESA E. WAGLER Theresa E. Wagler	Executive Vice President and Chief Financial Officer *(Principal Financial Officer and Principal Accounting Officer)*	February 27, 2018
/s/ KEITH E. BUSSE Keith E. Busse	Director	February 27, 2018
/s/ FRANK D. BYRNE, M.D. Frank D. Byrne, M.D.	Director	February 27, 2018
/s/ KENNETH W. CORNEW Kenneth W. Cornew	Director	February 27, 2018
/s/ TRACI M. DOLAN Traci M. Dolan	Director	February 27, 2018
/s/ DR. JÜRGEN KOLB Dr. Jürgen Kolb	Director	February 27, 2018

Signatures	Title	Date
/s/ JAMES C. MARCUCCILLI James C. Marcuccilli	Director	February 27, 2018
/s/ BRADLEY S. SEAMAN Bradley S. Seaman	Director	February 27, 2018
/s/ GABRIEL L. SHAHEEN Gabriel L. Shaheen	Director	February 27, 2018
/s/ RICHARD P. TEETS, JR. Richard P. Teets, Jr.	Director	February 27, 2018

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INVESTOR INFORMATION

The company's stock trades on the NASDAQ Global Select Market under the symbol **STLD**

ANNUAL MEETING

May 17, 2018
9:00 a.m. EDT
Grand Wayne Convention Center
120 West Jefferson Boulevard
Fort Wayne, Indiana 46802

INVESTOR INFORMATION

Investor Relations
(260) 969-3500
investor@steeldynamics.com

STOCKHOLDER RECORDS

Computershare
P.O. Box 30170
College Station, Texas 77842-3170
(877) 282-1168
computershare.com

CORPORATE OFFICES

7575 West Jefferson Boulevard
Fort Wayne, Indiana 46804
(260) 969-3500
steeldynamics.com

2017 BOARD OF DIRECTORS

Employee Director

MARK D. MILLETT
Co-founder
President and Chief Executive Officer

Non-Employee Directors

KEITH E. BUSSE
Co-founder, Chairman
Retired

FRANK D. BYRNE, M.D.
Retired
Former President
St. Mary's Hospital
Part of SSM Health Care

KENNETH W. CORNEW
Senior Executive Vice President and Chief Commercial Officer
Exelon Corporation
and President and CEO
Exelon Generation

TRACI M. DOLAN
Retired Former Chief Administrative Officer
ExactTarget, Inc.

DR. JÜRGEN KOLB
Retired
Former member
Management Board
Salzgitter, AG

JAMES C. MARCUCCILLI
President and CEO
STAR Financial Bank

BRADLEY S. SEAMAN
Managing Director
Parallel49 Equity

GABRIEL L. SHAHEEN
President and CEO
GLS Capital Ventures, LLC
Partner, NxtStar Ventures, LLC

RICHARD P. TEETS, JR.
Co-founder, Retired

EXECUTIVE OFFICERS

MARK D. MILLETT
Co-Founder
President, Chief Executive Officer and Director

THERESA E. WAGLER
Executive Vice President and Chief Financial Officer

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