UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

		1014,1111		
⊠ ANNUAL REPOR		13 OR 15(d) OF THE SECURITI SCAL YEAR ENDED June 30, 20 OR		44
☐ TRANSITION RE	For the transit	ON 13 OR 15(d) OF THE SECU ion period from to mission File Number 1-5318		F 1934
		ENNAMETAL INC. If registrant as specified in its charte	er)	
Per	nnsylvania		25-0900168	
	of incorporation or organization)		(I.R.S. Employer Identification	ation No.)
525 Will	iam Penn Place			
Si	uite 3300			
Pittsburgh	ı, Pennsylvania		15219	
(Address of Prin	cipal Executive Offices)		(Zip Code)	
		number, including area code: (412) red pursuant to Section 12(b) of the		
Title	Title of each class Trading Symbol Name of each exchange on which registered			
Capital Stock, p	ar value \$1.25 per share	KMT	New York Stock Exch	nange
Preferred Sto	ock Purchase Rights		New York Stock Exch	nange
		pursuant to Section 12(g) of the Ad		
Indicate by check mark if the registra Indicate by check mark whether the	ant is not required to file reports pursuregistrant (1) has filed all reports requ	as defined in Rule 405 of the Securities tant to Section 13 or Section 15(d) of the tired to be filed by Section 13 or 15(d) le such reports), and (2) has been subje	he Act. Yes \square No \boxtimes of the Securities Exchange Act of 19	
Indicate by check mark whether the (§232.405 of this chapter) during the Indicate by check mark whether the	preceding 12 months (or for such shoregistrant is a large accelerated filer, a	y every Interactive Data File required to orter period that the registrant was requ an accelerated filer, a non-accelerated fi r," "smaller reporting company," and "e	iired to submit such files). Yes ⊠ No iler, a smaller reporting company, or	an emerging growth
Large accelerated filer	\boxtimes		Accelerated filer	
Non-accelerated filer			Smaller reporting company	
			Emerging growth company	
financial accounting standards provided indicate by check mark whether the reporting under Section 404(b) of the	ded pursuant to Section 13(a) of the E registrant has filed a report on and att e Sarbanes-Oxley Act (15 U.S.C. 726	nas elected not to use the extended trans Exchange Act. estation to its management's assessmen 2(b)) by the registered public accounting the by Rule 12b-2 of the Exchange Act	at of the effectiveness of its internal on the firm that prepared or issued its au	control over financial
10-K, was approximately \$2,000,400		Capital Stock held by non-affiliates of the calculation only, all directors and execute have been deemed affiliates.		
As of July 31, 2020, there were 82,9	27,634 shares of the Registrant's Cap	ital Stock outstanding.		
Portions of the Proxy Statement for t		S INCORPORATED BY REFERENCE ders are incorporated by reference into		

16.

Form 10-K Summary

Item N	No.	Page
<u>PART</u>	\mathbf{r}	
1	<u>Business</u>	<u>4</u>
1A.	Risk Factors	<u>7</u>
1B.	<u>Unresolved Staff Comments</u>	<u>12</u>
2.	<u>Properties</u>	<u>12</u>
3.	<u>Legal Proceedings</u>	<u>13</u>
4.	Mine Safety Disclosures	<u>13</u>
PART	<u>'II</u>	
5.	Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	<u>13</u>
6.	Selected Financial Data	<u>16</u>
7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	<u>17</u>
7A.	Quantitative and Qualitative Disclosures About Market Risk	<u>32</u>
8.	Financial Statements and Supplementary Data	<u>34</u>
9.	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	<u>73</u>
9A.	Controls and Procedures	<u>73</u>
9B.	Other Information	<u>73</u>
PART	<u>'III</u>	
10.	Directors, Executive Officers and Corporate Governance	<u>74</u>
11.	Executive Compensation	<u>75</u>
12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	<u>75</u>
13.	Certain Relationships and Related Transactions, and Director Independence	<u>75</u>
14.	Principal Accounting Fees and Services	<u>75</u>
<u>SIGN</u>	<u>ATURES</u>	<u>76</u>
PART	<u>'IV</u>	
15	Exhibits Financial Statement Schedules	77

<u>81</u>

FORWARD-LOOKING INFORMATION

Statements and financial discussion and analysis contained herein and in the documents incorporated by reference herein that are not historical facts are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). For example, statements about Kennametal's outlook for earnings, sales volumes, cash flow, and capital expenditures for its fiscal year 2021, its expectations regarding future growth and any statements regarding future operating or financial performance or events are forward-looking. We have also included forward-looking statements in this Annual Report on Form 10-K ("Annual Report") concerning, among other things, our strategy, goals, plans and projections regarding our financial position, liquidity and capital resources, results of operations, market position, and product development. Forward-looking statements are based on management's beliefs, assumptions and estimates using information available to us at the time the statements are made. These statements are not guarantees of future events or performance and are subject to various risks and uncertainties that are difficult to predict. Should one or more of these risks or uncertainties materialize, or should the assumptions underlying the forwardlooking statements prove incorrect, our actual results could vary materially from our current expectations. There are a number of factors that could cause our actual results to differ from those indicated in the forward-looking statements. They include: the duration of the COVID-19 pandemic and its effect on our business operations, financial results and financial position and on the industries in which we operate and the global economy generally; other downturns in the business cycle or the economy; our ability to achieve all anticipated benefits from our restructuring, simplification and modernization initiatives; risks related to our foreign operations and international markets, such as fluctuations in currency exchange rates, different regulatory environments, trade barriers, exchange controls, and social and political instability; changes in the regulatory environment in which we operate, including environmental, health and safety regulations; potential for future goodwill and other intangible asset impairment charges; our ability to protect and defend our intellectual property; continuity and security of information technology infrastructure; competition; our ability to retain our management and employees; demands on management resources; availability and cost of the raw materials we use to manufacture our products; additional tax expenses or exposures; product liability claims; integrating acquisitions and achieving the expected savings and synergies; global or regional catastrophic events; demand for and market acceptance of our products; business divestitures; labor relations; and implementation of environmental remediation matters. We provide additional information about many of the specific risks we face in the "Risk Factors" section of this Annual Report. We can give no assurance that any goal or plan set forth in our forward-looking statements will be achieved and readers are cautioned not to place undue reliance on such statements, which speak only as of the date made. Except as required by law, we do not intend to release publicly any revisions to forward-looking statements as a result of future events or developments.

PART I

ITEM 1 - BUSINESS

OVERVIEW Kennametal Inc. (the Company) was founded based on a tungsten carbide technology breakthrough in 1938. The Company was incorporated in Pennsylvania in 1943 as a manufacturer of tungsten carbide metal cutting tooling and was listed on the New York Stock Exchange (NYSE) in 1967. With more than 80 years of materials expertise, the Company is a global industrial technology leader, helping customers across the aerospace, earthworks, energy, general engineering and transportation end markets manufacture with precision and efficiency. This expertise includes the development and application of tungsten carbides, ceramics, super-hard materials and solutions used in metal cutting and extreme wear applications to keep customers up and running longer against conditions such as corrosion and high temperatures.

Our standard and custom product offering spans metal cutting and wear applications including turning, milling, hole making, tooling systems and services, as well as specialized wear components and metallurgical powders. End users of the Company's metal cutting products include manufacturers engaged in a diverse array of industries including: the manufacturers of transportation vehicles and components, machine tools and light and heavy machinery; airframe and aerospace components; and energy-related components for the oil and gas industry, as well as power generation. The Company's wear and metallurgical powders are used by producers and suppliers in equipment-intensive operations such as road construction, mining, quarrying, oil and gas exploration, refining, production and supply.

Unless otherwise specified, any reference to a "year" refers to our fiscal year ending on June 30. Unless the context requires otherwise, the terms "we," "our" and "us" refer to Kennametal Inc. and its subsidiaries.

BUSINESS SEGMENT REVIEW The Company operates in three segments: Industrial, Widia and Infrastructure. The Company's reportable operating segments have been determined in accordance with the Company's internal management structure, which is organized based on operating activities, the manner in which we organize segments for making operating decisions and assessing performance and the availability of separate financial results. Sales and operating income by segment are presented in Management's Discussion and Analysis of Financial Condition and Results of Operations set forth in Item 7 of this Annual Report (MD&A). Effective July 1, 2020, the Company combined Industrial and Widia to form one Metal Cutting segment. The Infrastructure segment remains unchanged. Additional segment data is provided in Note 21 of our consolidated financial statements set forth in Item 8 of this Annual Report which is incorporated herein by reference. Refer to Note 22 for additional information on the fiscal 2021 change in reportable segments.

INDUSTRIAL The Industrial segment develops and manufactures high performance tooling and metal cutting products and services for diverse end markets, including aerospace and defense, general engineering, energy and transportation. These products include milling, hole making, turning, threading and toolmaking systems used in the manufacture of airframes, aero engines, trucks and automobiles, ships and various types of industrial equipment. We leverage advanced manufacturing capabilities in combination with varying levels of customization to solve our customers' toughest challenges and deliver improved productivity for a wide range of applications. Industrial goes to market under the Kennametal® brand through its direct sales force, a network of independent and national distributors, integrated supplier channels and via the internet. Application engineers and technicians are critical to the sales process and directly assist our customers with specified product design, selection, application and support.

WIDIA Widia offers an assortment of standard and custom metal cutting solutions to general engineering, aerospace, energy and transportation customers. We serve our customers primarily through a network of value added resellers, integrated supplier channels and via the internet. Widia markets its products under the WIDIA®, WIDIA Hanita® and WIDIA GTD® brands.

INFRASTRUCTURE Our Infrastructure segment produces engineered tungsten carbide and ceramic components, earth-cutting tools, and advanced metallurgical powders, primarily for the energy, earthworks and general engineering end markets. These wear-resistant products include compacts, nozzles, frac seats and custom components used in oil and gas and petrochemical industries; rod blanks and abrasive water jet nozzles for general industries; earth cutting tools and systems used in underground mining, trenching and foundation drilling and road milling; tungsten carbide powders for the oil and gas, aerospace and process industries; and ceramics used by the packaging industry for metallization of films and papers. We combine deep metallurgical and engineering expertise with advanced manufacturing capabilities to deliver solutions that drive improved productivity for our customers. Infrastructure markets its products primarily under the Kennametal® brand and sells through a direct sales force as well as through distributors.

INTERNATIONAL OPERATIONS During 2020, we generated 59 percent of our consolidated sales in markets outside of the United States of America (U.S.), with principal international operations in Western Europe, China and India. We also operate manufacturing and distribution facilities in Israel, Latin America and South Africa, while serving customers through sales offices, agents and distributors in Eastern Europe and other parts of the world. While geographic diversification helps to minimize the sales and earnings effect of demand changes in any one particular region, our international operations are subject to normal risks of doing business globally, including fluctuations in currency exchange rates and changes in social, political and economic environments.

Our international assets and sales are presented in Note 21 of the Company's consolidated financial statements, set forth in Item 8 of this Annual Report. Further information about the effects and risks of currency exchange rates are presented in the Quantitative and Qualitative Disclosures About Market Risk section, set forth in Item 7A of this Annual Report.

STRATEGY AND GENERAL DEVELOPMENT OF BUSINESS We continued to make progress on our growth and simplification/modernization initiatives in the following areas in fiscal 2020.

Growth

Introduced new and innovative products such as the award-winning HARVITM 1 TE end mill, designed primarily for the general engineering end
market

Simplification/modernization

- Substantially completed our FY20 Restructuring Actions which resulted in annualized savings of \$33 million;
- · Achieved annualized total savings inception to date from simplification/modernization of \$101 million;
- Announced the acceleration of our structural cost reduction plans and increased the estimated annualized benefits of our FY21 Restructuring Actions to \$65 million to \$75 million from \$25 million to \$30 million and the expected pre-tax charges to \$90 million to \$100 million from \$55 million to \$60 million:
- As part of this ongoing simplification/modernization program, the Company is continuing with our footprint rationalization and announced the fiscal 2021 closure of our manufacturing facility in Johnson City, Tennessee. The Johnson City operations will be consolidated into other newly modernized Kennametal facilities.

Operational results in 2020 reflected a global manufacturing slow down and deteriorating end markets, which accelerated in the second half of the fiscal year due to the effects of the Coronavirus Disease 2019 (COVID-19) pandemic. Sales in 2020 of \$1,885.3 million decreased from \$2,375.2 million in 2019, reflecting a 21 percent decrease of which 18 percent was due to organic sales decline, 2 percent was due to unfavorable currency exchange effect and 1 percent was due to divestiture.

ACQUISITIONS AND DIVESTITURES We continually evaluate new opportunities to expand existing product lines into new market areas, and to introduce new and/or complementary product offerings into new or existing areas where appropriate. In the near term, we expect to continue to grow our business and further enhance our market position through the investment opportunities that exist within our core businesses, though we may evaluate acquisition opportunities that have the potential to strengthen or expand our business. During the year ended June 30, 2020, we completed the sale of certain assets of the non-core specialty alloys and metals business within the Infrastructure segment located in New Castle, Pennsylvania to Advanced Metallurgical Group N.V. and recorded a loss from divestiture of \$6.5 million.

RAW MATERIALS AND SUPPLIES Our major metallurgical raw materials consist of tungsten ore concentrates and scrap carbide, which are used to make tungsten oxide, as well as compounds and secondary materials such as cobalt. Although an adequate supply of these raw materials currently exists, our major sources for raw materials are located abroad and prices fluctuate at times. We exercise great care in selecting, purchasing and managing the availability of raw materials utilizing a mix of long-term supply agreements coupled with spot purchases. Additionally, our internal tungsten recycling capability provides us access to additional sources of tungsten, and therefore, helps to mitigate our reliance on third parties. We also purchase steel bars and forgings for making toolholders and other tool parts, as well as for producing mining tools, rotary cutting tools and accessories. We purchase products for use in manufacturing processes and for resale from thousands of suppliers located in the U.S. and abroad.

RESEARCH AND DEVELOPMENT (R&D) Our R&D efforts focus on delivering innovations to our customers from both new product and process technology development. New product development provides solutions to our customers' manufacturing challenges and productivity requirements. New process technology is developed and implemented in-house as part of our simplification/modernization efforts to enhance product quality and efficiency at our plant sites. We use a disciplined framework, and have established "gates," or sequential tests to remove inefficiencies and accelerate commercial success. This framework is designed to accelerate and streamline development into a series of actions and decision points, integrating resource tasks to implement new and enhanced products and process technologies faster. It is designed to ensure a strong linkage between verified customer requirements and corporate strategy, and to enable us to gain the full benefits of our investment in development work.

We hold a number of patents and trademarks which, in the aggregate, are material to the operation of our businesses. The duration of our patent protection varies throughout the world by jurisdiction.

SEASONALITY Our business is affected by seasonal variations to varying degrees by traditional summer vacation shutdowns of customers' plants and holiday shutdowns that affect our sales levels during the first and second quarters of our fiscal year.

BACKLOG Our backlog of orders generally is not significant to our operations.

COMPETITION As one of the world's leading producers of tooling and metal cutting products, specialty wear-resistant components and ceramics, earth cutting tools and advanced metallurgical powders, we maintain a leading competitive position in major markets worldwide. We actively compete in the sale of all our products with several large global competitors and with many smaller niche businesses offering various capabilities to customers around the world. While several of our competitors are divisions of larger corporations, our industry remains largely fragmented, containing several hundred fabricators, toolmakers and niche specialty coating businesses. Many of our competitors operate relatively small facilities, producing a limited selection of tools while buying cemented tungsten carbide components from original producers of cemented tungsten carbide products, including Kennametal. We also supply coating solutions and other engineered wear-resistant products to both larger corporations and smaller niche businesses. Given the fragmentation, opportunities for consolidation exist from both U.S.-based and internationally-based firms, as well as among thousands of industrial supply distributors.

The principal competitive differentiators in our businesses include customer focused support and application expertise, custom and standard product innovation, product performance and quality and our brand recognition. We derive competitive advantage from our premium brand positions, global presence, application expertise and ability to address unique customer needs with new and improved tools, innovative surface and wear-resistant solutions, highly engineered components, consistent quality, traditional and digital customer service and technical assistance capabilities, state-of-the-art manufacturing and multiple sales channels. With these strengths, we are able to sell products based on the value-added productivity we deliver to our customers, rather than competing solely on price.

REGULATION From time to time, we are a party to legal claims and proceedings that arise in the ordinary course of business, which may relate to our operations or assets, including real, tangible, or intellectual property assets. While we currently believe that the amount of ultimate liability, if any, we may face with respect to these actions will not materially affect our financial position, results of operations or liquidity, the ultimate outcome of any litigation is uncertain. Were an unfavorable outcome to occur or if protracted litigation were to ensue, the effect on us could be material.

Compliance with government laws and regulations pertaining to the discharge of materials or pollutants into the environment or otherwise relating to the protection of the environment did not have a material effect on our capital expenditures or competitive position for the years covered by this Annual Report, nor is such compliance expected to have a material effect on us in the future.

The operation of our business has exposed us to certain liabilities and compliance costs related to environmental matters. We are involved in various environmental cleanup and remediation activities at certain sites associated with our current or former operations.

We establish and maintain reserves for certain potential environmental liabilities. At June 30, 2020 and 2019, the balances of these reserves were \$15.6 million and \$12.4 million, respectively. These reserves represent anticipated costs associated with the remediation of these issues and are generally not discounted.

The reserves we have established for environmental liabilities represent our best current estimate of the costs of addressing all identified environmental situations, based on our review of currently available evidence, and taking into consideration our prior experience in remediation and that of other companies, as well as public information released by the United States Environmental Protection Agency (USEPA), other governmental agencies and by the Potentially Responsible Party (PRP) groups in which we are participating. Although the reserves currently appear to be sufficient to cover these environmental liabilities, there are uncertainties associated with environmental liabilities, and we can give no assurance that our estimate of any environmental liability will not increase or decrease in the future. The reserved and unreserved liabilities for all environmental concerns could change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, technological changes, discovery of new information, the financial strength of other PRPs, the identification of new PRPs and the involvement of and direction taken by the government on these matters.

Among other environmental laws, we are subject to the Comprehensive Environmental Response Compensation and Liability Act of 1980, under which we have been identified by the USEPA or other third party as a PRP with respect to environmental remedial costs at certain sites. We have evaluated our claims and potential liability associated with these sites based upon the best information currently available to us. We believe our environmental accruals will be adequate to cover our portion of the environmental remedial costs at those sites where we have been designated a PRP, to the extent these expenses are probable and reasonably estimable.

EMPLOYEES We employed approximately 9,000 people at June 30, 2020, of which approximately 3,000 were located in the U.S. and 6,000 were located in other parts of the world, principally Germany, India and China. At June 30, 2020, approximately 2,200 of our employees were represented by labor unions. We consider our labor relations to be generally good.

AVAILABLE INFORMATION Our internet address is www.kennametal.com. On the SEC Filings page of our Website, which is accessible under the "About Us" tab, under Investor Relations, we post the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission (SEC): our annual reports on Form 10-K, our annual proxy statements, our annual conflict minerals disclosure and reports on Form SD, our annual reports on Form 11-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and any amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. The SEC Filings page of our Website also includes Forms 3, 4 and 5 filed pursuant to Section 16(a) of the Exchange Act. All filings posted on our SEC Filings page are available to be viewed on our Website free of charge. On the Corporate Governance page of our Website, which is accessible under the "About Us" tab, under Investor Relations, we post the following charters and guidelines: Audit Committee Charter, Compensation Committee Charter, Nominating/Corporate Governance Committee Charter, Kennametal Inc. Corporate Governance Guidelines and Kennametal Inc. Stock Ownership Guidelines. On the Ethics and Compliance page of our Website, which is under the "About Us" tab, we post our Code of Conduct. All charters and guidelines posted on our Website are available to be viewed free of charge. Information contained on our Website is not part of this Annual Report or our other filings with the SEC. Copies of this Annual Report and those items disclosed on the Corporate Governance and Ethics and Compliance pages of our Website are available without charge upon written request to: Investor Relations, Kennametal Inc., 525 William Penn Place, Suite 3300, Pittsburgh, Pennsylvania 15219-2706. The SEC maintains an internet site (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electro

RISK FACTORS

This section describes material risks to our business that are currently known to us. Our business, financial condition or results of operations may be materially affected by a number of factors. Our management regularly monitors the risks inherent in our business, with input from our Enterprise Risk Management process. In addition to real time monitoring, we periodically conduct a formal enterprise-wide risk assessment to identify factors and circumstances that might present significant risk to the Company. Many of these risks are discussed throughout this report. The risks below, however, are not exhaustive. We operate in a rapidly changing environment. Other risks that we currently believe to be immaterial could become material in the future. We are also subject to legal and regulatory changes. New factors could emerge, and it is not possible to predict the outcome of all such risk factors on our business, financial condition or results of operations. The following discussion details the material risk factors and uncertainties that we believe could cause Kennametal's actual results to differ materially from those projected in any forward-looking statements.

Public health threats or outbreaks of communicable diseases could have a material adverse effect on our operations and financial results. We may face risks related to public health threats or outbreaks of communicable diseases. A widespread healthcare crisis, such as an outbreak of a communicable disease could adversely affect the global economy and our business, our suppliers and our customers' ability to conduct business for an indefinite period of time. For example, the ongoing global Coronavirus Disease 2019 (COVID-19) pandemic, has negatively affected the global economy, disrupted financial markets and international trade, resulted in increased unemployment levels and significantly affected global supply chains, all of which have and are expected to continue to affect our end markets. In addition, Federal, state, and local governments have implemented various mitigation measures, including travel restrictions, border closings, restrictions on public gatherings, shelter-in-place restrictions and limitations on non-essential business. Although in many jurisdictions we are considered an essential business, some of these actions have adversely affected the ability of our employees, contractors, suppliers, customers, and other business partners to conduct business activities, and could continue to do so for an indefinite period of time. This could have a material adverse effect on our results of operations, financial condition, and liquidity. In particular, the continued spread of COVID-19 and efforts to contain the virus could:

- continue to affect customer demand across our end markets and geographical regions;
- affect our ability to conduct business in certain jurisdictions in which we operate where nationwide, regional or local lockdowns are currently
 implemented or may be implemented in the future;
- cause us to experience an increase in costs as a result of the emergency measures we have taken, delayed payments from customers and uncollectible accounts;
- cause delays and disruptions in our supply chain resulting in disruptions in the commencement dates of certain planned projects;
- affect the availability of qualified personnel;
- affect our ability to fund operations and maintain covenant compliance;
- affect our access to financial markets;
- · affect our ability to accurately forecast; and
- cause other unpredictable events.

The situation surrounding COVID-19 remains uncertain. The COVID-19 pandemic has negatively affected our business operations, financial results and financial position and the industries in which we operate. The extent to which the COVID-19 pandemic may affect our business, operating results, financial condition, or liquidity in the future will depend on future developments, including the duration of the outbreak, travel restrictions, business and workforce disruptions, and the effectiveness of actions taken to contain and treat the disease.

Downturns in the business cycle could adversely affect our sales and profitability. Our business has historically been cyclical and subject to significant effect from economic downturns. Global economic downturns coupled with global financial and credit market disruptions have had a negative effect on our sales and profitability historically. These events could contribute to weak end markets, a sharp drop in demand for our products and services and higher costs of borrowing and/or diminished credit availability. Although we believe that the long-term prospects for our business remain positive, we are unable to predict the future course of industry variables or the strength and pace or sustainability of economic development.

Our restructuring efforts may not have the intended effects. We are implementing restructuring and other actions to reduce structural costs, improve operational efficiency and position the Company for long-term profitable growth. However, there is no assurance that these efforts, or that any other actions that we have taken or may take in the future, will be sufficient to counter any future economic or industry disruptions. We cannot provide assurance that we will not incur additional restructuring charges or impairment charges, or that we will achieve all of the anticipated benefits from the restructuring actions we have taken, are taking now, or plan to take in the future. If we are unable to effectively restructure our operations in light of evolving market conditions, it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our simplification/modernization initiative began in fiscal 2017. The purpose of this initiative is to invest in our plants, equipment and processes to automate and lower our overall labor cost. These capital investments have resulted in savings and are expected to result in further savings from reduced labor, maintenance and supply costs, while at the same time improving the quality of our products. We cannot provide any assurances that we will achieve all of the anticipated savings from these planned actions. These initiatives are expected to put pressure on our cash flows for the near-term. If we are unable to effectively execute our plans, it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our international operations pose certain risks that may adversely affect sales and earnings. We have manufacturing operations and assets located outside of the U.S., including but not limited to those in Western Europe, Brazil, Canada, China, India, Israel and South Africa. We also sell our products to customers and distributors located outside of the U.S. During the year ended June 30, 2020, 59 percent of our consolidated sales were derived from non-U.S. markets. These international operations are subject to a number of special risks, in addition to the risks of our domestic operations, including currency exchange rate fluctuations, differing protections of intellectual property, trade barriers, exchange controls, regional economic uncertainty, overlap of different tax regimens, differing (and possibly more stringent) labor regulations, labor unrest, risk of governmental expropriation, domestic and foreign customs and tariffs, current and changing regulatory environments (including, but not limited to, the risks associated with the importation and exportation of products and raw materials), risk of failure of our foreign employees to comply with both U.S. and foreign laws, including antitrust laws, trade regulations and the Foreign Corrupt Practices Act, difficulty in obtaining distribution support, difficulty in staffing and managing widespread operations, differences in the availability and terms of financing, social and political instability and unrest and risks of increased taxes and/or adverse tax consequences. Also, in some foreign jurisdictions, we may be subject to laws limiting the right and ability of entities organized or operating therein to pay dividends or remit earnings to affiliated companies unless specified conditions are met. To the extent we are unable to effectively manage our international operations and these risks, our international sales may be adversely affected, we may be subject to additional and unanticipated costs, and we may be subject to litigation or regulatory action. As a co

Additional tax expense or exposures could affect our financial condition and results of operations. We are subject to various taxes in the U.S. and numerous other jurisdictions. Our future results of operations could be adversely affected by changes in our effective tax rate as a result of a change in the mix of earnings between U.S. and non-U.S. jurisdictions or among jurisdictions with differing statutory tax rates, changes in tax laws or treaties or in their application or interpretation, changes in generally accepted accounting principles, changes in the valuation of deferred tax assets and liabilities, changes in the amount of earnings indefinitely reinvested in certain non-U.S. jurisdictions, and the results of audits and examinations of previously filed tax returns and continuing assessments of our tax exposures.

Implementation of tariffs and changes to or uncertainties related to tariffs and trade agreements could adversely affect our business. The U.S. has recently changed its approach to trade policy, including in some cases renegotiating and terminating certain existing bilateral or multi-lateral trade agreements. The U.S. government has also initiated tariffs on certain foreign goods from a variety of countries and regions, most notably China, and has raised the possibility of imposing significant, additional tariff increases or expanding the tariffs to capture other types of goods from other countries. In response, many of these foreign governments have imposed retaliatory tariffs on goods that their countries import from the U.S. Uncertainties with respect to tariffs, trade agreements or any potential trade wars could negatively affect the global economy and could affect demand for our products and could have a material adverse effect on our financial condition, results of operations and cash flows. Changes in tariffs and trade barriers could also result in adverse changes in the cost and availability of our raw materials, and our ability to manufacture globally to support global sales which could lead to increased costs that we may not be able to effectively pass on to customers, each of which could materially adversely affect our operating margins, results of operations and cash flows.

Changes in the regulatory environment, including environmental, health and safety regulations, could subject us to increased compliance and manufacturing costs, which could have a material adverse effect on our business.

Health and Safety Regulations. Certain of our products contain hard metals, including tungsten and cobalt. Hard metal dust is being studied for potential adverse health effects by organizations in several regions throughout the world, including the U.S., Europe and Japan. Future studies on the health effects of hard metals may result in our products being classified as hazardous to human health, which could lead to new regulations in countries in which we operate that may restrict or prohibit the use of, and/or exposure to, hard metal dust. New regulation of hard metals could require us to change our operations, and these changes could affect the quality of our products and materially increase our costs.

Environmental Regulations. We are subject to various environmental laws, and any violation of, or our liabilities under, these laws could adversely affect us. Our operations necessitate the use and handling of hazardous materials and, as a result, we are subject to various federal, state, local and foreign laws, regulations and ordinances relating to the protection of the environment, including those governing discharges to air and water, handling and disposal practices for solid and hazardous wastes, the cleanup of contaminated sites and the maintenance of a safe workplace. These laws impose penalties, fines and other sanctions for noncompliance and liability for response costs, property damages and personal injury resulting from past and current spills, disposals or other releases of, or exposure to, hazardous materials. We could incur substantial costs as a result of noncompliance with or liability for cleanup or other costs or damages under these laws. We may be subject to more stringent environmental laws in the future. If more stringent environmental laws are enacted in the future, these laws could have a material adverse effect on our business, financial condition and results of operations.

Regulations affecting the mining and drilling industries or utilities industry. Some of our principal customers are mining and drilling companies. Many of our mining and drilling customers supply coal, oil, gas or other fuels as a source of energy to utility companies in the U.S. and other industrialized regions. The operations of these mining and drilling companies are geographically diverse and are subject to or affected by a wide array of regulations in the jurisdictions where they operate, such as applicable environmental laws and regulations governing the mining and drilling industry and the utilities industry. As a result of changes in regulations and laws relating to these industries, our customers' operations could be disrupted or curtailed by governmental authorities. The high cost of compliance with these regulations may also induce customers to discontinue or limit their operations and may discourage companies from developing new opportunities. As a result of these factors, demand for our mining- and drilling-related products could be substantially affected by regulations adversely effecting the mining and drilling industries or altering the consumption patterns of utilities.

Impairment of goodwill and other intangible assets with indefinite lives could result in a negative effect on our financial condition and results of operations. At June 30, 2020, goodwill and other indefinite-lived intangible assets totaled \$281.7 million, or 9 percent of our total assets. Goodwill results from acquisitions, representing the excess of cost over the fair value of the net tangible and other identifiable intangible assets we have acquired. We assess at least annually whether there has been impairment in the value of our goodwill and indefinite-lived intangible asset. Interim impairment analyses were performed during the December and March quarters of fiscal 2020 related to the Widia reporting unit. This was largely due to the deteriorating market conditions, primarily in general engineering and transportation applications in India and China, in addition to overall global weakness in the manufacturing sector which was later amplified by the COVID-19 pandemic. As a result of these interim tests, we recorded non-cash pre-tax impairment charges during fiscal 2020 of \$30.2 million in the Widia segment, of which \$26.8 million was for goodwill and \$3.4 million was for an indefinite-lived trademark intangible asset. Subsequent to the impairment charges recorded during fiscal 2020, there is no remaining goodwill for the Widia reporting unit and the carrying value of the indefinite-lived trademark is \$11.2 million as of June 30, 2020, which approximates fair value. If future operating performance at one or more of our reporting units were to fall significantly below current levels, we could record, under current applicable accounting rules, a non-cash impairment charge for goodwill or other intangible asset impairment. Any determination requiring the impairment of a significant portion of goodwill or other intangible assets would negatively affect our financial condition and results of operations.

Our continued success depends on our ability to protect and defend our intellectual property. Our future success depends in part upon our ability to protect and defend our intellectual property. We rely principally on nondisclosure agreements and other contractual arrangements and trade secret laws and, to a lesser extent, trademark and patent laws, to protect our intellectual property. However, these measures may be inadequate to protect our intellectual property from infringement by others or prevent misappropriation of our proprietary rights. In addition, the laws of some foreign countries do not protect proprietary rights to the same extent as do U.S. laws. If one of our patents is infringed upon by a third party, we may need to devote significant time and financial resources to defend our rights with respect to such patent. We may not be successful in defending our patents. Similarly, while we do not knowingly infringe on the patents, copyrights or other intellectual property rights of others, we may be required to spend a significant amount of time and financial resources to resolve any infringement claims against us, and we may not be successful in defending our position or negotiating alternative remedies. Our inability to protect our proprietary information and enforce or defend our intellectual property rights in proceedings initiated by us or brought against us could have a material adverse effect on our business, financial condition and results of operations.

Failure of, or a breach in security of, our information technology systems could adversely affect our business. We rely on information technology infrastructure to achieve our business objectives. Any disruption of our infrastructure could negatively affect our ability to record or process orders, manufacture and ship in a timely manner, or otherwise carry on business in the normal course. Any disruption could cause us to lose customers or revenue and could require us to incur significant expense to remediate.

Increased global information technology threats, vulnerabilities, and a rise in sophisticated and targeted international computer crime pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data. A security breach of our information technology systems could interrupt or damage our operations or harm our reputation. In addition, we could be subject to liability if confidential information relating to customers, employees, vendors and the extended supply chain or other parties is misappropriated from our computer system. We do not believe we have been the target of a material successful cyber attack. While we have dedicated increased resources to fortify our security measures, our systems may be vulnerable to physical break-ins, computer viruses, human error, programming errors or similar disruptive problems. Therefore, we cannot assure that our system improvements will be sufficient to prevent or limit the damage from any cyber attack or network disruption.

We operate in a highly competitive environment. Our domestic and foreign operations are subject to significant competitive pressures. We compete directly and indirectly with other manufacturers and suppliers of metal cutting tools, engineered components and advanced materials. Some of our competitors are larger than we are and may have greater access to financial resources or be less leveraged than us. In addition, the industry in which our products are used is a large, fragmented industry that is highly competitive.

If we are unable to retain our qualified management and employees, our business may be negatively affected. Our ability to provide high quality products and services depends in part on our ability to retain our skilled personnel in the areas of management, product engineering, servicing and sales. Competition for such personnel is intense, and our competitors can be expected to attempt to hire our management and skilled employees from time to time. In addition, our restructuring activities and strategies for growth have placed, and are expected to continue to place, increased demands on our management's skills and resources. If we are unable to retain our management team and professional personnel, our customer relationships and level of technical expertise could be negatively affected, which may materially and adversely affect our business.

Any interruption of our workforce, including interruptions due to our restructuring initiatives, unionization efforts, changes in labor relations or shortages of appropriately skilled individuals could affect our business.

Our future operating results may be affected by fluctuations in the prices and availability of raw materials. The raw materials we use for our products include tungsten ore concentrates and scrap carbide, which are used to make tungsten oxide, as well as compounds and secondary materials such as cobalt. A significant portion of our raw materials is supplied by sources outside of the U.S. The raw materials extraction industry is highly cyclical and at times pricing and supply can be volatile due to a number of factors beyond our control, including natural disasters, pandemics or public health issues, general economic and political conditions, labor costs, competition, import duties, tariffs and currency exchange rate fluctuations. This volatility can significantly affect our raw material costs. In an environment of increasing raw material prices, competitive conditions can affect how much of these price increases we can recover in the form of higher sales prices for our products. To the extent we are unable to pass on any raw material price increases to our customers, our profitability could be adversely affected. Furthermore, restrictions in the supply of tungsten, cobalt and other raw materials could adversely affect our operating results. If the prices for our raw materials increase or we are unable to secure adequate supplies of raw materials on favorable terms, our profitability could be impaired. If the prices for our raw materials decrease, we could face product pricing challenges.

Product liability claims could have a material adverse effect on our business. The sale of metal cutting, mining, highway construction and other tools and related products as well as engineered components and advanced materials entails an inherent risk of product liability claims. We cannot give any assurances that the coverage limits of our insurance policies will be adequate or that our policies will cover any particular loss. Insurance can be expensive, and we may not always be able to purchase insurance on commercially acceptable terms, if at all. Claims brought against us that are not covered by insurance or that result in recoveries in excess of our insurance coverage could have a material adverse effect on our business, financial condition and results of operations.

Restrictions contained in our revolving credit facility and other debt agreements may limit our ability to incur additional indebtedness. Our existing revolving credit facility and other debt agreements (each a "Debt Facility" and collectively, "Debt Facilities") contain restrictive covenants, including restrictions on our ability to incur indebtedness. These restrictions could limit our ability to effectuate future acquisitions, limit our ability to pay dividends, limit our ability to make capital expenditures or restrict our financial flexibility. Our revolving credit facility contains covenants requiring us to achieve certain financial and operating results and maintain compliance with specified financial ratios. Our ability to meet the financial covenants or requirements in our revolving credit facility may be affected by events beyond our control, and we may not be able to satisfy such covenants and requirements. A breach of these covenants or our inability to comply with the financial ratios, tests or other restrictions contained in a Debt Facility could result in an event of default under one or more of our other Debt Facilities. Upon the occurrence of an event of default under a Debt Facility, and the expiration of any grace periods, the lenders could elect to declare all amounts outstanding under one or more of our other Debt Facilities, together with accrued interest, to be immediately due and payable. If this were to occur, our assets may not be sufficient to fully repay the amounts due under our Debt Facilities or our other indebtedness.

We may not be able to complete, manage or integrate acquisitions successfully. We have acquired companies in the past and we may continue to evaluate acquisition opportunities that have the potential strengthen or expand our business. We can give no assurances, however, that any acquisition opportunities will arise or if they do, that they will be consummated, or that additional financing, if needed, will be available on satisfactory terms. In addition, acquisitions involve inherent risks that the businesses acquired will not perform in accordance with our expectations. We may not be able to achieve the synergies and other benefits we expect from the integration of acquisitions as successfully or rapidly as projected, if at all. Our failure to consummate an acquisition or effectively integrate newly acquired operations could prevent us from realizing our expected strategic growth and rate of return on an acquired business and could have a material and adverse effect on our results of operations and financial condition.

Natural disasters or other global or regional catastrophic events could disrupt our operations and adversely affect results. Despite our concerted effort to minimize risk to our production capabilities and corporate information systems and to reduce the effect of unforeseen interruptions to us through business continuity planning, we still may be exposed to interruptions due to catastrophe, natural disaster, pandemic, terrorism or acts of war, which are beyond our control. Disruptions to our facilities or systems, or to those of our key suppliers, could also interrupt operational processes and adversely affect our ability to manufacture our products and provide services and support to our customers. As a result, our business, our results of operations, financial position, cash flows and stock price could be adversely affected.

ITEM 1B - UNRESOLVED STAFF COMMENTS

None.

ITEM 2 - PROPERTIES

Our principal executive offices are located at 525 William Penn Place, Suite 3300, Pittsburgh, Pennsylvania, 15219. Our corporate and technology center is located at 1600 Technology Way, P.O. Box 231, Latrobe, Pennsylvania, 15650. A summary of our principal manufacturing facilities and other materially important properties is as follows:

			Priı	nary Segn	nent
Location	Owned/Leased	Principal Products	IND ⁽¹⁾	WID ⁽²⁾	INF ⁽³⁾
United States:					
Gurley, Alabama	Owned	Metallurgical Powders			X
Huntsville, Alabama	Owned	Metallurgical Powders			X
Rogers, Arkansas	Owned/Leased	Carbide Products, Pelletizing Die Plates and Downhole Drilling Carbide Components			X
Goshen, Indiana	Leased	Powders; Welding Rods, Wires and Machines			X
New Albany, Indiana	Leased	High Wear Coating for Steel Parts			X
Greenfield, Massachusetts	Owned	High-Speed Steel Taps		X	
Traverse City, Michigan	Owned	Wear Parts			X
Fallon, Nevada	Owned	Metallurgical Powders			X
Asheboro, North Carolina	Owned	Carbide Round Tools	X		
Henderson, North Carolina	Owned	Metallurgical Powders			X
Roanoke Rapids, North Carolina	Owned	Metal Cutting Inserts	X		
Cleveland, Ohio	Leased	Distribution	X		
Orwell, Ohio	Owned	Metal Cutting Inserts	X		
Solon, Ohio	Owned	Metal Cutting Toolholders	X		
Whitehouse, Ohio	Owned/Leased	Metal Cutting Inserts and Round Tools	X		
Bedford, Pennsylvania	Owned/Leased	Mining and Construction Tools, Wear Parts and Distribution			X
Johnson City, Tennessee	Owned	Metal Cutting Inserts	X		
La Vergne, Tennessee	Owned	Metal Cutting Inserts	X		
New Market, Virginia	Owned	Metal Cutting Toolholders	X		
International:					
La Paz, Bolivia	Owned	Tungsten Concentrate			X
Indaiatuba, Brazil	Leased	Metal Cutting Carbide Drills and Toolholders	X		
Belleville, Canada	Owned	Casting Components, Coatings and Powder Metallurgy Components			X
Victoria, Canada	Owned	Wear Parts			X
Fengpu, China	Owned	Intermetallic Composite Ceramic Powders and Parts			X
Shanghai, China	Owned	Powders, Welding Rods and Wires and Cast Components			X
Shanghai, China	Leased	Distribution	X		
Tianjin, China	Owned	Metal Cutting Inserts, Carbide Round Tools and Metallurgical Powders	X		X
Xuzhou, China	Leased	Mining Tools			X
Ebermannstadt, Germany	Owned	Metal Cutting Inserts	X		

			Prin	nary Segn	nent
Location	Owned/Leased	Principal Products	IND ⁽¹⁾	WID ⁽²⁾	INF ⁽³⁾
Essen, Germany	Owned/Leased	Metal Cutting Inserts	X		
Königsee, Germany	Leased	Metal Cutting Carbide Drills	X		
Mistelgau, Germany	Owned	Wear Parts and Metallurgical Powders			X
Nabburg, Germany	Owned	Metal Cutting Toolholders and Metal Cutting Round Tools, Drills and Mills	X		
Schongau, Germany	Owned	Ceramic Vaporizer Boats			X
Vohenstrauss, Germany	Owned	Metal Cutting Carbide Drills	X		
Bangalore, India	Owned	Metal Cutting Inserts, Toolholders and Wear Parts	X	X	X
Shlomi, Israel	Owned	High-Speed Steel and Carbide Round Tools		X	
Zory, Poland	Leased	Mining and Construction Conicals and Metal Cutting Carbide Drills	X		X
Boksburg, South Africa	Leased	Mining and Construction Conicals			X
Barcelona, Spain	Leased	Metal Cutting Tools	X		
Kingswinford, United Kingdom	Leased	Distribution	X		
Newport, United Kingdom	Owned	Intermetallic Composite Powders			X

- (1) Industrial segment
- (2) Widia segment
- (3) Infrastructure segment

We also have a network of customer service centers located throughout North America, Europe, India, Asia Pacific and Latin America, a significant portion of which are leased. The majority of our research and development efforts are conducted at our technology center located in Latrobe, Pennsylvania, U.S., as well as at our facilities in Rogers, Arkansas, U.S.; Fürth, Germany and Bangalore, India.

We use all of our significant properties in the businesses of powder metallurgy, tools, tooling systems, engineered components and advanced materials. Our production capacity is adequate for our present needs. We believe that our properties have been adequately maintained, are generally in good condition and are suitable for our business as presently conducted.

ITEM 3 - LEGAL PROCEEDINGS

The information set forth in Part I, Item 1, of this Annual Report under the caption "Regulation" is incorporated by reference into this Item 3. From time to time, we are party to legal claims and proceedings that arise in the ordinary course of business, which may relate to our operations or assets, including real, tangible or intellectual property assets. While we currently believe that the amount of ultimate liability, if any, we may face with respect to these actions will not materially affect our financial position, results of operations or liquidity, the ultimate outcome of any litigation is uncertain. Were an unfavorable outcome to occur or if protracted litigation were to ensue, the effect on us could be material.

ITEM 4 - MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Incorporated by reference into this Part I is the information set forth in Part III, Item 10 of this Annual Report under the caption "Information About Our Executive Officers."

PART II

${\tt ITEM\,5-MARKET\,FOR\,THE\,REGISTRANT'S\,COMMON\,EQUITY,\,RELATED\,STOCKHOLDER\,MATTERS\,AND\,ISSUER\,PURCHASES\,OF\,EQUITY\,SECURITIES}$

Our capital stock is traded on the New York Stock Exchange under the symbol "KMT." The number of shareholders of record as of July 31, 2020 was 1,457.

The information incorporated by reference into Part III, Item 12 of this Annual Report from our 2020 Proxy Statement under the heading "Equity Compensation Plans – Equity Compensation Plan Information" is hereby incorporated by reference into this Item 5.

PERFORMANCE GRAPH

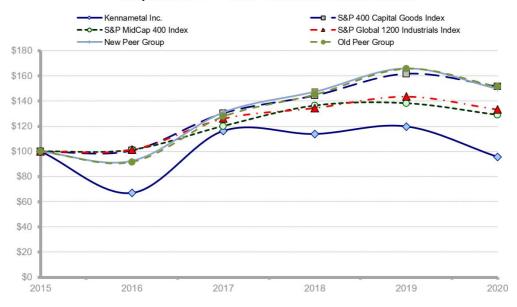
The following graph compares cumulative total shareholder return on our capital stock with the cumulative total shareholder return on the common stock of the companies in the Standard & Poor's Mid-Cap 400 Market Index (S&P Midcap 400), the Standard & Poor's 400 Capital Goods (S&P 400 Capital Goods), the Standard & Poor's Global 1200 Industrials Index (S&P Global 1200 Industrials) and the peer groups of companies determined by us (New Peer Group and Old Peer Group) for the period from June 30, 2015 to June 30, 2020.

In fiscal 2020, we established a New Peer Group to in order to align with how we evaluate our executive compensation, and we believe this group is representative of Kennametal's peers. We have included both this New Peer Group as well as the Old Peer Group in the comparisons below. The peer groups were created to benchmark our sales and earnings growth, return on invested capital, profitability and asset management.

The New Peer Group consists of the following companies: Allegheny Technologies Incorporated; Barnes Group Inc.; Carpenter Technology Corporation; Crane Co.; Donaldson Company, Inc.; Flowserve Corporation; Graco Inc.; Harsco Corporation; IDEX Corporation; ITT Inc.; Lincoln Electric Holdings, Inc.; The Manitowoc Company, Inc.; Nordson Corporation; Rexnord Corporation; Sandvik AB, Corp.; SPX Corporation; SPX FLOW, Inc.; The Timken Company; and Woodward, Inc.

The Old Peer Group consists of the following companies: Enerpac Tool Group Corp. (formerly Actuant Corporation); Allegheny Technologies Incorporated; Ametek, Inc.; Barnes Group Inc.; Carpenter Technology Corporation; Crane Co.; Donaldson Company, Inc.; Flowserve Corporation; Graco Inc.; Harsco Corporation; IDEX Corporation; ITT Inc.; Lincoln Electric Holdings, Inc.; The Manitowoc Company, Inc.; Nordson Corporation; Rexnord Corporation; Sandvik AB, Corp.; SPX Corporation; SPX FLOW, Inc.; The Timken Company; and Woodward, Inc.

Comparison of 5 - Year Cumulative Total Return



Assumes \$100 Invested on July 1, 2015 and All Dividends Reinvested

	2015	2016	2017	2018	2019	2020
Kennametal	\$ 100.00 \$	67.01 \$	116.21 \$	113.77 \$	119.78 \$	95.58
New Peer Group Index	100.00	92.67	131.03	147.39	166.01	149.84
Old Peer Group Index	100.00	91.63	127.82	145.16	165.79	151.58
S&P Midcap 400	100.00	101.33	120.14	136.37	138.22	128.97
S&P 400 Capital Goods	100.00	100.84	130.43	144.45	161.75	151.75
S&P Global 1200 Industrials	100.00	101.31	126.04	134.52	143.64	133.32

ISSUER PURCHASES OF EQUITY SECURITIES

				Maximum Number
			Total Number of	of Shares that May
	Total Number		Shares Purchased as Part of	Yet Be Purchased
	of Shares	Average Price	Publicly Announced Plans or	Under the Plans or
Period	Purchased ⁽¹⁾	Paid per Share	Programs	Programs (2)
April 1 through April 30, 2020	_	\$ _	_	10,100,100
May 1 through May 31, 2020	2,015	28.87	_	10,100,100
June 1 through June 30, 2020	40	28.01	_	10,100,100
Total	2,055	\$ 28.85	_	

During the fourth quarter of 2020, 1,734 shares were purchased on the open market on behalf of Kennametal to fund the Company's dividend reinvestment program. Employees also delivered 321 shares of restricted stock to Kennametal, upon vesting, to satisfy tax withholding requirements.

UNREGISTERED SALES OF EQUITY SECURITIES

None.

On July 25, 2013, the Company publicly announced an open-ended, amended repurchase program for up to 17 million shares of its outstanding common stock outside of the Company's dividend reinvestment program.

ITEM 6 - SELECTED FINANCIAL DATA

		2020		2019		2018		2017		2016
OPERATING RESULTS (in thousands)										
Sales	\$	1,885,305	\$	2,375,234	\$	2,367,853	\$	2,058,368	\$	2,098,436
Cost of goods sold		1,355,834		1,543,738		1,547,734		1,413,453		1,492,697
Operating expense		388,436		474,151		503,252		468,568		496,792
Restructuring and asset impairment charges	(1)	98,455		14,084		11,907		65,018		143,810
Loss on divestiture		6,517		_		_				131,463
Interest expense		35,154		32,994		30,081		28,842		27,752
Provision for income taxes		7,007		63,359		69,981		29,895		25,313
Net (loss) income attributable to Kennametal		(5,661)		241,925		200,180		49,138		(225,968)
FINANCIAL POSITION (in thousands)										
Working capital	\$	542,732	\$	729,101	\$	659,635	\$	652,423	\$	648,066
Total assets		3,037,591		2,656,269		2,925,737		2,415,496		2,362,783
Long-term debt, including finance leases, excluding current maturities		594,083		592,474		591,505		694,991		693,548
Total debt, including finance leases, revolving and other lines of credit and notes payable to banks		1,094,451		592,631		991,705		695,916		695,443
Total Kennametal shareholders' equity		1,229,885		1,335,172		1,194,325		1,017,294		964,323
PER SHARE DATA ATTRIBUTABLE TO KENNA	METAL	SHAREHOLD	ERS							
Basic (loss) earnings	(2)	(0.07)		2.94		2.45		0.61		(2.83)
Diluted (loss) earnings	(2)	(0.07)		2.90		2.42		0.61		(2.83)
Dividends		0.80		0.80		0.80		0.80		0.80
Book value (at June 30)		14.83		16.17		14.63		12.61		12.10
Market Price (at June 30)		28.71		36.99		35.90		37.42		22.11
OTHER DATA (in thousands, except number of emp	loyees)									
Capital expenditures	\$	244,151	\$	212,343	\$	171,004	\$	118,018	\$	110,697
Number of employees (at June 30)		8,989		10,395		10,491		10,744		11,178
Basic weighted average shares outstanding		83,047		82,379		81,544		80,351		79,835
Diluted weighted average shares outstanding		83,047		83,291		82,754		81,169		79,835
KEY RATIOS										
Sales (decline) growth	(3)	(20.6)%	6	0.3%	ó	15.0%	ó	(1.9)%	6	(20.7)%
Gross profit margin		28.1		35.0		34.6		31.3		28.9
Operating margin	(4)	1.2		13.8		12.3		4.6		(2.7)

⁽¹⁾ In 2020, the charges related to restructuring of \$68.2 million and goodwill and other intangible assets impairments of \$30.2 million. In 2019, 2018 and 2017, all charges were related to restructuring. In 2016, the charges related to intangible asset impairment of \$108.5 million, restructuring charges of \$30.0 million and fixed asset disposal charges of \$5.4 million.

^{(2) 2020} included restructuring and related charges of \$0.88, goodwill and other intangible asset impairment charges of \$0.33, a discrete benefit of \$0.17 from Swiss tax reform, a \$0.08 benefit from the CARES Act, a loss on divestiture of \$0.06 and a \$0.01 benefit from other tax matters. 2019 included restructuring and related charges of \$0.17, a net benefit from tax reform of \$0.11, a charge related to changes in the indefinite reinvestment assertion on certain foreign subsidiaries' undistributed earnings of \$0.07 and \$0.01 of benefit from the release of the valuation allowance on Australian deferred tax assets. 2018 included restructuring and related charges of \$0.16, effect of an out of period adjustment to the provision for income taxes of \$0.06 and net effect of tax reform of \$0.01. 2017 included restructuring and related charges of \$0.89 and Australia deferred tax valuation allowance of \$0.02. 2016 included U.S. deferred tax valuation allowance of \$1.02, divestiture and related charges of \$1.39, intangible asset impairment charges of \$0.96, restructuring and related charges of \$0.50, fixed asset disposal charges of \$0.05 and operations of divested businesses of \$0.02.

⁽³⁾ Divestiture effect of sales decline was negative 1 percent, negative 4 percent and negative 5 percent in 2020, 2017 and 2016, respectively.

⁽⁴⁾ Included restructuring and related charges of \$82.4 million, \$16.9 million, \$15.9 million, \$76.2 million and \$53.5 million in 2020, 2019, 2018, 2017 and 2016, respectively; goodwill and other intangible asset impairment of \$30.2 million and \$108.5 million in 2020 and 2016, respectively; and loss on divestiture and related charges of \$6.5 million and \$131.5 million in 2020 and 2016, respectively.

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

The following discussion should be read in connection with the consolidated financial statements of Kennametal Inc. and the related financial statement notes included in Item 8 of this Annual Report. Unless otherwise specified, any reference to a "year" is to our fiscal year ended June 30. Additionally, when used in this Annual Report, unless the context requires otherwise, the terms "we," "our" and "us" refer to Kennametal Inc. and its subsidiaries.

OVERVIEW Kennametal Inc. was founded based on a tungsten carbide technology breakthrough in 1938. The Company was incorporated in Pennsylvania in 1943 as a manufacturer of tungsten carbide metal cutting tooling, and was listed on the New York Stock Exchange (NYSE) in 1967. With more than 80 years of materials expertise, the Company is a global industrial technology leader, helping customers across the aerospace, earthworks, energy, general engineering and transportation industries manufacture with precision and efficiency. This expertise includes the development and application of tungsten carbides, ceramics, super-hard materials and solutions used in metal cutting and extreme wear applications to keep customers up and running longer against conditions such as corrosion and high temperatures.

Our standard and custom product offering spans metal cutting and wear applications including turning, milling, hole making, tooling systems and services, as well as specialized wear components and metallurgical powders. End users of the Company's metal cutting products include manufacturers engaged in a diverse array of industries including: the manufacturers of transportation vehicles and components, machine tools and light and heavy machinery; airframe and aerospace components; and energy-related components for the oil and gas industry, as well as power generation. The Company's wear and metallurgical powders are used by producers and suppliers in equipment-intensive operations such as road construction, mining, quarrying, oil and gas exploration, refining, production and supply.

Throughout the MD&A, we refer to measures used by management to evaluate performance. We also refer to a number of financial measures that are not defined under accounting principles generally accepted in the United States of America (U.S. GAAP), including organic sales growth (decline), constant currency regional sales growth (decline) and constant currency end market sales growth (decline). The explanation at the end of the MD&A provides the definition of these non-GAAP financial measures as well as details on their use and a reconciliation to the most directly comparable GAAP financial measures.

Our sales of \$1,885.3 million for the year ended June 30, 2020 decreased 21 percent year-over-year, reflecting 18 percent organic sales decline, a 2 percent unfavorable currency exchange effect and a 1 percent decline from divestiture. The decline reflects a global manufacturing slow down and deteriorating end markets which accelerated in the second half of the fiscal year due to the emergence of the COVID-19 pandemic. Despite the challenging macroeconomic environment, the Company continued to have success by introducing new and innovative products such as the award-winning HARVITM 1 TE end mill designed primarily for the general engineering end market.

Operating income was \$22.3 million compared to \$328.9 million in the prior year. The decrease in operating income was primarily due to an organic sales decline, unfavorable labor and fixed cost absorption due to lower volumes and simplification/modernization efforts in progress, higher restructuring and related charges of \$66.0 million and \$30.2 million of goodwill and other intangible asset impairment charges, partially offset by approximately \$48 million of incremental simplification/modernization benefits, lower raw material costs and lower variable compensation expense. Operating margin was 1.2 percent compared to 13.8 percent in the prior year. The Industrial and Infrastructure segments had operating margins of 3.5 percent and 3.3 percent, respectively, while the Widia segment had operating loss margin of 21.3 percent.

COVID-19 emerged in China at the end of calendar year 2019 bringing significant uncertainty in our end markets and operations. National, regional and local governments have taken steps to limit the spread of the virus through stay-at-home, social distancing, and various other orders and guidelines. The imposition of these measures has created potentially significant operating constraints on our business. Recognizing the potential for COVID-19 to significantly disrupt operations, we began to deploy safety protocols and processes globally during the March quarter of fiscal 2020 to keep our employees safe while continuing to serve our customers. COVID-19 affected all regions and end markets during the latter half of fiscal 2020. As an essential business, Kennametal facilities continued to operate throughout the March and June quarters, with the notable exceptions of Kennametal India Ltd. and our Bolivian operation which were closed for approximately six weeks due to government mandated lockdowns. In fiscal 2020 we did not experience a material disruption in our supply chain as a result of these facility closures or elsewhere in our supply chain. We expect COVID-19 will continue to have a negative effect on customer demand in fiscal 2021 as a result of the disruption and uncertainty it is causing most acutely in the energy, aerospace and transportation end markets. The extent to which the COVID-19 pandemic may affect our business, operating results, financial condition, or liquidity in the future will depend on future developments, including the duration of the outbreak, travel restrictions, business and workforce disruptions, and the effectiveness of actions taken to contain and treat the disease.

The FY20 Restructuring Actions, which are substantially complete, resulted in annualized savings of \$33 million and pre-tax charges of \$54 million. During the June quarter of fiscal 2020 the Company announced the acceleration of its structural cost reduction plans and increased the estimated annualized benefits of its FY21 Restructuring Actions to \$65 million to \$75 million from \$25 million to \$30 million and the expected pre-tax charges to \$90 million to \$100 million from \$55 million to \$60 million. As part of this acceleration, the Company is continuing our footprint rationalization and in August 2020 announced the closure of our manufacturing facility in Johnson City, Tennessee. The closure is expected to be completed in fiscal 2021.

We recorded \$83.3 million of pre-tax restructuring and related charges during 2020. Total benefits from our simplification/modernization efforts, including restructuring initiatives, were approximately \$48 million in 2020, and we achieved annualized run-rate savings from simplification/modernization of approximately \$101 million since inception.

We recorded non-cash pre-tax Widia goodwill and other intangible asset impairment charges of \$30.2 million in the current year as a result of deteriorating market conditions in part caused by the COVID-19 global pandemic.

We reported loss per diluted share of \$0.07 for fiscal 2020. Loss per share for the year was unfavorably affected by restructuring and related charges of \$0.88 per share, goodwill and other intangible asset impairment charges of \$0.33 per share and loss on divestiture of \$0.06 per share, partially offset by discrete benefits from Swiss tax reform of \$0.17 per share, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) of \$0.08 per share and other tax matters of \$0.01 per share. The earnings per diluted share of \$2.90 in the prior year included a discrete benefit from U.S. tax reform of \$0.11 per share, a discrete benefit of \$0.01 per share from the release of a valuation allowance on Australian deferred tax assets, a tax charge from a change in permanent reinvestment assertion of \$0.07 per share and restructuring and related charges of \$0.17 per share.

We generated cash flow from operating activities of \$223.7 million in 2020 compared to \$300.5 million during the prior year. Capital expenditures were \$244.2 million and \$212.3 million during 2020 and 2019, respectively, with the increase primarily due to higher spending associated with our simplification/modernization initiatives, and the Company returned \$66.3 million and \$65.7 million to shareholders through dividends during 2020 and 2019, respectively.

As a result of the Company's focus on organizational efficiency, commercial excellence and growth in its metal cutting businesses, effective July 1, 2020, Kennametal has combined its Industrial and Widia business segments to form one Metal Cutting business segment. The Infrastructure segment remains unchanged.

For discussion related to the results of operations, changes in financial condition and liquidity and capital resources for fiscal 2019 compared to fiscal 2018 refer to Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our fiscal 2019 Form 10-K, which was filed with the United States Securities and Exchange Commission on August 13, 2019.

RESULTS OF CONTINUING OPERATIONS

SALES Sales in 2020 were \$1,885.3 million, a 21 percent decrease from \$2,375.2 million in 2019. The decrease was primarily due to organic sales decline of 18 percent, unfavorable currency exchange effect of 2 percent and unfavorable divestiture effect of 1 percent.

	202	20
(in percentages)	As Reported	Constant Currency
End market sales decline:		
Energy	(29)%	(28)%
Transportation	(25)	(23)
General engineering	(19)	(17)
Aerospace	(17)	(16)
Earthworks	(9)	(7)
Regional sales decline:		
Americas	(23)%	(21)%
Europe, the Middle East and Africa (EMEA)	(20)	(17)
Asia Pacific	(17)	(15)

GROSS PROFIT Gross profit decreased \$302.0 million to \$529.5 million in 2020 from \$831.5 million in 2019. This decrease was primarily due to an organic sales decline, unfavorable labor and fixed cost absorption due to lower volumes and simplification/modernization efforts in progress, greater restructuring and related charges of \$12 million and unfavorable foreign currency exchange effect of approximately \$11 million, partially offset by incremental simplification/modernization benefits. The gross profit margin for 2020 was 28.1 percent compared to 35.0 percent in 2019.

OPERATING EXPENSE Operating expense in 2020 was \$388.4 million, a decrease of \$85.7 million, or 18.1 percent, from \$474.2 million in 2019. The decrease was primarily due to lower incentive compensation expense, incremental restructuring simplification benefits and favorable currency exchange effect of approximately \$6 million.

We invested further in technology and innovation to continue delivering high quality products to our customers. Research and development expenses included in operating expense totaled \$38.7 million and 39.0 million for 2020 and 2019, respectively.

RESTRUCTURING AND RELATED CHARGES AND ASSET IMPAIRMENT CHARGES

FY20 Restructuring Actions

In the June quarter of fiscal 2019, we implemented, and in the current year substantially completed, the FY20 Restructuring Actions associated with our simplification/modernization initiative to reduce structural costs, improve operational efficiency and position us for long-term profitable growth. Total restructuring and related charges since inception of \$53.5 million were recorded for this program through June 30, 2020, consisting of: \$43.1 million in Industrial, \$8.2 million in Infrastructure and \$2.2 million in Widia. Inception to date, we have achieved annualized savings of approximately \$33 million.

FY21 Restructuring Actions

In the September quarter of fiscal 2020, we announced the initiation of restructuring actions in Germany associated with our simplification/modernization initiative, which are expected to reduce structural costs. We agreed with local employee representatives to downsize our Essen, Germany operations instead of the previously proposed closure. During the fourth quarter of fiscal 2020, we also announced the acceleration of our structural cost reduction plans and increased the estimated annualized savings of the FY21 Restructuring Actions to \$65 million to \$75 million and the expected pre-tax charges to \$90 million to \$100 million. These actions are to be completed by the end of fiscal 2021 and are expected to be primarily cash expenditures.

Total restructuring and related charges since inception of \$43.2 million were recorded for this program through June 30, 2020, consisting of: \$37.9 million in Industrial, \$3.0 million in Infrastructure and \$2.3 million in Widia. Inception to date, we have achieved annualized savings of approximately \$5 million.

Annual Restructuring Charges

During 2020, we recorded restructuring and related charges of \$83.3 million. Of this amount, restructuring charges totaled \$69.2 million, of which \$0.9 million was related to inventory and was recorded in cost of goods sold. Restructuring-related charges of \$14.1 million were recorded in cost of goods sold.

During 2019, we recorded restructuring and related charges of \$16.9 million, net of a \$4.8 million gain on the sale of our previously closed Madison, AL manufacturing location as part of our FY19 Restructuring Actions. Of this amount, restructuring charges totaled \$19.5 million, of which \$0.7 million was related to inventory and was recorded in cost of goods sold. Restructuring-related charges of \$1.8 million were recorded in cost of goods sold and \$0.3 million were recorded in operating expense during 2019.

LOSS ON DIVESTITURE During the year ended June 30, 2020, we completed the sale of certain assets of the non-core specialty alloys and metals business within the Infrastructure segment located in New Castle, Pennsylvania to Advanced Metallurgical Group N.V. for an aggregate price of \$24.0 million.

The net book value of these assets at closing was \$29.5 million, and the pre-tax loss on divestiture recognized during the year ended June 30, 2020 was \$6.5 million. Transaction proceeds were primarily used for capital expenditures related to our simplification/modernization efforts.

AMORTIZATION OF INTANGIBLES Amortization expense was \$13.8 million and \$14.4 million in 2020 and 2019, respectively.

INTEREST EXPENSE Interest expense in 2020 was \$35.2 million, an increase of \$2.2 million, compared to \$33.0 million in 2019. The increase was primarily due to the increase in borrowings under our Credit Agreement. The portion of our debt subject to variable rates of interest was 45.7 percent at June 30, 2020, due to \$500.0 million of borrowings outstanding under the Credit Agreement, and less than 1 percent at June 30, 2019. There were no borrowings outstanding under the Credit Agreement as of June 30, 2019.

OTHER INCOME, NET In 2020, other income, net was \$14.9 million, a decrease of \$0.5 million from \$15.4 million in 2019.

INCOME TAXES The effective tax rate for 2020 was 357.5 percent compared to 20.4 percent for 2019. The change is primarily due to the effects of current year restructuring and related charges, goodwill and other intangible asset impairment charges, a \$14.5 million benefit for the one-time effect of Swiss tax reform, a \$6.9 million benefit related to the CARES Act and the Global Intangible Low-Taxed Income (GILTI) tax. See Note 13 of our consolidated financial statements set forth in Item 8 of this Annual Report for a more comprehensive discussion about Swiss tax reform and the CARES Act. The prior year rate reflects several effects associated with the Tax Cuts and Jobs Act of 2017 (TCJA) including a \$9.3 million net tax benefit associated with the finalization of a one-time tax that was imposed on our unremitted foreign earnings (toll tax). The 2019 rate also includes a \$6.1 million charge related to changes in the Company's permanent reinvestment assertion on certain foreign subsidiaries' undistributed earnings, which are no longer considered permanently reinvested.

In 2012, we received an assessment from the Italian tax authority that denied certain tax deductions primarily related to our 2008 tax return. Attempts at negotiating a reasonable settlement with the tax authority were unsuccessful; and as a result, we decided to litigate the matter. While the outcome of the litigation is still pending, the tax authority served notice in the September quarter of fiscal 2020 requiring payment in the amount of ϵ 36 million. Accordingly, we requested and were granted a stay and are not currently required to make a payment in connection with this assessment. We continue to believe that the assessment is baseless and accordingly, no income tax liability has been recorded in connection with this assessment in any period. However, if the Italian tax authority were to be successful in litigation, settlement of the amount alleged by the Italian tax authority would result in an increase to income tax expense for as much as ϵ 36 million, or \$40 million, of which penalties and interest is ϵ 21 million, or \$23 million.

NET (LOSS) INCOME ATTRIBUTABLE TO KENNAMETAL Net loss attributable to Kennametal was \$5.7 million, or \$0.07 loss per share, in 2020, compared to net income attributable to Kennametal of \$241.9 million, or \$2.90 earnings per share (EPS), in 2019. The decrease is a result of the factors previously discussed.

BUSINESS SEGMENT REVIEW We operate in three reportable operating segments consisting of Industrial, Widia and Infrastructure. Corporate expenses that are not allocated are reported in Corporate. Segment determination is based upon internal organizational structure, the manner in which we organize segments for making operating decisions and assessing performance and the availability of separate financial results. See Note 21 of our consolidated financial statements set forth in Item 8 of this Annual Report.

Our sales and operating income by segment are as follows:

(in thousands)	2020	2019
Sales:		
Industrial	\$ 1,015,058	\$ 1,274,499
Widia	162,995	197,522
Infrastructure	707,252	903,213
Total sales	\$ 1,885,305	\$ 2,375,234
Operating income (loss):		
Industrial	\$ 35,671	\$ 220,696
Widia	(34,686)	2,882
Infrastructure	23,113	108,480
Corporate	(1,846)	(3,208)
Total operating income	22,252	328,850
Interest expense	35,154	32,994
Other income, net	(14,862)	(15,379)
Income before income taxes	\$ 1,960	\$ 311,235
INDUSTRIAL		
(in thousands)	2020	2019
Sales	\$ 1,015,058	\$ 1,274,499
Operating income	35,671	220,696
Operating margin	3.5%	17.3%

Asia Pacific

(in percentages)		2020
Organic sales decline		(19)%
Foreign currency exchange effect		(1)
Sales decline		(20)%
		2020
(in percentages)	As Reported	Constant Currency
End market sales decline:		
Transportation	(25)%	(23)%
General engineering	(19)	(18)
Aerospace	(17)	(16)
Energy	(13)	(12)
Regional sales decline:		
EMEA	(23)%	(21)%
Americas	(19)	(18)

In 2020, Industrial sales of \$1,015.1 million decreased by \$259.4 million, or 20 percent, from 2019. The sales decline was caused by lower manufacturing activity and challenging economic conditions across all end markets and regions. Transportation sales declined in all regions due to continued weakness in auto build rates and a slowdown in auto sales. Sales in our general engineering end market declined in all regions as a result of continued declines in manufacturing activity, partially related to the negative effects of COVID-19. Aerospace sales declined in all regions, primarily driven by lower OEM production rates on certain platforms as well as additional production cuts resulting from significantly less demand for air travel starting in the fourth quarter. Energy sales decreased primarily due to a decline in oil and gas drilling in the Americas, partially offset by continued strength in renewable energy in China. On a regional basis, the sales decrease in EMEA was due to declines in all end markets and was driven by the negative effects of COVID-19 and the associated effect on manufacturing production in the transportation, aerospace and general engineering end markets. The Americas also experienced sales declines in all end markets as manufacturing activity levels were significantly curtailed, especially in the fourth quarter. Additionally, the decline in oil and gas activity also affected the Americas energy end market sales as oil and gas drilling slowed. The sales decrease in Asia Pacific was driven by declines in all end markets except energy. The declines were largely due to slowing end market demand primarily driven by the negative effects of COVID-19; however, we continue to see positive sales growth related to renewable energy in China.

(16)

(15)

In 2020, Industrial operating income was \$35.7 million, a \$185.0 million decrease from 2019. The decrease was primarily driven by organic sales decline, greater restructuring and related charges of \$57.3 million and unfavorable labor and fixed cost absorption due to lower volumes, partially offset by incremental simplification/modernization benefits, lower variable compensation expense and other cost-control actions,

WIDIA

(in thousands)	2020	2019
Sales	\$ 162,995	\$ 197,522
Operating income	(34,686)	2,882
Operating margin	(21.3)%	1.5%
(in percentages)		2020
Organic sales decline		(16)%
Foreign currency exchange effect		(1)
Sales decline		(17)%

	2	.020
(in percentages)	As Reported	Constant Currency
Regional sales decline:		
Asia Pacific	(28)%	(26)%
EMEA	(15)	(12)
America	(13)	(12)

In 2020, Widia sales of \$163.0 million decreased by \$34.5 million, or 17 percent, from 2019. The sales decrease in Asia Pacific was driven primarily by the overall weak market conditions, most notably in India and China. Sales in EMEA decreased primarily due to the increasingly difficult market environment which was significantly affected by the negative effects of COVID-19, partially offset by growth in products focused on aerospace applications, while the decrease in the Americas was primarily due to a slower U.S. manufacturing environment, partially offset by strength in Latin America.

Widia operating loss was \$34.7 million in 2020 compared to operating income of \$2.9 million in 2019. The change was primarily driven by \$30.2 million of goodwill and other intangible asset impairment charges, organic sales decline and unfavorable labor and fixed cost absorption due to lower volumes, partially offset by incremental simplification/modernization benefits, lower variable compensation expense and other cost-control actions.

INFRASTRUCTURE

(in thousands)	2020		2019
Sales	\$ 707,25	52 \$	903,213
Operating income	23,1	.3	108,480
Operating margin	3	.3%	12.0%
(in percentages)			2020
Organic sales decline			(18)%
Foreign currency exchange effect			(1)
Divestiture effect			(3)
Sales decline			(22)%

	2	2020
(in percentages)	As Reported	Constant Currency
End market sales decline:		
Energy	(35)%	(33)%
General engineering	(21)	(15)
Earthworks	(9)	(7)
Regional sales decline:		
Americas	(27)%	(24)%
Asia Pacific	(14)	(11)
EMEA	(9)	(5)

In 2020, Infrastructure sales of \$707.3 million decreased by \$196.0 million, or 22 percent, from 2019. Sales declined in all regions and end markets, partly due to the effect of COVID-19. The U.S. oil and gas market drove the decline in the energy market as drilling activity declined due to falling commodity prices. In general engineering the lower level of manufacturing activity drove the decline in the Americas and Asia Pacific, partially offset by increased defense related activity in EMEA. Earthworks end market sales were down due to softness in mining in all regions and construction in Asia Pacific and EMEA, partially offset by growth in the Americas construction. On a regional basis, the sales decrease in the Americas was driven by declines in the energy and general engineering end markets, and to a lesser extent, a decline in the earthworks end market. The decrease in Asia Pacific was driven primarily by lower levels of manufacturing activity in the general engineering end market. The sales decrease in EMEA was driven primarily by declines in both the energy and earthworks end markets, partially offset by growth in general engineering.

In 2020, Infrastructure operating income was \$23.1 million, a \$85.4 million decrease from 2019. The primary drivers for the decrease were organic sales decline, unfavorable labor and fixed cost absorption due to lower volumes and simplification/modernization efforts in progress, unfavorable mix, greater restructuring and related charges of \$8.5 million and a loss on divestiture of \$6.5 million, partially offset by incremental simplification/modernization benefits and lower variable compensation expense.

CORPORATE

(in thousands)	2020	2019
Corporate expense	\$ (1,846) \$	(3,208)

In 2020, Corporate expense decreased \$1.4 million from 2019.

LIQUIDITY AND CAPITAL RESOURCES Cash flow from operations is the primary source of funding for our capital expenditures. During the year ended June 30, 2020, cash flow provided by operating activities was \$223.7 million.

Our five-year, multi-currency, revolving credit facility, as amended and restated in June 2018 (Credit Agreement), is used to augment cash from operations and as an additional source of funds. The Credit Agreement provides for revolving credit loans of up to \$700.0 million for working capital, capital expenditures and general corporate purposes. The Credit Agreement allows for borrowings in U.S. dollars, euros, Canadian dollars, pounds sterling and Japanese yen. Interest payable under the Credit Agreement is based upon the type of borrowing under the facility and may be (1) LIBOR plus an applicable margin, (2) the greater of the prime rate or the Federal Funds effective rate plus an applicable margin or (3) fixed as negotiated by us. The Credit Agreement matures in June 2023.

The Credit Agreement requires us to comply with various restrictive and affirmative covenants, including two financial covenants: 1.) a maximum leverage ratio where debt, net of domestic cash in excess of \$25 million, must be less than or equal to 3.5 times trailing twelve months EBITDA, adjusted for certain non-cash expenses and which may be further adjusted, at our discretion, to include up to \$80 million of cash restructuring charges through December 31, 2021; and 2.) a minimum consolidated interest coverage ratio of EBITDA to interest of 3.5 times (as the aforementioned terms are defined in the Credit Agreement). Borrowings under the Credit Agreement are guaranteed by our significant domestic subsidiaries.

As of June 30, 2020, we were in compliance with all covenants of the Credit Agreement and we had \$500.0 million of borrowings outstanding and \$200.0 million of additional availability. There were no borrowings outstanding as of June 30, 2019.

On June 9, 2020 the Company announced a 10 percent reduction in its salaried workforce to occur in the first half of fiscal 2021 as part of its simplification/modernization initiative. The Company also announced that effective July 1, 2020, the compensation of salaried employees would be temporarily reduced by 10 to 20 percent, based on the job level, due to the market headwinds from COVID-19. The compensation adjustment replaced the furloughs and similar actions that were in place for our salaried workforce during the fourth quarter of fiscal 2020.

The Company continues to assess the expected conditions in its primary end markets, including the effects of COVID-19 on the Company's business, financial condition, operating results and cash flows. Because the extent and duration of the COVID-19 pandemic are uncertain, the effects of the pandemic could materially affect our availability to borrow under the Credit Agreement and our compliance with the maximum leverage ratio covenant of the Credit Agreement. We are currently evaluating whether or not to access the capital markets or seek an amendment to the Credit Agreement, including modification of the covenant restrictions, among other terms. If over the course of the next year, market conditions do not improve or further deteriorate, the Company may need to take one or a combination of the following additional actions to ensure the Company has adequate access to liquidity and remains in compliance with the maximum leverage ratio covenant of the Credit Agreement, all of which are within the Company's control: implement additional short-term cost-control actions, temporarily reduce or suspend the dividend, and undertake new restructuring programs. We have concluded that we will remain in compliance with the covenants of the Credit Agreement and, as a result, will have adequate access to liquidity to satisfy our obligations within one year after the date the financial statements are issued.

For the year ended June 30, 2020, average daily borrowings outstanding under the Credit Agreement were approximately \$128.5 million. The weighted average interest rate on borrowings under the Credit Agreement was 2.17 percent as of June 30, 2020.

Additionally, we obtain local financing through credit lines with commercial banks in the various countries in which we operate. At June 30, 2020, these borrowings were immaterial.

Based upon our debt structure at June 30, 2020, 45.7 percent of our debt was exposed to variable rates of interest due to the \$500.0 million of borrowings outstanding under the Credit Agreement. Based upon our debt structure at June 30, 2019, less than 1 percent of our debt was exposed to variable rates of interest, respectively.

We consider the majority of the unremitted earnings of our non-U.S. subsidiaries to be permanently reinvested. With regard to these unremitted earnings, we have not, nor do we anticipate the need to, repatriate funds to the U.S. to satisfy domestic liquidity needs arising in the ordinary course of business, including liquidity needs associated with our domestic debt service requirements. The remaining amount of approximately \$1.4 billion is substantially all of the unremitted earnings of our non-U.S. subsidiaries which continues to be indefinitely reinvested. Determination of the amount of unrecognized deferred tax liability related to indefinitely reinvested earnings is not practicable due to our legal entity structure and the complexity of U.S. and local tax laws. With regard to the small portion of unremitted earnings that are not indefinitely reinvested, we maintain a deferred tax liability for foreign withholding and U.S. state income taxes. The deferred tax liability associated with unremitted earnings of our non-U.S. subsidiaries not permanently reinvested is \$5.9 million as of June 30, 2020.

At June 30, 2020, we had cash and cash equivalents of \$606.7 million. Total Kennametal Shareholders' equity was \$1,229.9 million and total debt was \$1,094.5 million. Our current senior credit ratings are considered investment grade. We believe that our current financial position, liquidity and credit ratings provide us access to the capital markets. We continue to closely monitor our liquidity position and the condition of the capital markets, as well as the counterparty risk of our credit providers.

The following is a summary of our contractual obligations and other commercial commitments as of June 30, 2020 (in thousands):

Contractual Obligations		Total	2021	2022-2023	2024-2025	Thereafter
Long-term debt, including current						
maturities	(1)	\$ 701,981	\$ 25,500	\$ 335,500	\$ 27,750	\$ 313,231
Borrowings under Credit Agreement	(2)	502,924	502,924	_	_	_
Notes payable		385	385	_	_	_
Pension benefit payments		(3)	51,426	104,914	110,870	(3)
Postretirement benefit payments		(3)	1,342	2,404	2,033	(3)
Operating leases		56,528	14,790	17,372	7,661	16,705
Purchase obligations	(4)	105,565	66,519	39,042	4	_
Unrecognized tax benefits	(5)	10,299	438	2,441	5,664	1,756
Total			\$ 663,324	\$ 501,673	\$ 153,982	

- (1) Long-term debt includes interest obligations of \$102.6 million and excludes debt issuance costs of \$4.1 million. Interest obligations were determined assuming interest rates as of June 30, 2020 remain constant
- 2) Borrowings under Credit Agreement includes interest obligations of \$2.9 million. Interest obligations were determined assuming interest rates as of June 30, 2020 remain constant.
- (3) Annual payments are expected to continue into the foreseeable future at the amounts noted in the table.
- (4) Purchase obligations consist of purchase commitments for materials, supplies and machinery and equipment as part of the ordinary conduct of business. Purchase obligations with variable price provisions were determined assuming market prices as of June 30, 2020 remain constant.
- (5) Unrecognized tax benefits are positions taken or expected to be taken on an income tax return that may result in additional payments to tax authorities. These amounts include interest of \$1.2 million and penalty of \$0.5 million accrued related to such positions as of June 30, 2020. Positions for which we are not able to reasonably estimate the timing of potential future payments are included in the 'Thereafter' column. If a tax authority agrees with the tax position taken or expected to be taken or the applicable statute of limitations expires, then additional payments will not be necessary.

Other Commercial Commitments	Total	2021	2	2022-2023	2	2024-2025	Thereafter
Standby letters of credit	\$ 3,989	\$ 2,737	\$	1,252	\$	— \$	_
Guarantees	28,663	18,041		1,365		5	9,252
Total	\$ 32,652	\$ 20,778	\$	2,617	\$	5 \$	9,252

The standby letters of credit relate to insurance and other activities. The guarantees are non-debt guarantees with financial institutions, which are required primarily for security deposits, product performance guarantees and advances.

Cash Flow Provided by Operating Activities

During 2020, cash flow provided by operating activities was \$223.7 million, compared to \$300.5 million in 2019. During 2020, cash flow provided by operating activities consisted of net loss and non-cash items amounting to \$150.3 million and changes in certain assets and liabilities netting to an inflow of \$73.5 million. Contributing to the changes in certain assets and liabilities were a decrease in accounts receivable of \$128.7 million and a decrease in inventories of \$28.2 million, partially offset by a decrease in accounts payable and accrued liabilities of \$46.3 million, a decrease in accrued pension and postretirement benefits of \$20.0 million and a decrease in accrued income taxes of \$8.6 million. The decreases in inventories and accounts receivable were primarily due to the decrease in demand in the March and June quarters.

During 2019, cash flow provided by operating activities was \$300.5 million. Cash flow provided by operating activities consisted of net income and non-cash items amounting to \$388.0 million and changes in certain assets and liabilities netting to an outflow of \$87.5 million. Contributing to the changes in certain assets and liabilities were an increase in inventories of \$53.4 million, a decrease in accounts payable and accrued liabilities of \$49.4 million and a decrease in accounts receivable of \$17.3 million. The changes in inventories and accounts receivable were primarily due to increased demand in the September and December quarters, increased strategic inventory on our high volume/high profitability products for improved customer service, raw material price increases, a temporary increase in inventory related to product moves between facilities as part of simplification/modernization and lower than anticipated sales in the March and June quarters.

Cash Flow Used for Investing Activities

Cash flow used for investing activities was \$218.3 million for 2020, an increase of \$16.9 million, compared to \$201.5 million in 2019. During 2020, cash flow used for investing activities included capital expenditures, net of \$241.5 million, which consisted primarily of expenditures related to our simplification/modernization initiatives and equipment upgrades, partially offset by proceeds from divestiture of \$24.0 million from the sale of certain assets of the non-core specialty alloys and metals business located in New Castle, Pennsylvania.

Cash flow used for investing activities was \$201.5 million for 2019. During 2019, cash flow used for investing activities included capital expenditures, net of \$201.1 million, which consisted primarily of equipment upgrades and modernization initiatives.

Cash Flow Provided by (Used for) Financing Activities

Cash flow provided by financing activities was \$425.5 million for 2020, compared to cash flow used for financing activities of \$471.4 million in 2019. During 2020, cash flow provided by financing activities included an inflow of \$500.4 million primarily due to borrowings outstanding under the Credit Agreement, partially offset by \$66.3 million of cash dividends paid to Shareholders and \$5.5 million of the effect of employee benefit and stock plans and dividend reinvestment.

Cash flow used for financing activities was \$471.4 million for 2019. During 2019, cash flow provided by financing activities included outflows of \$400.9 million of net term debt repayments primarily due to the early extinguishment of our 2.650 percent Senior Unsecured Notes, \$65.7 million of cash dividends paid to Shareholders and \$4.7 million of the effect of employee benefit and stock plans and dividend reinvestment.

FINANCIAL CONDITION At June 30, 2020, total assets were \$3,037.6 million, an increase of \$381.3 million from \$2,656.3 million at June 30, 2019. Total liabilities also increased \$487.2 million from \$1,281.6 million at June 30, 2019 to \$1,768.8 million at June 30, 2020.

Working capital was \$542.7 million at June 30, 2020, a decrease of \$186.4 million from \$729.1 million at June 30, 2019. The decrease in working capital was primarily driven by an increase in revolving and other lines of credit and notes payable to banks of \$500.2 million due primarily to borrowings on our Credit Agreement, a decrease in accounts receivable of \$141.9 million and a decrease in inventory of \$49.1 million due primarily to decreased demand in the March and June quarters. Partially offsetting these items were an increase in cash and cash equivalents of \$424.7 million primarily due to the \$500.0 million draw under the Credit Agreement that remains in cash as of June 30, 2020, a decrease in accounts payable of \$48.3 million and a decrease in accrued payroll of \$27.8 million. Currency exchange rate effects decreased working capital by a total of approximately \$12 million, the effects of which are included in the aforementioned changes.

Property, plant and equipment, net increased \$103.4 million from \$934.9 million at June 30, 2019 to \$1,038.3 million at June 30, 2020, primarily due to capital additions of \$235.4 million, partially offset by depreciation expense of \$106.0 million, a negative currency exchange effect of approximately \$12 million, divestiture effect of \$6.7 million and disposals of \$9.0 million.

At June 30, 2020, other assets were \$558.5 million, an increase of \$28.0 million from \$530.5 million at June 30, 2019. The primary drivers for the increase were the addition of operating lease right-of-use assets of \$48.0 million due to the adoption of the new lease accounting standard without retrospective application to prior periods and an increase in deferred income taxes of \$26.3 million. These increases were partially offset by a decrease in goodwill of \$29.4 million, primarily due to goodwill impairment charges recorded in the Widia segment of \$26.8 million and unfavorable currency exchange rate effects of approximately \$2 million, and a decrease in intangible assets of \$28.4 million, which was primarily due to amortization expense \$13.8 million, divestiture effect of \$12.5 million and impairment charges recorded in the Widia segment of \$3.4 million.

Kennametal Shareholders' equity was \$1,229.9 million at June 30, 2020, a decrease of \$105.3 million from \$1,335.2 million in the prior year. The decrease was primarily due to cash dividends paid to Shareholders of \$66.3 million and unfavorable currency exchange effects of \$33.4 million, pension and other postretirement benefit effects in other comprehensive loss of \$10.4 million and net loss attributable to Kennametal of \$5.7 million, partially offset by capital stock issued under employee benefit and stock plans of \$10.4 million.

EFFECTS OF INFLATION Despite modest inflation in recent years, rising costs, including the cost of certain raw materials, continue to affect our operations throughout the world. We strive to minimize the effects of inflation through cost containment, productivity improvements and price increases.

DISCUSSION OF CRITICAL ACCOUNTING POLICIES In preparing our financial statements in conformity with accounting principles generally accepted in the U.S., we make judgments and estimates about the amounts reflected in our financial statements. As part of our financial reporting process, our management collaborates to determine the necessary information on which to base our judgments and develops estimates used to prepare the financial statements. We use historical experience and available information to make these judgments and estimates. However, different amounts could be reported using different assumptions and in light of different facts and circumstances. Therefore, actual amounts could differ from the estimates reflected in our financial statements. Our significant accounting policies are described in Note 2 of our financial statements, which are included in Item 8 of this Annual Report. We believe that the following discussion addresses our critical accounting policies.

Revenue Recognition The Company's contracts with customers are comprised of purchase orders, and for larger customers, may also include long-term agreements. We account for a contract when it has approval and commitment from both parties, the rights of the parties and payment terms are identified, the contract has commercial substance and collectability of consideration is probable. These contracts with customers typically relate to the manufacturing of products, which represent single performance obligations that are satisfied when control of the product passes to the customer. The Company considers the timing of right to payment, transfer of risk and rewards, transfer of title, transfer of physical possession and customer acceptance when determining when control transfers to the customer. As a result, revenue is generally recognized at a point in time - either upon shipment or delivery - based on the specific shipping terms in the contract. The shipping terms vary across all businesses and depend on the product, customary local commercial terms and the type of transportation. Shipping and handling activities are accounted for as activities to fulfill a promise to transfer a product to a customer and as such, costs incurred are recorded when the related revenue is recognized. Payment for products is due within a limited time period after shipment or delivery, typically within 30 to 90 calendar days of the respective invoice dates. The Company does not generally offer extended payment terms.

Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods. Amounts billed and due from our customers are classified as accounts receivable, less allowance for doubtful accounts on the consolidated balance sheet. Certain contracts with customers, primarily distributor customers, have an element of variable consideration that is estimated when revenue is recognized under the contract. Variable consideration primarily includes volume incentive rebates, which are based on achieving a certain level of purchases and other performance criteria as established by our distributor programs. These rebates are estimated based on projected sales to the customer and accrued as a reduction of net sales as they are earned. The majority of our products are consumed by our customers or end users in the manufacture of their products. Historically, we have experienced very low levels of returned products and do not consider the effect of returned products to be material. We have recorded an estimated returned goods allowance to provide for any potential returns.

We warrant that products sold are free from defects in material and workmanship under normal use and service when correctly installed, used and maintained. This warranty terminates 30 days after delivery of the product to the customer and does not apply to products that have been subjected to misuse, abuse, neglect or improper storage, handling or maintenance. Products may be returned to Kennametal only after inspection and approval by Kennametal and upon receipt by the customer of shipping instructions from Kennametal. We have included an estimated allowance for warranty returns in our returned goods allowance discussed above.

The Company records a contract asset when it has a right to payment from a customer that is conditioned on events that have occurred other than the passage of time. The Company also records a contract liability when customers prepay but the Company has not yet satisfied its performance obligation. The Company did not have any material remaining performance obligations, contract assets or liabilities as of June 30, 2020 and 2019.

The Company pays sales commissions related to certain contracts, which qualify as incremental costs of obtaining a contract. However, the Company applies the practical expedient that allows an entity to recognize incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that would have been recognized is one year or less. These costs are recorded within operating expense in our consolidated statement of income.

Stock-Based Compensation We recognize stock-based compensation expense for all stock options, restricted stock awards and restricted stock units over the period from the date of grant to the date when the award is no longer contingent on the employee providing additional service (substantive vesting period), net of expected forfeitures. We utilize the Black-Scholes valuation method to establish the fair value of all stock option awards. Time vesting stock units are valued at the market value of the stock on the grant date. Performance vesting stock units with a market condition are valued using a Monte Carlo model.

Accounting for Contingencies We accrue for contingencies when it is probable that a liability or loss has been incurred and the amount can be reasonably estimated. Contingencies by their nature relate to uncertainties that require the exercise of judgment in both assessing whether or not a liability or loss has been incurred and estimating the amount of probable loss. The significant contingencies affecting our financial statements include environmental, health and safety matters and litigation.

Long-Lived Assets We evaluate the recoverability of property, plant and equipment, operating lease right-of-use assets and intangible assets that are amortized whenever events or changes in circumstances indicate the carrying amount of such assets may not be fully recoverable. Changes in circumstances include technological advances, changes in our business model, capital structure, economic conditions or operating performance. Our evaluation is based upon, among other things, our assumptions about the estimated future undiscounted cash flows these assets are expected to generate. When the sum of the undiscounted cash flows is less than the carrying value, we will recognize an impairment loss to the extent that carrying value exceeds fair value. We apply our best judgment when performing these evaluations to determine if a triggering event has occurred, the undiscounted cash flows used to assess recoverability and the fair value of the asset.

Goodwill and Indefinite-Lived Intangible Assets We evaluate the recoverability of goodwill of each of our reporting units by comparing the fair value of each reporting unit with its carrying value. The fair values of our reporting units are determined using a combination of a discounted cash flow analysis and market multiples based upon historical and projected financial information. We perform our annual impairment tests during the June quarter in connection with our annual planning process unless there are impairment indicators based on the results of an ongoing cumulative qualitative assessment that warrant a test prior to that quarter. We apply our best judgment when assessing the reasonableness of the financial projections used to determine the fair value of each reporting unit. The discounted cash flow method was used to measure the fair value of our equity under the income approach. A terminal value utilizing a constant growth rate of cash flows was used to calculate a terminal value after the explicit projection period. The estimates and assumptions used in our calculations include revenue and gross margin growth rates, expected capital expenditures to determine projected cash flows, expected tax rates and an estimated discount rate to determine present value of expected cash flows. These estimates are based on historical experiences, our projections of future operating activity and our weighted average cost of capital (WACC). In order to determine the discount rate, the Company uses a market perspective WACC approach. The WACC is calculated incorporating weighted average returns on debt and equity from market participants. Therefore, changes in the market, which are beyond the control of the Company, may have an effect on future calculations of estimated fair value.

As of June 30, 2020, there is no goodwill allocated to the Infrastructure or Widia reporting units. Interim impairment analyses were performed during the December and March quarters of fiscal 2020 related to the Widia reporting unit. This was largely due to the deteriorating market conditions, primarily in general engineering and transportation applications in India and China, in addition to overall global weakness in the manufacturing sector which was later amplified by the COVID-19 pandemic. As a result of these interim tests, we recorded non-cash pre-tax impairment charges during fiscal 2020 of \$30.2 million in the Widia segment, of which \$26.8 million was for goodwill and \$3.4 million was for an indefinite-lived trademark intangible asset.

As of June 30, 2020, \$270.6 million of goodwill was allocated to the Industrial reporting unit. We completed an annual quantitative test of goodwill impairment and determined that the fair value of the reporting unit substantially exceeded the carrying value and, therefore, no impairment was recorded during fiscal 2020.

Further, an indefinite-lived trademark intangible asset of \$11.2 million in the Widia reporting unit had a fair value that approximated its carrying value as of the date of the last impairment test. To determine fair value, we assumed revenue growth rates that take into effect the uncertainty related to COVID-19 in the near term, the eventual recovery of our end markets, and a residual period growth rate of 3 percent. We assumed a royalty rate of 1 percent, and the future period cash flows were discounted at 19.5 percent per annum.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the annual goodwill and indefinite-lived intangible impairment test will prove to be an accurate prediction of the future. Certain events or circumstances that could reasonably be expected to negatively affect the underlying key assumptions and ultimately affect the estimated fair values of the Industrial reporting unit and of the indefinite-lived trademark may include such items as: (i) a decrease in expected future cash flows, specifically, a further decrease in sales volume driven by a prolonged weakness in customer demand or other pressures, including those related to the COVID-19 pandemic, adversely affecting our long-term sales trends; (ii) inability to achieve the anticipated benefits from simplification/modernization and other cost reduction programs and (iii) inability to achieve the sales from our strategic growth initiatives.

Pension and Other Postretirement Benefits We sponsor pension and other postretirement benefit plans for certain employees and retirees. Accounting for the cost of these plans requires the estimation of the cost of the benefits to be provided well into the future and attributing that cost over either the expected work life of employees or over average life of participants participating in these plans, depending on plan status and on participant population. This estimation requires our judgment about the discount rate used to determine these obligations, expected return on plan assets, rate of future compensation increases, rate of future health care costs, withdrawal and mortality rates and participant retirement age. Differences between our estimates and actual results may significantly affect the cost of our obligations under these plans.

In the valuation of our pension and other postretirement benefit liabilities, management utilizes various assumptions. Our discount rates are derived by identifying a theoretical settlement portfolio of high quality corporate bonds sufficient to provide for a plan's projected benefit payments. This rate can fluctuate based on changes in the corporate bond yields. At June 30, 2020, a hypothetical 25 basis point increase in our discount rates would increase our pre-tax income by an immaterial amount, and a hypothetical 25 basis point decrease in our discount rates would decrease our pre-tax income by \$0.1 million

The long-term rate of return on plan assets is estimated based on an evaluation of historical returns for each asset category held by the plans, coupled with the current and short-term mix of the investment portfolio. The historical returns are adjusted for expected future market and economic changes. This return will fluctuate based on actual market returns and other economic factors.

The rate of future health care cost increases is based on historical claims and enrollment information projected over the next fiscal year and adjusted for administrative charges. This rate is expected to decrease until 2027. At June 30, 2020, a hypothetical 1 percent increase or decrease in our health care cost trend rates would be immaterial to our pre-tax income.

Future compensation rates, withdrawal rates and participant retirement age are determined based on historical information. These assumptions are not expected to significantly change. Mortality rates are determined based on a review of published mortality tables.

We expect to contribute approximately \$8 million and \$1 million to our pension and other postretirement benefit plans, respectively, in 2021. Expected pension contributions in 2021 are primarily for international plans.

Allowance for Doubtful Accounts We record allowances for estimated losses resulting from the inability of our customers to make required payments. We assess the creditworthiness of our customers based on multiple sources of information and analyze additional factors such as our historical bad debt experience, industry concentrations of credit risk, current economic trends and changes in customer payment terms. This assessment requires significant judgment. If the financial condition of our customers was to deteriorate, additional allowances may be required, resulting in future operating losses that are not included in the allowance for doubtful accounts at June 30, 2020.

Inventories We use the last-in, first-out method for determining the cost of a significant portion of our U.S. inventories, and they are stated at the lower of cost or market. The cost of the remainder of our inventories is measured using approximate costs determined on the first-in, first-out basis or using the average cost method, and are stated at the lower of cost or net realizable value. When market conditions indicate an excess of carrying costs over market value, a lower of cost or net realizable value provision or a lower of cost or market provision, as applicable, is recorded. Once inventory is determined to be excess or obsolete, a new cost basis is established that is not subsequently written back up in future periods.

Income Taxes Realization of our deferred tax assets is primarily dependent on future taxable income, the timing and amount of which are uncertain. A valuation allowance is recognized if it is "more likely than not" that some or all of a deferred tax asset will not be realized. As of June 30, 2020, the deferred tax assets net of valuation allowances relate primarily to net operating loss carryforwards, pension benefits, accrued employee benefits and inventory reserves. In the event that we were to determine that we would not be able to realize our deferred tax assets in the future, an increase in the valuation allowance would be required. In the event we were to determine that we are able to use our deferred tax assets for which a valuation allowance is recorded, a decrease in the valuation allowance would be required.

Coronavirus Aid, Relief, and Economic Security Act (CARES Act)

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic. The CARES Act, among other things, allows net operating losses arising in taxable years beginning after December 31, 2017 and before January 1, 2021 to be carried back to each of the 5 preceding taxable years to generate a refund of previously paid income taxes; permits net operating loss carryovers and carrybacks to offset 100 percent of taxable income for taxable years beginning before January 1, 2021; and modifies the limitation on business interest by increasing the allowable business interest deduction from 30 percent of adjusted taxable income to 50 percent of adjusted taxable income for taxable years beginning in 2019 or 2020. We are planning to carry back our taxable loss in the U.S. for fiscal 2020 under the provisions of the CARES Act and have recorded a \$6.9 million benefit in our tax provision during fiscal 2020.

Swiss tax reform

Legislation was effectively enacted during the December quarter of fiscal 2020 when the Canton of Schaffhausen approved the Federal Act on Tax Reform and AHV Financing on October 8, 2019 (Swiss tax reform). Significant changes from Swiss tax reform include the abolishment of certain favorable tax regimes and the creation of a ten-year transitional period at both the federal and cantonal levels.

The transitional provisions of Swiss tax reform allow companies to utilize a combination of lower tax rates and tax basis adjustments to fair value, which are used for tax depreciation and amortization purposes resulting in deductions over the transitional period. To reflect the federal and cantonal transitional provisions, as they apply to us, we recorded a deferred tax asset of \$14.5 million during the December quarter of fiscal 2020. We consider the deferred tax asset from Swiss tax reform to be an estimate based on our current interpretation of the legislation, which is subject to change based on further legislative guidance, review with the Swiss federal and cantonal authorities and modifications to the underlying valuation.

NEW ACCOUNTING STANDARDS

Adopted

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-02, "Leases: Topic 842," which replaces the existing guidance in ASC 840, Leases. The standard establishes a right-of-use (ROU) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for substantially all leases. We adopted this ASU on July 1, 2019 using the modified retrospective transition approach with the optional transition relief that allows for a cumulative-effect adjustment in the period of adoption and without a restatement of prior periods. Therefore, prior period amounts were not adjusted and will continue to be reported under the accounting standards in effect for those periods. We determined that there was no cumulative-effect adjustment to beginning retained earnings on the consolidated balance sheet. In addition, the Company elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed us to carry forward historical lease classification. Adoption of this ASU resulted in the recording of lease liabilities of approximately \$49 million with the offset to lease ROU assets of \$49 million as of July 1, 2019. The standard did not materially affect our consolidated statement of income and our consolidated statement of cash flows. Refer to Note 9 for additional disclosure regarding the adoption of this new standard.

In August 2017, the FASB issued ASU No. 2017-12, "Targeted Improvements to Accounting for Hedging Activities," which seeks to improve financial reporting and obtain closer alignment with risk management activities, in addition to simplifying the application of hedge accounting guidance and additional disclosures. We adopted this ASU on July 1, 2019. Adoption of this guidance did not have a material effect on our consolidated financial statements.

In February 2018, the FASB issued ASU No. 2018-02, "Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income," which includes amendments allowing the reclassification of the income tax effects of the Tax Cuts and Jobs Act of 2017 (TCJA) to improve the usefulness of information reported to financial statement users. The amendments in this update also require certain disclosures about stranded tax effects. Certain guidance is optional and was effective for Kennametal on July 1, 2019. We elected not to reclassify the stranded tax effects as permissible under this standard. Adoption of this guidance did not have a material effect on our consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, "Improvements to Nonemployee Share-Based Payment Accounting," which expands the scope of accounting for stock-based compensation to nonemployees. We adopted this ASU on July 1, 2019. Adoption of this guidance did not have a material effect on our consolidated financial statements.

Issued

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes," which is intended to simplify various aspects related to accounting for income taxes by eliminating certain exceptions within ASC 740, Income Taxes, and clarifying certain aspects of the current guidance. This standard is effective for Kennametal beginning July 1, 2021, with early adoption permitted. The Company is in the process of assessing the effect the adoption of this guidance may have on our consolidated financial statements.

RECONCILIATION OF FINANCIAL MEASURES NOT DEFINED BY U.S. GAAP In accordance with the SEC's Regulation G, we are providing descriptions of the non-GAAP financial measures included in this Annual Report and reconciliations to the most closely related GAAP financial measures. We believe that these measures provide useful perspective on underlying business trends and results and a supplemental measure of year-over-year results. The non-GAAP financial measures described below are used by management in making operating decisions, allocating financial resources and for business strategy purposes and may, therefore, also be useful to investors as they are a view of our business results through the eyes of management. These non-GAAP financial measures are not intended to be considered by the user in place of the related GAAP financial measure, but rather as supplemental information to our business results. These non-GAAP financial measures may not be the same as similar measures used by other companies due to possible differences in method and in the items or events being adjusted.

Organic sales decline Organic sales decline is a non-GAAP financial measure of sales decline (which is the most directly comparable GAAP measure) excluding the effects of acquisitions, divestitures, business days and foreign currency exchange from year-over-year comparisons. We believe this measure provides investors with a supplemental understanding of underlying sales trends by providing sales growth on a consistent basis. We report organic sales decline at the consolidated and segment levels.

Constant currency end market sales decline Constant currency end market sales decline is a non-GAAP financial measure of sales decline (which is the most directly comparable GAAP measure) by end market excluding the effects of acquisitions, divestitures and foreign currency exchange from year-over-year comparisons. We note that, unlike organic sales decline, constant currency end market sales decline does not exclude the effect of business days. We believe this measure provides investors with a supplemental understanding of underlying end market trends by providing end market sales decline on a consistent basis. We report constant currency end market sales growth decline at the consolidated and segment levels. Widia sales are reported only in the general engineering end market. Therefore, we do not provide constant currency end market sales decline for the Widia segment and, thus, do not include a reconciliation for that metric.

Constant currency regional sales growth (decline) Constant currency regional sales growth (decline) is a non-GAAP financial measure of sales growth (decline) (which is the most directly comparable GAAP measure) by region excluding the effects of acquisitions, divestitures and foreign currency exchange from year-over-year comparisons. We note that, unlike organic sales growth, constant currency regional sales growth (decline) does not exclude the effect of business days. We believe this measure provides investors with a supplemental understanding of underlying regional trends by providing regional sales growth (decline) on a consistent basis. We report constant currency regional sales growth (decline) at the consolidated and segment levels.

Reconciliations of organic sales decline to sales decline are as follows:

Year ended June 30, 2020	Industrial	Widia	Infrastructure	Total
Organic sales decline	(19)%	(16)%	(18)%	(18)%
Foreign currency exchange effect ⁽⁶⁾	(1)	(1)	(1)	(2)
Divestiture effect ⁽⁷⁾	_	_	(3)	(1)
Sales decline	(20)%	(17)%	(22)%	(21)%

Reconciliations of constant currency end market sales growth (decline) to end market sales growth (decline), are as follows:

Industrial

	General			
Year ended June 30, 2020	engineering	Transportation	Aerospace	Energy
Constant currency end market sales decline	(18)%	(23)%	(16)%	(12)%
Foreign currency exchange effect ⁽⁶⁾	(1)	(2)	(1)	(1)
End market sales decline ⁽⁸⁾	(19)%	(25)%	(17)%	(13)%

Infrastructure

		General
Energy	Earthworks	engineering
(33)%	(7)%	(15)%
(1)	(2)	_
(1)	_	(6)
(35)%	(9)%	(21)%
	(33)% (1) (1)	(33)% (7)% (1) (2) (1) —

Total

	General				
Year ended June 30, 2020	engineering	Transportation	Aerospace	Energy	Earthworks
Constant currency end market sales decline	(17)%	(23)%	(16)%	(28)%	(7)%
Foreign currency exchange effect ⁽⁶⁾	_	(2)	(1)	_	(2)
Divestiture effect ⁽⁷⁾	(2)	_	_	(1)	_
End market sales decline ⁽⁸⁾	(19)%	(25)%	(17)%	(29)%	(9)%

Reconciliations of constant currency regional sales decline to reported regional sales decline, are as follows:

	Ye	Year Ended June 30, 2020		
	Americas	EMEA	Asia Pacific	
Industrial				
Constant currency regional sales decline	(18)%	(21)%	(15)%	
Foreign currency exchange effect ⁽⁶⁾	(1)	(2)	(1)	
Regional sales decline ⁽⁹⁾	(19)%	(23)%	(16)%	
Widia				
Constant currency regional sales decline	(12)%	(12)%	(26)%	
Foreign currency exchange effect ⁽⁶⁾	(1)	(3)	(2)	
Regional sales decline ⁽⁹⁾	(13)%	(15)%	(28)%	
Infrastructure				
Constant currency regional sales decline	(24)%	(5)%	(11)%	
Foreign currency exchange effect ⁽⁶⁾	1	(4)	(3)	
Divestiture effect ⁽⁷⁾	(4)	_	_	
Regional sales decline ⁽⁹⁾	(27)%	(9)%	(14)%	
Total				
Constant currency regional sales decline	(21)%	(17)%	(15)%	
Foreign currency exchange effect ⁽⁶⁾	_	(3)	(2)	
Divestiture effect ⁽⁷⁾	(2)	_	_	
Regional sales decline ⁽⁹⁾	(23)%	(20)%	(17)%	

⁽⁶⁾ Foreign currency exchange effect is calculated by dividing the difference between current period sales and current period sales at prior period foreign exchange rates by prior period sales.
(7) Divestiture effect is calculated by dividing prior period sales attributable to divested businesses by prior period sales.
(8) Aggregate sales for all end markets sum to the sales amount presented on Kennametal's financial statements.
(9) Aggregate sales for all regions sum to the sales amount presented on Kennametal's financial statements.

ITEM 7A - QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

MARKET RISK We are exposed to certain market risks arising from transactions that are entered into in the normal course of business. As part of our financial risk management program, we use certain derivative financial instruments to manage these risks. We do not enter into derivative transactions for speculative purposes and, therefore, hold no derivative instruments for trading purposes. We may use derivative financial instruments to provide predictability to the effects of changes in foreign exchange rates on our consolidated results. Our objective in managing foreign exchange exposures with derivative instruments is to reduce volatility in cash flow, allowing us to focus more of our attention on business operations. With respect to interest rate management, we use forward-starting interest rate swaps to effectively hedge the variability in future benchmark interest payments attributable to changes in interest rates on forecasted issuances of fixed-rate debt. See Notes 2 and 17 of our consolidated financial statements set forth in Item 8 of this Annual Report.

We are exposed to counterparty credit risk for nonperformance of derivative contracts and, in the event of nonperformance, to market risk for changes in interest and currency exchange rates, as well as settlement risk. We manage exposure to counterparty credit risk through credit standards, diversification of counterparties and procedures to monitor concentrations of credit risk. We do not anticipate nonperformance by any of the counterparties.

The following provides additional information on our use of derivative instruments. Included below is a sensitivity analysis that is based upon a hypothetical 10 percent weakening or strengthening in the U.S. dollar and its effects on the June 30, 2020 currency exchange rates and the effective interest rates under our current borrowing arrangements. We compared our contractual derivative and borrowing arrangements in effect at June 30, 2020 to the hypothetical foreign exchange or interest rates in the sensitivity analysis to determine the effect on interest expense, pre-tax income and accumulated other comprehensive loss. Our analysis takes into consideration the different types of derivative instruments and the applicability of hedge accounting.

CASH FLOW HEDGES *Currency* A portion of our operations consists of investments in foreign subsidiaries. Our exposure to market risk from changes in foreign exchange rates arises from these investments, intercompany loans utilized to finance these subsidiaries, trade receivables and payables and firm commitments arising from international transactions. We manage our foreign exchange transaction risk to reduce the volatility of cash flows caused by currency exchange rate fluctuations through natural offsets where appropriate and through foreign exchange contracts. These contracts are designated as hedges of forecasted transactions that will settle in future periods and that would otherwise expose us to currency risk.

Our foreign exchange hedging program is intended to mitigate our exposure to currency exchange rate movements. This exposure arises largely from anticipated cash flows from cross-border intercompany sales of products and services. This program utilizes range forwards and forward contracts primarily to sell foreign currency. The notional amounts of the contracts translated into U.S. dollars at June 30, 2020 and 2019 were \$2.2 million and \$61.5 million, respectively. We would have received an immaterial amount and \$0.2 million at June 30, 2020 and 2019, respectively, to settle these contracts representing the fair value of these agreements. At June 30, 2020, a hypothetical 10 percent strengthening or weakening of the U.S. dollar would have changed accumulated other comprehensive loss, net of tax, by \$0.1 million.

In addition, we may enter into forward contracts to hedge transaction exposures or significant cross-border intercompany loans by either purchasing or selling specified amounts of foreign currency at a specified date. At June 30, 2020 and 2019, we had outstanding forward contracts to purchase and sell foreign currency with notional amounts, translated into U.S. dollars at June 30, 2020 and 2019 rates, of \$19.9 million and \$14.1 million in a buy position, respectively. At June 30, 2020, a hypothetical 10 percent change in the year-end exchange rates would have resulted in a \$0.8 million increase or decrease in pre-tax income and a \$0.8 million increase or decrease in accumulated other comprehensive loss, net of tax, related to these positions.

Interest rate During fiscal 2020 we entered into seven forward-starting interest rate swap contracts with an aggregate notional amount totaling \$200.0 million. A forward-starting interest rate swap is an agreement that effectively hedges the variability in future benchmark interest payments attributable to changes in interest rates on the forecasted issuance of fixed-rate debt. We entered into these forward-starting interest rate swaps in order to lock in fixed interest rates on our anticipated refinancing of the Senior Unsecured Notes due fiscal 2022. The fixed interest rates for these forward-starting interest rate swaps range from 0.78 percent to 1.04 percent. The variable rate component on the forward-starting interest rate swaps is 3 month LIBOR. Accordingly, the forward-starting interest rate swaps were designated as cash-flow hedges. As of June 30, 2020, we recorded a net liability of \$2.1 million on these contracts, the net effect of which was recorded as a decrease to accumulated other comprehensive loss, net of tax.

DEBT AND NOTES PAYABLE At June 30, 2020 and 2019, we had \$1,094.5 million and \$592.6 million, respectively, of outstanding debt, including finance notes payable. Effective interest rates as of June 30, 2020 and 2019 were 4.4 percent and 4.8 percent, respectively. A hypothetical change of 10 percent in market interest rates from June 30, 2020 levels would increase or decrease annual interest expense by \$1.1 million.

CURRENCY EXCHANGE RATE FLUCTUATIONS Currency exchange rate fluctuations decreased diluted earnings per share by \$0.07 in 2020 and decreased diluted earnings per share by \$0.17 in 2019. Currency exchange rate fluctuations may have a material effect on future earnings in the short term and long term.

ITEM 8 - FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Management has conducted an assessment of the Company's internal controls over financial reporting as of June 30, 2020 using the criteria in *Internal Control – Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. 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.

Based on its assessment, management has concluded that the Company maintained effective internal control over financial reporting as of June 30, 2020, based on the criteria in *Internal Control – Integrated Framework (2013)* issued by the COSO. The effectiveness of the Company's internal control over financial reporting as of June 30, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included in this Annual Report on Form 10-K.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Kennametal Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Kennametal Inc. and its subsidiaries (the "Company") as of June 30, 2020 and 2019, and the related consolidated statements of income, of comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended June 30, 2020, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of June 30, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of June 30, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases on July 1, 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) 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.

Maximum Leverage Ratio Covenant Compliance and Related Availability Under the Company's Credit Agreement

As described in Note 12 to the consolidated financial statements, the Company continues to assess the expected conditions in its primary end markets, including the effects of COVID-19 on the Company's business, financial condition, operating results and cash flows. Because the extent and duration of the COVID-19 pandemic are uncertain, the effects of the pandemic could materially affect the Company's availability to borrow under the five-year, multicurrency, revolving credit facility, as amended and restated in June 2018 (the "Credit Agreement") and the compliance with the maximum leverage ratio covenant of the Credit Agreement. As disclosed in Note 12, if over the course of the next year, market conditions do not improve or further deteriorate, the Company may need to take one or a combination of the following additional actions to ensure the Company has adequate access to liquidity and remains in compliance with the maximum leverage ratio covenant of the Credit Agreement, all of which are within the Company's control: implement additional short-term cost-control actions, temporarily reduce or suspend the dividend, and undertake new restructuring programs. The Company has concluded that it will remain in compliance with the covenants of the Credit Agreement and, as a result, will have adequate access to liquidity to satisfy its obligations within one year after the date the financial statements are issued.

The principal considerations for our determination that performing procedures relating to the Company's maximum leverage ratio covenant compliance and related availability under the Company's Credit Agreement is a critical audit matter are the significant judgment by management when evaluating the uncertainty related to the effects of the COVID-19 pandemic on the Company's business, financial condition, operating results and cash flows, which impacts the Company's forecasted operating results and maximum leverage ratio covenant compliance; this in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures to evaluate management's (i) forecasted operating results, which included significant assumptions related to future revenues and operating margins and (ii) assessment of compliance with the maximum leverage ratio covenant of the Credit Agreement within one year after the date the financial statements are issued. In addition, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls related to management's assessment of compliance with maximum leverage ratio covenant of the Credit Agreement, including forecasting related to the estimated effects of COVID-19 pandemic on the Company's business, financial condition, operating results and cash flows. The procedures included, among others (i) testing management's process for forecasting operating results and maximum leverage ratio covenant compliance within one year after the date the financial statements are issued, (ii) testing the completeness, accuracy, and relevance of underlying data used in the forecast, and (iii) evaluating the reasonableness of significant assumptions used in the forecast related to future revenues and operating margins. Professionals with specialized skill and knowledge were used to assist in evaluating whether the future revenue and operating margin assumptions were reasonable considering the consistency with external market and industry data. The procedures also included evaluation of management's conclusions and their disclosure in the consolidated financial statements regarding availability of funds under and compliance with the maximum leverage ratio covenant in the Credit Agreement.

Goodwill and Indefinite-Lived Intangible Asset Impairment Assessments - Widia Reporting Unit and WIDIA Trademark

As described in Notes 2 and 8 to the consolidated financial statements, the Company's goodwill balance was \$270.6 million and other intangible assets, net was \$132.6 million as of June 30, 2020. The goodwill associated with the Widia reporting unit was \$0 million, and the carrying value of the WIDIA trademark indefinite-lived intangible asset was \$11.2 million. Impairment

charges of \$26.8 million and \$3.4 million were recorded against the Widia reporting unit and the WIDIA trademark, respectively, during the year ended June 30, 2020. Management performs an annual impairment test for goodwill and indefinite-lived intangible assets during the June quarter, unless there are impairment indicators based on the results of an ongoing cumulative qualitative assessment that warrant a test prior to that quarter. Management evaluates the recoverability of goodwill for each of its reporting units by comparing the fair value of each reporting unit to its carrying value. Fair value is determined using a combination of a market multiples approach and a discounted cash flow analysis based upon historical and projected financial information. As disclosed by management, estimating fair value of each reporting unit requires various assumptions, including revenue and gross margin growth rates, expected capital expenditures to determine projected cash flows, expected tax rates and an estimated discount rate. Management evaluates the recoverability of indefinite-lived intangible assets by comparing the fair value of the asset to its carrying value. Fair value is determined using a discounted cash flow analysis based on projected financial information. Estimating fair value of the indefinite-lived asset requires various assumptions, including revenue growth rate, an estimated royalty rate and an estimated discount rate.

The principal considerations for our determination that performing procedures relating to goodwill and indefinite-lived intangible asset impairment assessments of the Widia reporting unit and the WIDIA trademark is a critical audit matter are the significant judgment by management when developing the fair value measurement of the Widia reporting unit and the WIDIA trademark, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence obtained related to management's significant assumptions related to the revenue and gross margin growth rates and discount rate for goodwill and the revenue growth rate and discount rate for the indefinite-lived intangible asset. In addition, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill and indefinite-lived intangible asset impairment assessments, including controls over the valuation of the Widia reporting unit and the WIDIA trademark. These procedures also included, among others (i) testing management's process for developing the fair value estimates, (ii) evaluating the appropriateness of the market multiples approach and discounted cash flow analyses, (iii) testing the completeness, accuracy, and relevance of underlying data used in the fair value estimates, and (iv) evaluating the reasonableness of the revenue and gross margin growth rates and discount rate assumptions used by management in estimating the fair value of the Widia reporting unit and the revenue growth rate and discount rate assumptions used by management in estimating the fair value of the WiDIA trademark. Evaluating management's assumptions related to the revenue growth rates and discount rates for the fair values of the Widia reporting unit and the WIDIA trademark and the gross margin growth rates for the fair value of the Widia reporting unit involved evaluating whether the assumptions used by management were reasonable considering the current and past performance of the reporting unit, consistency with third-party industry data, and whether the assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in (i) evaluating the appropriateness of the market multiples approach and discounted cash flow analyses, and (ii) evaluating the reasonableness of the revenue and gross margin growth rates and discount rate assumptions used by management in estimating the fair value of the Widia reporting unit and the revenue growth rate and discount rate assumption used by manageme

/s/ PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania August 20, 2020

We have served as the Company's auditor since 2002.

CONSOLIDATED STATEMENTS OF INCOME

Year ended June 30 (in thousands, except per share data)

rear ended value so (in anodolinas) encept per share data)	_0_0	_010	_010
Sales	\$ 1,885,305	\$ 2,375,234	\$ 2,367,853
Cost of goods sold	1,355,834	1,543,738	1,547,730
Gross profit	529,471	831,496	820,123
Operating expense	388,436	474,151	503,249
Restructuring charges (Note 16)	68,228	14,084	11,907
Goodwill and other intangible assets impairments (Note 8)	30,227	_	_
Loss on divestiture (Note 4)	6,517	_	_
Amortization of intangibles	13,811	14,411	14,668
Operating income	22,252	328,850	290,299
Interest expense	35,154	32,994	30,081
Other income, net	(14,862)	(15,379)	(14,823)
Income before income taxes	1,960	311,235	275,041
Provision for income taxes (Note 13)	7,007	63,359	69,981
Net (loss) income	(5,047)	247,876	205,060
Less: Net income attributable to noncontrolling interests	614	5,951	4,880
Net (loss) income attributable to Kennametal	\$ (5,661)	\$ 241,925	\$ 200,180
PER SHARE DATA ATTRIBUTABLE TO KENNAMETAL SHAREHOLDERS			
Basic (loss) earnings per share	\$ (0.07)	\$ 2.94	\$ 2.45
Diluted (loss) earnings per share	\$ (0.07)	\$ 2.90	\$ 2.42
Dividends per share	\$ 0.80	\$ 0.80	\$ 0.80
Basic weighted average shares outstanding	83,047	82,379	81,544
Diluted weighted average shares outstanding	83,047	83,291	82,754
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME			
Year ended June 30 (in thousands)	2020	2019	2018
Net (loss) income	\$ (5,047)	\$ 247,876	\$ 205,060
Other comprehensive (loss) income, net of tax			
Unrealized (loss) gain on derivatives designated and qualified as cash flow hedges	(582)	197	(922)
Reclassification of unrealized loss on expired derivatives designated and qualified as cash flow hedges	679	1,348	3,747
Unrecognized net pension and other postretirement benefit loss	(18,299)	(39,639)	(5,991)
Reclassification of net pension and other postretirement benefit loss	7,935	5,124	7,274
Foreign currency translation adjustments	(35,891)	(20,785)	(1,490)
Total other comprehensive (loss) income, net of tax	(46,158)	(53,755)	2,618
Total comprehensive (loss) income	(51,205)	194,121	207,678
Less: comprehensive (loss) income attributable to noncontrolling interests	(1,846)	5,414	4,131
Comprehensive (loss) income attributable to Kennametal Shareholders	\$ (49,359)	\$ 188,707	\$ 203,547

2020

2019

2018

CONSOLIDATED BALANCE SHEETS

As of June 30 (in thousands, except per share data)		2020		2019
ASSETS				
Current assets:				
Cash and cash equivalents	\$	606,684	\$	182,015
Accounts receivable, less allowance for doubtful accounts of \$9,430 and \$10,083 respectively		237,983		379,855
Inventories (Note 7)		522,447		571,576
Other current assets		73,698		57,381
Total current assets		1,440,812		1,190,827
Property, plant and equipment:				
Land and buildings		360,256		351,142
Machinery and equipment		1,913,967		1,804,871
Less accumulated depreciation		(1,235,952)		(1,221,118)
Property, plant and equipment, net		1,038,271		934,895
Other assets:		,,		
Goodwill (Note 8)		270,580		300,011
Other intangible assets, less accumulated amortization of \$137,386 and \$158,507, respectively (Note 8)		132,568		160,998
Operating lease right-of-use assets (Note 9)		48,035		
Deferred income taxes (Note 13)		46,782		20,507
Long-term prepaid pension benefit (Note 14)		43,116		31,581
Other		17,427		17,450
Total other assets		558,508		530,547
Total assets	\$		¢	
		3,037,591	\$	2,656,269
LIABILITIES				
Current liabilities:				
Revolving and other lines of credit and notes payable to banks (Note 12)		500,368		157
Current operating lease liabilities (Note 9)		13,246		_
Accounts payable		164,641		212,908
Accrued income taxes		27,938		29,223
Accrued vacation pay		16,263		17,422
Accrued payroll		31,347		59,194
Other current liabilities (Note 10)		144,277		142,822
Total current liabilities		898,080		461,726
Long-term debt, less current maturities (Note 11)		594,083		592,474
Operating lease liabilities (Note 9)		35,372		_
Deferred income taxes (Note 13)		21,796		23,322
Accrued postretirement benefits (Note 14)		11,012		11,174
Accrued pension benefits (Note 14)		164,446		162,829
Accrued income taxes		9,584		9,038
Other liabilities		34,430		21,002
Total liabilities		1,768,803		1,281,565
Commitments and contingencies (Note 20)				
EQUITY				
Kennametal Shareholders' Equity:				
Preferred stock, no par value; 5,000 shares authorized; none issued		_		_
Capital stock, \$1.25 par value; 120,000 shares authorized; 82,923 and 82,421 shares issued, respectively		103,654		103,026
Additional paid-in capital		538,575		528,827
Retained earnings		1,004,898		1,076,862
Accumulated other comprehensive loss (Note 15)		(417,242)		(373,543
Total Kennametal Shareholders' Equity		1,229,885		1,335,172
Noncontrolling interests		38,903		39,532
		00,000		00,002
Total equity		1,268,788		1,374,704

CONSOLIDATED STATEMENTS OF CASH FLOW

Adjustments for non-cash items: Depreciation 1	(5,047) 06,049 13,811 16,048 34,175	\$ 247,876 97,641 14,411 22,845	\$ 205,060
Adjustments for non-cash items: Depreciation 1	06,049 13,811 16,048	97,641 14,411	\$
Depreciation 1	13,811 16,048	14,411	94,012
	13,811 16,048	14,411	94,012
Amortization	16,048	•	,
		22,845	14,668
Stock-based compensation expense	34,175		20,830
Restructuring and asset impairment charges (Notes 8 and 16)		(203)	(248)
Deferred income tax provision (2)	23,899)	2,806	22,915
Loss on divestiture (Note 4)	6,517	_	_
Other	2,613	2,654	4,651
Changes in certain assets and liabilities:			
Accounts receivable 12	28,715	17,323	(22,201)
Inventories	28,185	(53,387)	(37,230)
Accounts payable and accrued liabilities (4)	46,315)	(49,378)	(5,046)
Accrued income taxes	(8,645)	9,013	11,093
Accrued pension and postretirement benefits (20,022)	(8,186)	(26,759)
Other	(8,447)	(2,896)	(4,441)
Net cash flow provided by operating activities 2.	23,738	300,519	277,304
INVESTING ACTIVITIES			
Purchases of property, plant and equipment (2	44,151)	(212,343)	(171,004)
Disposals of property, plant and equipment	2,622	11,243	14,358
Proceeds from divestiture (Note 4)	23,950	_	_
Other	(757)	(381)	(225)
Net cash flow used for investing activities (2	18,336)	(201,481)	(156,871)
FINANCING ACTIVITIES			
Net (decrease) increase in notes payable	(175)	(715)	495
Net increase (decrease) in revolving and other lines of credit	00,364	(174)	_
Term debt borrowings	_	_	295,863
Term debt repayments	_	(400,000)	(190)
Purchase of capital stock	(209)	(214)	(217)
The effect of employee benefit and stock plans and dividend reinvestment	(5,464)	(4,744)	17,975
Cash dividends paid to Shareholders	66,303)	(65,746)	(65,104)
Other	(2,762)	161	(1,625)
Net cash flow provided by (used for) financing activities 4.	25,451	(471,432)	247,197
Effect of exchange rate changes on cash and cash equivalents	(6,184)	(1,744)	(2,106)
CASH AND CASH EQUIVALENTS	,		
·	24,669	(374,138)	365,524
· · · · · · · · · · · · · · · · · · ·	82,015	556,153	190,629
	06,684	\$ 182,015	\$ 556,153

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

		2020			2019)		2018	
Year ended June 30 (in thousands)	Shares		Amount	Shares		Amount	Shares		Amount
CAPITAL STOCK									
Balance at beginning of year	82,421	\$	103,026	81,646	\$	102,058	80,665	\$	100,832
Dividend reinvestment	7		9	6		7	5		7
Capital stock issued under employee benefit and stock plans	502		628	775		968	981		1,226
Purchase of capital stock	(7)		(9)	(6)		(7)	(5)		(7)
Balance at end of year	82,923		103,654	82,421		103,026	81,646		102,058
ADDITIONAL PAID-IN CAPITAL									
Balance at beginning of year			528,827			511,909			474,547
Dividend reinvestment			201			207			210
Capital stock issued under employee benefit and stock plans			9,748			16,918			37,362
Purchase of capital stock			(201)			(207)			(210)
Balance at end of year			538,575			528,827			511,909
RETAINED EARNINGS									
Balance at beginning of year			1,076,862			900,683			765,607
Net (loss) income attributable to Kennametal			(5,661)			241,925			200,180
Cash dividends			(66,303)			(65,746)			(65,104)
Balance at end of year			1,004,898			1,076,862			900,683
ACCUMULATED OTHER COMPREHENSIVE LOSS									
Balance at beginning of year			(373,543)			(320,325)			(323,692)
Unrealized (loss) gain on derivatives designated and qualified as cash flow hedges			(582)			197			(922)
Reclassification of unrealized loss on expired derivatives designated and qualified as cash flow hedges			679			1,348			3,747
Unrecognized net pension and other postretirement benefit loss			(18,299)			(39,639)			(5,991)
Reclassification of net pension and other postretirement benefit loss			7,935			5,124			7,274
Foreign currency translation adjustments			(33,432)			(20,248)			(741)
Other comprehensive (loss) income, net of tax			(43,699)			(53,218)			3,367
Balance at end of year			(417,242)			(373,543)			(320,325)
NONCONTROLLING INTERESTS									
Balance at beginning of year			39,532			36,002			35,359
Net income			614			5,951			4,880
Other comprehensive loss, net of tax			(2,459)			(537)			(749)
Additions to noncontrolling interests			1,527			443			591
Cash dividends			(311)			(2,327)			(4,079)
Balance at end of year			38,903			39,532			36,002
Total equity, June 30		\$	1,268,788		\$	1,374,704		\$	1,230,327

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — NATURE OF OPERATIONS

With more than 80 years of materials expertise, the Company is a global industrial technology leader, helping customers across the aerospace, earthworks, energy, general engineering and transportation end markets manufacture with precision and efficiency. This expertise includes the development and application of tungsten carbides, ceramics, super-hard materials and solutions used in metal cutting and extreme wear applications to keep customers up and running longer against conditions such as corrosion and high temperatures.

Our standard and custom product offering spans metal cutting and wear applications including turning, milling, hole making, tooling systems and services, as well as specialized wear components and metallurgical powders. End users of the Company's metal cutting products include manufacturers engaged in a diverse array of industries including: the manufacturers of transportation vehicles and components, machine tools and light and heavy machinery; airframe and aerospace components; and energy-related components for the oil and gas industry, as well as power generation. The Company's wear and metallurgical powders are used by producers and suppliers in equipment-intensive operations such as road construction, mining, quarrying, oil and gas exploration, refining, production and supply.

Unless otherwise specified, any reference to a "year" is to a fiscal year ended June 30. When used in this Annual Report on Form 10-K, unless the context requires otherwise, the terms "we," "our" and "us" refer to Kennametal Inc. and its subsidiaries.

NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The summary of our significant accounting policies is presented below to assist in evaluating our consolidated financial statements.

PRINCIPLES OF CONSOLIDATION The consolidated financial statements include our accounts and those of our subsidiaries in which we have a controlling interest. All significant intercompany balances and transactions are eliminated.

USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS In preparing our consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP), we make judgments and estimates about the amounts reflected in our financial statements. As part of our financial reporting process, our management collaborates to determine the necessary information on which to base our judgments and develop estimates used to prepare the financial statements. We use historical experience and available information to make these judgments and estimates. However, different amounts could be reported using different assumptions and in light of different facts and circumstances. Therefore, actual amounts could differ from the estimates reflected in our financial statements.

CASH AND CASH EQUIVALENTS Cash investments having original maturities of three months or less are considered cash equivalents. Cash equivalents principally consist of investments in money market funds and bank deposits at June 30, 2020.

ACCOUNTS RECEIVABLE We market our products to a diverse customer base throughout the world. Trade credit is extended based upon periodically updated evaluations of each customer's ability to satisfy its obligations. We make judgments as to our ability to collect outstanding receivables and provide allowances for the portion of receivables when collection becomes doubtful. Accounts receivable reserves are determined based upon an aging of accounts and a review of specific accounts.

INVENTORIES We use the last-in, first-out (LIFO) method for determining the cost of a significant portion of our United States (U.S.) inventories, and they are stated at the lower of cost or market. The cost of the remainder of our inventories is measured using approximate costs determined on the first-in, first-out basis or using the average cost method, and are stated at the lower of cost or net realizable value. When market conditions indicate an excess of carrying costs over market value, a lower of cost or net realizable value provision or a lower of cost or market provision, as applicable, is recorded. Once inventory is determined to be excess or obsolete, a new cost basis is established that is not subsequently written back up in future periods.

PROPERTY, PLANT AND EQUIPMENT Property, plant and equipment are carried at cost. Major improvements are capitalized, while maintenance and repairs are expensed as incurred. Retirements and disposals are removed from cost and accumulated depreciation accounts, with the gain or loss reflected in operating income. Interest related to the construction of major facilities is capitalized as part of the construction costs and is depreciated over the facilities' estimated useful lives.

Depreciation for financial reporting purposes is computed using the straight-line method over the following estimated useful lives: building and improvements over 15-40 years; machinery and equipment over 4-15 years; furniture and fixtures over 5-10 years and computer hardware and software over 3-5 years.

LONG-LIVED ASSETS We evaluate the recoverability of property, plant and equipment, operating lease right-of-use assets and intangible assets that are amortized, whenever events or changes in circumstances indicate the carrying amount of any such assets may not be fully recoverable. Changes in circumstances include technological advances, changes in our business model, capital structure, economic conditions or operating performance. Our evaluation is based upon, among other things, our assumptions about the estimated future undiscounted cash flows these assets are expected to generate. When the sum of the undiscounted cash flows is less than the carrying value of the asset or asset group, we will recognize an impairment loss to the extent that carrying value exceeds fair value. We apply our best judgment when performing these evaluations to determine if a triggering event has occurred, the undiscounted cash flows used to assess recoverability and the fair value of the asset.

GOODWILL AND OTHER INTANGIBLE ASSETS Goodwill represents the excess of cost over the fair value of the net assets of acquired companies. Goodwill and other intangible assets with indefinite lives are tested at least annually for impairment. We perform our annual impairment tests during the June quarter in connection with our annual planning process unless there are impairment indicators based on the results of an ongoing cumulative qualitative assessment that warrant a test prior to that quarter. We evaluate the recoverability of goodwill for each of our reporting units by comparing the fair value of each reporting unit with its carrying value. The fair values of our reporting units are determined using a combination of a discounted cash flow analysis and market multiples based upon historical and projected financial information. We apply our best judgment when assessing the reasonableness of the financial projections used to determine the fair value of each reporting unit. We evaluate the recoverability of indefinite-lived intangible assets using a discounted cash flow analysis based on projected financial information. This evaluation is sensitive to changes in market interest rates and other external factors.

The majority of our intangible assets with definite lives are amortized on a straight-line basis, while certain customer-related intangible assets are amortized on an accelerated method. Identifiable assets with finite lives are reviewed for impairment when events or circumstances indicate that the carrying value may not be recoverable.

PENSION AND OTHER POSTRETIREMENT BENEFITS We sponsor these types of benefit plans for certain employees and retirees. Accounting for the cost of these plans requires the estimation of the cost of the benefits to be provided well into the future and attributing that cost over either the expected work life of employees or over average life of participants participating in these plans, depending on plan status and on participant population. This estimation requires our judgment about the discount rate used to determine these obligations, expected return on plan assets, rate of future compensation increases, rate of future health care costs, withdrawal and mortality rates and participant retirement age. Differences between our estimates and actual results may significantly affect the cost of our obligations under these plans.

In the valuation of our pension and other postretirement benefit liabilities, management utilizes various assumptions. Discount rates are derived by identifying a theoretical settlement portfolio of high quality corporate bonds sufficient to provide for a plan's projected benefit payments. This rate can fluctuate based on changes in the corporate bond yields.

The long-term rate of return on plan assets is estimated based on an evaluation of historical returns for each asset category held by the plans, coupled with the current and short-term mix of the investment portfolio. The historical returns are adjusted for expected future market and economic changes. This return will fluctuate based on actual market returns and other economic factors.

The rate of future health care costs is based on historical claims and enrollment information projected over the next year and adjusted for administrative charges. This rate is expected to decrease until 2027.

Future compensation rates, withdrawal rates and participant retirement age are determined based on historical information. These assumptions are not expected to significantly change. Mortality rates are determined based on a review of published mortality tables.

EARNINGS PER SHARE Basic earnings per share is computed using the weighted average number of shares outstanding during the period, while diluted earnings per share is calculated to reflect the potential dilution that would occur related to the issuance of capital stock under stock option grants, performance awards and restricted stock units. The difference between basic and diluted earnings per share relates solely to the effect of capital stock options, performance awards and restricted stock units.

The following tables provide the computation of diluted shares outstanding:

(in thousands)	2019	2018
Weighted-average shares outstanding during period	82,379	81,544
Add: Unexercised stock options and unvested restricted stock units	912	1,210
Number of shares on which diluted earnings per share is calculated	83,291	82,754
Unexercised stock options with an exercise price greater than the average market price and restricted stock units not included in the computation because they were anti-dilutive	427	381

In 2020, the effect of unexercised capital stock options, unvested performance awards and unvested restricted stock units was anti-dilutive as a result of a net loss in the period and therefore has been excluded from diluted shares outstanding as well as from the diluted earnings per share calculation.

REVENUE RECOGNITION The Company's contracts with customers are comprised of purchase orders, and for larger customers, may also include long-term agreements. We account for a contract when it has approval and commitment from both parties, the rights of the parties and payment terms are identified, the contract has commercial substance and collectability of consideration is probable. These contracts with customers typically relate to the manufacturing of products, which represent single performance obligations that are satisfied when control of the product passes to the customer. The Company considers the timing of right to payment, transfer of risk and rewards, transfer of title, transfer of physical possession and customer acceptance when determining when control transfers to the customer. As a result, revenue is generally recognized at a point in time - either upon shipment or delivery based on the specific shipping terms in the contract. The shipping terms vary across all businesses and depend on the product, customary local commercial terms and the type of transportation. Shipping and handling activities are accounted for as activities to fulfill a promise to transfer a product to a customer and as such, costs incurred are recorded when the related revenue is recognized. Payment for products is due within a limited time period after shipment or delivery, typically within 30 to 90 calendar days of the respective invoice dates. The Company does not generally offer extended payment terms.

Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods. Amounts billed and due from our customers are classified as accounts receivable, less allowance for doubtful accounts on the consolidated balance sheet. Certain contracts with customers, primarily distributor customers, have an element of variable consideration that is estimated when revenue is recognized under the contract. Variable consideration primarily includes volume incentive rebates, which are based on achieving a certain level of purchases and other performance criteria as established by our distributor programs. These rebates are estimated based on projected sales to the customer and accrued as a reduction of net sales as they are earned. The majority of our products are consumed by our customers or end users in the manufacture of their products. Historically, we have experienced very low levels of returned products and do not consider the effect of returned products to be material. We have recorded an estimated returned goods allowance to provide for any potential returns.

We warrant that products sold are free from defects in material and workmanship under normal use and service when correctly installed, used and maintained. This warranty terminates 30 days after delivery of the product to the customer and does not apply to products that have been subjected to misuse, abuse, neglect or improper storage, handling or maintenance. Products may be returned to Kennametal only after inspection and approval by Kennametal and upon receipt by the customer of shipping instructions from Kennametal. We have included an estimated allowance for warranty returns in our returned goods allowance discussed above.

See "Note 21. Segment Data" for disaggregation of revenue by geography and end market.

The Company records a contract asset when it has a right to payment from a customer that is conditioned on events that have occurred other than the passage of time. The Company also records a contract liability when customers prepay but the Company has not yet satisfied its performance obligation. The Company did not have any material remaining performance obligations, contract assets or liabilities as of June 30, 2020 and 2019.

The Company pays sales commissions related to certain contracts, which qualify as incremental costs of obtaining a contract. However, the Company applies the practical expedient that allows an entity to recognize incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that would have been recognized is one year or less. These costs are recorded within operating expense in our consolidated statements of income

SHIPPING AND HANDLING FEES AND COSTS All fees billed to customers for shipping and handling are classified as a component of sales. All costs associated with shipping and handling are classified as a component of cost of goods sold.

STOCK-BASED COMPENSATION We recognize stock-based compensation expense for all stock options, restricted stock awards and restricted stock units over the period from the date of grant to the date when the award is no longer contingent on the employee providing additional service (substantive vesting period), net of expected forfeitures. We utilize the Black-Scholes valuation method to establish the fair value of all stock option awards. Time vesting stock units are valued at the market value of the stock on the grant date. Performance vesting stock units with a market condition are valued using a Monte Carlo model.

Capital stock options are granted to eligible employees at fair market value at the date of grant. Capital stock options are exercisable under specified conditions for up to 10 years from the date of grant. The Kennametal Inc. Stock and Incentive Plan of 2010, as Amended and Restated on October 22, 2013, and as further amended January 27, 2015 (A/R 2010 Plan) and the Kennametal Inc. 2016 Stock and Incentive Plan (2016 Plan) authorize the issuance of up to 9,500,000 shares of the Company's capital stock plus any shares remaining unissued under the Kennametal Inc. Stock and Incentive Plan of 2002, as amended (2002 Plan). Under the provisions of the A/R 2010 Plan and 2016 Plan participants may deliver stock, owned by the holder for at least six months, in payment of the option price and receive credit for the fair market value of the shares on the date of delivery. The fair market value of shares delivered during 2020, 2019 and 2018 was immaterial. In addition to stock option grants, the A/R 2010 Plan and the 2016 Plan permit the award of stock appreciation rights, performance share awards, performance unit awards, restricted stock awards, restricted unit awards and share awards to directors, officers and key employees.

RESEARCH AND DEVELOPMENT COSTS Research and development costs of \$38.7 million, \$39.0 million and \$38.9 million in 2020, 2019 and 2018, respectively, were expensed as incurred. These costs are included in operating expense in the consolidated statements of income.

INCOME TAXES Deferred income taxes are recognized based on the future income tax effects (using enacted tax laws and rates) of differences in the carrying amounts of assets and liabilities for financial reporting and tax purposes. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not (greater than 50 percent) that a tax benefit will not be realized. In evaluating the need for a valuation allowance, we consider all potential sources of taxable income, including income available in carryback periods, future reversals of taxable temporary differences, projections of taxable income, and income from tax planning strategies, as well as all available positive and negative evidence. Positive evidence includes factors such as a history of profitable operations, and projections of future profitability within the carry forward period, including taxable income from tax planning strategies. Negative evidence includes items such as cumulative losses, projections of future losses, or carryforward periods that are not long enough to allow for the utilization of the deferred tax asset based on existing projections of income. Upon changes in facts and circumstances, we may conclude that deferred tax assets for which no valuation allowance is currently recorded may not be realized, resulting in a future charge to establish a valuation allowance. Existing valuation allowances are re-examined under the same standards of positive and negative evidence. If it is determined that it is more likely than not that a deferred tax asset will be realized, the appropriate amount of the valuation allowance, if any, is released.

DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES As part of our financial risk management program, we use certain derivative financial instruments. We do not enter into derivative transactions for speculative purposes and, therefore, hold no derivative instruments for trading purposes. We use derivative financial instruments to provide predictability to the effects of changes in foreign exchange rates on our consolidated results. Our objective in managing foreign exchange exposures with derivative instruments is to reduce volatility in cash flow, allowing us to focus more of our attention on business operations. With respect to interest rate management, we use forward-starting interest rate swaps to effectively hedge the variability in future benchmark interest payments attributable to changes in interest rates on forecasted issuances of fixed-rate debt.

We account for derivative instruments as a hedge of the related asset, liability, firm commitment or anticipated transaction, when the derivative is specifically designated as a hedge of such items. We measure hedge effectiveness by assessing the changes in the fair value or expected future cash flows of the hedged item. Certain currency forward contracts hedging significant cross-border intercompany loans are considered other derivatives and, therefore, do not qualify for hedge accounting.

CASH FLOW HEDGES *Currency* Forward contracts and range forward contracts (a transaction where both a put option is purchased and a call option is sold) are designated as cash flow hedges and hedge anticipated cash flows from cross-border intercompany sales of products and services. Gains and losses realized on these contracts are recorded in accumulated other comprehensive loss, and are recognized as a component of other income, net when the underlying sale of products or services is recognized into earnings.

Interest Rate Forward starting interest rate swap contracts are designated as cash flow hedges and hedge a portion of the interest rate risk related to anticipated issuances of debt. Gains and losses realized on these contracts are recorded in accumulated other comprehensive loss, and are recognized as a component of interest expense when the interest payments on the future debt interest are recognized into earnings.

NET INVESTMENT HEDGES We designate financial instruments as net investment hedges from time to time to hedge the foreign exchange exposure of our net investment in foreign currency-based subsidiaries. The remeasurements of these non-derivatives designated as net investment hedges are calculated each period with changes reported in foreign currency translation adjustment within accumulated other comprehensive loss. Such amounts will remain in accumulated other comprehensive loss unless we complete or substantially complete liquidation or disposal of our investment in the underlying foreign operations.

CURRENCY TRANSLATION Assets and liabilities of international operations are translated into U.S. dollars using year-end exchange rates, while revenues and expenses are translated at average exchange rates throughout the year. The resulting net translation adjustments are recorded as a component of accumulated other comprehensive loss. The local currency is the functional currency of most of our locations.

Losses of \$3.4 million, \$2.7 million and \$6.4 million from currency transactions were included in other income, net in 2020, 2019 and 2018, respectively.

NEW ACCOUNTING STANDARDS

Adopted

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-02, "Leases: Topic 842," which replaces the existing guidance in ASC 840, Leases. The standard establishes a right-of-use (ROU) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for substantially all leases. We adopted this ASU on July 1, 2019 using the modified retrospective transition approach with the optional transition relief that allows for a cumulative-effect adjustment in the period of adoption and without a restatement of prior periods. Therefore, prior period amounts were not adjusted and will continue to be reported under the accounting standards in effect for those periods. We determined that there was no cumulative-effect adjustment to beginning retained earnings on the consolidated balance sheet. In addition, the Company elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed us to carry forward historical lease classification. Adoption of this ASU resulted in the recording of lease liabilities of approximately \$49 million with the offset to lease ROU assets of \$49 million as of July 1, 2019. The standard did not materially affect our consolidated statement of income and our consolidated statement of cash flows. Refer to Note 9 for additional disclosure regarding the adoption of this new standard.

In August 2017, the FASB issued ASU No. 2017-12, "Targeted Improvements to Accounting for Hedging Activities," which seeks to improve financial reporting and obtain closer alignment with risk management activities, in addition to simplifying the application of hedge accounting guidance and additional disclosures. We adopted this ASU on July 1, 2019. Adoption of this guidance did not have a material effect on our consolidated financial statements.

In February 2018, the FASB issued ASU No. 2018-02, "Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income," which includes amendments allowing the reclassification of the income tax effects of the Tax Cuts and Jobs Act of 2017 (TCJA) to improve the usefulness of information reported to financial statement users. The amendments in this update also require certain disclosures about stranded tax effects. Certain guidance is optional and was effective for Kennametal on July 1, 2019. We elected not to reclassify the stranded tax effects as permissible under this standard. Adoption of this guidance did not have a material effect on our consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, "Improvements to Nonemployee Share-Based Payment Accounting," which expands the scope of accounting for stock-based compensation to nonemployees. We adopted this ASU on July 1, 2019. Adoption of this guidance did not have a material effect on our consolidated financial statements.

Issued

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes," which is intended to simplify various aspects related to accounting for income taxes by eliminating certain exceptions within ASC 740, Income Taxes, and clarifying certain aspects of the current guidance. This standard is effective for Kennametal beginning July 1, 2021, with early adoption permitted. The Company is in the process of assessing the effect the adoption of this guidance may have on our consolidated financial statements.

NOTE 3 — SUPPLEMENTAL CASH FLOW DISCLOSURES

Year ended June 30 (in thousands)	2020	2019	2018
Cash paid during the period for:			
Income taxes	\$ 36,852	\$ 51,540	\$ 35,974
Interest	25,796	30,265	27,887
Supplemental disclosure of non-cash information:			
Changes in accounts payable related to purchases of property, plant and equipment	(9,400)	15,500	9,500

NOTE 4 — DIVESTITURE

During the year ended June 30, 2020, we completed the sale of certain assets of the non-core specialty alloys and metals business within the Infrastructure segment located in New Castle, Pennsylvania to Advanced Metallurgical Group N.V. for an aggregate price of \$24.0 million.

The net book value of these assets at closing was \$29.5 million, and the pre-tax loss on divestiture recognized during the year ended June 30, 2020 was \$6.5 million. Transaction proceeds were primarily used for capital expenditures related to our simplification/modernization efforts.

NOTE 5 — FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy consists of three levels to prioritize the inputs used in valuations, as defined below:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3: Inputs that are unobservable.

As of June 30, 2020, the fair values of the Company's financial assets and financial liabilities measured at fair value on a recurring basis are categorized as follows:

(in thousands)	Level 1		Level 2		Level 3		Total
Assets:							
Derivatives (1)	\$ _	\$	36	\$	_	\$	36
Total assets at fair value	\$ _	\$	36	\$	_	\$	36
Liabilities:							
Derivatives (1)	\$ _	\$	2,139	\$	_	\$	2,139
Total liabilities at fair value	\$ _	\$	2,139	\$	_	\$	2,139

As of June 30, 2019, the fair value of the Company's financial assets and financial liabilities measured at fair value on a recurring basis are categorized as follows:

(in thousands)	Level 1		Level 2		Level 3	Total
Assets:						
Derivatives (1)	\$ _	\$	152	\$	_	\$ 152
Total assets at fair value	\$ _	\$	152	\$	_	\$ 152
Liabilities:						
Derivatives (1)	\$ _	\$	55	\$	_	\$ 55
Total liabilities at fair value	\$ _	\$	55	\$	_	\$ 55

⁽¹⁾ Currency and interest rate derivatives are valued based on observable market spot and forward rates and are classified within Level 2 of the fair value hierarchy.

There have been no changes in classification and transfers between levels in the fair value hierarchy in the current period.

NOTE 6 — DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

As part of our financial risk management program, we use certain derivative financial instruments. See Note 2 for discussion on our derivative instruments and hedging activities policy.

The fair value of derivatives designated and not designated as hedging instruments in the consolidated balance sheet are as follows:

(in thousands)	2020	2019
Derivatives designated as hedging instruments		
Other current assets - range forward contracts	\$ 4 5	\$ 145
Other assets - forward starting interest rate swap contracts	20	_
Other liabilities - forward starting interest rate swap contracts	(2,094)	_
Total derivatives designated as hedging instruments	(2,070)	145
Derivatives not designated as hedging instruments		_
Other current assets - currency forward contracts	12	8
Other current liabilities - currency forward contracts	(45)	(56)
Total derivatives not designated as hedging instruments	(33)	(48)
Total derivatives	\$ (2,103)	\$ 97

Certain currency forward contracts that hedge significant cross-border intercompany loans are considered as other derivatives and therefore do not qualify for hedge accounting. These contracts are recorded at fair value in the consolidated balance sheet, with the offset to other income, net. Losses (gains) related to derivatives not designated as hedging instruments have been recognized as follows:

(in thousands)	2020	2019	2018
Other income, net - currency forward contracts	\$ 210	\$ 108	\$ (122)

CASH FLOW HEDGES

Currency forward contracts and range forward contracts (a transaction where both a put option is purchased and a call option is sold) are designated as cash flow hedges and hedge anticipated cash flows from cross-border intercompany sales of products and services. Gains and losses realized on these contracts are recorded in accumulated other comprehensive loss, and are recognized as a component of other income, net when the underlying sale of products or services is recognized into earnings. The notional amount of the contracts translated into U.S. dollars at June 30, 2020 and 2019 was \$2.2 million and \$61.5 million, respectively. The time value component of the fair value of range forward contracts is excluded from the assessment of hedge effectiveness. Assuming the market rates remain constant with the rates at June 30, 2020, we expect to recognize into earnings in the next 12 months an immaterial amount of expense on outstanding derivatives.

During fiscal 2020, we entered into forward starting interest rate swap contracts to hedge a portion of the interest rate risk related to our anticipated refinancing of the Senior Unsecured Notes due fiscal 2022. We recorded the fair value of these contracts as an asset or a liability, as applicable, in the balance sheet, with the offset to accumulated other comprehensive income, net of tax. The notional amount of the contracts at June 30, 2020 was \$200.0 million. As of June 30, 2020, we recorded a net liability of \$2.1 million on these contracts, the net effect of which was recorded as a decrease to accumulated other comprehensive loss, net of tax.

The following represents gains and losses related to cash flow hedges:

(in thousands)	2020	2019	2018
(Losses) gains recognized in other comprehensive (loss) income, net	\$ (577)	\$ 921	\$ (922)
Losses reclassified from accumulated other comprehensive loss into other income, net	\$ 1,425	\$ 1,004	\$ 3,001

No portion of the gains or losses recognized in earnings was due to ineffectiveness and no amounts were excluded from our effectiveness testing for the years ended June 30, 2020, 2019 and 2018.

NET INVESTMENT HEDGES

As of June 30, 2020 and 2019, we had foreign currency-denominated intercompany loans payable with total aggregate principal amounts of €15.9 million and €22.5 million, respectively, designated as net investment hedges to hedge the foreign exchange exposure of our net investment in Euro-based subsidiaries. The notional value of the contract, which has a maturity of June 26, 2022, was €15.9 million, or \$17.8 million, as of June 30, 2020. Gains of \$0.6 million and \$2.4 million and a loss of \$0.7 million were recorded as a component of foreign currency translation adjustments in other comprehensive (loss) income during 2020, 2019 and 2018, respectively.

NOTE 7 — INVENTORIES

Inventories consisted of the following at June 30:

(in thousands)	2020	2019
Finished goods	\$ 318,071	\$ 311,684
Work in process and powder blends	190,041	246,414
Raw materials	75,589	95,620
Inventories at current cost	 583,701	653,718
Less: LIFO valuation	(61,254)	(82,142)
Total inventories	\$ 522,447	\$ 571,576

We used the LIFO method of valuing inventories for approximately 43 percent and 41 percent of total inventories at June 30, 2020 and 2019, respectively.

NOTE 8 — GOODWILL AND OTHER INTANGIBLE ASSETS

2020 December Quarter Widia Impairment Charges

In the December quarter of fiscal 2020, the Company experienced deteriorating market conditions, primarily in general engineering and transportation applications in India and China, in addition to overall global weakness in the manufacturing sector. In view of these declining conditions and the significant detrimental effect on cash flows and actual and projected revenue and earnings compared with our most recent annual impairment test, we determined that an impairment triggering event had occurred and performed an interim quantitative impairment test of our goodwill, indefinite-lived trademark intangible asset and other long-lived assets of our Widia reporting unit. We evaluated the recoverability of goodwill for the reporting unit by comparing the fair value with its carrying value, with the fair values determined using a combination of a discounted cash flow analysis and market multiples based upon historical and projected financial information. As a result of this interim test, we recorded a non-cash pre-tax impairment charge during the three months ended December 31, 2019 of \$14.6 million in the Widia segment, of which \$13.1 million was for goodwill and \$1.5 million was for an indefinite-lived trademark intangible asset. These impairment charges were recorded in goodwill and other intangible assets impairments in our consolidated statements of income. No impairment was recorded for the other Widia long-lived assets.

2020 March Quarter Widia Impairment Charges

In the March quarter of fiscal 2020, the decline in actual and projected financial results for the Widia reporting unit, primarily as a result of the COVID-19 pandemic, represented an interim impairment triggering event because there was essentially zero cushion between the reporting unit's carrying value and fair value as of March 31 2020. This is because the Widia reporting unit was recorded at fair value as of the last impairment date of December 31, 2019. We evaluated the recoverability of goodwill for the reporting unit by comparing the fair value with its carrying value, with the fair values determined using a combination of a discounted cash flow analysis and market multiples based upon historical and projected financial information. As a result of this interim test, we recorded a non-cash pre-tax impairment charge during the three months ended March 31, 2020 of \$15.6 million in the Widia segment, of which \$13.7 million was for goodwill and \$1.9 million was for an indefinite-lived trademark intangible asset. These impairment charges were recorded in goodwill and other intangible assets impairments in our consolidated statements of income. No impairment was recorded for the other Widia long-lived assets. Subsequent to the impairment charges recorded in the March quarter of fiscal 2020, there is no remaining goodwill for the Widia reporting unit and the carrying value of the indefinite-lived trademark is \$11.2 million as of June 30, 2020, which approximates fair value.

As of June 30, 2020, \$270.6 million of goodwill was allocated to the Industrial reporting unit. We completed an annual quantitative test of goodwill impairment and determined that the fair value of the reporting unit substantially exceeded the carrying value and, therefore, no impairment was recorded during fiscal 2020.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the annual goodwill and indefinite-lived intangible impairment test will prove to be an accurate prediction of the future. Certain events or circumstances that could reasonably be expected to negatively affect the underlying key assumptions and ultimately affect the estimated fair values of the Industrial reporting unit and of the indefinite-lived trademark may include such items as: (i) a decrease in expected future cash flows, specifically, a further decrease in sales volume driven by a prolonged weakness in customer demand or other pressures, including those related to the COVID-19 pandemic, adversely affecting our long-term sales trends; (ii) inability to achieve the anticipated benefits from simplification/modernization and other cost reduction programs and (iii) inability to achieve the sales from our strategic growth initiatives.

Divestiture Effect on Other Intangible Assets

During the December quarter of fiscal 2020, we completed the sale of certain assets of the non-core specialty alloys and metals business within the Infrastructure segment. As a result of this transaction, other intangibles decreased by \$12.5 million in our Infrastructure segment during fiscal 2020. See Note 4 for more information.

A summary of the carrying amount of goodwill attributable to each segment, as well as the changes in such, is as follows:

(in thousands)	Industrial	Widia]	Infrastructure	Total
Gross goodwill	\$ 411,458	\$ 41,186	\$	633,211	\$ 1,085,855
Accumulated impairment losses	(137,204)	(13,638)		(633,211)	(784,053)
Balance as of June 30, 2018	\$ 274,254	\$ 27,548	\$	_	\$ 301,802
Activity for 2010.					
Activity for 2019:					
Change in gross goodwill due to translation	(1,546)	(245)			(1,791)
Gross goodwill	409,912	40,941		633,211	1,084,064
Accumulated impairment losses	(137,204)	(13,638)		(633,211)	(784,053)
Balance as of June 30, 2019	\$ 272,708	\$ 27,303	\$	_	\$ 300,011
Activity for 2020:					
Change in gross goodwill due to translation	(2,128)	(484)		_	(2,612)
Impairment charges	_	(26,819)		_	(26,819)
Gross goodwill	407,784	40,457		633,211	1,081,452
Accumulated impairment losses	(137,204)	(40,457)		(633,211)	(810,872)
Balance as of June 30, 2020	\$ 270,580	\$ _	\$	_	\$ 270,580

The components of our other intangible assets were as follows:

	Estimated	June 30, 2020			June 30, 2019									
(in thousands)	Useful Life (in years)	J D		3 8						<i>y</i> 0		Gross Carrying Amount		Accumulated Amortization
Contract-based	3 to 15	\$	\$	_	\$	7,062	\$	(7,062)						
Technology-based and other	4 to 20	32,713		(22,612)		46,228		(31,890)						
Customer-related	10 to 21	181,408		(88,112)		205,213		(94,711)						
Unpatented technology	10 to 30	31,586		(17,890)		31,702		(15,492)						
Trademarks	5 to 20	13,087		(8,772)		14,755		(9,352)						
Trademarks	Indefinite	11,160		_		14,545		_						
Total	9	\$ 269,954	\$	(137,386)	\$	319,505	\$	(158,507)						

Amortization expense for intangible assets was \$13.8 million, \$14.4 million and \$14.7 million for 2020, 2019 and 2018, respectively. Estimated amortization expense for 2021 through 2025 is \$12.5 million, \$12.1 million, \$11.9 million, \$10.7 million, and \$9.5 million, respectively.

NOTE 9 — LEASES

At the inception of our contracts we determine if the contract is or contains a lease. A contract is or contains a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration. ROU assets and operating lease liabilities are recognized based on the present value of lease payments over the lease term at commencement. For leases that do not have a readily determinable implicit rate, we use a discount rate based on our incremental borrowing rate, which is determined considering factors such as the lease term, our credit rating and the economic environment of the location of the lease as of the commencement date.

We account for non-lease components separately from lease components. These costs often relate to the payments for a proportionate share of real estate taxes, insurance, common area maintenance and other operating costs in addition to base rent. We also do not recognize ROU assets and liabilities for leases with an initial term of 12 months or less. Lease costs associated with leases of less than 12 months were \$6.4 million for the year ended June 30, 2020.

As a lessee, we have various operating lease agreements primarily related to real estate, vehicles and office and plant equipment. Our real estate leases, which are comprised primarily of manufacturing, warehousing, office and administration facilities, represent a majority of our lease liability. Our lease payments are largely fixed. Any variable lease payments, including utilities, common area maintenance and repairs and maintenance, are expensed during the period incurred. Variable lease costs were immaterial for the year ended June 30, 2020. A majority of our real estate leases include options to extend the lease and options to early terminate the lease. Leases with an early termination option generally involve a termination payment. We review all options to extend, terminate, or purchase the ROU assets at the inception of the lease and account for these options when they are reasonably certain of being exercised. Our lease agreements generally do not contain any material residual value guarantees or materially restrictive covenants. We do not have any material leases that have been signed but not commenced, and we did not have any lease transactions with related parties.

The weighted average remaining lease term and discount rate for our operating leases were approximately 8.6 years and 3.3 percent, respectively, at June 30, 2020.

Operating lease expense is recognized on a straight-line basis over the lease term and is included in operating expense on our consolidated statement of income. Operating lease cost was \$22.6 million in 2020 and \$26.6 million in 2019 and 2018, respectively.

The following table sets forth supplemental cash flow information related to our operating leases:

(in thousands)	ear Ended ne 30, 2020
Operating cash flows from operating leases	\$ 15,635
ROU assets obtained in exchange for new operating lease liabilities	\$ 16,171

The following table sets forth the maturities of our operating lease liabilities and reconciles the respective undiscounted payments to the operating lease liabilities in the consolidated balance sheet as of June 30, 2020:

Year Ended June 30,

(in thousands)	Jun	e 30, 2020
2021	\$	14,790
2022		10,398
2023		6,974
2024		4,771
2025		2,890
Thereafter		16,705
Total undiscounted operating lease payments	\$	56,528
Less: discount to net present value		7,910
Total operating lease liabilities	\$	48,618

The following table sets forth the future minimum lease payments for non-cancelable operating leases as of the year ended June 30, 2019:

Year Ended June 30.

(in thousands)	June 3	June 30, 2019	
2020	\$	17,074	
2021		12,212	
2022		6,693	
2023		4,294	
2024		2,636	
Thereafter		17,168	
Total future minimum lease payments	\$	60,077	

NOTE 10 — OTHER CURRENT LIABILITIES

Other current liabilities consisted of the following at June 30:

(in thousands)	2020	2019
Accrued employee benefits	\$ 20,194	\$ 36,268
Accrued restructuring (Note 16)	34,910	19,212
Accrued legal and professional fees	7,724	13,481
Payroll, state and local taxes	5,053	7,971
Accrued interest	7,630	5,205
Other	68,766	60,685
Total other current liabilities	\$ 144,277	\$ 142,822

NOTE 11 — LONG-TERM DEBT

Long-term debt consisted of the following at June 30:

(in thousands)	2020	2019
3.875% Senior Unsecured Notes due fiscal 2022, net of discount of \$0.1 million for 2020 and 2019	299,940	299,903
4.625% Senior Unsecured Notes due fiscal 2028, net of discount of \$1.7 million for 2020 and \$2.0 million for 2019	298,264	298,046
Total term debt	598,204	597,949
Less unamortized debt issuance costs	(4,121)	(5,475)
Total long-term debt	\$ 594,083 \$	592,474

Senior Unsecured Notes On June 7, 2018, we issued \$300.0 million of 4.625 percent Senior Unsecured Notes with a maturity date of June 15, 2028. Interest will be paid semi-annually on June 15 and December 15 of each year. We used the net proceeds from the offering of the notes, plus cash on hand, for the early extinguishment of our \$400.0 million of 2.650 percent Senior Unsecured Notes (\$400.0 million Notes) in July of fiscal 2019. On February 14, 2012, we issued \$300 million of 3.875 percent Senior Unsecured Notes with a maturity date of February 15, 2022. Interest on these Notes is paid semi-annually on February 15 and August 15 of each year.

Future principal maturities of long-term debt are \$300 million in 2022 and \$300 million in 2028.

NOTE 12 — REVOLVING AND OTHER LINES OF CREDIT AND NOTES PAYABLE

Credit Agreement The five-year, multi-currency, revolving credit facility, as amended and restated in June 2018 (Credit Agreement) provides for revolving credit loans of up to \$700.0 million for working capital, capital expenditures and general corporate purposes. The Credit Agreement matures in June 2023 and allows for borrowings in U.S. dollars, euros, Canadian dollars, pounds sterling and Japanese yen. Interest payable under the Credit Agreement is based upon the type of borrowing under the facility and may be (1) LIBOR plus an applicable margin, (2) the greater of the prime rate or the Federal Funds effective rate plus an applicable margin, or (3) fixed as negotiated by us.

The Credit Agreement requires us to comply with various restrictive and affirmative covenants, including two financial covenants: 1.) a maximum leverage ratio where debt, net of domestic cash in excess of \$25 million, must be less than or equal to 3.5 times trailing twelve months EBITDA, adjusted for certain non-cash expenses and which may be further adjusted, at our discretion, to include up to \$80 million of cash restructuring charges through December 31, 2021; and 2.) a minimum consolidated interest coverage ratio of EBITDA to interest of 3.5 times (as the aforementioned terms are defined in the Credit Agreement). Borrowings under the Credit Agreement are guaranteed by our significant domestic subsidiaries.

As of June 30, 2020, we were in compliance with all covenants of the Credit Agreement and we had \$500.0 million of borrowings outstanding and \$200.0 million of additional availability. There were no borrowings outstanding as of June 30, 2019. The weighted average interest rate on borrowings under the Credit Agreement was 2.17 percent as of June 30, 2020.

On June 9, 2020 the Company announced a 10 percent reduction in its salaried workforce to occur in the first half of fiscal 2021 as part of its simplification/modernization initiative. The Company also announced that effective July 1, 2020, the compensation of salaried employees would be temporarily reduced by 10 to 20 percent, based on the job level, due to the market headwinds from COVID-19. The compensation adjustment replaced the furloughs and similar actions that were in place for our salaried workforce during the fourth quarter of fiscal 2020.

The Company continues to assess the expected conditions in its primary end markets, including the effects of COVID-19 on the Company's business, financial condition, operating results and cash flows. Because the extent and duration of the COVID-19 pandemic are uncertain, the effects of the pandemic could materially affect our availability to borrow under the Credit Agreement and our compliance with the maximum leverage ratio covenant of the Credit Agreement. We are currently evaluating whether or not to access the capital markets or seek an amendment to the Credit Agreement, including modification of the covenant restrictions, among other terms. If over the course of the next year, market conditions do not improve or further deteriorate, the Company may need to take one or a combination of the following additional actions to ensure the Company has adequate access to liquidity and remains in compliance with the maximum leverage ratio covenant of the Credit Agreement, all of which are within the Company's control: implement additional short-term cost-control actions, temporarily reduce or suspend the dividend, and undertake new restructuring programs. We have concluded that we will remain in compliance with the covenants of the Credit Agreement and, as a result, will have adequate access to liquidity to satisfy our obligations within one year after the date the financial statements are issued.

Other lines of credit and notes payable to banks were \$0.4 million and \$0.2 million at June 30, 2020 and 2019, respectively. This represented short-term borrowings under credit lines with commercial banks in the various countries in which we operate. These credit lines, translated into U.S. dollars at June 30, 2020 exchange rates, totaled \$92.2 million at June 30, 2020.

NOTE 13 — INCOME TAXES

Income (loss) before income taxes consisted of the following for the years ended June 30:

(in thousands)	2020	2019	2019		
Income (loss) before income taxes:					
United States	\$ (76,107)	\$	60,756	\$	57,109
International	78,067		250,479		217,932
Total income before income taxes	\$ 1,960	\$	311,235	\$	275,041
Current income taxes:					
Federal	\$ (3,558)	\$	5,679	\$	3,755
State	905		321		(816)
International	33,559		54,553		44,127
Total current income taxes	30,906		60,553		47,066
Deferred income taxes:					
Federal	\$ (9,113)	\$	(3,606)	\$	1,121
State	724		45		3,552
International	(15,510)		6,367		18,242
Total deferred income taxes:	(23,899)		2,806		22,915
Provision for income taxes	\$ 7,007	\$	63,359	\$	69,981
Effective tax rate	357.5%		20.4%		25.4%

Coronavirus Aid, Relief, and Economic Security Act (CARES Act)

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic. The CARES Act, among other things, allows net operating losses arising in taxable years beginning after December 31, 2017 and before January 1, 2021 to be carried back to each of the 5 preceding taxable years to generate a refund of previously paid income taxes; permits net operating loss carryovers and carrybacks to offset 100 percent of taxable income for taxable years beginning before January 1, 2021; and modifies the limitation on business interest by increasing the allowable business interest deduction from 30 percent of adjusted taxable income to 50 percent of adjusted taxable income for taxable years beginning in 2019 or 2020. We are planning to carry back our taxable loss in the U.S. for fiscal 2020 under the provisions of the CARES Act and have recorded a \$6.9 million benefit in our tax provision during fiscal 2020.

Swiss tax reform

Legislation was effectively enacted during the December quarter of fiscal 2020 when the Canton of Schaffhausen approved the Federal Act on Tax Reform and AHV Financing on October 8, 2019 (Swiss tax reform). Significant changes from Swiss tax reform include the abolishment of certain favorable tax regimes and the creation of a ten-year transitional period at both the federal and cantonal levels.

The transitional provisions of Swiss tax reform allow companies to utilize a combination of lower tax rates and tax basis adjustments to fair value, which are used for tax depreciation and amortization purposes resulting in deductions over the transitional period. To reflect the federal and cantonal transitional provisions, as they apply to us, we recorded a deferred tax asset of \$14.5 million during the December quarter of fiscal 2020. We consider the deferred tax asset from Swiss tax reform to be an estimate based on our current interpretation of the legislation, which is subject to change based on further legislative guidance, review with the Swiss federal and cantonal authorities and modifications to the underlying valuation.

The reconciliation of income taxes computed using the statutory U.S. income tax rate and the provision for income taxes was as follows for the years ended June 30:

(in thousands)	2020	20	2019		2018
Income taxes at U.S. statutory rate	\$ 412	\$	65,359	\$	77,286
State income taxes, net of federal tax benefit	1,283		289		2,975
U.S. income taxes provided on international income	12,422		7,347		1,010
Combined tax effects of international income	10,583		162		(9,333)
Impact of goodwill impairment charges	5,651		_		_
Change in valuation allowance and other uncertain tax positions	755		(1,473)		(90,817)
U.S. research and development credit	(4,093)		(3,911)		(3,141)
Change in permanent reinvestment assertion	_		6,093		_
Combined effects of U.S. tax reform	_		(9,280)		86,044
Combined effects of Swiss tax reform	(14,500)		_		_
Combined effects of the U.S. CARES Act	(6,913)		_		_
Adjustment to deferred tax charges on intra-entity transfers	_		_		5,297
Other	1,407		(1,227)		660
Provision for income taxes	\$ 7,007	\$	63,359	\$	69,981

During 2019, we recorded a net tax benefit of \$9.3 million associated with the finalization of our toll tax charge which included a benefit of \$15.0 million for the toll tax charge and a \$5.3 million charge for an unrecognized tax benefit. The effect of these items is included in the tax reconciliation table under the caption "Combined effects of U.S. tax reform."

During 2019, we released a \$1.1 million valuation allowance that was previously recorded against the net deferred tax assets of our Australian subsidiary. The effect of this item is included in the tax reconciliation table under the caption "Change in valuation allowance and other uncertain tax positions."

During 2018, we recorded a charge for the combined effects of tax reform of \$86.0 million, which included \$80.9 million for the toll tax charge and a net charge in our U.S. provision of \$5.1 million for revaluation of U.S. net deferred taxes. The effect of these items is included in the tax reconciliation table under the caption "Combined effects of tax reform." The revaluation of U.S. net deferred taxes was preliminary and subject to finalization of the 2018 U.S. federal income tax return.

During 2018, we released \$91.3 million of the U.S. valuation allowance that was previously recorded against our net deferred tax assets in the U.S., including deferred tax assets related to items of Other Comprehensive Income. The valuation allowance release was triggered by utilization of a significant portion of our deferred tax assets to satisfy the toll tax provision.

The components of net deferred tax assets and liabilities were as follows at June 30:

(in thousands)	2020	2019
Deferred tax assets:		
Net operating loss (NOL) carryforwards	\$ 31,891	\$ 28,886
Inventory valuation and reserves	8,220	8,230
Pension benefits	19,608	21,445
Other postretirement benefits	4,110	4,752
Accrued employee benefits	11,650	16,029
Operating lease liabilities	11,889	_
Other accrued liabilities	7,310	7,758
Tax credits and other carryforwards	21,048	4,733
Intangible assets	10,531	_
Other	364	2,813
Total	126,621	94,646
Valuation allowance	(16,654)	(14,614)
Total deferred tax assets	\$ 109,967	\$ 80,032
Deferred tax liabilities:		
Tax depreciation in excess of book	\$ 67,411	\$ 74,645
Operating lease right-of-use assets	11,715	_
Intangible assets	_	4,259
Unremitted earnings not permanently reinvested	5,855	3,943
Total deferred tax liabilities	\$ 84,981	\$ 82,847
Total net deferred tax assets (liabilities)	\$ 24,986	\$ (2,815)

Included in deferred tax assets at June 30, 2020 is \$21.0 million associated with tax credits and other carryforward items primarily for federal in the U.S. Of that amount, \$2.1 million expires through 2030, \$2.9 million expires through 2035 and \$16.0 million expires through 2040.

Included in deferred tax assets at June 30, 2020 is \$31.9 million associated with NOL carryforwards in state and foreign jurisdictions. Of that amount, \$5.6 million expires through 2025, \$3.8 million expires through 2030, \$1.4 million expires through 2035, \$3.7 million expires through 2040, and the remaining \$17.4 million does not expire. The realization of these tax benefits is primarily dependent on future taxable income in these jurisdictions.

A valuation allowance of \$16.7 million has been placed against deferred tax assets primarily in the U.S. and Brazil, all of which would be allocated to income tax expense upon realization of the deferred tax assets. As the respective operations generate sufficient income, the valuation allowances will be partially or fully reversed at such time we believe it will be more likely than not that the deferred tax assets will be realized. In 2020, the valuation allowance related to these deferred tax assets increased by \$2.0 million.

As a result of the Tax Cuts and Jobs Act of 2017 (TCJA), which among other provisions allows for a 100 percent dividends received deduction from controlled foreign subsidiaries, we re-evaluated our assertion with respect to permanent reinvestment in all jurisdictions during 2019 and concluded that a portion of the unremitted earnings and profits of certain non-U.S. subsidiaries and affiliates will no longer be permanently reinvested. These changes in assertion required the recognition of a tax charge of \$6.1 million recorded in 2019 primarily for foreign withholding and U.S. state income taxes. The remaining amount of approximately \$1.4 billion is substantially all of the unremitted earnings of our non-U.S. subsidiaries which continues to be indefinitely reinvested. The deferred tax liability associated with unremitted earnings of our non-U.S. subsidiaries not permanently reinvested is \$5.9 million as of June 30, 2020. Determination of the amount of unrecognized deferred tax liability related to indefinitely reinvested earnings is not practicable due to our legal entity structure and the complexity of U.S. and local tax laws. With regard to the unremitted earnings which remain indefinitely reinvested, we have not, nor do we anticipate the need to, repatriate funds to the U.S. to satisfy domestic liquidity needs arising in the ordinary course of business, including liquidity needs associated with our domestic debt service requirements.

A reconciliation of the beginning and ending amount of unrecognized tax benefits (excluding interest and penalty) is as follows as of June 30:

(in thousands)	2020	2019	2018
Balance at beginning of year	\$ 8,952 \$	5,775 \$	2,632
Increases for tax positions of prior years	_	7,384	3,409
Decreases related to settlement with taxing authority	_	(3,765)	_
Decreases related to lapse of statute of limitations	(214)	(324)	(289)
Foreign currency translation	(58)	(118)	23
Balance at end of year	\$ 8,680 \$	8,952 \$	5,775

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate in 2020, 2019 and 2018 is \$8.7 million, \$9.0 million and \$5.8 million, respectively. We do not believe there will be a material change in the amount of unrecognized tax benefits within the next twelve months.

Our policy is to recognize interest and penalties related to income taxes as a component of the provision for income taxes in the consolidated statement of income. We recognized an increase of \$1.0 million, a decrease of \$0.4 million and an increase of \$0.7 million in 2020, 2019 and 2018, respectively. As of June 30, 2020 and 2019, the amount of interest accrued was \$1.2 million and \$0.7 million, respectively. As of June 30, 2020 and 2019, the amount of penalty accrued was \$0.5 million and \$0.1 million, respectively.

With few exceptions, we are no longer subject to income tax examinations by tax authorities for years prior to 2015. The Internal Revenue Service has audited or the statute of limitations has expired for all U.S. tax years prior to 2017. Various state and foreign jurisdiction tax authorities are in the process of examining our income tax returns for various tax years ranging from 2014 to 2018. We continuously review our uncertain tax positions and evaluate any potential issues that may lead to an increase or decrease in the total amount of unrecognized tax benefits recorded.

NOTE 14 — PENSION AND OTHER POSTRETIREMENT BENEFITS

Defined Benefit Pension Plans

We have defined benefit pension plans that cover certain employees in the U.S., Germany, the UK, Switzerland, Canada and Israel. Pension benefits under defined benefit pension plans are based on years of service and, for certain plans, on average compensation for specified years preceding retirement. We fund pension costs in accordance with the funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA), as amended, for U.S. plans and in accordance with local regulations or customs for non-U.S. plans. The accrued benefit for all participants in the Kennametal Inc. Retirement Income Plan was frozen as of December 31, 2016. The majority of our defined benefit pension plans are closed to future participation.

We have an Executive Retirement Plan for various executives and a Supplemental Executive Retirement Plan both of which have been closed to future participation on June 15, 2017 and July 26, 2006, respectively.

We presently provide varying levels of postretirement health care and life insurance benefits to certain employees and retirees. By fiscal 2019, participants over the age of 65 were transitioned to a private exchange and some received a fixed Health Retirement Account (HRA) contribution to offset the cost of their coverage. Postretirement health and life benefits are closed to future participants as of December 31, 2016.

We use a June 30 measurement date for all of our plans.

The funded status of our pension plans and amounts recognized in the consolidated balance sheets as of June 30 were as follows:

(in thousands)	2020	2019
Change in benefit obligation:		
Benefit obligation, beginning of year	\$ 964,741	\$ 902,711
Service cost	1,796	1,627
Interest cost	27,320	31,901
Participant contributions	637	_
Actuarial losses (gains)	67,403	64,648
Benefits and expenses paid	(50,733)	(49,510)
Currency translation adjustments	(5,758)	(6,208)
Plan amendments	(231)	1,465
New plans	_	18,107
Plan settlements	(1,286)	_
Plan curtailments	(171)	_
Other adjustments	287	_
Benefit obligation, end of year	\$ 1,004,005	\$ 964,741
Change in plans' assets:		
Fair value of plans' assets, beginning of year	\$ 825,869	\$ 792,758
Actual return on plans' assets	96,133	68,981
Company contributions	9,721	7,905
Participant contributions	637	_
New plans	_	9,480
Plan settlements	(1,286)	_
Benefits and expenses paid	(50,733)	(49,510)
Currency translation adjustments	(4,305)	(3,745)
Fair value of plans' assets, end of year	\$ 876,036	\$ 825,869
Funded status of plans	\$ (127,969)	\$ (138,872)
Amounts recognized in the balance sheet consist of:		
Long-term prepaid benefit	\$ 43,116	\$ 31,581
Short-term accrued benefit obligation	(6,639)	(7,624)
Accrued pension benefits	(164,446)	(162,829)
Net amount recognized	\$ (127,969)	\$ (138,872)

The pre-tax amounts related to our defined benefit pension plans recognized in accumulated other comprehensive loss were as follows at June 30:

(in thousands)	2020	2019		
Unrecognized net actuarial losses	\$ 305,903	\$ 292,992		
Unrecognized net prior service costs	2,026	2,229		
Unrecognized transition obligations	332	432		
Total	\$ 308,261	\$ 295,653		

To the best of our knowledge and belief, the asset portfolios of our defined benefit pension plans do not contain our capital stock. We do not issue insurance contracts to cover future annual benefits of defined benefit pension plan participants. Transactions between us and our defined benefit pension plans include the reimbursement of plan expenditures incurred by us on behalf of the plans. To the best of our knowledge and belief, the reimbursement of cost is permissible under current ERISA rules or local government law. The accumulated benefit obligation for all defined benefit pension plans was \$1,001.8 million and \$962.9 million as of June 30, 2020 and 2019, respectively.

Included in the above information are plans with accumulated benefit obligations exceeding the fair value of plan assets as of June 30 as follows:

(in thousands)	2020	2019		
Projected benefit obligation	\$ 180,388	\$ 179,921		
Accumulated benefit obligation	178,195	178,039		
Fair value of plan assets	9,273	9,480		

The components of net periodic pension income include the following as of June 30:

(in thousands)	2020	2019	2018
Service cost	\$ 1,796	\$ 1,627	\$ 1,635
Interest cost	27,320	31,901	30,751
Expected return on plans' assets	(53,943)	(53,789)	(56,579)
Amortization of transition obligation	88	91	94
Amortization of prior service cost	50	(19)	48
Curtailment loss	(115)	_	_
Settlement loss	(51)	_	626
Recognition of actuarial losses	10,359	6,723	6,907
Other adjustments	288	_	_
Net periodic pension income	\$ (14,208)	\$ (13,466)	\$ (16,518)

As of June 30, 2020, the projected benefit payments, including future service accruals for these plans for 2021 through 2025, are \$51.4 million, \$52.1 million, \$52.8 million, \$54.9 million and \$56.0 million, respectively, and \$271.4 million in 2026 through 2030.

The amounts of accumulated other comprehensive loss expected to be recognized in net periodic pension cost during 2021 related to net actuarial losses are \$13.3 million. The amount of accumulated other comprehensive income expected to be recognized in net periodic pension cost during 2021 related to transition obligations and prior service cost is immaterial.

We expect to contribute approximately \$8 million to our pension plans in 2021, which is primarily for international plans.

Other Postretirement Benefit Plans

The funded status of our other postretirement benefit plans and the related amounts recognized in the consolidated balance sheets were as follows:

(in thousands)	2020	2019		
Change in benefit obligation:				
Benefit obligation, beginning of year	\$ 12,642	\$ 15,323		
Interest cost	404	613		
Actuarial losses	709	(264)		
Benefits paid	(1,390)	(1,505)		
Plan amendments	_	(1,525)		
Benefit obligation, end of year	\$ 12,365	\$ 12,642		
Funded status of plan	\$ (12,365)	\$ (12,642)		
Amounts recognized in the balance sheet consist of:				
Short-term accrued benefit obligation	\$ (1,353)	\$ (1,468)		
Accrued postretirement benefits	(11,012)	(11,174)		
Net amount recognized	\$ (12,365)	\$ (12,642)		

The pre-tax amounts related to our other postretirement benefit plans which were recognized in accumulated other comprehensive loss were as follows at June 30:

(in thousands)	2	2020	2019
Unrecognized net actuarial losses	\$	4,602 \$	4,150
Unrecognized net prior service credits		(2,200)	(2,476)
Total	\$	2,402 \$	1,674

The components of net periodic other postretirement benefit cost include the following for the years ended June 30:

(in thousands)	2020	2019	2018
Interest cost	\$ 404	\$ 613	\$ 629
Amortization of prior service credit	(276)	(90)	(22)
Recognition of actuarial loss	257	248	280
Net periodic other postretirement benefit cost	\$ 385	\$ 771	\$ 887

As of June 30, 2020, the projected benefit payments, including future service accruals for our other postretirement benefit plans for 2021 through 2025, are \$1.3 million, \$1.2 million, \$1.2 million, \$1.1 million and \$1.0 million, respectively, and \$3.9 million in 2026 through 2030.

The amounts of accumulated other comprehensive loss expected to be recognized in net periodic pension cost during 2021 related to net actuarial losses and related to prior service credit are costs of \$0.3 million and income of \$0.3 million, respectively.

We expect to contribute approximately \$1 million to our other postretirement benefit plans in 2021.

The service cost component of net periodic pension income of \$1.8 million, \$1.6 million and \$1.6 million for 2020, 2019 and 2018, respectively, was reported as a component of cost of goods sold and operating expense. The other components of net periodic pension income and net periodic other postretirement benefit cost totaling a net benefit of \$15.6 million, \$14.3 million and \$17.3 million for 2020, 2019 and 2018, respectively, were presented as a component of other income, net.

Assumptions

The significant actuarial assumptions used to determine the present value of net benefit obligations for our defined benefit pension plans and other postretirement benefit plans were as follows:

	2020	2019	2018
Discount Rate:			
U.S. plans	1.6-2.9%	2.7-3.6%	4.0-4.3%
International plans	0.2-2.4%	0.4-2.9%	1.8-3.3%
Rates of future salary increases:			
U.S. plans	4.0%	4.0%	4.0%
International plans	1.5%	1.8-3.0%	2.5-3.0%

The significant assumptions used to determine the net periodic income for our pension and other postretirement benefit plans were as follows:

	2020	2019	2018
Discount Rate:			
U.S. plans	2.7-3.6%	4.0-4.3%	3.3-3.9%
International plans	0.4-2.9%	1.8-3.3%	2.0-3.3%
Rates of future salary increases:			
U.S. plans	4.0%	4.0%	4.0%
International plans	1.8-3.0%	2.5-3.0%	2.5-3.0%
Rate of return on plans assets:			
U.S. plans	7.0%	7.0%	7.3%
International plans	0.4-5.3%	5.0-5.3%	5.3%

The rates of return on plan assets are based on historical performance, as well as future expected returns by asset class considering macroeconomic conditions, current portfolio mix, long-term investment strategy and other available relevant information.

The annual assumed rate of increase in the per capita cost of covered benefits (the health care cost trend rate) for our postretirement benefit plans was as follows:

	2020	2019	2018
Health care costs trend rate assumed for next year	6.8%	7.0%	7.5%
Rate to which the cost trend rate gradually declines	5.0%	5.0%	5.0%
Year that the rate reaches the rate at which it is assumed to remain	2027	2027	2027

A change of one percentage point in the assumed health care cost trend rates would have an immaterial effect on both the total service and interest cost components of our other postretirement cost and other postretirement benefit obligation at June 30, 2020.

Plan Assets

The primary objective of certain of our pension plans' investment policies is to ensure that sufficient assets are available to provide the benefit obligations at the time the obligations come due. The overall investment strategy for the defined benefit pension plans' assets combine considerations of preservation of principal and moderate risk-taking. The assumption of an acceptable level of risk is warranted in order to achieve satisfactory results consistent with the long-term objectives of the portfolio. Fixed income securities comprise a significant portion of the portfolio due to their plan-liability-matching characteristics and to address the plans' cash flow requirements. Additionally, diversification of investments within each asset class is utilized to further reduce the effect of losses in single investments.

Investment management practices for U.S. defined benefit pension plans must comply with ERISA and all applicable regulations and rulings thereof. The use of derivative instruments is permitted where appropriate and necessary for achieving overall investment policy objectives. Currently, the use of derivative instruments is not significant when compared to the overall investment portfolio.

The Company utilizes a liability driven investment strategy (LDI) for the assets of its U.S. defined benefit pension plans in order to reduce the volatility of the funded status of these plans and to meet the obligations at an acceptable cost over the long term. This LDI strategy entails modifying the asset allocation and duration of the assets of the plans to more closely match the liability profile of these plans. The asset reallocation involves increasing the fixed income allocation, reducing the equity component and adding alternative investments. Longer duration interest rate swaps have been utilized periodically in order to increase the overall duration of the asset portfolio to more closely match the liabilities.

Our defined benefit pension plans' asset allocations as of June 30, 2020 and 2019 and target allocations for 2021, by asset class, were as follows:

	2020	2019	Target %
Equity	22%	23%	25%
Fixed Income	75	67	75
Other	3	10	_

The following sections describe the valuation methodologies used by the trustee to measure the fair value of the defined benefit pension plan assets, including an indication of the level in the fair value hierarchy in which each type of asset is generally classified (see Note 4 for the definition of fair value and a description of the fair value hierarchy).

Corporate fixed income securities Investments in corporate fixed income securities consist of corporate debt and asset backed securities. These investments are classified as level two and are valued using independent observable market inputs such as the treasury curve, swap curve and yield curve.

Common stock Common stocks are classified as level one and are valued at their quoted market price.

Government securities Investments in government securities consist of fixed income securities such as U.S. government and agency obligations and foreign government bonds and asset and mortgage backed securities such as obligations issued by government sponsored organizations. These investments are classified as level two and are valued using independent observable market inputs such as the treasury curve, credit spreads and interest rates.

Other fixed income securities Investments in other fixed income securities are classified as level two and valued based on observable market data.

Other Other investments consist primarily of a hedge fund, in addition to state and local obligations and short term investments including cash, corporate notes, and various short term debt instruments which can be redeemed within a nominal redemption notice period. These investments are primarily classified as level two and are valued using independent observable market inputs.

The fair value methods described may not be reflective of future fair values. Additionally, while the Company believes the valuation methods used by the plans' trustee are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in different fair value measurement at the reporting date.

The following table presents the fair value of the benefit plans' assets by asset category as of June 30, 2020:

(in thousands)	Level 1	Level 2	Level 3	NAV ⁽³⁾	Total
Common / collective trusts (3):					
Blend funds	\$ _	\$ _	\$ _	\$ 94,667	\$ 94,667
Mutual funds	_	_	_	59,674	59,674
Corporate fixed income securities	_	394,521	_	_	394,521
Common stock	38,487	_	_	_	38,487
Government securities:					
U.S. government securities	_	178,364	_	_	178,364
Foreign government securities	_	61,153	_	_	61,153
Other fixed income securities	_	22,544	_	_	22,544
Other	2,410	24,216	_	_	26,626
Total investments	\$ 40,897	\$ 680,798	\$ _	\$ 154,341	\$ 876,036

The following table presents the fair value of the benefit plans' assets by asset category as of June 30, 2019:

(in thousands)	Level 1	Level 2	Level 3	NAV ⁽³⁾	Total
Common / collective trusts (3):					
Value funds	\$ _	\$ _	\$ _	\$ 66,950	\$ 66,950
Growth funds	_	_	_	38,119	38,119
Balanced funds	_	_	_	10,921	10,921
Corporate fixed income securities	_	407,008	_	_	407,008
Common stock	74,448	_	_	_	74,448
Government securities:					
U.S. government securities	_	61,770	_	_	61,770
Foreign government securities	_	48,011	_	_	48,011
Other fixed income securities	_	32,971	_	_	32,971
Other	3,888	81,783	_	_	85,671
Total investments	\$ 78,336	\$ 631,543	\$ 	\$ 115,990	\$ 825,869

⁽³⁾ Investments in common / collective trusts invest primarily in publicly traded securities and are valued using net asset value (NAV) of units of a bank collective trust. Therefore, these amounts have not been classified in the fair value hierarchy and are presented in the tables to reconcile the fair value hierarchy to the total fair value of plan assets.

Defined Contribution Plans

We sponsor several defined contribution retirement plans. Costs for defined contribution plans were \$14.7 million, \$16.3 million and \$19.6 million in 2020, 2019 and 2018, respectively.

Certain U.S. employees are eligible to participate in the Kennametal Thrift Plus Plan (Thrift), which is a qualified defined contribution plan under section 401(k) of the Internal Revenue Code. Under the Thrift, eligible employees receive a full match of their contributions up to 6 percent of eligible compensation.

All contributions, including the company match and discretionary, are made in cash and invested in accordance with participants' investment elections. There are no minimum amounts that must be invested in company stock, and there are no restrictions on transferring amounts out of company stock to another investment choice, other than excessive trading rules applicable to such investments. Employee contributions and our matching and discretionary contributions vest immediately as of the participants' employment dates.

NOTE 15 — ACCUMULATED OTHER COMPREHENSIVE LOSS

The components of and changes in accumulated other comprehensive loss (AOCL) were as follows, net of tax, for the year ended June 30, 2020 (in thousands):

Attributable to Kennametal:	nsion and other etirement benefits	Currency translation adjustment	Derivatives	Total
Balance, June 30, 2019	\$ (222,270) \$	(147,595) \$	(3,678) \$	(373,543)
Other comprehensive loss before reclassifications	(18,299)	(33,432)	(582)	(52,313)
Amounts Reclassified from AOCL	7,935	_	679	8,614
Net current period other comprehensive loss	(10,364)	(33,432)	97	(43,699)
AOCL, June 30, 2020	\$ (232,634) \$	(181,027) \$	(3,581) \$	(417,242)
Attributable to noncontrolling interests:				
Balance, June 30, 2019	\$ — \$	(3,450) \$	— \$	(3,450)
Other comprehensive loss before reclassifications	_	(2,459)	_	(2,459)
Net current period other comprehensive loss	_	(2,459)	_	(2,459)
AOCL, June 30, 2020	\$ — \$	(5,909) \$	— \$	(5,909)

The components of and changes in AOCL were as follows, net of tax, for the year ended June 30, 2019 (in thousands):

Attributable to Kennametal:	 ension and other Curetirement benefits	urrency translation adjustment	Derivatives	Total
Balance, June 30, 2018	\$ (187,755) \$	(127,347) \$	(5,223) \$	(320,325)
Other comprehensive loss before reclassifications	(39,639)	(20,248)	197	(59,690)
Amounts Reclassified from AOCL	5,124	_	1,348	6,472
Net current period other comprehensive loss	(34,515)	(20,248)	1,545	(53,218)
AOCL, June 30, 2019	\$ (222,270) \$	(147,595) \$	(3,678) \$	(373,543)
Attributable to noncontrolling interests:				
Balance, June 30, 2018	\$ — \$	(2,913) \$	— \$	(2,913)
Other comprehensive loss before reclassifications	_	(537)	_	(537)
Net current period other comprehensive loss	_	(537)	_	(537)
AOCL, June 30, 2019	\$ — \$	(3,450) \$	— \$	(3,450)

The components of and changes in AOCL were as follows, net of tax, for the year ended June 30, 2018 (in thousands):

Attributable to Kennametal:	 ension and other retirement benefits	Currency translation adjustment	Derivatives	Total
Balance, June 30, 2017	\$ (189,038) \$		(8,048) \$	(323,692)
Other comprehensive loss before reclassifications	(5,991)	(741)	(922)	(7,654)
Amounts Reclassified from AOCL	7,274	_	3,747	11,021
Net current period other comprehensive income	1,283	(741)	2,825	3,367
AOCL, June 30, 2018	\$ (187,755) \$	(127,347) \$	(5,223) \$	(320,325)
Attributable to noncontrolling interests:				
Balance, June 30, 2017	\$ — \$	(2,164) \$	— \$	(2,164)
Other comprehensive loss before				
reclassifications	_	(749)	_	(749)
Net current period other comprehensive loss	_	(749)	_	(749)
AOCL, June 30, 2018	\$ — \$	(2,913) \$	— \$	(2,913)

Reclassifications out of AOCL for the years ended June 30, 2020, 2019 and 2018 consisted of the following:

Year Ended June 30,

		,		
Details about AOCL components	2020	2010	2010	Afficial III and the Indian Comment
(in thousands)	2020	2019	2018	Affected line item in the Income Statement
Gains and losses on cash flow hedges:				
Forward starting interest rate swaps	\$ 2,444 \$	2,352 \$	2,265	Interest expense
Currency exchange contracts	(1,545)	(567)	2,243	Other income, net
Total before tax	899	1,785	4,508	
Tax impact	(220)	(437)	(761)	Provision for income taxes
Net of tax	\$ 679 \$	1,348 \$	3,747	
Pension and other postretirement benefits:				
Amortization of transition obligations	\$ 88 \$	91 \$	94	Other income, net
Amortization of prior service credit	(226)	(109)	26	Other income, net
Recognition of actuarial losses	10,616	6,971	7,187	Other income, net
Total before tax	10,478	6,953	7,307	
Tax impact	(2,543)	(1,829)	(33)	Provision for income taxes
Net of tax	\$ 7,935 \$	5,124 \$	7,274	

The amount of income tax allocated to each component of other comprehensive income for the year ended June 30, 2020:

(in thousands)	Pre-tax	Tax impact	Net of tax
Unrealized loss on derivatives designated and qualified as cash flow hedges	\$ (771) \$	189 \$	(582)
Reclassification of unrealized loss on expired derivatives designated and qualified as cash flow hedges	899	(220)	679
Unrecognized net pension and other postretirement benefit loss	(23,999)	5,700	(18,299)
Reclassification of net pension and other postretirement benefit loss	10,478	(2,543)	7,935
Foreign currency translation adjustments	(35,936)	45	(35,891)
Other comprehensive loss	\$ (49,329) \$	3,171 \$	(46,158)

The amount of income tax allocated to each component of other comprehensive loss for the year ended June 30, 2019:

(in thousands)	Pre-tax	Tax impact	Net of tax
Unrealized gain on derivatives designated and qualified as cash flow hedges	\$ 261 \$	(64) \$	197
Reclassification of unrealized loss on expired derivatives designated and qualified as cash flow hedges	1,785	(437)	1,348
Unrecognized net pension and other postretirement benefit loss	(52,087)	12,448	(39,639)
Reclassification of net pension and other postretirement benefit loss	6,953	(1,829)	5,124
Foreign currency translation adjustments	(20,881)	96	(20,785)
Other comprehensive loss	\$ (63,969) \$	10,214 \$	(53,755)

The amount of income tax allocated to each component of other comprehensive loss for the year ended June 30, 2018:

(in thousands)	Pre-tax	Tax impact	Net of tax
Unrealized loss on derivatives designated and qualified as cash flow hedges	\$ (928) \$	6 \$	(922)
Reclassification of unrealized loss on expired derivatives designated and qualified as cash flow hedges	4,508	(761)	3,747
Unrecognized net pension and other postretirement benefit loss	(8,043)	2,052	(5,991)
Reclassification of net pension and other postretirement benefit loss	7,307	(33)	7,274
Foreign currency translation adjustments	(1,593)	103	(1,490)
Other comprehensive income	\$ 1,251 \$	1,367 \$	2,618

NOTE 16 — RESTRUCTURING AND RELATED CHARGES

FY20 Restructuring Actions

In the June quarter of fiscal 2019, we implemented and in the current fiscal year substantially completed restructuring activities associated with our simplification/modernization initiative to reduce structural costs, improve operational efficiency and position us for long-term profitable growth. Total restructuring and related charges since inception of \$53.5 million were recorded for this program through June 30, 2020, consisting of: \$43.1 million in Industrial, \$8.2 million in Infrastructure and \$2.2 million in Widia. FY20 Restructuring Actions are substantially complete as of June 30, 2020.

FY21 Restructuring Actions

In the September quarter of fiscal 2020, we announced the initiation of restructuring actions in Germany associated with our simplification/modernization initiative, which are expected to reduce structural costs. We agreed with local employee representatives to downsize our Essen, Germany operations instead of the previously proposed closure. During the fourth quarter of fiscal 2020, we also announced the acceleration of our structural cost reduction plans and increased the expected pre-tax charges to \$90 million to \$100 million. These actions are to be completed by the end of fiscal 2021 and are expected to be primarily cash expenditures.

Total restructuring and related charges since inception of \$43.2 million were recorded for this program through June 30, 2020, consisting of: \$37.9 million in Industrial, \$3.0 million in Infrastructure and \$2.3 million in Widia.

Annual Restructuring Charges

During 2020, we recorded restructuring and related charges of \$83.3 million. Of this amount, restructuring charges totaled \$69.2 million, of which \$0.9 million was related to inventory and was recorded in cost of goods sold. Restructuring-related charges of \$14.1 million were recorded in cost of goods sold.

During 2019, we recorded restructuring and related charges of \$16.9 million, net of a \$4.8 million gain on the sale of our previously closed Madison, AL manufacturing location as part of our FY19 Restructuring Actions. Of this amount, restructuring charges totaled \$19.5 million, of which \$0.7 million was related to inventory and was recorded in cost of goods sold. Restructuring-related charges of \$1.8 million were recorded in cost of goods sold and \$0.3 million were recorded in operating expense during 2019.

During 2018, we recorded restructuring and related charges of \$15.9 million, net of a \$4.7 million gain on the sale of our previously closed Houston, TX manufacturing location as part of our legacy restructuring programs. Of this amount, restructuring charges totaled \$16.4 million, of which benefit of \$0.2 million was related to inventory and was recorded in cost of goods sold. Restructuring-related charges of \$3.7 million were recorded in cost of goods sold and \$0.5 million were recorded in operating expense during 2018.

As of June 30, 2020, \$34.9 million of the restructuring accrual is recorded in other current liabilities and \$12.5 million is recorded in other liabilities in our consolidated balance sheet. As of June 30, 2019, the restructuring accrual of \$19.2 million is recorded in other current liabilities. The amount attributable to each segment is as follows:

(in thousands)	Jun	e 30, 2019	Expense	Asset Write-	Down	Translation		Cash Expenditures		June 30, 2020
Industrial										
Severance	\$	8,863	\$ 58,308	\$	_	\$	(331)	\$	(30,742)	\$ 36,098
Facilities		_	2,096	(2	2,096)		_		_	_
Other		35	4		_		(1)		(23)	15
Total Industrial		8,898	60,408	(2	2,096)		(332)		(30,765)	36,113
T.7' 1'										
Widia		2.206	2.625				00		(4.60.6)	2.225
Severance		2,306	2,627		— (54)		88		(1,696)	3,325
Facilities		_	51		(51)		_		_	_
Other		24								24
Total Widia		2,330	2,678		(51)		88		(1,696)	3,349
Infrastructure										
Severance		7,956	5,194		_		(154)		(5,116)	7,880
Facilities			892		(892)		(151)		(5,110)	
Other		28	2		(052)		(1)		(5)	24
Total Infrastructure		7,984	6,088		(892)		(155)		(5,121)	7,904
Total	\$	19,212	\$ 69,174	\$ (3	3,039)	\$	(399)	\$	(37,582)	\$ 47,366
(in thousands)	Jun	e 30, 2018	Expense	Asset Write-	Down		Translation	Cash	Expenditures	June 30, 2019
(in thousands) Industrial	Jun	e 30, 2018	Expense	Asset Write-	Down		Translation	Cash	Expenditures	June 30, 2019
· · · · · · · · · · · · · · · · · · ·	Jun \$	e 30, 2018 7,967	\$ Expense 8,957	Asset Write-	Down	\$	Translation (176)	Cash \$	Expenditures (7,885)	\$ June 30, 2019 8,863
Industrial		<u> </u>	\$ -	\$		\$				
Industrial Severance		<u> </u>	\$ 8,957	\$	_	\$				8,863
Industrial Severance Facilities		<u> </u>	\$ 8,957 3,488	\$ (3	_	\$	(176) —		(7,885) —	8,863 —
Industrial Severance Facilities Other Total Industrial		7,967 — —	\$ 8,957 3,488 (103)	\$ (3	— 3,488) —	\$	(176) — (1)		(7,885) — 139	8,863 — 35
Industrial Severance Facilities Other Total Industrial		7,967 — — 7,967	\$ 8,957 3,488 (103) 12,342	\$ (3	— 3,488) —	\$	(176) — (1) (177)		(7,885) — 139 (7,746)	8,863 — 35 8,898
Industrial Severance Facilities Other Total Industrial Widia Severance		7,967 — —	\$ 8,957 3,488 (103) 12,342	\$ (3	— 3,488) — 3,488)	\$	(176) — (1)		(7,885) — 139	8,863 — 35
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401	\$ (3	— 3,488) —	\$	(176) — (1) (177) (43) —		(7,885) ———————————————————————————————————	8,863 — 35 8,898 2,306 —
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities Other		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401 (25)	\$ (3		\$	(176) — (1) (177) (43) —		(7,885) ———————————————————————————————————	8,863 — 35 8,898 2,306 — 24
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401	\$ (3	— 3,488) — 3,488)	\$	(176) — (1) (177) (43) —		(7,885) ———————————————————————————————————	8,863 — 35 8,898 2,306 —
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities Other		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401 (25)	\$ (3		\$	(176) — (1) (177) (43) —		(7,885) ———————————————————————————————————	8,863 — 35 8,898 2,306 — 24
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities Other Total Widia		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401 (25)	\$ (3		\$	(176) — (1) (177) (43) —		(7,885) ———————————————————————————————————	8,863 — 35 8,898 2,306 — 24
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities Other Total Widia Infrastructure		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401 (25) 2,561	\$ (3		\$	(176) — (1) (177) (43) — (43)		(7,885) ———————————————————————————————————	8,863 ————————————————————————————————————
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities Other Total Widia Infrastructure Severance		7,967 ————————————————————————————————————	\$ 8,957 3,488 (103) 12,342 2,185 401 (25) 2,561	\$ (3		\$	(176) — (1) (177) (43) — (43)		(7,885) ———————————————————————————————————	8,863 ————————————————————————————————————
Industrial Severance Facilities Other Total Industrial Widia Severance Facilities Other Total Widia Infrastructure Severance Facilities		7,967 — 7,967 2,087 — 15 2,102 7,558 —	\$ 8,957 3,488 (103) 12,342 2,185 401 (25) 2,561 3,977 708	\$ (3		\$	(176) — (1) (177) (43) — (43)		(7,885) ———————————————————————————————————	8,863 ————————————————————————————————————

NOTE 17 — FINANCIAL INSTRUMENTS

The methods used to estimate the fair value of our financial instruments are as follows:

Cash and Equivalents, Revolving and Other Lines of Credit and Notes Payable to Banks The carrying amounts approximate their fair value because of the short maturity of the instruments.

Long-Term Debt, Including Current Maturities Fixed rate debt had a fair market value of \$630.2 million and \$622.0 million at June 30, 2020 and 2019, respectively. The Level 2 fair value is determined based on the quoted market prices for similar debt instruments as of June 30, 2020 and 2019, respectively.

Foreign Exchange Contracts The notional amount of outstanding foreign exchange contracts, translated at current exchange rates, was \$2.2 million and \$61.5 million at June 30, 2020 and 2019, respectively. We would have received an immaterial amount and \$0.2 million at June 30, 2020 and 2019, respectively, to settle these contracts representing the fair value of these agreements. The carrying value equaled the fair value for these contracts at June 30, 2020 and 2019. Fair value was estimated based on quoted market prices of comparable instruments.

Interest Rate Swap Contracts The cumulative notional amount of outstanding forward starting interest rate swap contracts was \$200.0 million at June 30, 2020. We recorded a net liability of \$2.1 million on these contracts, the net effect of which was recorded as a decrease to accumulated other comprehensive loss, net of tax. The carrying value equaled the fair value for these contracts at June 30, 2020. Fair value was estimated based on quoted market prices of comparable instruments.

Concentrations of Credit Risk Financial instruments that potentially subject us to concentrations of credit risk consist primarily of temporary cash investments and trade receivables. By policy, we make temporary cash investments with high credit quality financial institutions and limit the amount of exposure to any one financial institution. With respect to trade receivables, concentrations of credit risk are significantly reduced because we serve numerous customers in many industries and geographic areas.

We are exposed to counterparty credit risk for nonperformance of derivatives and, in the unlikely event of nonperformance, to market risk for changes in interest and currency exchange rates, as well as settlement risk. We manage exposure to counterparty credit risk through credit standards, diversification of counterparties and procedures to monitor concentrations of credit risk. We do not anticipate nonperformance by any of the counterparties. As of June 30, 2020 and 2019, we had no significant concentrations of credit risk.

NOTE 18 — STOCK-BASED COMPENSATION

Stock Options

Changes in our stock options for 2020 were as follows:

	Options	E	Weighted Average xercise Price	Weighted Average Remaining Life (years)	Intr	ggregate insic value housands)
Options outstanding, June 30, 2019	781,673	\$	33.92			
Exercised	(41,525)		26.66			
Lapsed and forfeited	(93,189)		39.36			
Options outstanding, June 30, 2020	646,959	\$	33.60	2.8	\$	1,356
Options vested and expected to vest, June 30, 2020	646,959	\$	33.60	2.8	\$	1,356
Options exercisable, June 30, 2020	646,959	\$	33.60	2.8	\$	1,356

During 2019 and 2018, compensation expense related to stock options was \$0.1 million and \$0.7 million, respectively. During 2020, there was no compensation expense related to stock options, and as of June 30, 2020, there was no unrecognized compensation cost related to options outstanding.

All options were full vested as of June 30, 2020 and June 30, 2019. Fair value of options vested during 2019 and 2018 was \$1.2 million and \$1.9 million, respectively.

Tax benefits relating to excess stock-based compensation deductions are presented in the consolidated statements of cash flow as operating cash inflows. Tax benefits resulting from stock-based compensation deductions were greater than the amounts reported for financial reporting purposes by an immaterial amount in 2020, by \$1.3 million in 2019 and by an immaterial amount in 2018.

The amount of cash received from the exercise of capital stock options during 2020, 2019 and 2018 was \$0.9 million, \$4.8 million and \$22.2 million, respectively. The related tax benefit was immaterial in 2020 and was \$0.5 million and \$1.4 million in 2019 and 2018, respectively. The total intrinsic value of options exercised in 2020, 2019 and 2018 was \$0.3 million, \$2.4 million and \$6.6 million, respectively.

Restricted Stock Units - Time Vesting and Performance Vesting

Performance vesting restricted stock units are earned pro rata each year if certain performance goals are met over a three-year period, and are also subject to a service condition that requires the individual to be employed by the Company at the payment date after the three-year performance period, with the exception of retirement eligible grantees, who upon retirement are entitled to receive payment for any units that have been earned, including a prorated portion in the partially completed fiscal year in which the retirement occurs. Time vesting stock units are valued at the market value of the stock on the grant date. Performance vesting stock units with a market condition are valued using a Monte Carlo model.

Changes in our time vesting and performance vesting restricted stock units for 2020 were as follows:

	Performance Vesting Stock Units	Performance Vesting Weighted Average Fair Value	Time Vesting Stock Units	Time Vesting Weighted Average Fair Value
Unvested, June 30, 2019	405,230	\$ 35.58	926,927	\$ 36.43
Granted	275,216	28.74	645,182	27.80
Vested	(146,377)	27.09	(460,823)	33.94
Performance metric adjustments, net	32,707	32.79	_	_
Forfeited	(12,143)	35.51	(71,591)	32.05
Unvested, June 30, 2020	554,633	\$ 34.26	1,039,695	\$ 32.48

During 2020, 2019 and 2018, compensation expense related to time vesting and performance vesting restricted stock units was \$15.3 million, \$21.9 million and \$19.4 million, respectively. As of June 30, 2020, the total unrecognized compensation cost related to unvested time vesting and performance vesting restricted stock units was \$16.4 million and is expected to be recognized over a weighted average period of 1.8 years.

NOTE 19— ENVIRONMENTAL MATTERS

The operation of our business has exposed us to certain liabilities and compliance costs related to environmental matters. We are involved in various environmental cleanup and remediation activities at certain sites associated with our current or former operations.

We establish and maintain reserves for certain potential environmental liabilities. At June 30, 2020 and 2019, the balances of these reserves were \$15.6 million, of which \$6.1 million was current, and \$12.4 million, respectively. The balance as of June 30, 2020 includes the Company's resolution of an environmental indemnity claim against the seller of a prior acquisition for which receivables are also recorded in other current and long-term assets. These reserves represent anticipated costs associated with the remediation of these issues and are generally not discounted.

The reserves we have established for environmental liabilities represent our best current estimate of the costs of addressing all identified environmental situations, based on our review of currently available evidence, and taking into consideration our prior experience in remediation and that of other companies, as well as public information released by the United States Environmental Protection Agency (USEPA), other governmental agencies and by the Potentially Responsible Party (PRP) groups in which we are participating. Although the reserves currently appear to be sufficient to cover these environmental liabilities, there are uncertainties associated with environmental liabilities, and we can give no assurance that our estimate of any environmental liability will not increase or decrease in the future. The reserved and unreserved liabilities for all environmental concerns could change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, technological changes, discovery of new information, the financial strength of other PRPs, the identification of new PRPs and the involvement of and direction taken by the government on these matters.

Among other environmental laws, we are subject to the Comprehensive Environmental Response Compensation and Liability Act of 1980, under which we have been identified by the USEPA or other third party as a PRP with respect to environmental remedial costs at certain sites. We have evaluated our claims and potential liability associated with these sites based upon the best information currently available to us. We believe our environmental accruals will be adequate to cover our portion of the environmental remedial costs at those sites where we have been designated a PRP, to the extent these expenses are probable and reasonably estimable.

NOTE 20 — COMMITMENTS AND CONTINGENCIES

Legal Matters Various lawsuits arising during the normal course of business are pending against us. In our opinion, the ultimate liability, if any, resulting from these matters will have no significant effect on our consolidated financial positions or results of operations.

Lease Commitments We lease a wide variety of facilities and equipment under operating leases, primarily for warehouses, production and office facilities and equipment. Refer to Note 9 for more information.

Purchase Commitments We have purchase commitments for materials, supplies and machinery and equipment as part of the ordinary conduct of business. Some of these commitments extend beyond one year and are based on minimum purchase requirements. We believe these commitments are not at prices in excess of current market.

Other Contractual Obligations We do not have material financial guarantees or other contractual commitments that are reasonably likely to adversely affect our liquidity.

Related Party Transactions Sales to affiliated companies were immaterial in 2020, 2019 and 2018. We do not have any other related party transactions that affect our operations, results of operations, cash flow or financial condition.

NOTE 21 — SEGMENT DATA

The Company manages and reports its business in the following three segments: Industrial, Widia and Infrastructure. The Company's reportable operating segments have been determined in accordance with the Company's internal management structure, which is organized based on operating activities, the manner in which we organize segments for making operating decisions and assessing performance and the availability of separate financial results. We do not allocate certain corporate expenses related to executive retirement plans, the Company's Board of Directors and strategic initiatives, as well as certain other costs and report them in Corporate. None of our reportable operating segments represent the aggregation of two or more operating segments. Effective July 1, 2020, the Company combined Industrial and Widia to form one Metal Cutting segment. The Infrastructure segment remains unchanged. Refer to Note 22 for additional information on the fiscal 2021 change in reportable segments.

Sales to a single customer did not aggregate to 5 percent or more of total sales in 2020, 2019 and 2018. Export sales from U.S. operations to unaffiliated customers were \$34.0 million, \$67.8 million and \$72.4 million in 2020, 2019 and 2018, respectively.

INDUSTRIAL The Industrial segment develops and manufactures high performance tooling and metal cutting products and services for diverse end markets, including aerospace and defense, general engineering, energy and transportation. These products include milling, hole making, turning, threading and toolmaking systems used in the manufacture of airframes, aero engines, trucks and automobiles, ships and various types of industrial equipment. We leverage advanced manufacturing capabilities in combination with varying levels of customization to solve our customers' toughest challenges and deliver improved productivity for a wide range of applications. Industrial goes to market under the Kennametal® brand through its direct sales force, a network of independent and national distributors, integrated supplier channels and via the Internet. Application engineers and technicians are critical to the sales process and directly assist our customers with specified product design, selection, application and support.

WIDIA Widia offers an assortment of standard and custom metal cutting solutions to general engineering, aerospace, energy and transportation customers. We serve our customers primarily through a network of value added resellers, integrated supplier channels and via the internet. Widia markets its products under the WIDIA®, WIDIA Hanita® and WIDIA GTD® brands.

INFRASTRUCTURE Our Infrastructure segment produces engineered tungsten carbide and ceramic components, earth-cutting tools, and advanced metallurgical powders, primarily for the energy, earthworks and general engineering end markets. These wear-resistant products include compacts, nozzles, frac seats and custom components used in oil and gas and petrochemical industries; rod blanks and abrasive water jet nozzles for general industries; earth cutting tools and systems used in underground mining, trenching and foundation drilling and road milling; tungsten carbide powders for the oil and gas, aerospace and process industries; and ceramics used by the packaging industry for metallization of films and papers. We combine deep metallurgical and engineering expertise with advanced manufacturing capabilities to deliver solutions that drive improved productivity for our customers. Infrastructure markets its products primarily under the Kennametal® brand and sells through a direct sales force as well as through distributors.

Segment data is summarized as follows:

(in thousands)		2020		2019	2018
Sales:					
Industrial	\$	1,015,058	\$	1,274,499	\$ 1,292,098
Widia		162,995		197,522	198,568
Infrastructure		707,252		903,213	877,187
Total sales	\$	1,885,305	\$	2,375,234	\$ 2,367,853
Operating income (loss):					
Industrial	\$	35,671	\$	220,696	\$ 176,978
Widia		(34,686)		2,882	2,919
Infrastructure		23,113		108,480	112,998
Corporate		(1,846)		(3,208)	(2,596)
Total operating income	\$	22,252	\$	328,850	\$ 290,299
Interest expense	\$	35,154	\$	32,994	\$ 30,081
Other income, net	•	(14,862)	,	(15,379)	(14,823)
Income before income taxes	\$	1,960	\$	311,235	\$ 275,041
Depreciation and amortization:					
Industrial	\$	64,366	\$	58,373	\$ 57,261
Widia		10,298		9,390	9,483
Infrastructure		45,176		44,284	41,916
Corporate		20		5	20
Total depreciation and amortization	\$	119,860	\$	112,052	\$ 108,680
Segment assets ⁽⁴⁾ :					
Industrial	\$	1,291,879	\$	1,245,624	\$ 1,169,610
Widia		160,252		216,633	193,971
Infrastructure		748,424		883,566	864,402
Corporate		837,036		310,446	697,754
Total assets	\$	3,037,591	\$	2,656,269	\$ 2,925,737
Capital expenditures:					
Industrial	\$	182,292	\$	145,485	\$ 112,124
Widia	•	12,875		22,162	17,445
Infrastructure		48,984		44,696	41,435
Total capital expenditures	\$	244,151	\$	212,343	\$ 171,004

⁽⁴⁾ Industrial, Widia and Infrastructure segment assets are principally accounts receivable, less allowance for doubtful accounts; inventories; property, plant and equipment, net; goodwill; other intangible assets, net of accumulated amortization; and operating lease ROU assets. Corporate assets are principally cash and cash equivalents, other current assets, long-term prepaid pension benefit, deferred income taxes and other assets.

Geographic information for sales, based on country where the sale originated, and long-lived assets is as follows:

(in thousands)	2020	2019	2018
Sales:			
United States	\$ 778,054	\$ 1,014,189	\$ 970,003
Germany	248,796	314,035	331,893
China	214,364	247,858	271,343
Canada	90,247	108,261	102,139
India	81,366	113,287	102,120
Italy	52,699	68,585	69,049
France	45,817	59,899	62,982
United Kingdom	33,305	44,384	45,714
Other ⁽⁴⁾	340,657	404,736	412,610
Total sales	\$ 1,885,305	\$ 2,375,234	\$ 2,367,853
Total long-lived assets:			
United States	\$ 607,222	\$ 525,713	\$ 456,678
Germany	210,674	201,714	188,673
China	92,658	78,410	67,462
India	44,673	44,643	31,984
Israel	22,249	24,042	25,831
Canada	20,508	20,435	19,396
Other	40,287	39,938	34,189
Total long-lived assets ⁽⁵⁾	\$ 1,038,271	\$ 934,895	\$ 824,213

 $^{^{(4)}}$ Other consists of sales from 27 countries, none of which individually exceed 2 percent of total sales.

The following table presents Kennametal's revenue disaggregated by segment by geography:

	Industrial				Widia			Infrastructure			Total Kennametal		
	2020	2019	2018	2020	2019	2018	2020	2019	2018	2020	2019	2018	
Americas	41%	40%	38%	48%	45%	46%	62%	66%	65%	49%	50%	49%	
EMEA	38	40	41	27	26	25	18	16	16	30	30	31	
Asia Pacific	21	20	21	25	29	29	20	18	19	21	20	20	

The following table presents Kennametal's revenue disaggregated by segment by end market:

	Industrial			Widia			Infrastructure			Total Kennametal		
	2020	2019	2018	2020	2019	2018	2020	2019	2018	2020	2019	2018
General Engineering	45%	44%	43%	100%	100%	100%	34%	34%	31%	46%	45%	41%
Transportation	32	34	36	_	_	_	_	_	_	17	18	20
Aerospace	14	13	12	_	_	_	_	_	_	7	7	8
Energy	9	9	9	_	_	_	28	33	33	16	17	17
Earthworks	_	_	_	_	_	_	38	33	36	14	13	14

NOTE 22 — SUBSEQUENT EVENTS

The Company evaluated subsequent events after June 30, 2020 through the date these financial statements were issued and has determined there have been no subsequent events for which disclosure is required, other than as disclosed below.

Effective July 1, 2020, as a result of a change in commercial strategy, organizational structure, and the way performance is assessed and resources are allocated, the Industrial and Widia businesses were combined to form one Metal Cutting business.

⁽⁵⁾ Total long-lived assets as of June 30, 2020, 2019 and 2018 include property, plant and equipment, net of \$1,038.3 million, \$934.9 million and \$824.2 million, respectively.

The Infrastructure business remains unchanged. The Company will report two reportable segments starting with the first quarter of fiscal 2021: Metal Cutting and Infrastructure.

NOTE 23 — SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

For the quarter ended (in thousands, except per share data)	September 30		December 31		March 31		June 30
2020							
Sales	\$	518,088	\$	505,080	\$	483,084	\$ 379,053
Gross profit		138,980		132,018		157,018	101,454
Net income (loss) attributable to Kennametal		6,466		(5,939)		2,917	(9,106)
Basic earnings (loss) per share attributable to Kennametal (6)							
Net income		0.08		(0.07)		0.04	(0.11)
Diluted earnings (loss) per share attributable to Kennametal (6)							
Net income		0.08		(0.07)		0.03	(0.11)
2019							
Sales	\$	586,687	\$	587,394	\$	597,204	\$ 603,949
Gross profit		211,092		198,598		208,086	213,719
Net income attributable to Kennametal		56,699		54,698		68,550	61,978
Basic earnings per share attributable to Kennametal (6)							
Net income		0.69		0.66		0.83	0.75
Diluted earnings per share attributable to Kennametal (6)							
Net income		0.68		0.66		0.82	0.74

⁽⁶⁾ Earnings per share amounts attributable to Kennametal for each quarter are computed using the weighted average number of shares outstanding during the quarter. Earnings per share amounts attributable to Kennametal for the full year are computed using the weighted average number of shares outstanding during the year. Thus, the sum of the four quarters' earnings per share attributable to Kennametal does not always equal the full-year earnings per share attributable to Kennametal.

Table of Contents

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

The Company's management evaluated, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, the effectiveness of the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of June 30, 2020. The Company's disclosure controls were designed to provide a reasonable assurance that information required to be disclosed in reports that we file or submit under the Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. It should be noted that the design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote. However, the controls have been designed to provide reasonable assurance of achieving the controls' stated goals. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures are effective to provide reasonable assurance at June 30, 2020 that information required to be disclosed in the reports that we file or submit under the Exchange Act is (i) accumulated and communicated to management, including the Company's Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure and (ii) recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission.

(b) Management's Report on Internal Control over Financial Reporting

Management's Report on Internal Control over Financial Reporting is included in Item 8 of this Annual Report and incorporated herein by reference.

(c) Attestation Report of the Independent Registered Public Accounting Firm

The effectiveness of Kennametal's internal control over financial reporting as of June 30, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report included in Item 8 of this Annual Report, which is incorporated herein by reference.

(d) Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting that occurred during the fourth quarter of 2020 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B — OTHER INFORMATION

None.

PART III

ITEM 10 — DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Information regarding the executive officers of Kennametal Inc. is as follows: Name, Age, Position, and Experience During the Past Five Years (1).

Christopher Rossi, 56

President and Chief Executive Officer

President and Chief Executive Officer since August 2017; Formerly, Chief Executive Officer of Dresser-Rand at Siemens Aktiengesellschaft (provides custom-engineered rotating equipment for applications in the oil, gas, process, power, and other industries), from September 2015 to May 2017; Executive Vice President of Global Operations at Dresser-Rand Group Inc. from September 2012 to September 2015.

Damon J. Audia, 49

Vice President and Chief Financial Officer

Vice President and Chief Financial Officer since September 2018; Formerly, Senior Vice President and Chief Financial Officer at Carpenter Technology Corporation (manufactures, fabricates and distributes specialty metals) from October 2015 to September 2018; Senior Vice President of Finance in North America Business at The Goodyear Tire & Rubber Company (develops, manufactures, markets and distributes tires).

Judith L. Bacchus, 58

Vice President and Chief Administrative Officer

Vice President and Chief Administrative Officer since May 2019; Vice President and Chief Human Resources and Corporate Relations Officer since December 2015; Vice President and Chief Human Resources Officer from June 2011 to November 2015.

Franklin Cardenas, 52

Vice President, Kennametal Inc. and President, Infrastructure Business Segment

Vice President, Kennametal Inc. and President, Infrastructure Business Segment since February 2020; Formerly, Vice President of Asia Pacific for the Donaldson Company (a global leader in the filtration industry) from 2016 to 2020 and Vice President, Global Engine Aftermarket from 2010 to 2016. He started at Donaldson Company in 1995 and held roles of increasing responsibility until he resigned in 2020.

Peter A. Dragich, 57

Vice President, Kennametal Inc. and President, Industrial Business Segment

Vice President, Kennametal Inc. and President, Industrial Business Segment since January 2017; Vice President, Kennametal Inc. and President, Infrastructure Business Segment from May 2016 to January 2017; Vice President and Executive Vice President, Infrastructure Business Segment from October 2015 to May 2016; Vice President Integrated Supply Chain and Logistics from October 2012 to October 2015.

Michelle R. Keating, 44

Vice President, Secretary and General Counsel, Kennametal Inc.

Vice President, Secretary and General Counsel, Kennametal Inc. since December 2016; Vice President, Secretary and Interim General Counsel from July 2016 to December 2016; Vice President, Associate General Counsel & Assistant Secretary from March 2016 to July 2016; Assistant General Counsel & Assistant Secretary from August 2011 to February 2016.

Ronald L. Port, 55

Vice President and Chief Commercial Officer

Vice President and Chief Commercial Officer since February 2020; Vice President, Kennametal Inc. and President, Infrastructure Business Segment since January 2018 to February 2020; Vice President & General Manager, Engineered Components from April 2015 to January 2018; Formerly, Vice President Marketing & Business Development, Flow Technology segment at SPX Corporation (provided highly-engineered process equipment into industrial flow markets) from September 2013 to April 2015.

Carlonda R. Reilly, 52

Vice President and Chief Technology Officer

Vice President and Chief Technology Officer since September 2018; Formerly, Global Technology Director in Transportation and Advanced Polymers business at DuPont (chemical company) from January 2016 to September 2018 and Global Technology Director in Building Innovations at DuPont from 2013 to January 2016.

Table of Contents

Patrick S. Watson, 47

Vice President Finance and Corporate Controller, Kennametal Inc.

Vice President Finance and Corporate Controller, Kennametal Inc. since March 2017; Vice President Finance - Industrial Business from March 2014 to February 2017; Director Finance, Kennametal EMEA from August 2011 to August 2014.

(1) Each executive officer has been elected by the Board of Directors to serve until removed or until a successor is elected and qualified. Unless otherwise noted, none of the executive officers (i) has an arrangement or understanding with any other person(s) pursuant to which he or she was selected as an officer, (ii) has any family relationship with any director or executive officer of the Company, or (iii) is involved in any legal proceeding which would require disclosure under this item.

Incorporated herein by reference is the information to be provided under the captions "Proposal I. Election of Directors" and "Delinquent Section 16(a) Reports" in our definitive proxy statement to be filed with the Securities and Exchange Commission within 120 days after June 30, 2020 (2020 Proxy Statement). Also incorporated herein by reference is the information to be set forth under the caption "Ethics and Corporate Governance-Code of Conduct" and "Ethics and Corporate Governance-Corporate Governance" in the 2020 Proxy Statement.

The Company has a separately designated standing Audit Committee established in accordance with Section 3(a) (58) (A) of the Exchange Act. The members of the Audit Committee are: William M. Lambert (Chair); Lorraine M. Martin; and Sagar A. Patel. Incorporated herein by reference is the information provided under the caption "Board of Directors and Board Committees-Committee Functions-Audit Committee" in the 2020 Proxy Statement.

ITEM 11 — EXECUTIVE COMPENSATION

Incorporated herein by reference from our 2020 Proxy Statement is the information to be set forth under the captions "Executive Compensation, Compensation Discussion and Analysis," "Compensation Committee Report," "Analysis of Risk Inherent in our Compensation Policies and Practices," "Executive Compensation Tables," "2020 Nonqualified Deferred Compensation," "Retirement Programs" and "Potential Payments Upon Termination or Change in Control." Also incorporated herein by reference from our 2020 Proxy Statement is the information to be set forth under the captions "Board of Directors Compensation and Benefits" and "Board of Directors and Board Committees - Committee Functions - Compensation Committee Interlocks and Insider Participation."

$\textbf{ITEM 12} \color{red} \textbf{—} \textbf{SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER \\ \textbf{MATTERS}$

Incorporated herein by reference from our 2020 Proxy Statement are: (i) the information to be set forth under the caption "Equity Compensation Plans," (ii) the information to be set forth under the caption "Ownership of Capital Stock by Directors, Nominees and Executive Officers" with respect to the directors' and officers' shareholdings; and (iii) the information to be set forth under the caption "Principal Holders of Voting Securities" with respect to other beneficial owners.

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

Incorporated herein by reference is the information to be set forth under the captions "Ethics and Corporate Governance-Corporate Governance-Board of Director Review and Approval of Related Person Transactions," "Executive Compensation," "Executive Compensation Tables" and "Ethics and Corporate Governance-Corporate Governance-Board Composition and Independence" in the 2020 Proxy Statement.

ITEM 14 — PRINCIPAL ACCOUNTING FEES AND SERVICES

Incorporated herein by reference is the information with respect to pre-approval policies set forth under the caption "Proposal II. Ratification of PricewaterhouseCoopers LLP as our Independent Registered Public Accounting Firm for the Fiscal Year ending June 30, 2021-Audit Committee Pre-Approval Policy" and the information with respect to principal accountant fees and services set forth under "Proposal II. Ratification of PricewaterhouseCoopers LLP as our Independent Registered Public Accounting Firm for the Fiscal Year ending June 30, 2021-Fees and Services" to be set forth in the 2020 Proxy Statement.

SIGNATURES

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

KENNAMETAL INC.

Date: August 20, 2020

/s/ Patrick S. Watson

Patrick S. Watson

Vice President Finance and Corporate Controller

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ CHRISTOPHER ROSSI Christopher Rossi	President and Chief Executive Officer	August 20, 2020
/s/ DAMON J. AUDIA Damon J. Audia	Vice President and Chief Financial Officer	August 20, 2020
/s/ PATRICK S. WATSON Patrick S. Watson	Vice President Finance and Corporate Controller	August 20, 2020
/s/ LAWRENCE W. STRANGHOENER Lawrence W. Stranghoener	Chairman of the Board	August 20, 2020
/s/ JOSEPH ALVARADO Joseph Alvarado	Director	August 20, 2020
/s/ CINDY L. DAVIS Cindy L. Davis	Director	August 20, 2020
/s/ WILLIAM J. HARVEY William J. Harvey	Director	August 20, 2020
/s/ WILLIAM M. LAMBERT William M. Lambert	Director	August 20, 2020
/s/ LORRAINE M. MARTIN Lorraine M. Martin	Director	August 20, 2020
/s/ SAGAR A. PATEL Sagar A. Patel	Director	August 20, 2020
/s/ STEVEN H. WUNNING Steven H. Wunning	Director	August 20, 2020

PART IV

ITEM 15 — EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) Documents filed as part of this Form 10-K report.
- 1. Financial Statements included in Part II, Item 8
- 2. Financial Statement Schedule

The financial statement schedule required by Part II, Item 8 of this document is filed as part of this report. All of the other schedules are omitted as the required information is inapplicable or the information is presented in our consolidated financial statements or related notes.

FINANCIAL STATEMENT SCHEDULE

Page 81

Schedule II—Valuation and Qualifying Accounts for the Years Ended June 30, 2020, 2019 and 2018

3. Exhibits

3 Articles of Incorporation and Bylaws

- 3.1 Articles of Incorporation of Kennametal Inc., as amended and restated through October 28, 2014
- 3.2 By-Laws of Kennametal Inc., as amended and restated through July 26, 2016

Exhibit 3.(i) of the Form 8-K filed October 30, 2014 (File No. 001-05318) is incorporated herein by reference.

Exhibit 10.1 of the Form 8-K filed July 28, 2016 (File No. 001-05318) is incorporated herein by reference.

4 Instruments Defining the Rights of Security Holders, Including Indentures

- 4.1 Indenture, dated as of June 19, 2002, by and between the Registrant and Bank One Trust Company, N.A., as trustee
- 4.2 <u>First Supplemental Indenture, dated as of June 19, 2002, by and between the Registrant and Bank One Trust Company, N.A., as trustee</u>
- 4.3 Indenture dated February 14, 2012 between Kennametal Inc. and U.S. Bank National Association
- 4.4 First Supplemental Indenture dated February 14, 2012 between Kennametal Inc. and U.S. Bank National Association (including Form of 3.875% Note due 2022)
- 4.5 Second Supplemental Indenture dated November 7, 2012 between Kennametal Inc. and U.S. Bank National Association (including Form of 2.650% Note due
- 4.6 Third Supplemental Indenture dated June 7, 2018 between Kennametal Inc. and U.S. Bank National Association (including Form of 4.625% Note due June 15, 2028).
- 4.7 <u>Description of Registrant's Securities</u>

10

Material Contracts

10.1* Deferred Fee Plan for Outside Directors, as amended and restated effective December 30, 2008

- 10.2* <u>Directors Stock Incentive Plan, as amended and restated effective December 30,</u> 2008
- 10.3* Performance Bonus Stock Plan of 1995, as amended and restated effective December 30, 2008
- 10.4* Kennametal Inc. Stock and Incentive Plan of 2002 (as amended on October 21, 2008)
- 10.5* Form of Indemnification Agreement for Named Executive Officers
- 10.6* Schedule of Named Executive Officers who have entered into the Form of Indemnification Agreement as set forth in Exhibit 10.5
- 10.7* <u>Kennametal Inc. Executive Retirement Plan (for Designated Officers) (as amended effective December 30, 2008)</u>

Exhibit 4.1 of the Form 8-K filed June 20, 2002 (File No. 001-05318) is incorporated herein by reference.

Exhibit 4.2 of the Form 8-K filed June 20, 2002 (File No. 001-05318) is incorporated herein by reference.

Exhibit 4.1 of the Form 8-K filed February 14, 2012 (File No. 001-05318) is incorporated herein by reference.

Exhibit 4.2 of the Form 8-K filed February 14, 2012 (File No. 001-05318) is incorporated herein by reference.

Exhibit 4.4 of the Form 8-K filed November 7, 2012 (File No. 001-05318) is incorporated herein by reference.

Exhibit 4.1 of the Form 8-K filed June 7, 2018 (File No. 001-05318) is incorporated herein by reference.

Filed herewith.

Exhibit 10.1 of the December 31, 2008 Form 10-Q filed February 4, 2009 (File No. 001-05318) is incorporated herein by reference.

Exhibit 10.2 of the December 31, 2008 Form 10-Q filed February 4, 2009 (File No. 001-05318) is incorporated herein by reference.

Exhibit 10.3 of the December 31, 2008 Form 10-Q filed February 4, 2009 (File No. 001-05318) is incorporated herein by reference.

Appendix A to the 2008 Proxy Statement filed September 8, 2008 (File No. 001-05318) is incorporated herein by reference.

Exhibit 10.2 of the Form 8-K filed March 22, 2005 (File No. 001-05318) is incorporated herein by reference.

Filed herewith.

Exhibit 10.8 of the December 31, 2008 Form 10-Q filed February 4, 2009 (File No. 001-05318) is incorporated herein by reference.

10.8*	Amendment No. 1 to Kennametal Inc. Executive Retirement Plan (dated January 27, 2015)	Exhibit 10.2 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.9*	Amendment No. 2 to Kennametal Inc. Executive Retirement Plan (dated June 18, 2015)	Exhibit 10.1 of the Form 8-K filed June 23, 2015 (File No. 001-05318) is incorporated herein by reference.
10.10*	Kennametal Inc. Supplemental Executive Retirement Plan (as amended effective December 30, 2008)	Exhibit 10.9 of the December 31, 2008 Form 10-Q filed February 4, 2009 (File No. 001-05318) is incorporated herein by reference.
10.11*	Amendment No. 1 to the Kennametal Inc. Supplemental Executive Retirement Plan (as amended effective December 30, 2008) (dated June 18, 2015)	Exhibit 10.2 of the Form 8-K filed June 23, 2015 (File No. 001-05318) is incorporated herein by reference.
10.12*	<u>Description of Compensation Payable to Non-Employee Directors</u>	Exhibit 10.12 of the Form 10-K filed August 10, 2018 (File No. 001-05318) is incorporated herein by reference.
10.13*	Form of Kennametal Inc. Nonstatutory Stock Option Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2010)	Exhibit 10.5 of Form 10-Q filed February 8, 2011 (File No. 001-05318) is incorporated herein by reference.
10.14*	Form of Kennametal Inc. Nonstatutory Stock Option Award for Non-Employee Directors (granted under the Kennametal Inc. Stock and Incentive Plan of 2010)	Exhibit 10.6 of Form 10-Q filed February 8, 2011 (File No. 001-05318) is incorporated herein by reference
10.15*	Form of Officer's Employment Agreement with certain Named Executive Officers	Exhibit 10.1 of Form 8-K filed May 13, 2011 (File No. 001-05318) is incorporated herein by reference.
10.16*	Schedule of Executive Officers who have entered into the Form of Officer's Employment Agreement as set forth in Exhibit 10.15	Exhibit 10.16 of the Form 10-K filed August 13, 2019 (File No. 001-05318) is incorporated herein by reference.
10.17*	Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013)	Appendix A of the 2013 Proxy Statement filed September 17, 2013 (File No. 001-05318) is incorporated herein by reference.
10.18*	Form of Kennametal Inc. Restricted Unit Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.39 of Form 10-K filed August 13, 2014 (File No. 001-05318) is incorporated herein by reference.
10.19*	Form of Kennametal Inc. Nonstatutory Stock Option Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.41 of Form 10-K filed August 13, 2014 (File No. 001-05318) is incorporated herein by reference.
10.20*	Form of Kennametal Inc. Nonstatutory Stock Option Award for Non-Employee Directors (granted under the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.42 of Form 10-K filed August 13, 2014 (File No. 001-05318) is incorporated herein by reference.
10.21*	Form of Kennametal Inc. Cash Settled Share-Based Award for China-based Employees (granted under the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.43 of Form 10-K filed August 13, 2014 (File No. 001-05318) is incorporated herein by reference.
10.22*	Form of Kennametal Inc. Restricted Unit Award - Alternate Form (granted under the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.45 of Form 10-K filed August 13, 2014 (File No. 001-05318) is incorporated herein by reference.
10.23*	Form of Kennametal Inc. Nonstatutory Stock Option Award - Alternate Form (granted under the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.46 of Form 10-K filed August 13, 2014 (File No. 001-05318) is incorporated herein by reference.
10.24*	Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013)	Exhibit 10.1 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.25*	Form of Kennametal Inc. Performance Unit Award (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.3 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.26*	Form of Kennametal Inc. Restricted Unit Award (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.4 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.27*	Form of Kennametal Inc. Restricted Unit Award for Non-Employee Directors (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.5 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.28*	Form of Kennametal Inc. Restricted Unit Award - Alternate Form (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.6 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.29*	Form of Kennametal Inc. Nonstatutory Stock Option Award (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.8 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.

10.30*	Form of Kennametal Inc. Nonstatutory Stock Option Award for Non-Employee Directors (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.9 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.31*	Form of Kennametal Inc. Nonstatutory Stock Option Award - Alternate Form (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013)).	Exhibit 10.10 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.32*	Form of Kennametal Inc. Cash Settled Share-Based Award for China-based Employees (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.12 to the Form 8-K dated February 2, 2015 (File No. 001-05318) is incorporated herein by reference.
10.33*	Form of Kennametal Inc. Performance Unit Award (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.1 to the Form 8-K dated July 30, 2015, (File No. 001-05318) is incorporated herein by reference.
10.34*	Form of Kennametal Inc. Restricted Unit Award (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.3 to the Form 8-K dated July 30, 2015, (File No. 001-05318) is incorporated herein by reference.
10.35*	Form of Kennametal Inc. Restricted Unit Award - Alternate Form (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.5 to the Form 8-K dated July 30, 2015, (File No. 001-05318) is incorporated herein by reference.
10.36*	Form of Kennametal Inc. Cash Settled Share-Based Award for China-based Employees (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.6 to the Form 8-K dated July 30, 2015, (File No. 001-05318) is incorporated herein by reference.
10.37*	Form of Kennametal Inc. Nonstatutory Stock Option Award (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.7 to the Form 8-K dated July 30, 2015, (File No. 001-05318) is incorporated herein by reference.
10.38*	Form of Kennametal Inc. Nonstatutory Stock Option Award - Alternate Form (granted under Amendment No. 1 to the Kennametal Inc. Stock and Incentive Plan of 2010 (As Amended and Restated October 22, 2013))	Exhibit 10.9 to the Form 8-K dated July 30, 2015, (File No. 001-05318) is incorporated herein by reference.
10.39*	Kennametal Inc. 2016 Stock and Incentive Plan	Appendix C of 2016 Proxy Statement filed September 13, 2016 (File No. 001-05318) is incorporated by reference herein.
10.40*	Form of Kennametal Inc. Performance Unit Award (granted under Kennametal Inc. Stock and Incentive Plan of 2010, as amended and restated on October 22, 2013, and amended on January 27, 2015)	Exhibit 10.1 of the Form 10-Q filed November 7, 2016 (File No. 001-05318) is incorporated by reference herein.
10.41*	Form of Kennametal Inc. Restricted Unit Award (granted under the Kennametal Inc. 2016 Stock and Incentive Plan)	Exhibit 10.4 of the Form 10-Q filed November 7, 2016 (File No. 001-05318) is incorporated by reference herein.
10.42*	Form of Kennametal Inc. Cash Settled Share-Based Award for China-Based Employees (granted under the Kennametal Inc. 2016 Stock and Incentive Plan)	Exhibit 10.5 of the Form 10-Q filed November 7, 2016 (File No. 001-05318) is incorporated by reference herein.
10.43*	Form of Kennametal Inc. Restricted Stock Unit Award (three year cliff vest) (granted under the Kennametal Inc. 2016 Stock and Incentive Plan)	Exhibit 10.1 of the Form 10-Q filed February 8, 2017 (File No. 001-05318) is incorporated by reference herein.
10.44*	Form of Updated Kennametal Inc. Restricted Unit Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.74 to Form 10-K filed August 14, 2017 (File No. 001-05318) is incorporated by reference herein.
10.45*	Form of Kennametal Inc. Restricted Unit Award for Non-Employee Directors (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.75 to Form 10-K filed August 14, 2017 (File No. 001-05318) is incorporated by reference herein.
10.46*	Form of Kennametal Inc. Cash-Settled Restricted Unit Award for China-based Employees (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.76 to Form 10-K filed August 14, 2017 (File No. 001-05318) is incorporated by reference herein.
10.47*	Form of Updated Kennametal Inc. Cash-Settled Restricted Unit Award for Chinabased Employees (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.52 to Form 10-K filed August 13, 2019 (File No. 001-05318) is incorporated by reference herein.
10.48*	Form of Kennametal Inc. Performance Unit Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.77 to Form 10-K filed August 14, 2017 (File No. 001-05318) is incorporated by reference herein.
10.49*	Form of Fiscal 2020 Kennametal Inc. Performance Unit Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.54 to Form 10-K filed August 13, 2019 (File No. 001-05318) is incorporated by reference herein.
10.50*	Form of Kennametal Inc. Retention Restricted Unit Award (granted under the Kennametal Inc. Stock and Incentive Plan of 2016)	Exhibit 10.78 to Form 10-K filed August 14, 2017 (File No. 001-05318) is incorporated by reference herein.
	79	

10.51*	Form of Amended and Restated Officer's Employment Agreement with President and CEO Christopher Rossi	Exhibit 10.2 to Form 10-Q filed November 6, 2018 (File No. 001-05318) is incorporated by reference herein.
10.52*	Kennametal Inc. Restoration Plan (dated January 1, 2018)	Exhibit 10.1 of the Form 8-K filed November 3, 2017 (File No. 001-05318) is incorporated herein by reference.
10.53*	Kennametal Inc. Restoration Plan Adoption Agreement (dated January 1, 2018)	Exhibit 10.2 of the Form 8-K filed November 3, 2017 (File No. 001-05318) is incorporated herein by reference.
10.54*	Second Amendment to the Kennametal Inc. Restoration Plan (dated July 1, 2019)	Exhibit 10.59 to Form 10-K filed August 13, 2019 (File No. 001-05318) is incorporated by reference herein.
10.55*	2018 Form of Officer's Employment Agreement with certain Named Executive Officers	Exhibit 10.60 of the Form 10-K filed August 10, 2018 (File No. 001-05318) is incorporated by reference herein.
10.56*	Schedule of Executive Officers who have entered into the 2018 Form of Officer's Employment Agreement as set forth in Exhibit 10.55	Filed herewith.
10.57	Fifth Amended and Restated Credit Agreement dated as of June 21, 2018 by and among Kennametal Inc. and Kennametal Europe GmbH (the "Borrowers") and the several banks and other financial institutions or entities from time to time parties thereto (the "Lenders"), Bank of America Merrill Lynch International Limited, as Euro Swingline Lender, PNC Bank, N.A. and JPMorgan Chase Bank, N.A., as co-syndication agents (in such capacity, the "Co-Syndication Agents"), Citizens Bank of Pennsylvania, MUFG Bank, Ltd. and Mizuho Bank, Ltd., as co-documentation agents (in such capacity, the "Co-Documentation Agents") and Bank of America, N.A., as administrative agent.	Exhibit 10.1 of the Form 8-K filed June 22, 2018 (File No. 001-05318) is incorporated herein by reference.
21	Subsidiaries of the Registrant	Filed herewith.
23	Consent of Independent Registered Public Accounting Firm	Filed herewith.
31	Certifications	
31.1	Certification executed by Christopher Rossi, President and Chief Executive Officer of Kennametal Inc.	Filed herewith.
31.2	<u>Certification executed by Damon J. Audia, Vice President and Chief Financial Officer of Kennametal Inc.</u>	Filed herewith.
32	Section 1350 Certifications	
32.1	Certification Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by Christopher Rossi,	Filed herewith.

^{*}Denotes management contract or compensatory plan or arrangement.

101 XBRL

101.INS ⁽¹⁾	XBRL Instance Document.	Filed herewith.
101.SCH ⁽²⁾	XBRL Taxonomy Extension Schema Document.	Filed herewith.
101.CAL ⁽²⁾	XBRL Taxonomy Extension Calculation Linkbase Document.	Filed herewith.
101.DEF ⁽²⁾	XBRL Taxonomy Definition Linkbase	Filed herewith.
101.LAB ⁽²⁾	XBRL Taxonomy Extension Label Linkbase Document.	Filed herewith.
101.PRE ⁽²⁾	XBRL Taxonomy Extension Presentation Linkbase Document.	Filed herewith.

President and Chief Executive Officer of Kennametal Inc.; and Damon J. Audia,

Vice President and Chief Financial Officer of Kennametal Inc.

- (1) The instance document does not appear in the Interactive Data File because its XBRL (Extensible Business Reporting Language) tags are embedded within the Inline XBRL document.
- Attached as Exhibit 101 to this report are the following documents formatted in Inline XBRL: (i) the Consolidated Statements of Income for the years ended June 30, 2020, 2019 and 2018, (ii) the Consolidated Statements of Comprehensive Income for the years ended June 30, 2020, 2019 and 2018, (iii) the Consolidated Balance Sheets at June 30, 2020 and 2019, (iv) the Consolidated Statements of Cash Flows for the years ended June 30, 2020, 2019 and 2018 and (v) Notes to Consolidated Financial Statements for the years ended June 30, 2020, 2019 and 2018.

${\bf SCHEDULE~II-VALUATION~AND~QUALIFYING~ACCOUNTS}$

(In thousands) For the year ended June 30	Е	Salance at Seginning of Year	C	Charges to Costs and Expenses		Co	Charged to Other mprehensive come (Loss)	Re	coveries	A	Other djustments		eductions from Reserves	alance at End of Year
2020														
Allowance for doubtful accounts	\$	10,083	\$	2,300		\$	_	\$	40	\$	(287)	(1)	\$ (2,706) ⁽²⁾	\$ 9,430
Deferred tax asset valuation allowance		14,614		4,213			_		_		(1,216)	(1)	(957) ⁽⁴⁾	16,654
2019														
Allowance for doubtful accounts	\$	11,807	\$	2,366		\$	_	\$	111	\$	(248)	(1)	\$ (3,953) (2)	\$ 10,083
Deferred tax asset valuation allowance		21,629		(5,597)			_		_		(1,418)	(1)	_	14,614
2018														
Allowance for doubtful accounts	\$	13,693	\$	1,831		\$	_	\$	559	\$	(135)	(1)	\$ (4,141) ⁽²⁾	\$ 11,807
Deferred tax asset valuation allowance		116,770		(94,641)	(3)		511		_		(1,011)	(1)	_	21,629

⁽¹⁾ Represents foreign currency translation adjustment.

ITEM 16 — FORM 10-K SUMMARY

None.

⁽²⁾ Represents uncollected accounts charged against the allowance.

⁽³⁾ Represents primarily the effects from the release of the valuation allowance against our net deferred tax assets in the U.S.

⁽⁴⁾ Represents primarily a forfeited net operating loss deduction

DESCRIPTION OF KENNAMETAL INC.'S SECURITIES

Common Stock

The following summary of the terms of Kennametal Inc.'s (the "Company") common stock is not complete and is subject to and qualified in its entirety by reference to the relevant provisions of the laws of the Commonwealth of Pennsylvania, the Company's Amended and Restated Articles of Incorporation (the "Articles"), and its Amended and Restated Bylaws (the "Bylaws"). Copies of the Articles and Bylaws have been filed with the Securities and Exchange Commission.

General

The Company's Articles provide that it may issue up to 120,000,000 shares of capital stock, par value \$1.25 per share (the "common stock") and 5,000,000 shares of Class A Preferred Stock without par value.

Voting and Other Rights

Each share of the Company's common stock is entitled to one vote on all matters requiring a vote of shareholders and, subject to the rights of the holders of any outstanding shares of preferred stock, each shareholder is entitled to receive any dividends, in cash, securities or property, as the Company's board of directors may declare. Pennsylvania law prohibits the payment of dividends or the repurchase of the Company's shares if the Company is insolvent or if the Company would become insolvent after the dividend or repurchase. Holders of common stock do not have any preemptive or similar rights.

In the event of the Company's liquidation, dissolution or winding up, either voluntarily or involuntarily, subject to the rights of the holders of any outstanding shares of preferred stock, holders of common stock are entitled to share pro-rata in all of the Company's remaining assets available for distribution.

Anti-Takeover Provisions in Kennametal Inc.'s Charter and Bylaws

Certain provisions of the Articles and Bylaws could have an anti-takeover effect. These provisions are intended to enhance the likelihood of continuity and stability in the composition of the board of directors and in the strategies it formulates. They may also discourage an unsolicited takeover of the Company if the board of directors determines that the takeover is not in the best interests of the Company and its shareholders. These provisions could have the effect of discouraging certain attempts to acquire the Company or remove incumbent management even if some or a majority of shareholders deemed such an attempt to be in their best interests.

The provisions in the Articles and Bylaws include: (i) a procedure which requires shareholders to nominate directors in advance of a meeting to elect such directors; and (ii) the authority to issue additional shares of common stock or preferred stock without shareholder approval.

The Articles also include a provision requiring the affirmative vote of the holders of 75% of the Company's outstanding stock to approve certain mergers or other business combinations or transactions with five percent shareholders; a provision requiring the affirmative vote of the holders of 75% of the Company's outstanding stock to remove the entire board of directors, a class of the board of directors, any individual member of the board of directors without cause, or to increase the size of the board of directors to more than twelve members or decrease the size of the board of directors to fewer than eight members; a provision requiring, in the case of repurchases at a premium over market by the Company from any 4% Shareholder (as defined in the Articles), the affirmative vote of the holders of voting power of an amount of shares equal to the voting power of the 4% Shareholder plus a majority of the voting power of the other shares not held by the 4% Shareholder; and a provision requiring the affirmative vote of a majority of the Company's outstanding stock held by disinterested shareholders to approve certain business combinations involving a shareholder who beneficially owns more than 10% of the voting power of the Company's then outstanding voting stock, unless certain conditions are satisfied or the transaction is approved by a majority of disinterested directors.

Pursuant to the Articles and the laws of the Commonwealth of Pennsylvania, the board of directors is permitted to consider the effects of a change in control on the Company's non-shareholder constituencies, such as the Company's employees, suppliers, and other constituents and the communities in which the Company operates. Pursuant to this provision, the board of directors may be guided by factors in addition to price and other financial considerations.

The Bylaws provide that any shareholder who desires to present a nomination of person(s) for election to the board of directors or a proposal of other business at a shareholders' meeting (a "Proponent") must first provide timely written notice to the Secretary. The Bylaws set forth the deadlines for submitting such advance notice. As described in the Bylaws, the advance notice must set forth in reasonable detail (i) as to each person the shareholder proposes to nominate for election to the board of directors, information concerning the proposed nominee that would be required to be disclosed in a proxy statement or other filings required to be made in connection with the solicitation of proxies for the election of directors in an election contest, or otherwise required, in each case pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, including such nominee's consent to serve as a director if elected and other specific information called for by the Bylaws, or (ii) as to any other business that the Proponent proposes to bring before the meeting, a description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws, the language of the proposed amendment), the reasons for conducting such business at the meeting, and any material interest in such business of the Proponent and the beneficial owner, if any, on whose behalf the proposal is made. The advance notice must also include a representation from the Proponent that such person is a shareholder of record and intends to appear in person or by proxy at the meeting to present the nomination or other proposal specified in the notice, a description of the Proponent's beneficial ownership and other financial interests in the Company, a description of all arrangements or understandings between the Proponent and any other person or persons (naming such persons) pursuant to which the nomination or other proposal is to be made by the Proponent, and all such information regarding the Proponent's proposal and/or nominee(s) which would have been required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission had the nomination or other proposal been made by the board of directors.

PBCL Anti-Takeover Provisions

The Pennsylvania Business Corporation Law (the "PBCL") contains a number of statutory "anti-takeover" provisions, including Subchapters E, F, G and H of Chapter 25 and Sections 2521, 2524 and 2538 of the PBCL, which apply automatically to a Pennsylvania registered corporation (usually a public company) unless the corporation elects to opt-out of those provisions. The Company is a Pennsylvania registered corporation, and as a result it is subject to the anti-takeover provisions described below, however, the Company has elected to opt-out of certain provisions as described below. Descriptions of the anti-takeover provisions are qualified in their entirety by reference to the PBCL.

Subchapter E (relating to control transactions) generally provides that if any person or group acquires 20% or more of the Company's voting power, the remaining holders of voting shares may demand from such person or group the fair value of their voting shares, including a proportionate amount of any control premium.

Subchapter F (relating to business combinations) generally delays for five years and imposes conditions upon "business combinations" between an "interested shareholder" and the Company. The term "business combination" is defined broadly to include various transactions between a corporation and an interested shareholder including mergers, sales or leases of specified amounts of assets, liquidations, reclassifications and issuances of specified amounts of additional shares of stock of the corporation. An "interested shareholder" is defined generally as the beneficial owner of at least 20% of a corporation's voting shares.

Section 2521 of the PBCL provides that shareholders are not entitled to call special meetings of the shareholders and the Company's Bylaws do not give shareholders any right to call special meetings.

Section 2524 provides that shareholders cannot act by partial written consent unless permitted in the articles of incorporation.

Section 2538 of the PBCL generally establishes certain shareholder approval requirements with respect to specified transactions with "interested shareholders."

The Company has elected to opt out of Subchapters G and H of Chapter 25 of the PBCL. Subchapter G would have required a shareholder vote to accord voting rights to control shares acquired by a 20% shareholder in a control-share acquisition. Subchapter H would have required a person or group to disgorge to the Company any profits received from a sale of the Company's equity securities within 18 months after the person or group acquired, offered to acquire or publicly disclosed an intention to acquire 20% of the Company's voting power or publicly disclosed an intention to acquire control of the Company.

Transfer Agent and Registrar

Computershare is the Transfer Agent and Registrar for the Common Stock.

SCHEDULE OF NAMED EXECUTIVE OFFICERS WHO HAVE ENTERED INTO THE FORM OF INDEMNIFICATION AGREEMENT AS SET FORTH IN EXHIBIT 10.5

NAME

Damon J. Audia

Judith L. Bacchus

Franklin Cardenas

Peter A. Dragich

Michelle R. Keating

Ronald L. Port

Carlonda R. Reilly

Christopher Rossi

Patrick S. Watson

SCHEDULE OF NAMED EXECUTIVE OFFICERS WHO HAVE ENTERED INTO THE 2018 FORM OF INDEMNIFICATION AGREEMENT AS SET FORTH IN EXHIBIT 10.55

NAME

Damon J. Audia

Judith L. Bacchus

Franklin Cardenas

Michelle R. Keating

Ronald L. Port

Carlonda R. Reilly

Patrick S. Watson

CORPORATE DIRECTORY

Our consolidated subsidiaries and affiliated companies as of June 30, 2020 are:

Consolidated Subsidiaries and Affiliated Companies of Kennametal Inc.

Kennametal (Malaysia) Sdn. Bhd.

Kennametal (Singapore) Pte. Ltd.

Kennametal (Thailand) Co., Ltd.

Kennametal Australia Pty. Ltd.

Kennametal de Mexico, S.A. de C.V.

Kennametal Distribution Services Asia Pte. Ltd.

Kennametal Hardpoint (Taiwan) Inc.

Kennametal Holdings Europe Inc.

Kennametal International S.A. (Panama)

Kennametal Japan Ltd.

Kennametal Korea Ltd.

Kennametal Manufacturing S.A. (Pty) Ltd.

Kennametal Shared Services Private Limited

Kennametal South Africa (Ptv.) Ltd.

PT. Kennametal Indonesia Services

Consolidated Subsidiary of Kennametal (Singapore) Pte. Ltd.

Widia Shinki Vietnam LLC (partnership)

Consolidated Subsidiaries of Kennametal Holdings Europe Inc.

Deloro Stellite Holdings Corporation

Kennametal Holdings, LLC

Kennametal Holdings, LLC Luxembourg S.C.S.

Consolidated Subsidiaries of Deloro Stellite Holdings Corporation

DSGP LLC

Kennametal Stellite, L.P.

Kennametal Stellite Inc.

Kennametal Stellite (Shanghai) Co., Ltd. (Joint Venture)

Consolidated Subsidiary of Kennametal Holdings, LLC Luxembourg S.C.S.

Kennametal Luxembourg Holding S.à r.l.

Consolidated Subsidiaries of Kennametal Luxembourg Holding S.à r.l.

Kennametal Argentina S.A.

Kennametal Chile Ltda.

Kennametal do Brasil Ltda.

Kennametal Europe GmbH

Kennametal Luxembourg S.à r.l.

Comericializadora Kennametal Bolivia S.R.L.

Consolidated Subsidiaries of Kennametal Luxembourg S.à r.l.

Kennametal Asia (HK) Ltd.

Kennametal Ltd.

Kennametal Sintec Holding GmbH

Consolidated Subsidiaries of Kennametal Asia (HK) Ltd.

Kennametal Asia (China) Management Co. Ltd.

Kennametal (Baotou) Company Ltd.

Kennametal (China) Co. Ltd.

Kennametal Hardpoint (Shanghai) Co., Ltd.

Kennametal (Xuzhou) Company, Ltd.

Consolidated Subsidiary of Kennametal Sintec Holding GmbH Kennametal Sintec Keramik Asia Ltd.

Consolidated Subsidiary of Kennametal Sintec Keramik Asia Ltd. Sunshine Power-Tech (Shanghai) Ltd.

Consolidated Subsidiaries of Kennametal Europe GmbH

Hanita Metal Works, Ltd.

Kennametal Holding GmbH

Kennametal Nederland B.V.

OOO Kennametal

Consolidated Subsidiary of Hanita Metal Works, Ltd.

Hanita Cutting Tools, Inc.

Consolidated Subsidiaries of Kennametal Holding GmbH

Kennametal GmbH

Kennametal Hungaria Kft.

Kennametal Logistics GmbH

Kennametal Shared Services GmbH

Kennametal Sintec Keramik GmbH

Widia GmbH

Consolidated Subsidiaries and Affiliated Companies of Kennametal GmbH

Kenci S.L.

Kennametal Belgium BVBA

Kennametal Deutschland GmbH

Kennametal France S.A.S.

Kennametal GmbH Organizacni Slozka

Kennametal GmbH Zweigniederlassung Osterreich

Kennametal GmbH Zweigniederlassung Rumanien

Kennametal GmbH Zweigniederlassung Slowakei

Kennametal Infrastructure GmbH

Kennametal Italia S.p.A.

Kennametal Kesici Takimlar Sanayi Ve Ticaret Anonim Sirketi

Kennametal Polska Sp. z o.o.

Kennametal Produktions GmbH & Co. KG. (partnership)

Kennametal Sp. z o.o.

Kennametal Stellram S.r.L.

Kennametal UK Limited

Ruebig Real Estate GmbH & Co. KG

Consolidated Subsidiary of Kennametal Italia S.p.A.

Kennametal Italia Produzione S.R.L.

Consolidated Affiliated Company of Kennametal Produktions GmbH & Co. KG (partnership)

Kennametal Real Estate GmbH & Co. KG (partnership)

Consolidated Affiliated Company of Kennametal Deutschland GmbH

Kennametal (Deutschland) Real Estate GmbH & Co. KG (partnership)

Consolidated Subsidiary of Kennametal Sp. z o.o

Kennametal Produkcja Sp. z o.o.

Consolidated Subsidiaries and Affiliated Companies of Widia GmbH

Kennametal Widia Produktions GmbH & Co. KG (partnership)

Kennametal Widia Real Estate GmbH & Co. KG (partnership)

Meturit AG

Consolidated Subsidiary of Meturit AG Kennametal India Ltd.

Consolidated Subsidiary of Kennametal India Ltd. Widia India Tooling Private Limited

Consolidated Subsidiaries of Kenci S.L. Kenci Lda. Kennametal Manufacturing Barcelona S.L.

Consolidated Subsidiaries of Kennametal UK Limited Kennametal Logistics UK Ltd. Kennametal Manufacturing UK Ltd.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-154703) and Form S-8 (Nos. No. 033-65023, No. 333-18429, No. 333-18429, No. 333-18437, No. 333-77411, No. 333-88049, No. 333-30454, No. 333-30448, No. 333-53562, No. 333-100867, No. 333-120314, No. 333-124774, No. 333-142727, No. 333-154705, No. 333-170348, No. 333-193782, No. 333-214474, No. 333-222177) of Kennametal Inc. of our report dated August 20, 2020 relating to the financial statements and financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania August 20, 2020

I, Christopher Rossi, certify that:

- 1. I have reviewed this annual report on Form 10-K of Kennametal Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
 - 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions)
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date:	August 20, 2020	/s/ Christopher Rossi
		Christopher Rossi
		President and Chief Executive Officer

I, Damon J. Audia, certify that:

- 1. I have reviewed this annual report on Form 10-K of Kennametal Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e)) and 15d-15(f)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f)) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
 - 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions)
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 20, 2020 /s/ Damon J. Audia

Damon J. Audia

Vice President and Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Kennametal Inc. (the "Corporation") on Form 10-K for the period ended June 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Corporation certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Corporation.

/s/ Christopher Rossi Christopher Rossi President and Chief Executive Officer

August 20, 2020

/s/ Damon J. Audia

Damon J. Audia

Vice President and Chief Financial Officer

August 20, 2020

*This certification is made solely for purposes of 18 U.S.C. Section 1350, subject to the knowledge standard contained therein, and not for any other purpose.