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ON BEHALF OF EVERYONE AT STEEL DYNAMICS



A LETTER FROM MARK D. MILLETT

Co-Founder, President and CEO

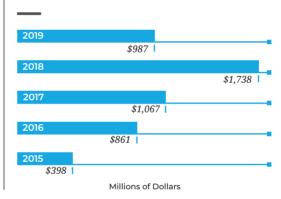
On behalf of everyone at Steel Dynamics, I thank our loyal customers, vendors, communities and shareholders for their continued support of our company. My heartfelt thanks to our Steel Dynamics colleagues for your passion and extraordinary dedication to excellence. While 2019 represented a period of industry-wide market challenges, we achieved numerous milestones and performed at the top of our industry.

We have a firm foundation

for our continued long-term, strategic growth and value creation.

The team delivered a strong 2019 operational and financial performance, achieving our third-best annual earnings performance and numerous operational records, including record annual steel and steel fabrication shipments. We achieved operating income of \$987 million with

ADJUSTED OPERATING INCOME



EBITDA of \$1.3 billion. With near record 2019 cash flow generation of \$1.4 billion, we achieved record liquidity of \$2.8 billion, while at the same time growing our business through both organic and transactional investments, maintaining a positive cash dividend profile, and executing on our share repurchase program. In recognition of our growth, strong balance sheet profile and consistent free cash flow generation capability, we also achieved an investment grade credit rating designation from three credit rating agencies. We have a firm foundation for our continued long-term, strategic growth and value creation.

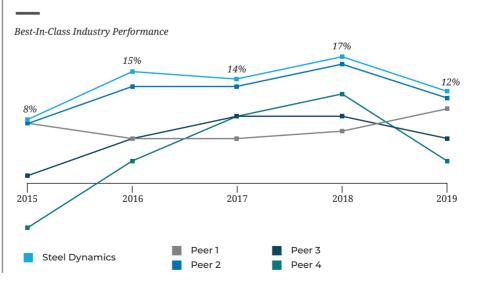




SAFETY IS OUR #1 PRIORITY

The safety of each individual is our number one value and first priority. Nothing surpasses the importance of creating and maintaining a safe work environment. Safety is an integral part of our culture, and collectively, we must ensure every person is engaged in sustaining a safe environment. We must be continuously aware of our surroundings and our team members around us. I challenge all of us to remain focused, and to keep moving toward our goal of zero injuries.

EBITDA¹ MARGIN



¹ EBITDA is calculated as earnings before interest, taxes, depreciation and amortization (excludes non-cash asset impairments). Peers include: Nucor, AK Steel, US Steel and Commercial Metals Company (CMC). Source: Respective SEC filings. CMC data for annual periods ended November 30.



STEEL

Our steel operations achieved record annual 2019 steel shipments of 10.8 million tons. Our steel processing locations and fabrication platform consumed over 1.4 million tons of steel produced internally in 2019. This represented 13% of our 2019 steel shipments, supporting our steel mills by providing a powerful utilization lever. This strategic growth in internal manufacturing operations that use our steel as a raw material increases our throughcycle utilization and cash flow generation.

Even though 2019 was one of our best years—it was challenged by high customer steel inventories, as many customers purchased beyond normal demand levels in 2018. Domestic steel demand remained steady in 2019, but as customers began to destock inventories, steel prices declined throughout the year, and firmed in the fourth quarter, as destocking subsided and inventory levels were right-sized. As a result, operating income from our steel operations was \$1.0 billion in 2019, compared to a record \$1.8 billion in 2018.

STEEL FABRICATION

Our steel fabrication operations delivered an outstanding performance. The team achieved record annual shipments and earnings. Operating income was a record \$119 million compared to \$62 million in 2018. The team maintained a strong market position through superior customer service, our national geographic service capability and a highly engineered diversified product mix.

METALS RECYCLING

Our metals recycling platform performed well during a very challenging market environment. They continued to collaborate synergistically with our steel mills to ensure the uninterupted supply of low-cost, high-quality raw materials, internally supplying 3.1 million tons of ferrous material during 2019. The continued focus on efficiency gains yielded positive results, although earnings declined during the year as ferrous scrap prices declined in eight of the twelve months during 2019. This resulted in operating income for our metals recycling operations of \$16 million in 2019, compared to \$76 million in 2018.





TONS OF FABRICATED STEEL Record 2019 Steel Fabrication

Shipments

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KEY STRATEGIC GROWTH INITIATIVES

We continue to position our company for future sustainable value creation through optimization of existing operations and differentiated high-return growth investments.

> Over the last several years, our Columbus Flat Roll Division has transformed its product offering and sustainable earnings capability through the addition of new high-margin product capabilities. The shift of products to these diversified, value-added outlets has reduced the amount of volume available to our existing galvanized steel customers. To address this supply need, we are building a third galvanizing line at Columbus.

The \$140 million 400,000-ton galvanizing line is expected to begin operations mid-2020. While satisfying our customer demand and further increasing our product offerings, the product realignment will decrease Columbus' hot roll coil exposure—allowing for an existing customer base in the region to provide a good baseload for our new Southwest-Sinton Flat Roll Division.

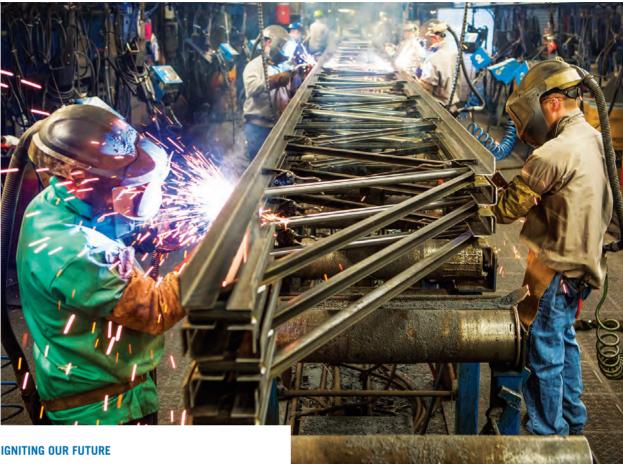
> We are excited about the material growth and long-term value creation that our \$1.9 billion Texas flat roll steel mill will provide. Our new mill will have an estimated 3.0 million tons of annual steel production capacity, including value-added coating lines comprised of a galvanizing line with annual coating capacity of 550,000 tons, with Galvalume® capability, and a paint line with annual coating capacity of 250,000 tons.



The team began site work in the second half of 2019 and received the required environmental permits earlier this year to allow for full construction efforts to begin. Operations are expected to begin mid-2021. By leveraging our expertise, we are building a next-generation electric arc furnace (EAF) flat roll steel mill with production capabilities beyond existing EAF flat roll steel producers, competing

even more effectively with the integrated steel model and foreign competition.

We believe our unique operating culture, coupled with our considerable experience in successfully constructing and operating cost-effective and highly profitable steel mills and coating lines, positions us well to execute this strategic initiative and continue to grow our sustainable business model.



We believe North American steel consumption will experience some growth in 2020 and will be supported by continued steel import reduction and the end of steel inventory destocking.

In combination with our strategic growth initiatives, we believe there are firm drivers for our continued success in 2020. We are excited about our Texas flat roll steel mill, and the associated long-term value creation it will bring through geographic and valueadded product diversification.

Our differentiated business model, performancedriven culture, and the execution of our long-term strategy continues to strengthen our financial position through consistent strong cash flow generation and long-term value creationdifferentiating us from our competition and demonstrating our sustainability.

We are squarely focused on returning value to our colleagues, communities, customers and shareholders through organic and transactional growth initiatives, while also maintaining a positive dividend growth profile and continuing to execute our share repurchase program, as appropriate.



The passion of our teams compels us to the highest standard of excellence.

The passion of our teams compels us to the highest standard of excellence. I thank each of them for their dedication and remind them safety is always our first priority. We look forward to creating new opportunities for us all in the years ahead.

Sincerely,



MARK D. MILLETT

Co-Founder, President and Chief Executive Officer

> STEEL DYNAMICS DIFFERENTIATED



Our entrepreneurial culture is at the core of our success and is driven by our extensive. performance-based incentive compensation philosophy for those on the plant floor all the way to the executive leaders. Over 60% of a plant floor colleague'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.

We 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 GROWTH

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

Over 70% of our steel and fabrication sales are considered value-added.

VERTICALLY CONNECTED AND PULL-THROUGH VOLUME

Our vertically connected business platform 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 through-cycle steel production utilization rates. Our fabrication operations and downstream processing locations source a significant portion of their steel needs from our steel mills.

Over 70% of our steel and fabrication sales are considered value-added.

A synergistic relationship also exists between our steel and metals recycling operations. Our metals recycling platform is the largest supplier of recycled ferrous scrap raw material to our steel operations. This allows us to reduce company-wide working capital needs, as we keep less inventory at the steel

mills. Additionally, as a consistent consumer of recycled ferrous scrap from our metals recycling team, our steel mills help maintain steady sales volume for the metals recycling platform.

LOW-COST, HIGHLY EFFICIENT OPERATIONS

Our product diversification, vertically connected business and performance-based incentive compensation drive 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 THROUGH-THE-CYCLE PERFORMANCE

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

STRONG CAPITAL FOUNDATION

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



NUMEROUS MILESTONES ACHIEVED

A LETTER FROM THERESA E. WAGLER

Executive Vice President and CFO

2019 was a strong year, with many operational milestones achieved, as well as being one of our best years financially. We focused on sustaining our position as a low-cost, highly efficient, customercentric steel company and achieved another year of best-in-class financial and operating performance.

Annual 2019 revenues were \$10.5 billion, a strong performance representing our second highest annual sales as a result of record steel and fabrication volumes. We generated operating income of \$987 million and net income of \$671 million, each representing our third best annual performance.

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. Our cash flow generation continued to be incredibly strong, with a near record cash flow from operations of \$1.4 billion in 2019.

NEAR RECORD OPERATING CASH FLOW

Our low-cost, highly variable cost structure establishes a strong basis for cash flow generation.



Millions of Dollars



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In October, we achieved an investment grade credit rating designation. We followed this rating upgrade with a highly successful inaugural investment grade notes offering. We issued \$400 million of 2.800% notes due 2024 and \$600 million of 3.450% notes due 2030, using the proceeds to repay our existing \$700 million 5.125% senior notes due 2021 and for other general corporate purposes. We are very appreciative and excited regarding the receptiveness of the investment grade market. These transactions extended our debt maturity profile and will meaningfully reduce annual interest costs.

This is a natural progression of our strategic growth, and

recognition of our strong balance sheet profile and sustainable through-cycle free cash flow generation capability. Due to the strength of our capital foundation and free cash flow generating business model, we have the flexibility for continued growth and responsible shareholder distributions, while also being dedicated to preserving investment grade credit ratings.

In 2019, we successfully entered into a new \$1.2 billion senior unsecured revolving credit facility. We have no meaningful near-term debt maturities until 2023. At December 31, 2019, we achieved record liquidity of \$2.8 billion, representing \$1.6 billion in cash and short-term investments and \$1.2 billion of available funding

under our revolving credit facility. We achieved EBITDA of \$1.3 billion in 2019, with corresponding net leverage of 0.8 times—a strong credit profile that supports our strategic growth plans.

Our capital allocation strategy is focused on disciplined growth through both organic and transactional opportunities within our core competencies. In 2019, we reinvested \$452 million in our existing operations, of which \$205 million was related to our new Texas flat roll steel mill. For 2020, we plan to invest approximately \$1.4 billion in fixed asset capital investments, of which \$1.2 billion relates to our Texas steel mill.

Based on confidence in the strength of our throughcycle cash generation and net earnings capability, we plan to maintain a positive cash dividend profile. From 2016 to 2019, we increased our annual cash dividend 71%, and we increased our first quarter 2020 cash dividend another 4%.

We have also returned additional value to shareholders through repurchasing \$349 million of our outstanding shares of common stock during 2019. Since 2016, we have invested over \$1.1 billion repurchasing our outstanding shares of common stock, representing 14% of our outstanding shares. In February 2020, the board authorized an additional share repurchase program of up to \$500 million of our common stock. We maintain a strong focus toward organic and transactional growth. We also have optionality to utilize additional value-enhancing tools for capital allocation based on our strong through-cycle financial and operating foundation.

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—our colleagues, families, communities, vendors, customers and shareholders. Through our exceptional operating culture, experienced teams and performance-based incentive compensation 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 long-term shareholder value through our responsible, efficient capital allocation strategy, with an intentional focus toward continued growth.

As we look to 2020, we see opportunity. With our strong financial foundation, we are distinctively positioned to embrace the momentum and optimize our current operations, while also successfully executing our growth initiatives. Thank you for your trust.

Sincerely,

Theresa E Wagle

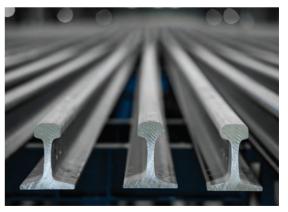
THERESA E. WAGLER

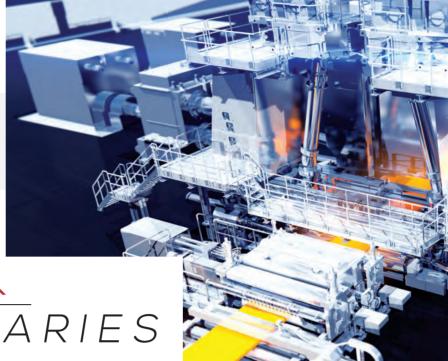
Executive Vice President and Chief Financial Officer

> \$1.3B









BREAKING

BOUNDARIES

NEW SOUTHWEST-SINTON FLAT ROLL DIVISION

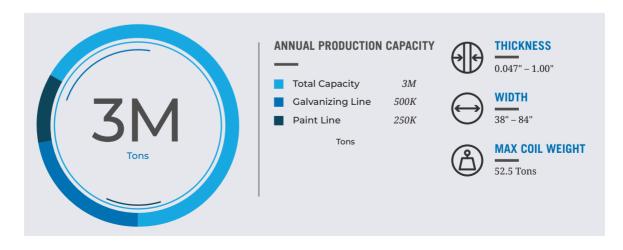
Our new planned Texas flat roll steel mill represents a new horizon for Steel Dynamics, and we believe for the EAF steelmaking community, as well. There is a tremendous amount of excitement surrounding the project both internally, as well as with our intended customers. As with all of our growth initiatives, we seek to competitively differentiate ourselves through service, product capability and quality, and supplychain solutions. This investment captures each of these elements.

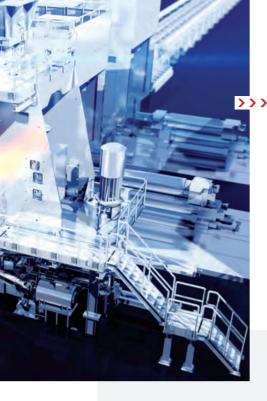
This facility will be a technologically advanced flat roll steel mill with product capabilities beyond existing EAF flat roll steel producers—competing even more effectively with the integrated steel model and foreign competition. We will be producing value-added steel products from the beginning of operations, providing high-margin product and endmarket diversification.

This steel mill is being strategically located in Sinton, Texas, which has significant competitive advantages—including geographic market positioning, power accessibility, competitive freight for the customer-base, proximity to a deep-water port and site constructability.

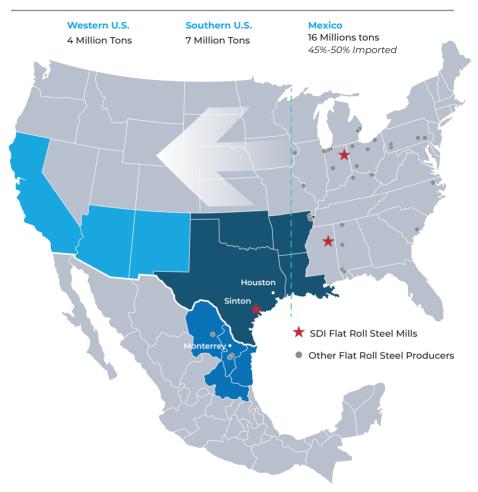
This EAF steel mill will follow the same stringent sustainability model as our other steelmaking locations, with state-of-the-art environmental processes. Our existing steel mills have 11% of the energy intensity and 13% of the greenhouse gas emission impact of other global steelmaking operations, each as compared to the World Steel Association averages.

Our unique operating culture, coupled with our considerable experience in successfully constructing and operating lower-cost, highly profitable steel mills, positions us to effectively execute this significant strategic investment.





ESTIMATED 27 MILLION TONS¹ OF FLAT ROLL STEEL CONSUMPTION IN OUR TARGETED REGIONAL MARKETS



CUSTOMER SUPPORT

Our customers recognize the lack of regional supply in the Southwest U.S. and Mexico, and we are in discussions with many of them to co-locate on our Sinton, Texas site —providing a competitive supply-chain for them and a consistent volume baseload for us. Currently, we believe the on-site consumption and processing volume may be between 800,000 and 1.0 million tons.

RAW MATERIAL SUPPLY

Combined with our existing metals recycling presence in Mexico, the addition of our recently announced planned acquisition of a regional Mexican scrap business in the first half of 2020 provides an expanded commercial presence in the region and strengthens our raw material supply strategy, allowing for cost-effective prime ferrous scrap procurement for our new steel mill. Additionally, due to our proximity to a deep-water port, we will have the ability to cost-effectively source pig iron.

LOCATION BENEFITS

- Customer-centric logistics, providing shorter lead times and meaningful customer working capital savings
- > Central to the largest domestic consumption of flat roll Galvalume® and construction painted products, with the anticipated ability to effectively compete with imports
- > Available acreage to allow customers to locate on-site, providing logistic savings and steel mill volume baseloading opportunities
- > Proximity to prime ferrous scrap generation via the fourstate Texas region and Mexico, and cost-effective access to pig iron through the deep-water port of Corpus Christi
- > Excellent logistics provided by on-site access to two class I railroads, transloading opportunities with a third class I railroad, proximity to a major U.S. highway system and access to the deep-water port of Corpus Christi
- > Existing, mature and dependable power, natural gas and water sources

¹ Source: 2017 CANACERO information published through AISI, market study including imports by regional ports, producer shipments and confidential customer information



S U S T A I N A B I L I T Y U P D A T E

Since our inception, we have grown strategically, further strengthening our company, becoming vertically connected with a looped manufacturing life cycle. Our metals recycling platform collects and processes industrial scrap from manufacturers and obsolete scrap derived from end-of-life items, such as automobiles, appliances and machinery. This processed scrap is then sold to end-users, including our EAF steel mills. Our steel mills utilize recycled ferrous scrap as their primary raw material input to produce new steel. Our steel is then sold internally to our steel manufacturing operations and to external steel customers.

>1.1B

pounds of recycled nonferrous scrap was reintroduced into the manufacturing life cycle in 2019, and 3.3 billion pounds over the last three years.

>11M

tons of recycled ferrous scrap was reintroduced into the manufacturing life cycle in 2019, and 33 million tons over the last three years.



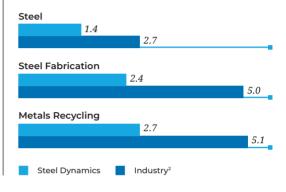
We have made significant strides in improving safety performance, achieving industry-leading results—but that is not enough. Maintaining a safe environment for everyone requires constant focus. We continue to expand our safety programs by focusing on increased individual and team awareness, and hazard identification and removal, with a goal to eliminate potential injuries. This forward-looking approach to safety includes specific actions in three key areas:

- 1. **SAFETY FOR ME** Control safety for yourself— Keeping safety "Top-of-Mind"
- 2. SAFETY FOR MY TEAM Control safety for your team—Being one another's "Keeper" / "See Something / Say Something / Do Something"
- **3. SAFETY FOR ALL** Identification and elimination of hazardous exposures that could result in potentially significant life-altering injuries

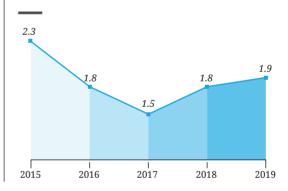
Our commitment is to achieve world-class safety results throughout Steel Dynamics. This goal is at the heart of our company and an integral part of our culture. Working together, we will achieve it.

PLATFORM TOTAL RECORDABLE INJURY RATE¹

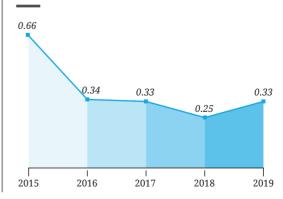
During 2019, each of our platforms performed meaningfully better than industry benchmarks.



COMPANY-WIDE TOTAL RECORDABLE INJURY RATE1



LOST TIME INJURY RATE¹



¹ Total Recordable Injury Rate is defined as OSHA recordable incidents x 200,000 / hours worked and Lost Time Injury Rate is defined as OSHA days away from work cases x 200,000 / hours worked.

² Source: 2018 U.S. DOL Bureau of Labor Statistics

COMMUNITY

We strongly believe in making a positive economic and social impact in the communities where we work and live, through supporting organizations in which our teams and their families are involved, and by empowering and encouraging volunteering and leadership throughout the company.

> \$16M

Steel Dynamics Foundation, Inc. distributions over the last 10 years

• \$19M

Additional Steel Dynamics, Inc. company-wide charitable contributions over the last 10 years



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ENVIRONMENT

We recognize the importance of being good stewards of our environment and the communities where we work and live. We continually evaluate opportunities to improve our processes, equipment and technology to reduce our physical impact on the environment. To us, it's more than simply meeting applicable requirements, but going beyond with a commitment to higher environmental standards, Our Butler Flat Roll and Columbus Flat Roll divisions' environmental management systems are

certified with the International Organization for Standardization 14001. These facilities represented over 65% of our steel production in 2019.

Being environmentally conscious is part of our culture. We see ourselves as members of our communities. Every day, our teams take the initiative to protect the environment, simply because it's the right thing to do.

Our production process utilizes EAF steelmaking technology which has revolutionized the way steel is made and recycled, > One of the Butler Flat
Roll Division teams
participating in the United
Way Day of Caring.

requiring the use of far fewer natural resources and consuming significantly less energy than traditional blast furnace technology, resulting in lower levels of air emissions and much less environmental impact.



> 80-85% of the material used in our EAFs to produce steel was recycled ferrous scrap and internally generated iron substitutes, requiring far fewer natural resources than blast furnace technology.

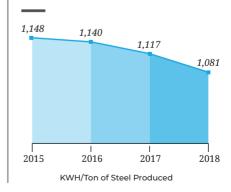


> 75-80% of our recycled ferrous scrap needs are sourced within 250 miles of our steel mill locations, minimizing the amount of energy expended on transportation.

ENERGY

Through the casting of new steel, our steel mills used only 11% of the global steelmaking average energy intensity as measured by the World Steel Association.





WATER

We reuse over 99% of our total system water demand, recognizing the importance of water as a natural resource.

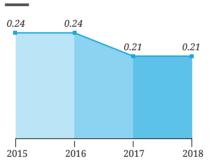


EMISSIONS

Our EAF technology produces steel with substantially fewer emissions than traditional blast furnace technology. Our CO_2 emissions from our six EAF steel mills are only approximately 13% of the World Steel Association average CO_2 emissions.

Our greenhouse gas emissions intensity remains a fraction of that compared to the rest of the world's steel average impact.

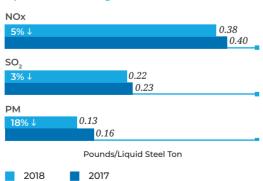
GREENHOUSE GAS EMISSION INTENSITY



Metric Tons of Scope 1 CO₂ Emissions/Cast Steel Tons

2018 OTHER EMISSIONS

We reduced our other emissions per liquid steel ton during 2018



WASTE

We continually look for ways to minimize waste generation. We monitor all waste streams and look for ways to improve our recycling and reuse. To minimize disposal of other byproducts of the manufacturing process, we assess what materials are considered reusable and redirect those materials to be recycled versus being sent to landfills.



of 125K tons of mill scale was recycled during 2018, rather than landfilled



>99%

of 151K tons of EAF dust was recycled during 2018 rather than landfilled



SELECTED FINANCIAL DATA (Millions of dollars, except share amounts)		2015		2016		2017		2018		2019
Net Sales	\$	7,594	\$	7,777	\$	9,539	\$	11,822	\$	10,465
Operating Income (Loss)	\$	(73)	\$	728	\$	1,067	\$	1,722	\$	987
Adjusted Operating Income	\$	398	\$	861	\$	1,067	\$	1,738	\$	987
Net Income (Loss) Attributable to SDI	\$	(130)	\$	382	\$	813	\$	1,258	\$	671
Adjusted Net Income Attributable to SDI	\$	178	\$	472	\$	641	\$	1,269	\$	674
Net Income (Loss) per Diluted Share	\$	(0.54)	\$	1.56	\$	3.36	\$	5.35	\$	3.04
Adjusted Net Income per Diluted Share	\$	0.74	\$	1.92	\$	2.65	\$	5.40	\$	3.05
Cash Flow from Operations	\$	1,054	\$	853	\$	739	\$	1,415	\$	1,396
Capital Expenditures	\$	115	\$	198	\$	165	\$	239	\$	452
Net Debt (long-term debt including current portion less cash and short-term investments)	\$	1,868	\$	1,515	\$	1,353	\$	1,320	\$	1,091
Shares Outstanding (thousands)		243,090		243,785		237,397		225,272		214,503
Dividends Declared per Share	\$	0.55	\$	0.56	\$	0.62	\$	0.75	\$	0.96
ADJUSTED EBITDA RECONCILIATION (Millions of dollars)		2015		2016		2017		2018		2019
Net Income (Loss)	\$	(145)	\$	360	\$	806	\$	1,256	\$	678
Income Taxes (Benefit)		(97)		204		129		364		197
Interest Expense		154		146		134		127		127
Interest Income		(1)		(5)		(10)		(23)		(28)
Depreciation		263		261		265		283		286
Amortization		25		29		29		28		30
Non-controlling Interests		15		22		7		3		(7)
EBITDA	\$	214	\$	1,017	\$	1,360	\$	2,038	\$	1,283
Unrealized Hedging (Gains)/Losses		3		1		5		(6)		3
Inventory Valuation		28		1		3		2		1
Equity-based Compensation		29		30		34		40		43
Asset Impairment		429		120		-		-		-
Financing Expenses		3		3		3		-		3
Adjusted EBITDA	\$	706	\$	1,172	\$	1,405	\$	2,074	\$	1,333
ADJUSTED OPERATING INCOME RECONCILIATION (Millions of dollars)		2015		2016		2017		2018		2019
Consolidated Operating Income (Loss)	\$	(73)	\$	728	\$	1,067	\$	1,722	\$	987
Asset Impairment Charges		429		133		-		-		-
Minnesota Idle & Non-cash Inventory Charges		33		-		-		-		-
Iron Dynamics Outage		9		-		-		-		-
Non-cash Purchase Accounting		-		-		-		16		-
Adjusted Operating Income	\$	398	\$	861	\$	1,067	\$	1,738	\$	987
ADJUSTED NET INCOME ATTRIBUTABLE TO SDI AND DILUTED EARNINGS PER SHARE (EPS) RECONCILIATION (Millions of dollars)	Net Income	2015 EPS	Net Income	2016 EPS	Net Income	2017 EPS	Net Income	2018 EPS	Net Income	2019 EPS
Consolidated Net Income (Loss) Attributable to SDI	\$ (130)	\$ (0.54)	\$ 382	\$ 1.56	\$ 813	\$ 3.36	\$ 1,258	\$ 5.35	\$ 671	\$ 3.04
Purchase Accounting and Acquisition Related	-	-	-	_	-	-	11	0.05	-	-
U.S. Federal Tax Cuts and Jobs Act of 2017	-	_	-	-	(181)	(0.75)	-	-	_	-
Debt Refinancing Costs	9	0.04	11	0.04	9	0.04	_	-	3	0.01
Asset Impairment Charge	269	1.11	76	0.31	-	-	-	-	-	-
Litigation Settlement	-	-	3	0.01	-	-	-	-	-	-
Minnesota Idle & Non-cash Invetory Charges	26	0.11	-	-	-	-	-	-	-	-
Iron Dynamics Outage	4	0.02	-	-	-	-	-	-	-	-
Adjusted Consolidated Net Income Attributable to SDI	\$ 178	\$ 0.74	\$ 472	\$ 1.92	\$ 641	\$ 2.65	\$ 1,269	\$ 5.40	\$ 674	\$ 3.05

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

FORM 10-K

	, ,		
☐ TRANSITION REPORT PURSUANT TO SEC EXCHANGE ACT OF 1934	CTION 13 OR 15(d) O	F THE SECURITI	ES
Comm	nission File Number 0-2	21719	
	Dynamics, registrant as specified		
Indiana		35-1	929476
(State or other jurisdiction of incorporation or organ	nization)	(IRS Employer	Identification No.)
7575 West Jefferson Blvd, Fort Wayne, IN (Address of principal executive offices)			5804 Code)
Registrant's telephone	number, including area	code: (260) 969-350	0
Securities register	red pursuant to Section	12(b) of the Act.	
Title of each class Common Stock voting, \$0.0025 par value	Trading Symbol STLD		xchange on which registered O Global Select Market
Securities registered	pursuant to Section 12(σ) of the Act. None	
Indicate by check mark if the registrant is a well-known	_		the Securities Act. Yes ☑ No ☐
Indicate by check mark if the registrant is not required No ⊠			
Indicate by check mark whether the registrant (1) has fi Exchange Act of 1934 during the preceding 12 months reports), and (2) has been subject to such filing requires	(or for such shorter peri	od that the registrant	
Indicate by check mark whether the registrant has subm pursuant to Rule 405 of Regulation S-T (§ 232.405 of t the registrant was required to submit such files). Yes ⊠	his chapter) during the p	y Interactive Data Fi preceding 12 months	le required to be submitted (or for such shorter period that
Indicate by check mark whether the registrant is a large reporting company, or an emerging growth company. Se reporting company," and "emerging growth company"	ee the definitions of "lan	rge accelerated filer,'	
Large accelerated filer ⊠ Accelerated file □	Non-accele	rated filer	Smaller reporting company [Emerging growth company [
If an emerging growth company, indicate by check mark complying with any new or revised financial accounting			
Indicate by check mark whether the registrant is a shell	company (as defined in	Rule 12b-2 of the A	act). Yes □ No ⊠
The aggregate market value of the voting stock held by the common equity was last sold as of June 28, 2019, v purposes of this calculation, shares of common stock he been deemed to be owned by affiliates, but this should direct or indirect, to direct or cause the direction of the or under common control with the registrant.	vas approximately \$5.0 eld by directors, officers not be construed as an a	billion. Registrant ha and 5% stockholder admission that any su	s no non-voting shares. For s known to the registrant have ach person possesses the power,

As of February 20, 2020, Registrant had outstanding 213,554,449 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 April 30, 2020, are incorporated herein by reference.

STEEL DYNAMICS, INC.

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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, or tariffs on, foreign steel imported
 into 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;
- 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:
- the adverse impact of periods of slower than anticipated economic growth or the risk of a recession, resulting in a general decrease of 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 scrap metal, scrap substitute products such as pig iron and pelletized iron, and other supplies such as zinc, graphite electrodes and ferroalloys, or other raw materials, which we use in our production processes;
- periodic fluctuations in the availability and cost of electricity, natural gas, oil, or other energy resources;

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- 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 cybersecurity threats and vulnerabilities and increased global information technology security requirements, and a rise in sophisticated cybercrimes that pose a risk to the security and functionality of our systems and 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;
- changes in our business strategies or development plans which we have adopted or may adopt, and
 any difficulty or inability to timely, cost efficiently and successfully consummate, implement,
 integrate or operate any current, planned or potential construction or other 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 approximately 13 million tons and actual metals recycling volumes, with one of the most diversified, high-margin steel product portfolios. The company's primary sources of revenue are from the manufacture and sale of steel products, the processing and sale of recycled ferrous and nonferrous metals, and the fabrication and sale of steel joists and deck products.

We believe our strategic focus to create value for our teams, customers, communities and shareholders is differentiated through our six Core Operating and Leadership Principles. These six pillars bring us together with a common focus and provide us the foundation upon which we operate and grow. Our six pillars and our team's execution of them each day has driven our success and sustainability.

- Safety Creating and maintaining a safe work environment is our number one value and first priority. We want every individual to go home safely at the end of each day and to take an active role in remaining safe both on the job and at home. Our goal is no accidents, no lost workdays, no injuries.
- Sustaining Superior Operating Culture Our entrepreneurial culture fosters a team of energetic, positive, driven and innovative individuals by utilizing open communication and meaningful performance-based compensation aligned to our strategic focus. This results in our safe, low-cost, and highly efficient operations, which drive "best-in-class" operating and financial performance.
- Enhancing Customer Relationships and Commitment We focus on being a preferred partner providing outstanding products and supply-chain solutions that exceed expectations, as we anticipate our customer's future needs and deliver greater value.
- Strategic Growth, Intentional Margin Expansion and Consistency "Through the Cycle" Our intentional, value-driven growth has propelled our diversification in both end markets and product offerings to sustain continued higher volume and profitability throughout both strong and weak market environments. We are squarely focused on continued strategic and responsible growth.
- **Driving Innovation** Through individual creativity and ingenuity, our teams drive innovation to improve safety, quality, productivity and resource sustainability. We utilize innovative technologies and processes in order to perform at the highest level, and consistently achieve excellence in all that we do.
- **Financial Strength and Flexibility** We have one of the most diversified steel product offerings in the industry. Coupled with high variability of our operating costs and our vertically connected business platforms, this results in higher utilization and lower costs, providing strong cash flow generation through both strong and weak market cycles.

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.

Differentiated Business Model / Diversified Product Mix / Expanded Product Offerings

We are one of the most diversified steel companies in the United States, with very broad value-added steel product offerings. We offer a wide range of steel products (more specifically enumerated in the Steel Operations Products and Tons Sold by End Market discussion later in this section). We have a proven track record of growing and developing premium, value-added steel product capabilities and unlocking value within our operations. Additionally, by adding high-margin downstream manufacturing businesses, we are able to

provide base-load "pull-through" volume for our steel operations, increasing "through-cycle" steel mill utilization. We are also identifying new ways to provide value to our customers by providing supply-chain solutions. Our differentiated business model and performance-driven culture demonstrate our through-cycle earnings capability through our three vertically connected operating segments.

Steel Operations:

Sheet Products. Hot roll, cold roll and coated steel, including a wide variety of value-added products, such as light gauge hot roll, and 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-quality products including rounds, angles, flats, reinforcing bar, 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 recycling, scrap management, transportation, and brokerage products and services.

Steel Fabrication Operations. Steel joists, girders and steel deck, including specialty deck. Our steel fabrication operations provide "pull-through" volume optionality for our steel operations, as many of the products that we make utilize our own internally produced steel.

This diversified portfolio of products enables us to access a broad range of markets, serve a large customer base, and helps mitigate our market exposure to any one product or sector, resulting in increased through-cycle steel mill utilization. In addition, our value-added steel product offerings help to balance our exposure to commodity grade products supplied by other 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 planned \$1.9 billion "next-generation" electric arc furnace (EAF) flat roll steel mill - Southwest-Sinton Flat Roll Division. Our new steel mill will have an estimated 3.0 million tons of annual steel production capacity, including value-added coating lines comprised of a galvanizing line with planned annual coating capacity of 550,000 tons with galvalume capability and a paint line with annual coating capacity of 250,000 tons. By leveraging our construction and operating expertise, we are building a "next-generation" EAF flat roll steel mill with planned production capabilities beyond existing EAF flat roll steel producers, competing even more effectively with the integrated steel model and foreign competition. Our new steel mill will have the capability to provide higher-strength, tougher grades of flat roll steel for the energy and automotive markets. These ultra-high-strength steel products are not currently readily available from other domestic steel producers. By locating our new steel mill in Sinton, Texas we are strategically targeting underserved markets that are largely reliant on imports with long lead times and lower product quality capabilities, providing customers throughout the Southwest United States and Mexico significant freight benefits and shorter lead times allowing them to realize working capital advantages. Additionally, our new steel mill site has sufficient acreage to allow for customers to locate on-site, providing them with logistics savings and our steel mill with volume base-loading opportunities. Based on current expectations, operations are planned to begin mid-2021.

One of the Lowest Cost Steel Producers in the United States; State-of-the-Art Facilities / Allowing for Low Production Costs

We are focused on maintaining 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 develop 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 all market cycles, 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 highly performance-based 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 use of physical resources and capital employed. Additionally, effectively leveraging our existing facilities through capital effective organic growth and diversified product offerings allows us to maximize utilization.

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 55 to 60 percent of such costs. During 2019, 2018, and 2017, OmniSource, our metals recycling operations, provided our steel operations with 37%, 39%, and 38%, respectively, of its ferrous scrap requirements. This represented 66%, 65%, and 63% of OmniSource's total ferrous scrap shipments during 2019, 2018, and 2017, respectively. During 2019, 2018, and 2017, our steel operations consumed 10.6 million, 10.9 million, and 10.3 million tons, respectively, of metallic materials, of which iron units, other than scrap, represented approximately 13% in 2019 and 2017, and 14% in 2018. IDI supplies 100% of its production to the Butler Flat Roll Division, representing 63%, 64%, and 72% of their iron units other than scrap in 2019, 2018, and 2017, 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.

Strategic Geographic Locations / Enter New Geographic Markets

The majority of our steelmaking operations are in locations near sustainable 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 solidifying our customer relationships. Recycled ferrous scrap and iron units represent the most significant component of our cost of steel manufacturing. Approximately three-fourths of our recycled ferrous scrap needs are sourced within 250 miles of our steel mill locations, minimizing the amount of energy expended on transportation. 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.

Sustainability

We have had a focus toward sustainability since our inception, valuing our teams, partners and communities while producing steel using EAF technology which utilizes recycled ferrous scrap as the primary raw material, requiring the use of far fewer natural resources and consuming significantly less energy than traditional blast furnace technology, resulting in lower levels of air emissions and much less environmental impact. For melting and casting steel, our energy intensity for our six EAF steel mills is only approximately 11% of the World Steel Association average energy intensity. Our CO₂ emissions from our six EAF steel mills are only approximately 13% of the World Steel Association average CO₂ emissions. We reuse over 99% of our total system water demand.

We have continuously innovated, further strengthening our company, becoming vertically connected with a looped manufacturing life cycle. We are one of the largest ferrous and nonferrous scrap metals recyclers in the United States. Our metals recycling platform collects and processes industrial scrap from manufacturers and obsolete scrap derived from end-of-life items, such as automobiles, appliances and machinery. This processed scrap is then sold to end users, including our electric arc furnace steel mills. Our steel mills utilize recycled ferrous scrap as their primary raw material input to produce new steel. Our steel is then sold internally to our steel manufacturing operations and to external steel customers.

Through our vertically connected manufacturing life cycle, we reintroduced 1.1 billion pounds of recycled nonferrous scrap and 11 million tons of recycled ferrous scrap into the manufacturing life cycle in 2019. Additionally, our vertically connected manufacturing life cycle allowed for 1.4 million tons of our steel to be used internally.

At Steel Dynamics, we recognize the importance of being good stewards of our environment and the communities where we work and live. We continually evaluate opportunities to improve our processes, equipment and technology to reduce our physical impact on the environment. To us, it is more than simply meeting applicable requirements, but going beyond with a commitment to higher environmental standards. Both our Butler and Columbus Flat Roll Divisions' environmental management systems are certified with the International Organization for Standardization 14001. These facilities represent over 65% of our 2019 steel production.

Each of our steel mills has an environmental engineering group focused on regulatory compliance, and our employees are trained on how to properly handle waste streams and engage in responsible environmental practices. Being environmentally conscious is part of our culture. We see ourselves as members of the communities in which we do business. Every day, our teams take the initiative to protect the environment, simply because it is the right thing to do.

Experienced Leadership Team and Unique Culture / Foster Entrepreneurial Culture

Our senior leadership team is highly experienced and has a proven track record in the steel, metals recycling, and steel fabrication industries. Our leadership objectives are closely aligned with our stockholders through meaningful stock ownership positions and performance-based incentive 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 our individual teams for their efforts toward identifying innovative ways to enhance productivity, improve profitability, and control costs.

We foster our entrepreneurial culture and emphasize decentralized operational decision making and responsibility, while continuing to maintain appropriate corporate governance and risk oversight. We reward teamwork, innovation, and operating efficiency, and focus on maintaining the effectiveness of our performance-driven incentive bonus plans that are designed to maximize overall productivity and align the interests of our leadership and teams with our stockholders.

Experienced Senior Leadership Team

Name	Age	Position
Mark D. Millett	60	President and Chief Executive Officer
Theresa E. Wagler	49	Executive Vice President, Chief Financial Officer, and
		Corporate Secretary
Russ B. Rinn	62	Executive Vice President, Metals Recycling
Miguel Alvarez	52	Senior Vice President, Southwest United States and Mexico
Chris A. Graham	55	Senior Vice President, Long Products Steel Group
Glenn A. Pushis	54	Senior Vice President, Special Projects
Barry T. Schneider	51	Senior Vice President, Flat Roll Steel Group
James S. Anderson	59	Vice President, Steel Fabrication

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 (now OmniSource, LLC), 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 has been our Executive Vice President, Chief Financial Officer and Corporate Secretary 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 and taxation, treasury, risk management, legal, information technology and cyber security, safety and human resources, and strategic business development functions, as well as investor relations, and corporate communications. Ms. Wagler also has operational responsibilities beginning January 2019. Prior to joining Steel Dynamics, Ms. Wagler served 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 has been our Executive Vice President for Metals Recycling 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.

Miguel Alvarez joined the company as our Senior Vice President, Southwest United States and Mexico in February 2019. In this position Mr. Alvarez is responsible for the comprehensive business development and partnerships in the regions, encompassing both steel and recycled metals. Prior to joining Steel Dynamics, since 2000 Mr. Alvarez served in leadership positions at BlueScope, a global engineered steel solutions provider and flat roll steel producer, focused on the global building and construction sectors. Mr. Alvarez's responsibilities included leading BlueScope's North American metal buildings business, with manufacturing facilities in the United States and Mexico, as President of BlueScope Buildings North America, since 2017. From 2010 to 2017, he served as the President of North Star BlueScope Steel, responsible for BlueScope's only North American electric arc furnace flat roll steel mill. Mr. Alvarez earned a bachelor's degree in industrial engineering and a Masters of Business Administration from the Technological Institute of Superior Studies in Monterrey, Mexico.

Chris A. Graham is our Senior Vice President, Long Products Steel Group, since February 2019. In this role, Mr. Graham is responsible for the company's four long product steel mills, which combined have over 4 million tons of annual steel shipping capacity, producing specialized engineered bars, structural steel, railroad rail, merchant and reinforcing steel bars, and other specialty steels. Since 2016, Mr. Graham served as Senior Vice President, Downstream Manufacturing and President of New Millennium Building Systems, responsible for the company's steel fabrication and downstream manufacturing operations. Prior to that, Mr. Graham served as a Vice President of Steel Dynamics and the President of New Millennium Building Systems fabrication operations. 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

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three acquired fabrication facilities, and in 2014 was made responsible for the integration of the Columbus Flat Roll Division. Mr. Graham is a graduate of Harvard Business School Advanced Management Program and 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, Special Projects, since February 2019. In this position, Mr. Pushis is responsible for the successful design and construction of the company's new Southwest-Sinton Flat Roll Division developed to serve the Southwestern United States and Mexico. He has extensive experience in this capacity and has been instrumental in numerous construction projects for Steel Dynamics since its foundation. Since 2016, Mr. Pushis served as Senior Vice President, Long Products Steel Group, responsible for the company's four long product steel mills. Prior to that, Mr. Pushis served as Vice President overseeing the company's Butler Flat Roll Division and six flat roll coating facilities. He has been with Steel Dynamics since 1994, holding various operational and leadership roles, and he was part of the team that constructed the company's first steel mill in 1994 - Butler Flat Roll Division. 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 has been our Senior Vice President, Flat Roll Steel Group since March 2016. Mr. Schneider is responsible for the company's two flat roll steel mills and numerous flat roll coating lines, including The Techs and Heartland Flat Roll Division, which together have approximately 8.4 million tons of annual steel shipping 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. Since 2014, Mr. Schneider served as a Vice President overseeing the company's Engineered Bar Products and Roanoke Bar steel divisions. 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.

James S. Anderson is our Vice President, Steel Fabrication, and President of New Millennium Building Systems, since February 2019. In this role, Mr. Anderson is responsible for the company's steel fabrication operations, comprised of seven manufacturing facilities, located throughout the United States and in Northern Mexico. Since 2015, Mr. Anderson served as the Chief Operating Officer of New Millennium Building Systems. Prior to that, Mr. Anderson was the general manager of the company's three flat roll galvanizing lines located in Pittsburgh, Pennsylvania (The Techs). Steel Dynamics purchased The Techs in 2007, where Mr. Anderson then served as its Managing Partner. Mr. Anderson earned a bachelor's degree in Metallurgical Engineering from Grove City College and a Masters of Business Administration from the University of Pittsburgh.

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 numerous steel coating and 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 76%, 75%, and 72% of our consolidated net sales during 2019, 2018 and 2017, respectively. We are predominantly a domestic steel company, with only 4% of our revenues generated from exported sales during 2019, and 5% in 2018 and 2017.

Our steel operations consist primarily of steelmaking and coating operations. We have approximately 8.4 million tons of flat roll steel shipping capacity, comprised of 6.4 million tons of flat roll steel production capacity at our Butler and Columbus Flat Roll Divisions and an additional 2.0 million tons of flat roll steel processing capacity at our Techs and Heartland divisions. We also have annual flat roll galvanizing capability of 3.6 million tons and painting capability of 750,000 tons.

We have approximately 4.6 million tons of long product steel shipping capacity, as follows:

Structural and Rail Division	2,200,000
Engineered Bar Products Division	950,000
Roanoke Bar Division	720,000
Steel of West Virginia	555,000
Vulcan Threaded Products Division	135,000

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

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

Steel Operations Products and Tons Sold by End Market Steel Operations Tons Sold by End Market (based on 2019 tons shipped) Divisions and Products		Construction - Metal Building	Construction - Light Commercial & Residential	%Construction - Heavy	Construction - Appliance & HVAC	Automotive	%2 Heavy Equipment	% Other Transportation, Including Rail	% Agriculture	Phorigy Page 27%	% Pipe & Tube	%61 Other Manufacturing
Sheet Steel Products:	d-1											
Butler and Columbus Flat Roll Div Hot Roll (HR) Cold Roll (CR) Metallic Coated	HR, and pickled and oiled HR sheet steel CR sheet steel HR galvanized, CR galvanized, HR galvannealed, CR galvannealed, and Galvalume® sheet steel Pre paint sheet steel	•	•		•	•		•	•	•	•	•
The Techs - Processing		•	•	•	•	•			•	•	•	•
M etallic Coated	HR galvanized, CR galvanized, and Galfan® sheet steel											
Heartland Flat Roll Division - Proc	ressing	•	•		•						•	
Hot Roll and Cold Roll	HR pickled and oiled, and CR sheet steel											
M etallic Coated	CR galvanized sheet steel											
United Stell Supply - Distribution		•	•									
Metallic Coated	HR and CR galvanized, and Galvalume® sheet steel											
Painted	Pre paint sheet steel											
Long Products:												
Structural and Rail Division			•	•			•	•		•		•
Structural Steel Beams	Wide flange, American Standard Beams,											
Rail	H Piling, and manufactured housing beams Standard strength carbon, intermediate alloy											
	hardness, and premium grade											
Structural Shapes	Channels, angles and flat bars Reinforcing bar: cut-to-length, smooth bar and coiled											
Engineered Bar Products Division				•		•	•	•	•	•		•
Special-Bar-Quality	Round-cornered squares						Ī		Ū			
M erchant-Bar-Quality	Round bars Bar finishing											
Vulcan Threaded Products -	Threaded rod			•						•		•
Processing	Bar finishing Cold drawn and heat treated bar											
Roanoke Bar Division		•	•	•		•	•	•	•	•		•
Merchant Steel	Channels, angles, and flat bars											
Light Structural Shapes	Rounds Reinforcing Bar											
Steel of West Virginia			•	•			•	•		•		•
Wide Flange Beams	Fabrication and finishing											
Standard Beams	Cut-to-length											
Channels	Galvanizing and coating Punching											
Specialty Steel Sections												

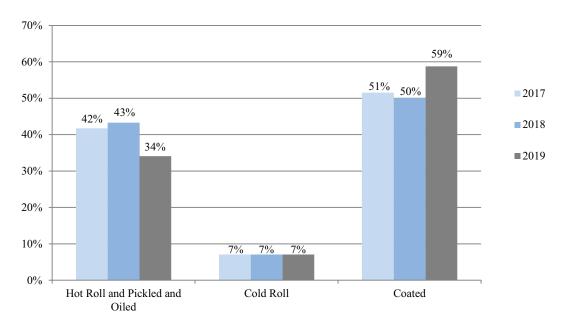
SHEET STEEL PRODUCTS

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 numerous downstream coating lines, including The Techs, Heartland Flat Roll Division – acquired June 29, 2018; and United Steel Supply (USS) – acquired 75% equity interest March 1, 2019. Our sheet steel operations represented 70% of steel operations net sales in 2019 and 2018, and 71% in 2017. We produced 7.8 million, 7.5 million, and 7.1 million tons of sheet steel at these facilities in 2019, 2018, and 2017, 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 2019, 2018, and 2017, respectively, IDI produced 259,000, 262,000 and 259,000 metric tons, of which 96% in 2019 and 2018, and 90% in 2017, 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:

Sheet Steel Product Mix

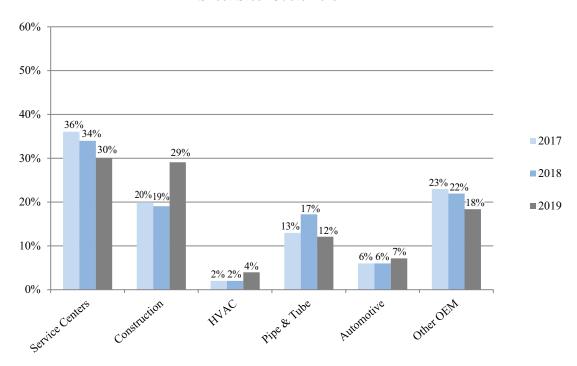


Customers. Steel processors and service centers typically act as intermediaries between primary sheet steel producers and the many end-user manufacturers that require further processing of hot roll coils. The additional processing performed by the intermediate steel processors and service centers include 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 are similar and are sold to a similar customer base. The Techs and Heartland Flat Roll Division specialize 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. The addition of United Steel Supply adds a new, complementary distribution channel for pre-painted and coated flat roll steel coils to the niche regional roll-former market, serving the roofing and siding industry. This connects us to a rapidly growing industry segment with

customers that do not traditionally purchase steel directly from a steel producer. USS provides continued growth to one of our highest-margin flat roll steel products. Our sheet steel operations also provide a substantial portion of the sheet steel utilized in our steel fabrication operations.

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

Sheet Steel Customers



LONG PRODUCTS

Our Structural and Rail Division produces 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, as well as flat bars and large unequal leg angles used in construction markets. We 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. In early 2019, we completed and commissioned our 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. We also utilize our excess melting capacity to supply our Engineered Bar Products Division with pull-through volume of billets to utilize its excess rolling capacity.

Our Engineered Bar Products Division produces a broad array of engineered special-bar-quality (SBQ), merchant-bar-quality (MBQ), rounded-cornered squares, and smaller-diameter engineered round bars. We have a bar finishing facility at this mill, 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 channels, angles, flats, merchant rounds, and reinforcing bar. During 2018, we completed our rolling line expansion project to utilize existing excess melting and casting capability to produce up to 200,000 tons of reinforcing bar, with multi-strand slitting and finishing capabilities.

Steel of West Virginia primarily sells beams, channels, specialty steel sections and flats, and frequently performs fabrication and finishing operations on its products, such as cutting to length, additional straightening, hole punching, shot blasting, welding, galvanizing, and coating. 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):

	2019	2018	2017
Structural and Rail Division	1,493,880	1,637,574	1,353,699
Rail production (included above)	307,675	288,194	250,921
Engineered Bar Products Division	655,108	824,428	698,951
Roanoke Bar Division	528,257	575,078	473,097
Steel of West Virginia	357,051	307,013	285,397

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 eight 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.

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 11%, 13% and 15% of our consolidated net sales during 2019, 2018 and 2017, respectively. Our steel mills utilize a large portion (approximately 65%) of the ferrous scrap sold by OmniSource as raw material in our steelmaking operations, and the remainder is sold to other consumers. This strategic symbiotic relationship with our own steelmaking operations provides valuable pull-through demand to OmniSource's ferrous scrap operations. In 2019, 2018, and 2017, OmniSource provided our steel operations with 37%, 39%, and 38%, respectively, of its ferrous scrap requirements.

We shipped the following from our metals recycling operations:

	2019	2018	2017
Ferrous metal total (gross tons)	4,627,214	5,123,553	4,952,973
Shipments to our steel mills	3,061,257	3,346,135	3,108,858
Percent of total to our steel mills	66%	65%	63%
Nonferrous metals (thousands of pounds)	1,068,208	1,131,412	1,086,799

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 processed and unprocessed ferrous and nonferrous scrap metals, 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 items such as
 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 items such as 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 numerous 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, providing competitive price and cost advantages to our suppliers and customers.

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 also 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 pig iron, pelletized iron, HBI, 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, regional, national and global companies, which have 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%, 8%, and 9% of our consolidated net sales during 2019, 2018, and 2017, respectively. We sold 644,000, 642,000, and 627,000 tons of joist and deck products during 2019, 2018, and 2017, respectively. Our steel operations supply a substantial portion, approximately 67%, 58% and 51% in 2019, 2018, and 2017, 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, and trusses at six locations, and steel deck at five locations. Our joist products include bowstring, arched, scissor, double-pitched and single-pitched joists. Our deck products include a full range of steel decking: 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, such as 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 2.1 million tons in 2019, and 2018, and 2.0 million tons in 2017, based on trade association estimates. Based on this information, our steel fabrication operations continue to maintain approximately one-third of the total steel joist and deck market. We believe we are well positioned with our national footprint 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 Information

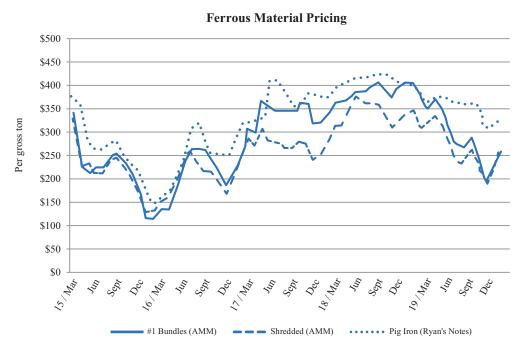
Sources, Availability, and Cost of Steel and Other Operations' Raw Materials

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. 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, pig iron, DRI, HBI, and iron nuggets are used in our electric arc furnace steel mill production. During 2019, 2018, and 2017, we consumed 10.6 million, 10.9 million and 10.3 million tons, respectively, of metallic materials in our steelmaking furnaces, of which, iron units other than scrap, represented approximately 13%, 14% and 13% 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 63%, 64% and 72% of their iron units in 2019, 2018, and 2017, respectively.

Energy Resources

Electricity. Electricity is a significant input required in the electric arc furnaces in our steelmaking operations, representing between 4% and 6% of steel production costs of goods sold in 2019, 2018 and 2017. 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 fixed price forward contracts.

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" 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 steel 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 environment or the use and handling of by-products in order to operate our facilities. We dedicate considerable resources aimed at achieving compliance with federal, state and local 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 interpretation and enforcement of environmental laws and regulations 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 or local 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 address 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 the unusable

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 Act, known as "CERCLA" or "Superfund," the United States EPA, state agencies 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 that can also apply. We have a number of material handling agreements with various contractors to properly dispose of or recycle our EAF 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 and local laws apply to aspects of our operations and impose regulatory restrictions related to the discharge of wastewater, storm water and dredged or fill material. The United States EPA, state agencies 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 and local 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, state agencies, and in certain instances private parties, and can result in substantial 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

Our work force consisted of approximately 8,385 full time employees at December 31, 2019, of which approximately 9% were represented by collective bargaining agreements.

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 Corporate Governance and Nominating 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 business, results of operations, financial condition and cash flows. 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, 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 imports into the United States tends 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. While tariffs pursuant to Section 232 of the Trade Expansion Act of 1962, as amended ("Section 232"), other measures to curb unfair trade such as duties or quotas, and the renegotiation of trade agreements with other countries, including the recently signed United States-Mexico-Canada Agreement ("USMCA"), have decreased the volume of steel and steel products imports in the United States, domestic steel and steel products prices remain negatively impacted by excessive imports of steel and steel products into the United States. Should the Section 232 tariffs, duties or quotas expire or be relaxed, repealed or circumvented by importers of steel and steel products, or should trade agreements be renegotiated, downward pressure may be exerted on United States steel and steel products prices, which adversely affects our business, results of operations, financial condition and cash flows.

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, including those imposed under Section 232, have been put into effect for steel and 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 the Section 232 tariffs or other 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. If 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 tariffs, duties 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 North America, 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 or domestic actions or conditions, including political actions, trade policies or restrictions, such as the recently signed USMCA, changes in tax laws, terrorism, natural disasters, or widespread illness or other health issues, such as the recent Coronavirus outbreak, could result in changing economic conditions in the United States and globally, disruptions to or slowdowns in our business or our global or domestic industry, or those of our customers or suppliers upon whom we are dependent, or changes in our pre-tax and post-tax financial performance. 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 subject to fluctuation, 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 prices and availability of scrap metal, scrap substitutes, and supplies, 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 industrial scrap and end-of-life automobiles, appliances, 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, are expected to 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 if purchased at high prices, 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, a critical raw material in our steelmaking, has expanded in recent years, leading to increased price. Any inability to secure a consistent, cost effective and timely supply of our raw materials and supplies could have an adverse effect on our business, financial condition, results of operations and cash flows.

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 slowdowns or curtailments or may otherwise have a material adverse effect on our business, financial condition, results of operations and cash flows.

The cost and availability of electricity, natural gas, oil and other energy resources are subject to volatile market conditions.

Steel producers like us consume large amounts of energy to melt ferrous scrap in electric arc furnaces and reheat steel 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 subject to volatile market conditions, often affected by weather conditions as well as political, environmental and economic factors beyond our control. As consumers of electricity and natural 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 or environmental 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 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, including those that may impose output limitations or higher costs associated with climate change or greenhouse gas emissions, could substantially increase the cost of manufacturing and raw materials to us and other 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 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 numerous 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 protections; 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.

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 such that regulatory agencies may bring enforcement actions for alleged noncompliance. 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. 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 operations produce significant amounts of by-products, some of which are handled as solid or hazardous waste or as hazardous secondary materials. 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 are automobile bodies. A portion of the feed materials consist of unrecyclable material known as shredder residue. If laws or regulations or the interpretation of the laws or regulations 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 costs of investigating and cleaning up a number of disposal sites. In most cases, many other parties are also named as potentially responsible parties and also contribute to payment of those costs.

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 other 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 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 climate change and GHG emissions. 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 may see an increase in costs relating to our assets that emit significant amounts of GHGs as a result of these regulatory initiatives, which 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 unsecured 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 unsecured 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. A breach of any of the restrictions or covenants could cause a default under our senior unsecured credit facility, our senior notes, or our other debt. A significant portion of our indebtedness may then become immediately due and payable.

Under our senior unsecured 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.

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 operations and cash flows.

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 for any reason, including as a response to regulations such as the Corporate Average Fuel Economy (CAFE) requirements, could decrease demand for steel or force other steel producers into new products or markets that compete more directly with us, 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 and cash flows. 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, including trade restrictions, 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. A shortage in the 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 and cash flows.

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. Our sales and inventory position may be vulnerable to adverse changes in commodity prices, which could materially adversely impact our operating and financial performance. Thus, we engage in some hedging of certain commodities in futures markets.

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 generally have no obligation to sell recyclable metal to us. In periods of low industry scrap prices, scrap suppliers may elect to hold recyclable metal to wait for higher prices or intentionally slow their metal collection activities. If a substantial number of scrap suppliers cease selling recyclable metal to us, we may 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 sell.

We are subject to cybersecurity threats and may face risks to the security of our sensitive data and information technology, which may adversely affect our business, results of operations, financial condition and cash flows.

Increased global cybersecurity and information technology security requirements, vulnerabilities and threats and a rise in sophisticated and targeted cybercrime pose a risk to the security and functionality of our systems and 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 result in reputational harm and 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 result in reputational harm, have materially adverse economic consequences and may adversely affect our business, results of operations, financial condition and cash flows. Our customers, suppliers and vendors may also store certain of our sensitive information on their information technology systems, which if breached or attacked, could likewise expose our sensitive information and result in reputational harm and 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 or attack, will be prevented, whether due to attacks by cyber criminals or due to employee, contractor or other 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, actions, fines or penalties, as well as increased cybersecurity monitoring and protection costs, including the cost of insurance. Additionally, as cybersecurity threats continue to evolve and become more sophisticated, we may need to invest additional time, resources and finances to protect the security of our sensitive data, 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 expansions and transactions may involve some or all of the following risks:

- the risk of entering product or geographic markets in which we have little experience;
- the risk of a newly constructed steel mill being completed over budget or not on time;
- the risk of not being able to adequately obtain sufficient labor to efficiently build or staff a new steel mill;
- the risk of expected markets, products, customers and demand for products produced by a new steel mill being lower than expected;
- 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 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.

Our new Southwest-Sinton Flat Roll Division is under construction in Sinton, Texas, and is planned to commence operations in mid-2021, with an expected cost of approximately \$1.9 billion. The project is subject to the above risks, as well as unfavorable weather conditions, natural disasters, delayed equipment deliveries and installations, or other conditions outside our control could increase the cost or delay the commencement of operations of our new EAF steel mill. Additionally, customer, product, or geographic markets we expect to serve may not be as profitable as currently expected, which could have an adverse effect on our prospects, business, financial condition, results of operations and cash flows.

These expansions or transactions might be required for us to remain competitive, but we may not be able to complete any such expansions or transactions on favorable terms or obtain financing, if necessary. Future

expansions and transactions may not improve our competitive position and business prospects as anticipated, and if they do not, our business, financial condition, results of operations and cash flows 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 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 and other anti-bribery laws, 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 cash flows.

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 electric arc 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 cybersecurity breaches or attacks or system failures. We have experienced plant shutdowns or periods of reduced production as a result of such equipment failures 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 cash flows.

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 business, financial results, results of operations and cash flows.

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

We must receive licenses and air, water and other permits and approvals from state and local governments to conduct certain of our operations or to build, expand or acquire new facilities, such as our new electric arc furnace flat roll steel mill currently under construction in Sinton, Texas. 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 cash flows.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The following table describes our significant properties as of December 31, 2019. 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*.

			Site Acreage	Site Acreage
Operations	Location	Description		Leased
Steel Operations Segment *				
Butler Flat Roll Division:				
Butler Operations		Flat Roll Steel Mill and Coating Facility	1,021	_
Jeffersonville Operations		Flat Roll Steel Coating Facility	27	10
Iron Dynamics		Liquid Ironmaking Facility	25	_
Columbus Flat Roll Division	Columbus, MS	Flat Roll Steel Mill and Coating Facility	1,479	14
Southwest-Sinton Flat Roll	Sinton, TX			
Division		Flat Roll Steel Mill and Coating Facility **	2,487	_
The Techs	Pittsburgh, PA	Flat Roll Steel Coating Facilities	16	2
Heartland Flat Roll Division	,	Flat Roll Steel Rolling and Coating Facility	193	_
United Steel Supply	IN, MS, OR, and TX	Distributor of Painted Galvalume® Flat Roll		
		Steel	12	3
Structural and Rail Division	Columbia City, IN	Structural and Rail Steel Mill	692	_
Engineered Bar Division	Pittsboro, IN	Engineered Bar Steel Mill and Finishing Facility	312	_
Vulcan Threaded Products	<i>'</i>	Bar Steel Processing Facility	29	_
Roanoke Bar Division	Roanoke, VA	Merchant Bar Steel Mill	290	_
Steel of West Virginia	WV, KY, and TN	Specialty Shapes Steel Mill and Finishing and		
		Coating Facilities	139	6
Metals Recycling Operations Seg	ment			
OmniSource:				
Indiana		Ferrous and Nonferrous Scrap Processing	449	26
Michigan		Ferrous and Nonferrous Scrap Processing	193	_
North Carolina	Multiple Cities	Ferrous and Nonferrous Scrap Processing	346	_
Ohio		Ferrous and Nonferrous Scrap Processing	212	21
Oklahoma		Ferrous Scrap Processing	_	5
Tennessee	Johnson City, TN	Ferrous and Nonferrous Scrap Processing	33	_
Virginia	•	Ferrous and Nonferrous Scrap Processing	196	_
Steel Fabrication Operations Seg				
New Millennium Building Syste				
Joist and Deck Operations		Steel Joist and Deck Fabrication Facility	216	_
Joist Operations		Steel Joist Fabrication Facility	53	_
Joist and Deck Operations	•	Steel Joist and Deck Fabrication Facility	62	4
Joist Operations		Steel Joist Fabrication Facility	17	_
Joist and Deck Operations		Steel Joist and Deck Fabrication Facility	75	_
Deck Operations		Deck Fabrication Facility	19	_
Joist and Deck Operations	Salem, VA	Steel Joist and Deck Fabrication Facility	63	_

The company's corporate headquarters is in Fort Wayne, Indiana on 20 owned acres. Our copper rod and wire facility, a controlled subsidiary, is in New Haven, Indiana on 35 owned acres.

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.

^{*} Our 2019 steel mill production utilization was 88% of our estimated annual steelmaking capability.

^{**} Southwest-Sinton Flat Roll Division is under construction, with planned commencement of operations in mid-2021.

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 \$512,000 is recorded in our financial statements as of December 31, 2019.

ITEM 4. MINE SAFETY DISCLOSURES

Information required to be furnished pursuant to Item 4 concerning mine safety disclosure matters 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.

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.

As of February 20, 2020, we had 213,554,449 shares of common stock outstanding and held beneficially by approximately 23,900 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.

Issuer Purchases of Equity Securities

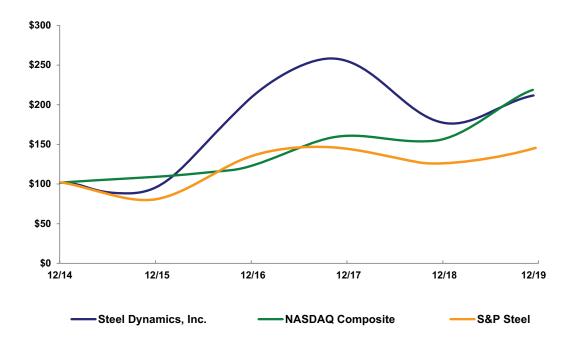
We purchased the following equity securities registered by us pursuant to Section 12 of the Exchange Act during the three months ended December 31, 2019.

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, 2019				
October 1-31	289,185	\$28.06	289,185	\$98,640
November 1-30	1,001,283	31.71	1,001,283	66,885
December 1 - 31	472,793	34.57	472,793	50,540
	1,763,261		1,763,261	

⁽¹⁾ On September 4, 2018, we announced that our board of directors had authorized a share repurchase program of up to \$750.0 million of our common stock.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Steel Dynamics, Inc., the NASDAQ Composite Index and the S&P Steel Index



 $^{^{*}}$ 100 invested on 12/31/14 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

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*\$100 invested on 12/31/14 in stock or index. including reinvestment of dividends. Fiscal year ending December 31.

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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, 2019, were derived from our audited consolidated financial statements. You should read the following data in conjunction with Item 7. *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:

- On March 1, 2019, we completed the acquisition of 75% of the equity interest of United Steel Supply, LLC (USS), for a total cash purchase price of \$97.1 million. USS operations are reflected in our steel operations from the date of acquisition.
- On June 29, 2018, we completed the acquisition of Heartland Steel Processing, LLC (formerly known as Companhia Siderurgica Nacional, LLC) (Heartland), for a total cash purchase price of \$434.0 million. Heartland operations are reflected in our steel operations from the date of acquisition.
- 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.

Voore	Fnd	ha	December 31.
ieais	Lilu	eu-	December 31.

		Itais	Eliaca Decelline	1 31,	
	<u>2019</u> <u>2018</u> <u>2017</u> <u>2016</u> <u>2</u>			2015	
	(dol	lars and shares ir	thousands, exc	ept per share da	ta)
Operating data:					
Net sales	\$10,464,991	\$11,821,839	\$9,538,797	\$7,777,109	\$7,594,411
Gross profit	1,530,984	2,322,814	1,582,014	1,334,864	731,718
Operating income (loss)	986,880	1,722,409	1,066,881	727,966	(72,784)
Asset impairment charges reflected in operating income (loss)	_	_	_	(132,839)	(428,500)
Net income (loss)	677,900	1,255,805	805,796	360,006	(145,170)
Net income (loss) attributable to Steel Dynamics, Inc	671,103	1,258,379	812,741	382,115	(130,311)
Basic earnings (loss) per share	\$ 3.06	\$ 5.38	\$ 3.38	\$ 1.57	\$ (0.54)
	3.00	Ф 3.36	Ф 3.36	9 1.37	\$ (0.34)
Weighted average common shares outstanding	219,639	233,923	240,132	243,576	242,017
Diluted earnings (loss) per share	\$ 3.04	\$ 5.35	\$ 3.36	\$ 1.56	\$ (0.54)
Weighted average common shares and					
share equivalents outstanding	220,748	235,193	241,781	245,298	242,017
Dividends declared per share	\$ 0.96	\$ 0.75	\$ 0.62	\$ 0.56	\$ 0.55
Capital expenditures	\$ 451,945	\$ 239,390	\$ 164,935	\$ 198,160	\$ 114,501
1 1		<u> </u>		<u> </u>	
Other data (unaudited): Shipments:					
Steel operations segment (net tons) Metals recycling operations segment	10,816,641	10,609,763	9,726,977	9,245,946	8,328,150
Ferrous metals (gross tons) Nonferrous metals (thousands of	4,627,214	5,123,553	4,952,973	5,070,380	5,139,506
pounds)Steel fabrication operations segment	1,068,208	1,131,412	1,086,799	1,103,505	1,082,777
(net tons)	644,411	641,698	627,274	562,725	492,875
tons)	10,898,744	10,899,776	9,995,082	9,503,465	8,528,885
Number of employees	8,385	8,200	7,635	7,695	7,510
1 7					
Balance sheet data: Cash and equivalents and short-term					
investments	\$ 1,643,634	\$ 1,057,003	\$1,028,649	\$ 841,483	\$ 727,032
Property, plant and equipment, net	3,135,886	2,945,767	2,675,904	2,787,215	2,951,210
Total assets	8,275,765	7,703,563	6,855,732	6,423,732	6,202,082
Long-term debt (including current	2.724.244	0.056.500	0.001.040	0.056.006	0.504.656
maturities)	2,734,344	2,376,723	2,381,940	2,356,826	2,594,656
Equity	3,921,241	3,775,989	3,195,068	2,777,459	2,545,111
Shares outstanding (in thousands)	214,503	225,272	237,397	243,785	243,090

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 domestic or global economies, conditions in the steel and recycled metals market places, Steel Dynamics' revenues, costs of purchased materials, future profitability and earnings, and the operation of new, existing or planned 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, zinc, graphite electrodes, and energy costs) and our ability to pass on any cost increases; (5) the impact of domestic and foreign imports, including trade policy, restrictions, or agreements; (6) unanticipated difficulties in integrating or starting up new, acquired or planned businesses or assets; (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 our more detailed explanation of these and other factors and risks that may cause such predictive statements to turn out differently, as set forth in the sections titled *Special Note Regarding Forward-Looking Statements* at the beginning of Part I of this Report and Item 1A. *Risk Factors*, as well as in other subsequent reports we file with the Securities and Exchange Commission. 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 point in time control of the product transfers to the customer, upon shipment or delivery. Our steel fabrication operations recognize revenues over time based on completed fabricated tons to date as a percentage of total 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 substrate, 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 income.

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 Income, net. Other income consists of interest income earned on our temporary cash deposits and short-term 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.

2019 Overview

Our 2019 consolidated results were challenged by high customer steel inventories, as many customers purchased beyond normal demand levels in late 2018. Underlying domestic steel demand remained steady in 2019, but as customers began to destock inventories, steel prices declined throughout the year in conjunction with weakening scrap prices, before firming in the fourth quarter as destocking subsided and inventory levels were right-sized. Declining ferrous scrap prices throughout much of 2019 negatively impacted our metals recycling operations financial results. The non-residential construction market remained strong, resulting in record steel fabrication shipments with increased selling prices and margins compared to 2018. In spite of the market challenges faced by our steel and metals recycling operations, our consolidated net sales of \$10.5 billion and cash flows from operations of \$1.4 billion were the second-best performance in company history, and our consolidated operating income was our third-best in company history. In addition, our steel fabrication operations segment achieved record shipments of 644,000 tons, resulting in record operating income of \$119.1 million.

Consolidated operating income for 2019 decreased \$735.5 million, or 43%, to \$986.9 million, compared to the record \$1.7 billion in 2018. Net income attributable to Steel Dynamics, Inc. for 2019 decreased \$587.3 million, or 47%, to \$671.1 million, compared to record 2018. Diluted earnings per share attributable to Steel Dynamics, Inc. was \$3.04 for 2019, compared to \$5.35 for 2018.

Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II of our Annual Report on Form 10-K for the year ended December 31, 2018, for additional information regarding results of operations for the year ended December 31, 2018, as compared to the year ended December 31, 2017, and segment operating results for 2018 as compared to 2017.

Acquisition of United Steel Supply, LLC

On March 1, 2019, we purchased 75% of the equity interest of United Steel Supply, LLC (USS) for cash consideration of \$93.4 million, plus a customary working capital transaction purchase price adjustment of \$3.7 million, which was paid in September 2019. Additionally, we have an option to purchase, and the sellers have the option to require us to purchase, the remaining 25% equity interest of USS in the future. Headquartered in Austin, Texas, USS is a leading distributor of painted Galvalume[®] flat roll steel used for roofing and siding applications, with distribution centers strategically located in Mississippi, Indiana, Arkansas, and Oregon. USS provides the steel segment a new, complementary distribution channel and connects us to a rapidly growing industry segment with customers that do not traditionally purchase steel directly from a steel producer. USS's operating results from and after March 1, 2019, are reflected in our financial statements in the steel operations reporting segment.

Segment Operating Results (dollars in thousands)

	Years Ended December 31,			
	2019	% Change	2018	
Net sales				
Steel Operations	\$ 8,234,179	(11)%	\$ 9,263,152	
Metals Recycling Operations	2,494,014	(22)%	3,202,214	
Steel Fabrication Operations	963,259	4%	921,951	
Other	400,747	(7)%	429,060	
	12,092,199		13,816,377	
Intra-company	(1,627,208)		(1,994,538)	
	\$10,464,991	(11)%	\$11,821,839	
Operating income (loss)				
Steel Operations	\$ 1,030,554	(44)%	\$ 1,839,852	
Metals Recycling Operations	16,308	(79)%	75,891	
Steel Fabrication Operations	119,099	92%	61,901	
Other	(186,159)	26%	(253,195)	
	979,802		1,724,449	
Intra-company	7,078		(2,040)	
	\$ 986,880	(43)%	\$ 1,722,409	

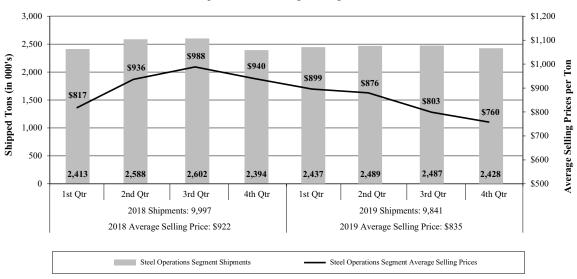
Steel Operations Segment

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 and automated rolling mills, with numerous downstream processing and coating lines, as well as IDI, our liquid pig iron production facility that supplies solely the Butler Flat Roll Division. Our steel operations sell a diverse portfolio of sheet and long products directly to end-users, steel fabricators, and service centers. These products are used in a wide variety of industry sectors, including the construction, automotive, manufacturing, transportation, heavy equipment and agriculture, and pipe and tube (including OCTG) markets (see Item 1. *Business*). Steel operations accounted for 76% and 75% of our consolidated net sales during 2019 and 2018, respectively.

Steel Operations Shipments (tons):

	Years Ended December 31,			
	2019	% Change	2018	
Total shipments	10,816,641	2%	10,609,763	
Intra-segment shipments	(975,372)		(612,655)	
Steel Operations Segment shipments	9,841,269	(2)%	9,997,108	
External shipments	9,402,608	(2)%	9,625,291	

Steel Operations Segment Shipments and Average Selling Price



Segment Results 2019 vs. 2018

Overall domestic steel demand remained steady during 2019, with continued strength in the automotive, construction and other industrial sectors. However, a challenging steel pricing environment continued throughout 2019, due to customer inventory destocking in conjunction with weakening scrap prices, which led to decreasing steel selling prices compared to 2018. Steel operations segment shipments decreased 2% in 2019, as compared to 2018. Net sales for the steel operations decreased 11% in 2019 when compared to 2018, due primarily to decreases in overall steel selling prices, particularly in sheet steel, and decreased steel mill shipments.

Ferrous raw materials used in our electric arc furnaces represent our single most significant steel manufacturing cost, generally comprising approximately 55 to 60 percent of our steel mill operations' manufacturing costs. Our metallic raw material cost per net ton consumed in our steel operations decreased \$48, or 14%, in 2019 compared to 2018, consistent with overall decreased domestic scrap pricing.

As a result of average selling prices decreasing more than scrap costs, metal spread (which we define as the difference between average steel mill selling prices and the cost of ferrous scrap consumed in our steel mills) decreased 10% in 2019 compared to the record-high 2018. Due to this metal spread contraction, most notably in sheet steel, operating income for the steel operations decreased 44%, to \$1.0 billion, in 2019 compared to the record results in 2018.

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. In addition, OmniSource designs, installs, and manages customized scrap management programs for industrial manufacturing companies at hundreds of locations throughout North America. Our steel mills utilize a large portion (approximately 65%) 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 11% and 13% of our consolidated net sales during 2019 and 2018, respectively.

Metals Recycling Operations Shipments:

	Years Ended December 31,		
	2019	% Change	2018
Ferrous metal (gross tons)			
Total	4,627,214	(10)%	5,123,553
Inter-company	(3,061,257)	(9)%	(3,346,135)
External shipments	1,565,957	(12)%	1,777,418
Nonferrous metals (thousands of pounds)			
Total	1,068,208	(6)%	1,131,412
Inter-company	(144,229)		(138,001)
External shipments	923,979	(7)%	993,411

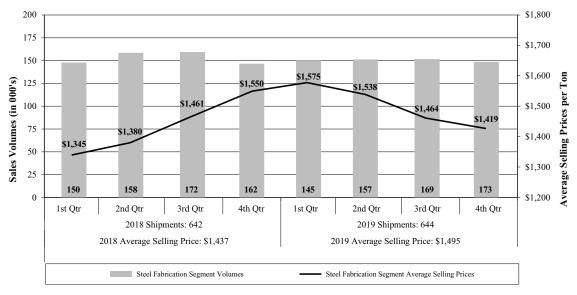
Segment Results 2019 vs. 2018

Our metals recycling operations were negatively impacted throughout 2019 by falling ferrous and nonferrous scrap prices compared to 2018, as well as a challenging steel market in which customers were also reluctant to purchase during a falling pricing environment. Net sales for our metals recycling operations decreased 22% in 2019 as compared to 2018, driven by decreased shipments and ferrous scrap prices declining in eight of the twelve months during the year. Ferrous and nonferrous scrap average selling prices decreased 21% and 10%, respectively, during 2019 compared to 2018. Ferrous metal spread (which we define as the difference between average selling prices and the cost of purchased scrap) decreased 15%, while nonferrous metal spread decreased 7% in 2019 compared to 2018. Metals recycling operations operating income in 2019 of \$16.3 million decreased 79% from 2018 operating income of \$75.9 million, due to lower ferrous and nonferrous shipments, and metal spread contraction.

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% and 8% of our consolidated net sales during 2019 and 2018, respectively.

Steel Fabrication Operations Segment Volumes and Average Selling Price



Segment Results 2019 vs. 2018

Net sales for the steel fabrication operations increased \$41.3 million, or 4%, during 2019 compared to 2018, as shipments increased to a record 644,000 tons, while average selling prices increased \$58 per ton, or 4%. Our steel fabrication operations continue to leverage our national operating footprint. Market demand, orders and backlog continue to be strong for non-residential construction project development, as customer sentiment remains positive.

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 decreased by 7% in 2019, as compared to 2018, consistent with decreased steel selling prices discussed in the steel operations results, while average selling prices increased 4%, with resulting metal spread (which we define as the difference between average selling prices and the cost of purchased steel) increasing 22%. Operating income increased \$57.2 million, or 92%, to \$119.1 million in 2019 compared to 2018, due to the increases in volumes and metal spread, with selling prices outpacing steel input costs.

Other Operations

Consolidated Results 2019 vs. 2018

Selling, General and Administrative Expenses. Selling, general and administrative expenses increased 5%, or \$19.9 million, to \$436.5 million during 2019 compared to 2018, representing 4.2% and 3.5% of net sales, respectively. Profit sharing expense was \$78.0 million in 2019, a decrease of \$78.0 million from the record \$156.0 million earned during 2018. The company-wide profit sharing plan represents 8% of pretax earnings; therefore, our lower 2019 earnings resulted in lower profit sharing.

Interest Expense, net of Capitalized Interest. During 2019, interest expense of \$127.1 million was comparable to the \$126.6 million incurred during 2018, based on consistent debt levels during the majority of both years.

Income Tax Expense. During 2019, income tax expense of \$197.4 million, representing an effective income tax rate of 22.6%, was down 46% from the \$364.0 million, representing an effective income tax rate of 22.5%, during 2018, consistent with lower pretax earnings.

Included in the balance of unrecognized tax benefits of \$10.2 million at December 31, 2019, were potential benefits of \$6.0 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, 2019, we recognized a benefit from the decrease of interest expense of \$400,000, net of tax. In addition to the unrecognized tax benefits noted above, we had \$1.4 million accrued for the payment of interest and penalties at December 31, 2019.

We file income tax returns in the United States federal jurisdiction as well as income tax returns in various state jurisdictions. We have concluded U.S. federal income tax audits through 2015. We are subject to examination and proposed adjustments by the IRS for years 2016 through 2018, and tax years 2015 through 2018 remain open to various state and local jurisdictions. 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 in an amount ranging from zero to \$3.3 million, as a result of the expiration of the statute of limitations and other federal and state income tax audits.

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, stock repurchases, 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 unsecured Revolver. Our liquidity at December 31, 2019, is as follows (in thousands):

Cash and equivalents	\$1,381,460
Short-term investments	262,174
Unsecured revolver availability	1,158,039
Total liquidity	\$2,801,673

In October 2019, our corporate credit rating was upgraded to an investment grade credit designation by three credit rating agencies.

In December 2019, we entered into a new unsecured credit agreement which has a senior unsecured revolving credit facility (Facility), which provides a \$1.2 billion unsecured Revolver, and matures in December 2024. Subject to certain conditions, we have the opportunity to increase the Facility size by \$500.0 million. The unsecured 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 to incur indebtedness and permit liens on property. Our ability to borrow funds within the terms of the unsecured Revolver is dependent upon our continued compliance with the financial and other covenants. At December 31, 2019, we had \$1.2 billion of availability on the Revolver, \$42.0 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 debt to capitalization ratio of not more than 0.60:1.00 must be maintained. At December 31, 2019, our interest coverage ratio and debt to capitalization ratio were 10.72:1.00 and 0.40:1.00, respectively. We were, therefore, in compliance with these covenants at December 31, 2019, and we anticipate we will continue to be in compliance during the next twelve months.

In December 2019, we issued \$400.0 million of 2.800% senior notes due 2024 (the "2024 Notes"), and \$600.0 million of 3.450% senior notes due 2030 (the "2030 Notes"), the net proceeds of which were used to fund the call and redemption of all \$700.0 million of our 5.125% Senior Notes due 2021 (the "2021 Notes") in accordance with the indenture governing our 2021 Notes, and for general corporate purposes. 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

Our total outstanding debt increased \$357.6 million during 2019, due to our December 2019 issuance of the 2024 Notes and 2030 Notes as described above. 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) was 40.2% and 37.9% at December 31, 2019, and December 31, 2018, respectively.

Working Capital. We generated cash flow from operations of \$1.4 billion in 2019. Operational working capital (representing amounts invested in trade receivables and inventories, less current liabilities other than income taxes payable and debt) decreased \$339.5 million, excluding the effect of acquired USS working capital, to \$1.6 billion at December 31, 2019, due primarily to decreased accounts receivable and inventories consistent with decreased sales and inventory costs.

Capital Investments. During 2019, we invested \$451.9 million in property, plant and equipment, primarily within our steel operations segment, compared with \$239.4 million invested during 2018. The increase in 2019 relates primarily to organic steel growth opportunities, including our new electric arc furnace flat roll steel mill currently under construction in Sinton, Texas.

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 28% to \$0.2400 per share in the first quarter 2019 (from \$0.1875 per share in 2018), resulting in declared cash dividends of \$209.5 million during 2019, compared to \$174.4 million during 2018. We paid cash dividends of \$200.3 million and \$168.9 million during 2019 and 2018, 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.

Other. In August 2018, our board of directors authorized a share repurchase program of up to \$750 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 11.3 million shares of our common stock for \$348.6 million in 2019, leaving \$50.5 million remaining available to purchase under the program at December 31, 2019. See Part II, 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.

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, 2019 (in thousands):

	Payments Due By Period				
	Total	2020	2021 & 2022	2023 & 2024	2025 & After
Long-term debt ⁽¹⁾	\$2,764,472	\$ 89,356	\$ 7,976	\$1,307,082	\$1,360,058
Estimated interest payments on debt ⁽²⁾	710,920	121,513	236,952	192,709	159,746
Purchase obligations ⁽³⁾	677,652	240,832	223,621	62,640	150,559
Construction commitments ⁽⁴⁾	820,429	734,029	86,400	_	_
Lease commitments	84,441	20,201	30,991	18,194	15,055
Other commitments ⁽⁵⁾	1,626	250	425	400	551
Total ⁽⁶⁾	\$5,059,540	\$1,206,181	\$586,365	\$1,581,025	\$1,685,969

- (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 5¼% on our \$400.0 million senior unsecured notes due April 2023; 2.800% on our \$400.0 million senior unsecured notes due December 2024; 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; 3.450% on our \$600.0 million senior unsecured notes due April 2030; 0.175% commitment fee on our available Revolver; and an average of 3.7% on our other debt of \$114.5 million.
- (3) Purchase obligations include commitments we have for the purchase of such commodities as electricity, water, natural gas and its transportation services, fuel, air products, zinc, and electrodes. 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. Purchase obligations related to the start-up of our new Southwest-Sinton Flat Roll Division total \$137.3 million, starting in 2021. Refer to Note 9. *Commitments and Contingencies* to the consolidated financial statements elsewhere in this report for additional information.
- (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, 2019. Construction commitments related to our new Southwest-Sinton Flat Roll Division mill comprise \$681.9 million of this total, including the \$86.4 million in 2021. Refer to Note 9. *Commitments and Contingencies* to the consolidated financial statements elsewhere in this report for additional information.
- (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 \$11.6 million as of December 31, 2019, 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 2019, we incurred costs related to the monitoring and compliance of environmental matters in the amount of approximately \$32.1 million and capital expenditures related to environmental compliance of approximately \$2.3 million. Of the costs incurred during 2019 for monitoring and compliance, approximately 68% 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 \$1.3 million at all of our facilities during 2019. We have an accrual of \$3.6 million recorded for environmental remediation related to our metals recycling operations, and \$2.6 million related to our 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 at the point in time the performance obligation is satisfied, and control of the product is transferred to the customer upon shipment or delivery, at the amount of consideration the company expects to receive, including any variable consideration. The variable consideration included in the company's steel operations segment contracts, which is not constrained, include estimated product returns and customer claims, and may include volume rebates which are recorded on an expected value basis. Our steel fabrication operations segment recognizes revenue over time at the amount of consideration the company expects to receive. Revenue is measured on an output method representing completed fabricated tons to date as a percentage of total tons required for each contract. The company does not exercise significant judgements in determining the timing of satisfaction of performance obligations or the transaction price. 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. The allowance for doubtful accounts is based on our best estimate of known credit risks, historical experience, and current economic conditions affecting our customers, 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 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, 2019, and 2018, the company reported \$8.0 million and \$8.3 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, 2019 and 2018, 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.

Goodwill.

Our goodwill, relating to various business combinations, consisted of the following at December 31 (in thousands):

2019	2018
\$272,133	\$245,473
178,857	182,247
1,925	1,925
\$452,915	\$429,645
	\$272,133 178,857

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 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 of the reporting unit, there is no impairment. If the carrying amount exceeds the fair value, we recognize an impairment loss in the amount by which the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, with the impairment loss not to exceed the amount of goodwill allocated to the reporting unit.

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 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 in spite of realizing actual cash flows that are approximately equal to or greater than our previously forecasted amounts.

Our fourth quarter 2019, 2018, and 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 the 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 2020. 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.

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; however, we have not done so during 2019, 2018, or 2017.

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, 2019 (in thousands):

	Interest Rate Risk			
	Fixed Rate		Fixed Rate Variable	
	Principal	Average Rate	Principal	Average Rate
Expected maturity date:				
2020	\$ 5,697	6.0%	\$83,659	3.1%
2021	3,644	5.9	35	5.1
2022	3,923	5.5	374	5.1
2023	403,703	5.3	_	
2024	903,379	4.3	_	
Thereafter	1,360,058	4.1	_	
Total debt outstanding	\$2,680,404	4.3%	\$84,068	3.1%
Fair value	\$2,750,674		\$84,068	

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, water, 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 generally up to 5 years for physical commodity requirements and commodity transportation requirements, with some extending beyond, and for up to 13 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):

2020	\$240,832
2021	118,613
2022	105,008
2023	32,752
2024	29,888
Thereafter	150,559
	\$677,652

We utilized such "take or pay" requirements during the past three years under these contracts, except for certain air products at our idle Minnesota ironmaking operations. 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 2020, 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 and steel operations, we have certain fixed price contracts with various customers and suppliers for future delivery of nonferrous and ferrous 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, 2019, we had a cumulative unrealized loss associated with these financial contracts of \$456,000, substantially all of which have settlement dates in 2020. We believe the customer contracts associated with the financial contracts will be fully consummated.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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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.

We acquired United Steel Supply, LLC (USS) on March 1, 2019. In conducting our evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2019, we have elected to exclude USS from our evaluation in the year of acquisition as permitted by the Securities and Exchange Commission. USS constituted approximately 3% of the company's total and net assets as of December 31, 2019, and 3% of the company's net sales for the year then ended.

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, 2019, the end of the period covered by this report.

/s/ Mark D. Millett/s/ Theresa E. WaglerChief Executive OfficerExecutive 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 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, 2019, 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, 2019, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of United Steel Supply, LLC, which is included in the 2019 consolidated financial statements of the Company and constituted 3% of total and net assets, respectively, as of December 31, 2019 and 3% of net sales for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of United Steel Supply, LLC.

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, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and our report dated February 27, 2020, 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, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors 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, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We have also 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, 2019, 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, 2020 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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of Goodwill

Description of the Matter

At December 31, 2019, the Company's goodwill was approximately \$453 million. As discussed in Note 1 of the consolidated financial statements, the Company performs an impairment test for goodwill at least annually or when indicators of impairment exist.

Auditing management's goodwill impairment test was complex and judgmental due to the significant estimation required to determine the fair value of the reporting units. In particular, the fair value estimate was sensitive to significant assumptions, such as estimates of future cash flows and changes in the risk-adjusted discount rate, which are affected by expectations about future market or economic conditions and the impact of planned business and operation strategies.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill impairment review process, including controls over management's review of the assumptions and methodologies used in the calculation of the fair value of the reporting units, as well as the Company's review of the completeness and accuracy of the data used in the Company's analysis.

To test the estimated fair value of each of the Company's reporting units, we performed audit procedures that included, among others, testing the underlying assumptions used in the Company's analysis, testing the completeness and accuracy of the underlying estimates of future cash flows used by management and testing the calculation of the fair value of each reporting unit. We compared the assumptions used by management to historical results. We assessed the historical accuracy of management's estimates and performed sensitivity analyses over certain assumptions used by management to evaluate the changes in the fair value of each of the reporting units that would result from changes in those assumptions. In addition, we involved our specialist to assist with our evaluation of the methodologies applied and assumptions used by management.

Acquisition

Description of the Matter

As described in Note 2 to the consolidated financial statements, on March 1, 2019, the Company completed an acquisition of 75% of the equity interest of United Steel Supply, LLC (USS).

Auditing the accounting for the Company's 2019 acquisition of USS was complex due to the estimation uncertainty in determining the fair value of identified intangible assets, which principally consisted of customer relationships. The significant estimation uncertainty was primarily due to the sensitivity of the respective fair value to underlying assumptions about the future performance of the acquired business. The Company used the multi-period excess earnings method to value the customer relationships.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's acquisition process, including controls over management's review of the assumptions and methodologies used in the calculation of fair value of customer relationships, as well as the Company's review of the completeness and accuracy of the data used in the Company's analysis.

To test the estimated fair value of the customer relationships, we performed audit procedures that included, among others, testing the underlying assumptions used in the Company's analysis, testing the completeness and accuracy of the underlying data used by management, and testing the calculation of the fair value. We compared the forecasted revenue and earnings to current trends as well as the historic financial performance of the acquired business. We also performed sensitivity analyses to evaluate the changes in the fair value of the customer relationships that would result from changes in the significant assumptions. We involved our specialist to assist with our evaluation of the methodologies applied and assumptions used by management.

/s/ Ernst & Young LLP

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

Indianapolis, Indiana February 27, 2020

STEEL DYNAMICS, INC. CONSOLIDATED BALANCE SHEETS (in thousands, except share data)

	Decem	ber 31.
	2019	2018
Assets		
Current assets		
Cash and equivalents	\$ 1,381,460	\$ 828,220
Short-term investments	262,174	228,783
Accounts receivable, net of related allowances of \$15,867 and \$17,495 as of		
December 31, 2019, and December 31, 2018, respectively	841,378	1,040,220
Accounts receivable-related parties	2,958	3,536
Inventories	1,689,043	1,859,168
Other current assets	76,012	72,730
Total current assets	4,253,025	4,032,657
Property, plant and equipment, net	3,135,886	2,945,767
of December 31, 2019, and December 31, 2018, respectively	327,901	270,328
Goodwill	452,915	429,645
Other assets	106,038	25,166
Total assets	\$ 8,275,765	\$ 7,703,563
Liabilities and Equity		
Current liabilities		
Accounts payable	\$ 509,687	\$ 536,743
Accounts payable-related parties	3,657	14,011
Income taxes payable	2,014	7,468
Accrued payroll and benefits	208,287	264,542
Accrued interest	18,292	25,526 146,613
Accrued expenses	175,405 89,356	24,234
Total current liabilities	1,006,698	1,019,137
Total cultent habilities	1,000,070	1,017,137
Long-term debt	2,644,988	2,352,489
Deferred income taxes	484,169	435,838
Other liabilities	75,055	8,870
Total liabilities	4,210,910	3,816,334
Commitments and contingencies		
Redeemable noncontrolling interests	143,614	111,240
	- ,~ - •	,
Equity Common stock voting, \$.0025 par value; 900,000,000 shares authorized; 266,072,787 and 265,822,402 shares issued; and 214,502,639 and		
225,272,174 shares outstanding, as of December 31, 2019, and December 31, 2018, respectively	646	645
Treasury stock, at cost; 51,570,148 and 40,550,228 shares, as of December 31,	040	043
2019, and December 31, 2018 respectively	(1,525,113)	(1,184,243)
Additional paid-in capital	1,181,012	1,160,048
Retained earnings	4,419,296	3,958,320
Accumulated other comprehensive income (loss)	(7)	301
Total Steel Dynamics, Inc. equity	4,075,834	3,935,071
Noncontrolling interests	(154,593)	(159,082)
Total equity	3,921,241	3,775,989
Total liabilities and equity	\$ 8,275,765	\$ 7,703,563

STEEL DYNAMICS, INC. CONSOLIDATED STATEMENTS OF INCOME

(in thousands, except per share data)

	Years Ended December 31,				
	2019	2018	2017		
Net sales					
Unrelated parties	\$10,451,132	\$11,801,609	\$9,364,213		
Related parties	13,859	20,230	174,584		
Total net sales	10,464,991	11,821,839	9,538,797		
Total flet sales	10,404,991	11,041,039	7,330,171		
Costs of goods sold	8,934,007	9,499,025	7,956,783		
Gross profit	1,530,984	2,322,814	1,582,014		
Selling, general and administrative expenses	436,498	416,640	394,631		
Profit sharing	78,029	155,985	91,309		
Amortization of intangible assets	29,577	27,780	29,193		
Operating income	986,880	1,722,409	1,066,881		
Interest expense, net of capitalized interest	127,104	126,620	134,399		
Other income, net	(15,561)	(23,985)	(2,753)		
Income before income taxes	875,337	1,619,774	935,235		
Income tax expense	197,437	363,969	129,439		
Net income.	677,900	1,255,805	805,796		
Net (income) loss attributable to noncontrolling interests	(6,797)	2,574	6,945		
Net income attributable to Steel Dynamics, Inc	\$ 671,103	\$ 1,258,379	\$ 812,741		
Net income attributable to Steel Dynamics, Ilic	Ψ 0/1,103	ψ 1,230,379	φ 012,741		
Basic earnings per share attributable to Steel Dynamics,					
Inc. stockholders	\$ 3.06	\$ 5.38	\$ 3.38		
Weighted average common shares outstanding	219,639	233,923	240,132		
Diluted earnings per share attributable to Steel Dynamics, Inc. stockholders, including the effect of assumed conversions when dilutive	\$ 3.04	\$ 5.35	\$ 3.36		
Weighted average common shares and share equivalents outstanding	220,748	235,193	241,781		
Dividends declared per share	\$ 0.96	\$ 0.75	\$ 0.62		

STEEL DYNAMICS, INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (in thousands)

	Years Ended December 31,			
	2019	2018	2017	
Net income	\$677,900	\$1,255,805	\$805,796	
Other comprehensive income (loss) - net unrealized gain (loss) on cash flow hedging derivatives, net of income tax benefit of \$96 and income tax expense of \$94 for 2019 and 2018,				
respectively	(308)	301	_	
Comprehensive income	677,592	1,256,106	805,796	
Comprehensive (income) loss attributable to noncontrolling				
interests	(6,797)	2,574	6,945	
Comprehensive income attributable to Steel Dynamics,				
Inc	\$670,795	\$1,258,680	\$812,741	

STEEL DYNAMICS, INC. CONSOLIDATED STATEMENTS OF EQUITY (in thousands)

	Sha		Common		Additional Paid-In			Noncontrolling	Total	Redeemable Noncontrolling
	Common	Treasury	Stock	Stock	Capital	Earnings	Income	Interests	Equity	Interests
Balances at January 1,										
2017	243,785	20,345	\$641	\$ (416,829)	\$1,132,749	\$2,210,459	\$ —	\$(149,561)	\$2,777,459	\$111,240
Dividends declared	_	_	_	_	_	(148,231)	<u> </u>	_	(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
Dividends declared	_	_	_	_	_	(174,355)	_	_	(174,355)	_
Noncontrolling investors,										
net	_	_	_	_	_	_	_	(2)	(2)	_
Share repurchases	(13,129)	13,129	_	(523,569)	_	_	_		(523,569)	_
Equity-based compensation	1,004	(185)	1	4,623	18,514	(397)	_	_	22,741	_
Net income (loss)			_	· —	_	1,258,379	_	(2,574)	1,255,805	_
Other comprehensive income,								, ,		
net of tax							301		301	
Balances at December 31,										
2018	225,272	40,550	645	(1,184,243)	1,160,048	3,958,320	301	(159,082)	3,775,989	111,240
Dividends declared	_	_	_	_	_	(209,513)	_	_	(209,513)	_
Noncontrolling investors,										
net	_	_	_	_	_	_	_	(2,308)	(2,308)	32,374
Share repurchases	(11,282)	11,282	_	(348,608)	_	_	_	_	(348,608)	_
Equity-based compensation	513	(262)	1	7,738	20,964	(614)	_	_	28,089	_
Net income (loss)	_	_	_	_	_	671,103	_	6,797	677,900	_
Other comprehensive loss, net										
of tax							(308)		(308)	
Balances at December 31,										
2019	214,503	51,570	<u>\$646</u>	<u>\$(1,525,113)</u>	<u>\$1,181,012</u>	<u>\$4,419,296</u>	<u>\$ (7)</u>	<u>\$(154,593)</u>	\$3,921,241	\$143,614

STEEL DYNAMICS, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (in thousands)

	Years Ended December 31,			
	2019	2018	2017	
Operating activities:				
Net income	\$ 677,900	\$1,255,805	\$ 805,796	
Adjustments to reconcile net income to net cash provided by				
operating activities:				
Depreciation and amortization	321,082	317,198	298,999	
Equity-based compensation	47,631	43,317	36,197	
Deferred income taxes	51,721	61,827	(135,899)	
Other adjustments	1,413	(1,245)	14,068	
Changes in certain assets and liabilities:				
Accounts receivable	237,805	(145,873)	(139,054)	
Inventories	217,866	(246,213)	(242,883)	
Other assets	13,735	(3,475)	4,002	
Accounts payable	(86,445)	37,904	96,062	
Income taxes receivable/payable	(12,095)	26,471	(33,889)	
Accrued expenses	(74,323)	69,753	36,021	
Net cash provided by operating activities	1,396,290	1,415,469	739,420	
Investing activities:				
Purchases of property, plant and equipment	(451,945)	(239,390)	(164,935)	
Purchases of short-term investments	(396,159)	(268,783)		
Proceeds from maturities of short term investments	362,768	40,000		
Acquisition of business, net of cash acquired	(97,106)	(433,998)	(6,192)	
Other investing activities	5,756	6,907	32,022	
Net cash used in investing activities	(576,686)	(895,264)	(139,105)	
Financing activities:				
Issuance of current and long-term debt	1,573,962	445,607	620,041	
Repayment of current and long-term debt	(1,264,152)	(455,491)	(609,914)	
Dividends paid	(200,271)	(168,913)	(145,565)	
Purchases of treasury stock	(348,608)	(523,569)	(252,242)	
Other financing activities	(27,561)	(18,501)	(25,655)	
Net cash used in financing activities	(266,630)	(720,867)	(413,335)	
Increase (decrease) in cash and equivalents, and restricted cash	552,974	(200,662)	186,980	
Cash and equivalents, and restricted cash at beginning of period	834,423	1,035,085	848,105	
Cash and equivalents, and restricted cash at end of period	\$ 1,387,397	\$ 834,423	\$1,035,085	
Supplemental disclosure information:				
Cash paid for interest	\$ 134,550	\$ 124,034	\$ 135,381	
Cash paid for income taxes, net	\$ 155,525	\$ 288,429	\$ 296,493	

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 six locations is represented by collective bargaining agreements, none of which expire during 2020.

Steel Operations Segment

Steel operations include the company's Butler Flat Roll Division, Columbus Flat Roll Division, The Techs galvanizing lines, Heartland Flat Roll Division – acquired June 29, 2018, United Steel Supply (USS) – acquired 75% equity interest March 1, 2019, Structural and Rail Division, Engineered Bar Products Division, Vulcan Threaded Products, Inc. (Vulcan), 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 coating and processing lines. Steel operations accounted for 76%, 75%, and 72% of the company's consolidated net sales during 2019, 2018, and 2017, respectively.

Metals Recycling Operations Segment

Metals recycling operations consists solely of OmniSource, LLC (OmniSource), and includes both ferrous and nonferrous processing, transportation, marketing, brokerage, and scrap management services. Metals recycling operations accounted for 11%, 13%, and 15% of the company's consolidated net sales during 2019, 2018, and 2017, respectively.

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%, 8%, and 9% of the company's consolidated net sales during 2019, 2018, and 2017, respectively.

Other

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

The idle Minnesota ironmaking operations consist of Mesabi Nugget, (owned 84% by SDI); the company's wholly-owned iron concentrate and potential iron mining operations, Mesabi Mining; and the company's wholly-owned iron tailings operations, 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. Noncontrolling and redeemable noncontrolling interests represent the noncontrolling owners' 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

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

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 from Contracts with Customers

The company adopted Accounting Standards Codification ASC 606, Revenue from Contracts with Customers (ASC 606), effective January 1, 2018, using the modified retrospective approach. We applied the standard to contracts that were not completed as of the adoption date, with no cumulative effect adjustment at date of adoption. Accordingly, amounts and disclosures for reporting periods 2018 and 2019, are presented under ASC 606, while comparative amounts and disclosures for 2017 have not been adjusted and continue to be reported in accordance with historical accounting policies for revenue recognition prior to the adoption of ASC 606.

In the steel and metals recycling operations segments, revenue is recognized at the point in time the performance obligation is satisfied, and control of the product is transferred to the customer upon shipment or delivery, at the amount of consideration the company expects to receive, including any variable consideration. The variable consideration included in the company's steel operations segment contracts, which is not constrained, include estimated product returns and customer claims based on historical experience, and may include volume rebates which are recorded on an expected value basis. Revenue recognized is limited to the amount the company expects to receive. The company does not exercise significant judgements in determining the timing of satisfaction of performance obligations or the transaction price. Shipment of products to customers is considered a fulfillment activity with amounts billed to customers included in sales and costs associated with such included in cost of goods sold.

The company's steel fabrication operations segment recognizes revenue over time at the amount of consideration the company expects to receive. Revenue is measured on an output method representing completed fabricated tons to date as a percentage of total tons required for each contract. Revenue from fabrication of tons remaining on partially fabricated customer contracts as of a reporting date, and revenue from yet to be fabricated customer contracts, has not been disclosed under the practical expedient in paragraph ASC 606-10-50-14 related to customer contracts with expected duration of one year or less. The company does not exercise significant judgements in determining the timing of satisfaction of performance obligations or the transaction price. Shipment of products to customers, which occurs after control over the product has transferred to the customer and revenue is recognized, is considered a fulfillment activity with amounts billed to customers included in sales and costs associated with such included in cost of goods sold.

Payments from customers for all operating segments are generally due within 30 days of invoicing, which generally occurs upon shipment of the products. Shipment for the steel fabrication operations segment generally occurs within 30 days of satisfaction of the performance obligation and revenue recognition. The company does not have financing components. Payments from customers have historically generally been within these terms, however, payments for non-U.S. sales may extend longer. The allowance for doubtful accounts for all operating segments is based on the company's best estimate of known credit risks, historical 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.

Refer to Note 13. *Segment Information*, for disaggregated revenue by segment to external, external non-United States, and other segment customers.

Cash and Equivalents, and Restricted 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 and equivalents is primarily funds held in escrow as required by various insurance and government organizations. The balance of cash, cash equivalents and restricted cash in the

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

consolidated statements of cash flows includes restricted cash of \$5.9 million, \$6.2 million, \$6.4 million, and \$6.6 million at December 31, 2019, 2018, 2017, and 2016, respectively, which are recorded in Other Assets (noncurrent) in the company's consolidated balance sheets.

Short-term Investments

The short-term investments are classified as trading securities, and interest income is recorded as earned. The company's short-term investments were \$262.2 million and \$228.8 million as of December 31, 2019, and 2018, respectively. The short-term investments held as of December 31, 2019, consisted of certificate of deposits (\$41.1 million) and commercial paper (\$221.1 million), with contractual maturities of less than one year, when purchased. Short-term investments held as of December 31, 2018, consisted of certificate of deposits (\$130.0 million), commercial paper (\$59.2 million), and U.S. Treasuries (\$39.6 million), with contractual maturities of less than one year, when purchased.

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):

	2019	2018
Raw materials	\$ 686,831	\$ 810,766
Supplies	498,298	436,828
Work in progress	154,669	195,224
Finished goods	349,245	416,350
Total inventories	\$1,689,043	\$1,859,168

Property, Plant and Equipment

Property, plant and equipment are stated at cost, except for assets acquired in acquisitions which are valued at fair value, 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 steel segment assets, based on units produced, subject to minimum and maximum levels. Depreciation expense was \$285.6 million, \$283.3 million, and \$263.7 million for the years ended December 31, 2019, 2018, and 2017, respectively.

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

	2019	2018
Land and improvements	\$ 333,879	\$ 331,926
Buildings and improvements	805,381	778,701
Plant, machinery and equipment	4,594,778	4,416,212
Construction in progress	390,676	158,131
	6,124,714	5,684,970
Less accumulated depreciation	2,988,828	2,739,203
Property, plant and equipment, net	\$3,135,886	\$2,945,767

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

Intangible Assets

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

	2019	2018	Useful Life	Average Amortization Period
Customer and scrap generator relationships	\$501,212	\$435,262	5 to 25 years	22 years
Trade names	147,950	127,350	15 to 25 years	19 years
Other	1,350	2,165	5 years	5 years
	650,512	564,777		21 years
Less accumulated amortization	322,611	294,449		
	\$327,901	\$270,328		

Waighted

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 \$29.6 million, \$27.8 million, and \$29.2 million for the years ended December 31, 2019, 2018, and 2017, respectively. Estimated amortization expense related to amortizable intangibles for the years ending December 31 is as follows (in thousands):

2020	\$ 28,199
2021	
2022	
2023	
2024	
Thereafter	200,617
Total	\$327,901

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 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, 2019, and 2018, the company reported \$8.0 and \$8.3 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 years ended December 31, 2019 and 2018, the asset carrying amounts approximated their fair value less cost to sell.

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

Goodwill

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

	2019	2018
Steel Operations Segment	\$272,133	\$245,473
Metals Recycling Operations Segment	178,857	182,247
Steel Fabrication Operations Segment	1,925	1,925
	\$452,915	\$429,645

The increase in Steel Operations Segment goodwill at December 31, 2019 is due to the company acquiring a 75% equity interest in United Steel Supply on March 1, 2019 (refer to Note 2. *Acquisition – United Steel Supply, LLC*), and as a result of that acquisition recorded \$26.7 million of goodwill. Metals Recycling Operations Segment goodwill decreased \$3.4 million in 2019 in recognition of the 2019 tax benefit related to the normal amortization of the component of OmniSource tax-deductible goodwill in excess of book goodwill. Cumulative OmniSource goodwill impairment charges were \$346.8 million at December 31, 2019 and 2018.

Impairment of Goodwill

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 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, Fair Value Measurement. If the fair value exceeds the carrying value of the reporting unit, there is no impairment. If the carrying amount exceeds the fair value, the company recognizes an impairment loss in the amount by which the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, with the impairment loss not to exceed the amount of goodwill allocated to the reporting unit. No impairment was identified during the company's 2019, 2018 and 2017 annual goodwill 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, stock appreciation awards, 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 \$43.3 million, \$38.7 million, and \$36.6 million for the years ended December 31, 2019, 2018, and 2017, respectively.

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

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

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, 2019, 2018, and 2017.

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):

	2019				2018	
	Net Income (Numerator)	Shares (Denominator)	Per Share Amount	Net Income (Numerator)	Shares (Denominator)	Per Share Amount
Basic earnings per share	\$671,103	219,639	\$3.06	\$1,258,379	233,923	\$5.38
Dilutive common share						
equivalents		1,109			1,270	
Diluted earnings per share	\$671,103	220,748	\$3.04	\$1,258,379	235,193	\$5.35
			_		2017	
				Net Income Numerator)	Shares (Denominator)	Per Share Amount
Basic earnings per share				\$812,741	240,132	\$3.38
Dilutive common share equivalents				_	1,649	
Diluted earnings per share				\$812,741	241,781	\$3.36

Concentration of Credit Risk

Financial instruments that potentially subject the company to significant concentrations of credit risk principally consist of temporary cash investments, short-term investments, and accounts receivable. The company places its temporary cash and short-term 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.

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 for fair value hedges. 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 metallic 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

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

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 exchange traded futures and option contracts to manage price risk associated with nonferrous metal inventory, as well as purchases and sales of nonferrous and ferrous metals (primarily aluminum and copper), 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

Refer to Note 12. *Leases*, for the company's adoption of ASU 2016-02, Leases (ASC 842), effective January 1, 2019, and related required adoption and ongoing disclosures.

In January 2017, the Financial Accounting Standards Board, (FASB) issued ASU 2017-04: "Intangibles – Goodwill and Other (Topic 350) – Simplifying the Test for Goodwill Impairment" (ASU 2017-04). This ASU eliminates the second step in the goodwill impairment test which requires an entity to determine the implied fair value of the reporting unit's goodwill. Instead, an entity should recognize an impairment loss if the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, with the impairment loss not to exceed the amount of goodwill allocated to the reporting unit. ASU 2017-04 is effective for annual and interim goodwill impairment tests conducted in fiscal years beginning after December 15, 2019, with early adoption permitted. The company early adopted ASU 2017-04, pursuant to its October 1, 2019, annual goodwill impairment analysis, which adoption had no impact to the company's financial position, results of operations or cash flows, given there was no impairment of goodwill indicated.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses, and its subsequent corresponding updates: which requires an entity to use a forward-looking expected loss model versus the current incurred loss model for most financial instruments, including accounts receivable. This new guidance is effective for annual and interim periods beginning after December 15, 2019, but can be early adopted. During the fourth quarter 2019, the company completed its adoption plan of evaluating policies, processes and systems to determine the impact ASU 2016-13 will have in its consolidated financial statements and related disclosure. The company will adopt ASU 2016-13 effective January 1, 2020, which adoption is not expected to result in an impact to the company's financial position, results of operations or cash flows.

Note 2. Acquisitions

United Steel Supply

On March 1, 2019, the company purchased 75% of the equity interest of United Steel Supply, LLC (USS) for cash consideration of \$93.4 million, plus a customary working capital transaction purchase price adjustment of \$3.7 million, which was paid in September 2019. Additionally, the company has an option to purchase, and the sellers have the option to require the company to purchase, the remaining 25% equity interest of USS in the future. Headquartered in Austin, Texas, USS is a leading distributor of painted Galvalume[®] flat roll steel used for roofing and siding applications, with distribution centers strategically located in Mississippi, Indiana, Arkansas, and Oregon. USS provides the steel segment a new, complementary distribution channel and connects it to a rapidly growing industry segment with customers that do not traditionally purchase steel directly from a steel producer. USS's operating results from and after March 1, 2019, are reflected in the company's financial statements in the steel operations reporting segment.

The aggregate purchase price was allocated to the opening balance sheet of USS as of the March 1, 2019, acquisition date based on the company's valuation of the fair value of the acquired assets, liabilities, and identifiable intangible assets (in thousands).

Note 2. Acquisitions (continued)

	As Initially Reported	Measurement Period Adjustments	As Adjusted
Current assets, net of cash acquired	\$ 94,020	\$ (7,784)	\$ 86,236
Property, plant & equipment	7,388	_	7,388
Intangible assets	_	87,150	87,150
Goodwill	101,918	(75,258)	26,660
Total assets acquired	203,326	4,108	207,434
Liabilities assumed	81,224	(3,270)	77,954
Redeemable noncontrolling interest	28,690	3,684	32,374
Net assets acquired	\$ 93,412	\$ 3,694	\$ 97,106

The fair values of inventory were determined on the market approach, property, plant and equipment on the market and cost approaches, identifiable intangible assets on the income approach (customer relationships using the multi-period excess earnings method and trade name using relief-from-royalty method), and redeemable noncontrolling interest on the market approach. The company utilized a third party valuation firm to assist in the determination of fair value of customer relationships and trade name. The company has determined that nonrecurring fair value measurements related to certain assets acquired rely primarily on company-specific inputs and the company's assumptions about the use of the assets, as observable inputs, which are not available, and as such, reside within Level 3 as provided for under ASC 820.

Upon the working capital settlement during the third quarter, there were changes to the initially reported amounts for current assets and liabilities assumed, redeemable noncontrolling interest, and net assets acquired. Upon receipt of the final valuation report from a third-party valuation firm during the fourth quarter 2019, the company's fair value of the customer relationship and trade name intangible assets amounting to \$66.0 million and \$20.6 million, respectively, were recorded in 2019. These changes resulted in a decrease in goodwill to the final amount of \$26.7 million.

Goodwill recognized from the acquisition primarily relates to the expected contributions of USS to the overall steel segment strategy in addition to the acquired workforce, which is not separable from goodwill. The goodwill is deductible for tax purposes. The identifiable intangible assets related to the acquisition consisted primarily of customer relationships and trade name, with estimated useful lives of 25 years.

The company utilizes an accelerated amortization method for customer relationships so as to follow the pattern in which the economic benefits of the intangible assets are anticipated to be consumed. The related customer relationships and trade name intangible assets aggregate amortization expense recognized for the year ended December 31, 2019 was \$2.3 million; and the estimated amortization expense for the next five years, and thereafter is: 2020 - \$2.4 million, 2021 - \$2.5 million, 2022 - \$3.4 million, 2023 - \$3.9 million, 2024 - \$4.5 million, and thereafter - \$68.2 million.

Heartland

On June 29, 2018, the company completed its acquisition of 100% of Heartland Steel Processing, LLC (formerly known as Companhia Siderurgica Nacional, LLC) (Heartland), for an initial cash purchase price of \$396.4 million, plus a customary working capital transaction purchase price adjustment of \$37.6 million, which was paid in September 2018. Located in Terre Haute, Indiana, Heartland produces various types of higher-margin, flat roll steel by further processing hot roll coils into pickle and oil, cold roll, and galvanized products. The acquisition expanded the company's annual flat roll steel shipping capacity of lighter-gauge and greater width flat roll steel offerings that broadens and diversifies the company's value-added product portfolio and provides operational and logistics benefits to other nearby operations. Heartland's post-acquisition operating results are reflected in the company's financial statements in the steel operations reporting segment.

Note 3. Long-Term Debt

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

	2019	2018
$5^{1}/_{4}\%$ senior notes due 2023	\$ 400,000	\$ 400,000
2.800% senior notes due 2024	400,000	_
5.500% senior notes due 2024	500,000	500,000
4.125% senior notes due 2025	350,000	350,000
5.000% senior notes due 2026	400,000	400,000
3.450% senior notes due 2030	600,000	_
5.125% senior notes due 2021	_	700,000
Other obligations	114,472	51,393
Total debt	2,764,472	2,401,393
Less debt issuance costs	30,128	24,670
Total amounts outstanding	2,734,344	2,376,723
Less current maturities	89,356	24,234
Long-term debt	\$2,644,988	\$2,352,489

Financing Activity

In December 2019, the company issued \$400.0 million of 2.800% senior notes due 2024 and \$600.0 million of 3.450% senior notes due 2030, the proceeds of which were used to fund the December 2019 call and repayment at a redemption price of 100.000% of the \$700.0 million outstanding principal amount of the company's 5.125% senior notes due 2021, plus accrued and unpaid interest to, but not including, the date of repayment and general corporate purposes. The company recorded expenses related to write off of unamortized debt issuance costs and other expenses of \$3.7 million, which are reflected in other expenses in the consolidated statements of income for the year ended December 31, 2019.

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 income for the year ended December 31, 2017.

Senior Credit Facility, due 2024

In December 2019, the company entered into a new unsecured credit agreement which has a senior unsecured revolving credit facility (Facility) which provides a \$1.2 billion unsecured Revolver, which matures December 3, 2024. The new Credit Agreement replaces the secured June 2018 Third Amended and Restated Credit Agreement. Subject to certain conditions, the company has the ability to increase the facility size by \$500.0 million. The Facility is available to fund working capital, capital expenditures, and other general corporate purposes. The Facility contains financial covenants and other covenants pertaining to the company's ability to incur indebtedness, and permit liens on property. The company's ability to borrow funds within the terms of the Facility is dependent upon its continued compliance with the financial and other covenants. At December 31, 2019, the company had \$1.2 billion of availability on the Revolver, \$42.0 million of outstanding letters of credit and other obligations which reduce availability, and there were no borrowings outstanding.

Note 3. Long-Term Debt (continued)

The Facility pricing grid is adjusted quarterly and is based on either 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), or our credit ratings. The minimum pricing is LIBOR plus 1.125% or Prime plus 0.125%, and the maximum pricing is LIBOR plus 1.75% or Prime plus 0.75%. In addition, the company is subject to an unused commitment fee of between 0.15% and 0.275% (based on either our leverage of net debt to LTM consolidated adjusted EBITDA, or our credit ratings) which is applied to the unused portion of the Revolver.

The financial covenants under the Facility state that the company 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 last-twelve-months (LTM) consolidated adjusted EBITDA by its LTM gross interest expense, less amortization of financing fees. In addition, a debt to capitalization ratio of not more than 0.60:1.00 must be maintained. At December 31, 2019, the company's interest coverage ratio and debt to capitalization ratio were 10.72:1.00 and 0.40:1.00, respectively. The company was, therefore, in compliance with these covenants at December 31, 2019, and anticipates remaining in compliance during the next twelve months.

Senior Unsecured Notes

The company has six 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 Notes on or after the dates and at redemption prices (expressed as a percentage of principal amount) listed below.

Our \$400.0 million of 5 ¼% senior notes due 2023 mature on April 15, 2023 with interest payable semi-annually. Early redemption is permitted as follows: as of December 31, 2019 at 101.750%; as of April 15, 2020 at 100.875%; and as of April 15, 2021 at 100.000%.

Our \$400.0 million of 2.800% senior notes due 2024 mature on December 15, 2024 with interest payable semi-annually. Early redemption is permitted as follows: any time prior to November 15, 2024 at a make-whole price of the remaining payments to be made discounted at the applicable U.S. Treasury rate plus 0.20%; and as of November 15, 2024 at 100.000%.

Our \$500.0 million of 5.500% senior notes due 2024 mature on October 1, 2024 with interest payable semi-annually. Early redemption is permitted as follows: as of December 31, 2019 at 102.750%; as of October 1, 2020 at 101.833%; as of October 1, 2021 at 100.917%; and as of October 1, 2022 at 100.000%.

Our \$350.0 million of 4.125% senior notes due 2025 mature on September 15, 2025 with interest payable semi-annually. Early redemption is permitted as follows: any time prior to September 15, 2020, up to 35% of principal amount at a redemption price of 104.125% using the proceeds from the sales of the company's common stock, or at a make-whole price of the remaining payments to be made discounted at the applicable U.S. Treasury rate plus 0.50%; as of September 15, 2020 at 102.063%; as of September 15, 2021 at 101.031%; and as of September 15, 2022 at 100.000%.

Our \$400.0 million of 5.000% senior notes due 2026 mature on December 15, 2026 with interest payable semi-annually. Early redemption is permitted as follows: any time prior to December 15, 2021, up to 35% of principal amount at a redemption price of 105.000% using the proceeds from the sales of the company's common stock, or at a make-whole price of the remaining payments to be made discounted at the applicable U.S. Treasury rate plus 0.50%; as of December 15, 2021 at 102.500%; as of December 15, 2022 at 101.667%; as of December 15, 2023 at 100.833%; and as of December 15, 2024 at 100.000%.

Note 3. Long-Term Debt (continued)

Our \$600.0 million of 3.450% senior notes due 2030 mature on April 15, 2030 with interest payable semi-annually. Early redemption is permitted as follows: any time prior to January 15, 2030 at a make-whole price of the remaining payments to be made discounted at the applicable U.S. Treasury rate plus 0.25%; and as of January 15, 2030 at 100.000%.

Other Obligations

Secured Loans. Two of the company's controlled subsidiaries have entered into financing agreements for certain equipment which bear interest at an average rate of 5.4%, with monthly principal and interest payments required through 2028. The outstanding principal balance of these agreements was \$10.7 million and \$8.3 million at December 31, 2019, and 2018, respectively.

One of the company's controlled subsidiaries has a secured credit agreement which provides a revolving variable rate credit facility of up to \$70.0 million, subject to a borrowing base determined from eligible accounts receivable and inventory, and is further secured with letter of credit support from Steel Dynamics, Inc., which matures in August 2024. Interest, which was 3.19% at December 31, 2019, is payable monthly. Amounts due under the credit facility were \$64.6 million and \$19.6 million at December 31, 2019, and 2018, respectively.

The company's controlled subsidiary acquired in 2019 has a secured credit agreement which provides a revolving variable rate credit facility of up to \$50.0 million, subject to a borrowing base determined from eligible accounts receivable and eligible inventory, which matures in March 2021. Interest, which was 2.69% at December 31, 2019, is payable monthly. Amount due under this credit facility was \$19.0 million at December 31, 2019.

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 5.0% interest rate through maturity in 2027. Amounts due under these loans were \$17.1 million and \$18.9 million at December 31, 2019, and 2018, respectively.

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 outstanding principal balance was \$2.0 million and \$2.8 million as of December 31, 2019, and 2018, respectively. The company has an unused \$3.0 million letter of credit in conjunction with this loan.

Outstanding Debt Maturities

Maturities of outstanding debt as of December 31, 2019, are as follows (in thousands):

2020	\$ 89,356
2021	3,679
2022	4,297
2023	403,703
2024	903,379
Thereafter	1,360,058
	\$2,764,472
	\$2,704,472

The company capitalizes interest on all qualifying construction in progress assets. For the years ended December 31, 2019, 2018, and 2017, total interest costs incurred were \$132.6 million, \$129.5 million, and \$136.1 million, respectively, of which \$5.5 million, \$2.9 million and \$1.7 million, 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):

	2019	2018	2017
Current income tax expense	\$149,106	\$304,726	\$ 269,387
Deferred income tax expense (benefit)	48,331	59,243	(139,948)
Total income tax expense	\$197,437	\$363,969	\$ 129,439

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

	2019	2018	2017
Statutory federal tax rate	21.0%	21.0%	35.0%
State income taxes, net of federal benefit	2.1	2.6	1.4
Impact from Tax Reform	_	_	(19.3)
Tax benefit of equity compensation	_	(0.1)	(1.1)
Noncontrolling interests	_	_	0.3
Audit settlements	_	(0.3)	_
Domestic manufacturing deduction	_	_	(2.6)
Other permanent differences	(0.5)	(0.7)	0.1
Effective tax rate	22.6%	22.5%	13.8%

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, reduced the corporate income tax rate from 35% to 21%, effective January 1, 2018. The TCJA Act also included 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.

Note 4. Income Taxes (continued)

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

	2019	2018
Deferred tax assets		
Accrued expenses and allowances	\$ 19,731	\$ 19,020
Inventories	5,599	9,599
Net operating loss carryforwards	27,541	30,109
Other	8,020	7,639
	60,891	66,367
Less: valuation allowance	(21,958)	(21,788)
Total net deferred tax assets	38,933	44,579
Deferred tax liabilities		
Property, plant and equipment	(487,634)	(455,935)
Intangible Assets	(33,322)	(22,748)
Other	(2,146)	(1,734)
Total deferred tax liabilities	(523,102)	(480,417)
Net deferred tax liability	\$(484,169)	\$(435,838)

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 \$91.6 million which expire in 2032 to 2037, and state net operating loss carryforwards which principally expire in the years 2029 to 2038. 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 \$22.0 million and \$21.8 million have been recorded as of December 31, 2019, and 2018, respectively.

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

	2019	2018	2017
Balance at January 1	\$10,131	\$16,749	\$19,107
Increases related to current year tax positions	750	500	300
Increases related to prior year tax positions	2,198	503	271
Decreases related to prior year tax positions	(1,363)	(798)	(863)
Settlements with taxing authorities	(1,554)	(6,823)	(2,066)
Balance at December 31	\$10,162	\$10,131	\$16,749

Included in the balance of unrecognized tax benefits at December 31, 2019 and 2018, are potential benefits of \$6.0 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 years ended December 31, 2019 and 2018, the company recognized benefits from the decrease of interest expense of \$400,000 and \$1.3 million, respectively, net of tax, and in 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 \$1.4 million and \$2.4 million accrued for the payment of interest and penalties at December 31, 2019 and 2018, respectively.

Note 4. Income Taxes (continued)

It is reasonably possible that the amount of unrecognized tax benefits could change in the next twelve months in an amount ranging from zero to \$3.3 million, as a result of the expiration of the statute of limitations and other federal and state income tax audits. The company files income tax returns in the U.S. federal jurisdiction as well as income tax returns in various state jurisdictions. The company has concluded U.S. federal income tax audits through 2015. The tax years 2016 through 2018 remain open to examination by the Internal Revenue Service, and tax years 2015 through 2018 remain open to various state and local jurisdictions.

Note 5. Shareholders' Equity

Cash Dividends

The company declared cash dividends of \$209.5 million, or \$0.96 per common share, during 2019; \$174.4 million, or \$0.75 per common share, during 2018; and \$148.2 million, or \$0.62 per common share, during 2017. The company paid cash dividends of \$200.3 million, \$168.9 million and \$145.6 million during 2019, 2018, and 2017, respectively.

Treasury Stock

In 2018, the board of directors authorized a share repurchase program of up to \$750 million of the company's common stock, subsequent to the completion of a 2016 share repurchase program of up to \$450 million of the company's common stock in 2018. Under the share repurchase programs, purchases take place as and when the company determines in open market or private transactions made based upon the market price of the company's common stock, the nature of other investment opportunities or growth projects, the company's cash flows from operations, and general economic conditions. The 2018 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 at any time. The 2018 share repurchase program does not have an expiration date. The company repurchased 11.3 million shares for \$348.6 million during 2019, 13.1 million shares for \$523.6 million during 2018, and 7.4 million shares for \$252.2 million during 2017 under the share repurchase programs. At December 31, 2019, the company had remaining authorization to repurchase \$50.5 million of additional shares under the 2018 share repurchase program.

Note 6. Equity-Based Incentive Plans

Amended and Restated 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 (of which there are none), unrestricted stock awards (of which there are none), 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. In May 2019, the 2015 Plan was amended and restated with an additional 8.0 million shares of common stock reserved for issuance upon exercise of equity grants. The 2015 Plan uses a fungible share concept under which any awards that are not a full-value award, such as stock options and stock-settled 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. The SARs the company has granted to date can only be settled in cash, and thus do not count against the share reserve. At December 31, 2019, there were 8.7 million shares 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

Note 6. Equity-Based Incentive Plans (continued)

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, 2019, presented below, the company awarded 54,000, 28,000 and 34,000 DSUs in 2019, 2018 and 2017, respectively; and 300,000, 285,000 and 200,000 SARs in 2019, 2018 and 2017, respectively. The 871,000 SAR awards outstanding at December 31, 2019, for which no shares of common stock can be issued because the awards must be cash-settled upon exercise, have a weighted-average exercise price of \$37.99.

Restricted Stock Units

A summary of the company's RSU activity and outstanding RSUs as of December 31, 2019, 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, 2017	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	1,413,642	34.22	\$60,970	\$32,017
Granted	815,761	36.70		
Vested	(817,226)	33.20		
Forfeited	(64,111)	34.51		
As of December 31, 2018	1,348,066	36.32	\$40,496	\$31,996
Granted	1,038,812	29.87		
Vested	(769,291)	35.32		
Forfeited	(59,593)	36.03		
As of December 31, 2019 (nonvested)	1,557,994	\$32.53	\$53,034	\$33,581

The weighted average remaining life before vesting of the outstanding RSUs as of December 31, 2019, is 1.46 years. The fair value of RSUs vesting during 2019, 2018, and 2017 was \$26.2 million, \$24.5 million, and \$58.8 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 2019, 2018, and 2017 were approximately 250,000, 268,000, and 457,000 shares, respectively, and were based on the value of the RSUs on their vesting dates as determined by the company's closing stock price.

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 2019 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. The 2019 and 2018 award shares vest immediately 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

Note 6. Equity-Based Incentive Plans (continued)

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	
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:			ŕ	
Three-year performance period award	236,434	236,434	78,813	March 2018
, 1	•		78,812	March 2019
			78,809	March 2020
2016 LTIP Award:			,	
Three-year performance period award	324,469	324,469	108,158	March 2019
	,	,	108,156	March 2020
			108,155	March 2021
2017 LTIP Award:			,	
Three-year performance period award	182,274	164,047	54,683	March 2020
Times your performance period an area.	102,27	10.,0.7	54,682	March 2021
			54,682	March 2022
			0 .,002	
Two-year performance period transition award	16,779	15,101	5,034	March 2019
The year performance period transmissi an area.	10,777	10,101	5,034	March 2020
			5,033	March 2021
			3,033	Waren 2021
One-year performance period transition award	28,379	25,541	8,514	March 2018
one your performance period dansition divates () ()	20,877	20,0 .1	8,514	March 2019
			8,513	March 2020
2018 LTIP Award:			0,515	17141011 2020
Three-year performance period award	198,397	*	*	
Timee year performance period award	170,377			
2019 LTIP Award:				
Three-year performance period award	422,008	*	*	
Two-year performance period transition award	15,600	*	*	
One-year performance period transition award	7,800	5,850	5,850	March 2020
one your performance period transition award	7,000	5,050	3,030	1,141011 2020

^{*} Not yet earned as performance period not complete.

2018 Executive Incentive Compensation Plan (2018 Executive Plan)

The company's stockholders approved the 2018 Executive Plan in May 2018, and 2.0 million shares of company stock were reserved for issuance through February 28, 2028, succeeding the 2013 Executive Incentive Compensation Plan upon its expiration on February 28, 2018. Pursuant to the company's 2018 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. At December 31, 2019 and 2018,

Note 6. Equity-Based Incentive Plans (continued)

1.7 million and 1.8 million shares, respectively, under the 2018 Executive Plan remained available for issuance. Pursuant to the 2018 Executive Plan, 149,000 and 157,000 shares were awarded with a market value of \$4.5 million and \$5.8 million for the 2019 and 2018 award years, respectively. Pursuant to the preceding 2013 Executive Plan, 117,000 shares were awarded with a market value of \$5.3 million for the 2017 award year.

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 and ferrous metals (primarily aluminum and copper). The company offsets fair value amounts recognized for derivative instruments executed with the same counterparty under master netting agreements.

If the company is "long" on commodity 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, 2019:

Commodity Futures	Long/Short	Metric Tons
Aluminum	Long	500
Aluminum	Short	2,625
Copper	Long	4,479
Copper	Short	16,420

The following summarizes the location and amounts of the fair values reported on the company's consolidated 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 I	Derivatives
		Fair	Value	Fair	Value
	Balance sheet location	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
Derivative instruments designated as hedges					
Commodity futures	Other current assets	\$ 966	\$2,999	\$1,011	\$1,837
Derivative instruments not designated as hedges					
Commodity futures	Other current assets	310	1,559	721	2,053
Total derivative instruments		\$1,276	\$4,558	\$1,732	\$3,890

Note 7. Derivative Financial Instruments (continued)

The fair value of the above derivative instruments along with required margin deposit amounts with the same counterparty under master netting agreements totaled \$3.7 million and \$4.9 million at 2019, and 2018, 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, 2019					
Derivatives in fair value hedging relationships					
Commodity futures	Costs of goods sold	\$ (801)	Firm commitments	Costs of goods sold	\$(1,613)
			Inventory	Costs of goods sold	832
			•		\$ (781)
Derivatives not designated as hedging instruments					
Commodity futures	Costs of goods sold	\$ 704			
For the Year Ended December 31, 2018 Derivatives in fair value	-				
hedging relationships					
Commodity futures	Costs of goods sold	\$ 4,920	Firm commitments	Costs of goods sold	\$ 582
			Inventory	Costs of goods sold	(2,779)
			, , , , , , , , , , , , , , , , , , ,	8	\$(2,197)
Derivatives not designated as					
hedging instruments					
Commodity futures	Costs of goods sold	\$ 19,830			
For the Year Ended December 31, 2017	Ü				
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
					\$ 4,822
Derivatives not designated as					
hedging instruments					
Commodity futures	Costs of goods sold	<u>\$(18,784)</u>			

Derivatives accounted for as fair value hedges had ineffectiveness resulting in losses of \$28,000, gains of \$85,000, and losses of \$3,000 for the years ended December 31, 2019, 2018, and 2017, respectively. Losses excluded from hedge effectiveness testing of \$1.6 million increased cost of goods sold for the year ended December 31, 2019. Gains excluded from hedge effectiveness testing of \$2.7 million decreased cost of goods sold for the year ended December 31, 2018. Losses excluded from hedge effectiveness testing of \$938,000 increased cost of goods sold for the year ended December 31, 2017.

Note 7. Derivative Financial Instruments (continued)

Derivatives accounted for as cash flow hedges resulted in net gains of \$137,000 and \$544,000 recognized in other comprehensive income for the years ended December 31, 2019 and 2018, respectively. Net gains of \$541,000 and \$149,000 were reclassified from accumulated other comprehensive income into income for the years ended December 31, 2019 and 2018, respectively. At December 31, 2019, the company expects to reclassify \$9,600 of net losses on derivative instruments from accumulated other comprehensive income to earnings during the next 12 months due to the settlement of futures contracts.

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, 2019				
Short-term investments	\$262,174	\$	\$262,174	\$
Commodity futures – financial assets	1,276	_	1,276	_
Commodity futures – financial liabilities	1,732	_	1,732	_
December 31, 2018				
Short-term investments	\$228,783	\$	\$228,783	\$
Commodity futures – financial assets	4,558	_	4,558	
Commodity futures – financial liabilities	3,890	_	3,890	_

The carrying amounts of financial instruments including cash and equivalents approximate fair value (Level 1). The fair values of the short-term investments and the 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 (Level 2). The fair value of long-term debt, including current maturities, as determined by quoted market prices (Level 2), was approximately \$2.8 billion and \$2.4 billion at December 31, 2019 and 2018 (with a corresponding carrying amount in the consolidated balance sheet of \$2.8 billion and \$2.4 billion at December 31, 2019 and 2018).

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, water, natural gas and its transportation services, fuel, air products, zinc, and electrodes. Certain

Note 9. Commitments and Contingencies (continued)

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 generally up to 5 years for physical commodity requirements and commodity transportation requirements, with some extending beyond, and for up to 13 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 idle Minnesota ironmaking operations. 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):

2020	\$240,832
2021	118,613
2022	105,008
2023	32,752
2024	29,888
Thereafter	150,559
	\$677,652

At December 31, 2019, the company has outstanding commitments of \$820.4 million, of which \$734.0 million are expected to be paid in 2020 and \$86.4 million in 2021, related to ongoing construction of property, plant, and equipment related primarily to steel operations, most significantly our recently announced Southwest-Sinton Flat Roll Division. The company's commitments for operating leases are discussed in Note 12. *Leases*.

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 purchases and sells recycled and scrap metal, and purchases and previously sold steel, with other smaller affiliated companies. These transactions for the years ended December 31, are as follows (in thousands):

	2019	2018	2017
Sales	\$ 13,859	\$ 20,230	\$174,584
Accounts receivable	2,958	3,536	22,422
Purchases	203,279	244,551	230,659
Accounts payable	3,657	14,011	15,683

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 \$98.8 million, \$156.7 million, and \$92.5 million for the years ended December 31, 2019, 2018, and 2017, 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 \$73.6 million, \$138.7 million, and \$80.7 million for the years ended December 31, 2019, 2018, and 2017,

Note 11. Retirement Plans (continued)

respectively; of which \$58.9 million, \$108.1 million, and \$64.5 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

In February 2016, the FASB issued ASU 2016-02, Leases (ASC 842) and its subsequent corresponding updates, which established 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. The company adopted ASC 842 effective January 1, 2019, using the optional transition method, thereby applying the new guidance at the effective date, without retrospective application to prior periods. The company elected practical expedients permitted under the transition guidance which allowed the company to not reassess under the new standard its prior conclusions regarding lease identification and classification. The company elected to use hindsight when determining the lease term. The company also elected the short-term lease exemption, and did not recognize right-of-use assets and lease liabilities for short-term leases, those with lease commencement date terms of 12 months or less. The company recognized right-of-use assets and lease liabilities of \$76.3 million, with no impact on retained earnings, in the consolidated balance sheet on January 1, 2019, and the standard did not have a significant impact on the company's operating results or cash flows for the year ended December 31, 2019.

The company has operating leases relating principally to transportation and other equipment, and some real estate. The company determines if an arrangement contains a lease at inception, which generally occurs when the arrangement identifies a specific asset that the company has the right to direct the use of and obtain substantially all of the economic benefit from use of the identified asset. Certain of our lease agreements contain rent escalation clauses (including fixed and index-based escalations), and options to extend or terminate the lease. For purposes of calculating operating lease obligations under the standard, the company's lease terms include options to extend the lease when it is reasonably certain that the company will exercise such option. The company uses its incremental borrowing rate at lease commencement to determine the present value of lease payments. The incremental borrowing rate is the rate of interest the company could borrow on a collateralized basis over a similar term with similar payments. Operating lease expense is recognized on a straight-line basis over the lease term.

Operating lease right-of-use assets and lease obligations included in the consolidated balance sheet at December 31, 2019, are as follows (in thousands):

Right-of-use assets under operating leases:

\$75,176
\$17,532
57,897
\$75,429

Note 12. Leases (continued)

The weighted average remaining lease term for our operating leases is six years and the weighted-average discount rate is 3.96% as of December 31, 2019. Future operating lease liabilities as of December 31, 2019, for the next five years and thereafter are as follows (in thousands):

2020	\$20,201
2021	17,350
2022	13,641
2023	10,503
2024	7,691
Thereafter	15,055
Total undiscounted cash flows	84,441
Less imputed interest	(9,012)
Lease obligations under operating leases	\$75,429

Operating lease expense included in the consolidated statements of income was \$20.1 million for the year ended December 31, 2019. Cash paid related to operating lease obligations was \$20.5 million for the year ended December 31, 2019. Variable lease costs were not material for the year ended December 31, 2019. Short-term lease expense included in the consolidated statements of income was \$20.0 million for the year ended December 31, 2019. Right-of-use assets obtained in exchange for new operating lease liabilities for the year ended December 31, 2019 was \$16.1 million. The company paid \$21.1 million and \$18.9 million for operating leases for the years ended December 31, 2018 and 2017, respectively.

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. *Description of the Business and Summary of Significant Accounting Policies* (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 smaller joint ventures, and the idle Minnesota ironmaking operations. Also included in "Other" are certain unallocated corporate accounts, such as the company's senior unsecured credit facility, senior notes, certain other investments and certain profit sharing expenses.

Note 13. Segment Information (continued)

The company's segment results, including disaggregated revenue by segment to external, external non-United States, and other segment customers, are as follows (in thousands):

Decei	he year ended nber 31, 2019	Steel Operations	Metals Recycling Operation		Other	Eliminations	Consolidated
Net S		\$7.606.471	¢ 072.20	0 \$060.657	¢ 200 516	s —	¢ 0.027.974
	ternal	\$7,606,471	\$ 972,20		\$ 388,546 11,732	5 —	\$ 9,927,874
	her segments	298,081 329,627	225,80° 1,296,00°		469	(1,627,208)	537,117
Oi	nei segments	8,234,179	2,494,01		400,747	(1,627,208) (1,627,208)	10,464,991
Oper	ating income (loss)	1,030,554	16,30		$\frac{400,747}{(186,159)^6}$		986,880
•	me (loss) before income taxes	963,514	11,43		(220,188)	$6,220^{(2)}$	
	eciation and amortization	251,568	46,53		11,208		321,082
•	tal expenditures	385,058	46,95		7,482	_	451,945
Asset	f December 31, 2019 Is	\$ ensation		results (in millions	,	intra-company s	4)\$ 8,275,765 ales \$ 6.2
(3)	Cash and equivalents Short-term investments Accounts receivable Inventories Property, plant and equipment, net Intra-company debt Other	\$1			n of intercompar n of intra-compa		\$(54.7) (8.1) (7.9) \$(70.7)

Note 13. Segment Information (continued)

	e year ended iber 31, 2018	Steel Operations	Metals Recycling Operations	Steel Fabrication Operations	Other	Eliminations	Consolidated
Net S	ales						
Ext	ernal	\$8,476,104	\$1,295,514	\$921,023	\$ 427,372	\$ —	\$11,120,013
Ext	ernal Non-United States	444,615	257,080	5 125		_	701,826
Oth	ner segments	342,433	1,649,614	803	1,688	(1,994,538)	
		9,263,152	3,202,214	921,951	429,060	(1,994,538)	11,821,839
Opera	ting income (loss)	1,839,852	75,89	61,901	$(253,195)^{(}$	$(2,040)^{(2)}$	2) 1,722,409
Incom	e (loss) before income taxes.	1,770,888	69,86	56,236	(275,137)	(2,074)	1,619,774
Depre	ciation and amortization	248,765	46,013	5 11,553	10,865	_	317,198
Capita	al expenditures	189,208	35,518	8,303	6,361	_	239,390
Assets	December 31, 2018 Society of the sear ended Corporate SG&A Company-wide equity-based company-rofit sharing Other, net	\$pensation		results (in million) \$ (92,671) ⁽⁴ intra-company sa	4) \$ 7,703,563 ales <u>\$ (2.0)</u>
(3)	Cash and equivalents Short-term investments	\$	8 811.1 198.8	` ′	on of intercompar on of intra-compa	•	\$(64.6) (14.0)
	Accounts receivable		5.9	Other	Ι	,	(14.1)
	Inventories		33.7				\$(92.7)
	Property, plant and equipment, ne	t	153.8				
	Intra-company debt		14.0				
	Other		66.2				
		\$	51,283.5				

Note 13. Segment Information (continued)

For the year ended	Steel	Metals Recycling	Steel Fabrication			
December 31, 2017	Operations	Operations	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	1,066,881
Income (loss) before income taxes.	1,014,863	64,638	81,046	(226,001)	689 ⁽²⁾	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

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

(1)	Corporate SG&A	\$ (49.4)	(2)	Gross profit increase from intra-company sales	\$0.7
	Company-wide equity-based compensation	(36.5)			
	Profit sharing	(87.6)			
	Minnesota ironmaking operations	(12.8)			
	Other, net	(4.5)			
		<u>\$(190.8)</u>			

Note 14. Quarterly Financial Information (unaudited, in thousands, except per share data)

	1st Quarter	2 nd Quarter	3 rd Quarter	4th Quarter
2019:				
Net Sales	\$2,817,435	\$2,770,515	\$2,526,845	\$2,350,196
Gross profit	433,570	421,166	359,839	316,409
Operating income	291,842	285,032	228,045	181,961
Net income	204,827	196,746	152,608	123,719
Net income attributable to Steel Dynamics, Inc	204,328	194,302	151,048	121,425
Earnings per share:				
Basic	0.91	0.88	0.69	0.56
Diluted	0.91	0.87	0.69	0.56
2018:				
Net Sales	\$2,603,875	\$3,090,525	\$3,223,547	\$2,903,892
Gross profit	463,416	652,082	686,081	521,235
Operating income	323,397	501,887	531,572	365,553
Net income	225,475	362,572	397,906	269,852
Net income attributable to Steel Dynamics, Inc	227,551	362,449	398,375	270,004
Earnings per share:				
Basic	0.96	1.54	1.70	1.18
Diluted	0.96	1.53	1.69	1.17

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.

Note 15. Condensed Consolidating Information

In October, 2019, the Company's corporate credit rating was upgraded to an investment grade credit designation which resulted in all subsidiary guarantees of our senior unsecured notes due 2021, 2023, 2024, 2025 and 2026 being automatically released pursuant to the applicable Indentures. The release of these guarantees removed the requirement to disclose Condensed Consolidating Information.

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, 2019, 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. *Consolidated Financial Statements and Supplementary Data* 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, 2019, 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, 2019, can be found on page 53 of this Form 10-K, and the related Report of Independent Registered Public Accounting Firm, Ernst & Young LLP, can be found on page 54 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 2020 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 2020 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 2020 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, and the *Amended and Restated Steel Dynamics, Inc. 2015 Equity Incentive Plan* (2015 Plan) at our annual meeting of stockholders held May 16, 2019. Our stockholders approved the *Amended and Restated Steel Dynamics, Inc. 2006 Equity Incentive Plan* at our annual meeting of stockholders held May 17, 2012 (2006 Plan). Our stockholders approved the *Steel Dynamics, Inc. 2018 Equity Incentive Compensation Plan* at our annual meeting of stockholders held May 17, 2018 (2018 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, 2019, all of which have been approved by stockholders. We do not have any equity compensation plans that have not been approved by stockholders.

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⁾	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 ⁽¹⁾	2,294,895	_	8,730,479
2018 Plan and predecessor 2013 Plan	293,423	_	1,696,361
Equity compensation plans not approved by			
security holders	N/A	N/A	N/A
Total	2,588,318		10,426,840

⁽¹⁾ Includes 1,558,472 RSUs, 252,819 DSUs, and 483,595 LTIP awards 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 2020 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, 2019 and 2018, and each of the three years in the periods ended December 31, 2019, 2018, and 2017, included in Item 8. *Consolidated Financial Statements and Supplementary Data* of this Form 10-K Annual Report for the fiscal year ended December 31, 2019.

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 2020 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. *Consolidated Financial Statements and Supplementary Data* and described in the Index on page 52 of this Report.
 - 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

- 3.1 Amended and Restated Articles of Incorporation of Steel Dynamics, Inc., reflecting all amendments thereto through May 17, 2018, incorporated herein by reference from Exhibit 3.1e to our Form 10-Q filed August 9, 2018.
- 3.2 Amended and Restated Bylaws of Steel Dynamics, Inc., reflecting all amendments thereto through October 17, 2018, incorporated herein by reference from Exhibit 3.2d to our Form 10-Q filed November 7, 2018.

Instruments Defining the Rights of Security Holders, Including Indentures

- 4.1* Description of Common Stock
- 4.20 Indenture relating to our issuance of \$400 million of $5^{1}/_{4}\%$ 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.
- 4.24 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.

- 4.31 Indenture dated December 4, 2019, among Steel Dynamics, Inc., as Issuer, and Wells Fargo Bank, National Association, as Trustee, incorporated herein by reference from Exhibit 4.1 to our Registration Statement on Form S-3 (Registration No. 333-235343) filed December 4, 2019.
- 4.32 First Supplemental Indenture dated December 11, 2019, relating to our issuance of \$400 million 2.800% Notes due 2024, and \$600 million 3.450% Notes due 2030 among Steel Dynamics, Inc., as Issuer, and Wells Fargo Bank, National Association, as Trustee, incorporated herein by reference from Exhibit 4.2 to our Form 8-K filed December 11, 2019.
- 4.33 Form of 2.800% Notes due 2024 (included in Exhibit 4.32), incorporated herein by reference from Exhibit 4.3 to our Form 8-K filed December 11, 2019.
- 4.34 Form of 3.450% Notes due 2030 (included in Exhibit 4.32), incorporated herein by reference from Exhibit 4.4 to our Form 8-K filed December 11, 2019.

Material Contracts

- 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.
- 10.55† 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.
- 10.59 Credit Agreement dated as of December 3, 2019, by and among Steel Dynamics, Inc. and the agents and lenders named therein, incorporated herein by reference from Exhibit 10.59 to our Form 8-K filed December 3, 2019.
- 10.60† Amended and Restated 2015 Equity Incentive Plan, as approved by shareholders on May 16, 2019, incorporated herein by reference from our May 16, 2019, Notice of Annual Meeting of Stockholders filed March 27, 2019.

Other

- 21.1* List of our Subsidiaries
- 23.1* Consent of Ernst & Young LLP.
- 24.1 Powers of attorney (see signature pages on pages 94 and 95 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 the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL 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
- 104* Cover page Interactive Data File the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.

^{*} Filed concurrently herewith

[†] 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, 2020

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 or her true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him or her, and in his or her name, place and stead, in any and all capacities to sign any and all amendments, and supplements to this 2019 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 or her 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 2019 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, 2020
/s/ THERESA E. WAGLER Theresa E. Wagler	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 27, 2020
/s/ KEITH E. BUSSE	Director	February 27, 2020
Keith E. Busse		,
/s/ SHEREE L. BARGABOS Sheree L. Bargabos	Director	February 27, 2020
/s/ FRANK D. BYRNE, M.D. Frank D. Byrne, M.D.	Director	February 27, 2020
/s/ KENNETH W. CORNEW Kenneth W. Cornew	Director	February 27, 2020
/s/ TRACI M. DOLAN Traci M. Dolan	Director	February 27, 2020

Signatures	Title	Date
/s/ JAMES C. MARCUCCILLI James C. Marcuccilli	Director	February 27, 2020
/s/ BRADLEY S. SEAMAN Bradley S. Seaman	Director	February 27, 2020
/s/ GABRIEL L. SHAHEEN Gabriel L. Shaheen	Director	February 27, 2020
/s/ STEVEN A. SONNENBERG Steven A. Sonnenberg	Director	February 27, 2020
/s/ RICHARD P. TEETS, JR. Richard P. Teets, Jr.	Director	February 27, 2020









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



ANNUAL MEETING

May 8, 2020 | 9:00 a.m. EDT

Courtyard by Marriott 1150 South Harrison Street Fort Wayne, IN 46802

INVESTOR INFORMATION

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

STOCKHOLDER RECORDS

Computershare Trust Company, N.A. P.O. Box 505000 Louisville, KY 40233-5000 (877) 282-1168

www.computershare.com/investor

CORPORATE OFFICES

7575 West Jefferson Blvd. Fort Wayne, IN 46804 (260) 969-3500

steeldynamics.com

>>> 2019 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

Sheree L. Bargabos

Retired
Former President of

Roofing & Asphalt Division, Owens Corning

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.

James C. Marcuccilli

Chairman and CEO STAR Financial Bank

Bradley S. Seaman

Managing Partner Parallel49 Equity

Gabriel L. Shaheen

President, CEO, and Principal GLS Capital Ventures, LLC Founding Partner Insurex, LLC

Steven A. Sonnenberg

Retired

Former Chair of Automation Solutions, Emerson Electric Co.

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, Chief Financial Officer and Corporate Secretary

Russell B. Rinn

Executive Vice President, President and COO of Metals Recycling

Miguel Alvarez

Senior Vice President, Southwest U.S. and Mexico

Christopher A. Graham

Senior Vice President, Long Products Steel Group

Glenn A. Pushis

Senior Vice President, Special Projects

Barry T. Schneider

Senior Vice President, Flat Roll Steel Group

James S. Anderson

Vice President, Steel Fabrication



