

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended **April 4, 2020**

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

For the transition period from _____ to _____

Commission File Number 001-07416

Vishay Intertechnology, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or Other Jurisdiction of Incorporation)

38-1686453

(I.R.S. Employer Identification Number)

**63 LANCASTER AVENUE
Malvern, Pennsylvania 19355-2143**

(Address of Principal Executive Offices)

610-644-1300

(Registrant's Area Code and Telephone Number)

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

Title of each class	Trading symbol	Name of exchange on which registered
Common stock, par value \$0.10 per share	VSH	New York Stock Exchange LLC

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files.)

Yes No

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

Large Accelerated Filer

Non-accelerated filer

Emerging growth company

Accelerated filer

Smaller reporting company

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of May 8, 2020 the registrant had 132,547,608 shares of its common stock and 12,097,409 shares of its Class B common stock outstanding.

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VISHAY INTERTECHNOLOGY, INC.
FORM 10-Q
April 4, 2020
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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

VISHAY INTERTECHNOLOGY, INC.

Consolidated Condensed Balance Sheets

(In thousands)

	<u>April 4,</u> <u>2020</u>	<u>December</u> <u>31, 2019</u>
	(Unaudited)	
Assets		
Current assets:		
Cash and cash equivalents	\$ 680,703	\$ 694,133
Short-term investments	140,725	108,822
Accounts receivable, net	325,704	328,187
Inventories:		
Finished goods	122,231	122,466
Work in process	202,318	187,354
Raw materials	128,639	121,860
Total inventories	<u>453,188</u>	<u>431,680</u>
Prepaid expenses and other current assets	<u>124,871</u>	<u>141,294</u>
Total current assets	<u>1,725,191</u>	<u>1,704,116</u>
Property and equipment, at cost:		
Land	74,442	75,011
Buildings and improvements	579,161	585,064
Machinery and equipment	2,591,804	2,606,355
Construction in progress	105,832	110,722
Allowance for depreciation	<u>(2,426,757)</u>	<u>(2,425,627)</u>
Property and equipment, net	<u>924,482</u>	<u>951,525</u>
Right of use assets	99,506	93,162
Goodwill	150,288	150,642
Other intangible assets, net	60,468	60,659
Other assets	<u>156,569</u>	<u>160,671</u>
Total assets	<u>\$ 3,116,504</u>	<u>\$ 3,120,775</u>

Continues on following page.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Balance Sheets (continued)
(In thousands)

	April 4, 2020	December 31, 2019
	(Unaudited)	
Liabilities and equity		
Current liabilities:		
Notes payable to banks	\$ 199	\$ 2
Trade accounts payable	153,999	173,915
Payroll and related expenses	116,456	122,100
Lease liabilities	21,033	20,217
Other accrued expenses	174,556	186,463
Income taxes	24,030	17,731
Total current liabilities	490,273	520,428
Long-term debt less current portion	552,096	499,147
U.S. transition tax payable	140,196	140,196
Deferred income taxes	20,627	22,021
Long-term lease liabilities	83,440	78,511
Other liabilities	94,762	100,207
Accrued pension and other postretirement costs	265,284	272,402
Total liabilities	1,646,678	1,632,912
Redeemable convertible debentures	-	174
Equity:		
Vishay stockholders' equity		
Common stock	13,255	13,235
Class B convertible common stock	1,210	1,210
Capital in excess of par value	1,416,260	1,425,170
Retained earnings	84,570	72,180
Accumulated other comprehensive income (loss)	(48,174)	(26,646)
Total Vishay stockholders' equity	1,467,121	1,485,149
Noncontrolling interests	2,705	2,540
Total equity	1,469,826	1,487,689
Total liabilities, temporary equity, and equity	\$ 3,116,504	\$ 3,120,775

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Statements of Operations
(Unaudited - In thousands, except per share amounts)

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Net revenues	\$ 612,841	\$ 745,159
Costs of products sold	465,601	534,000
Gross profit	147,240	211,159
Selling, general, and administrative expenses	99,832	103,424
Operating income	47,408	107,735
Other income (expense):		
Interest expense	(8,552)	(8,392)
Loss on early extinguishment of debt	(2,920)	(1,307)
Other	198	1,912
Total other income (expense)	(11,274)	(7,787)
Income before taxes	36,134	99,948
Income tax expense	8,750	24,307
Net earnings	27,384	75,641
Less: net earnings attributable to noncontrolling interests	165	182
Net earnings attributable to Vishay stockholders	\$ 27,219	\$ 75,459
Basic earnings per share attributable to Vishay stockholders	\$ 0.19	\$ 0.52
Diluted earnings per share attributable to Vishay stockholders	\$ 0.19	\$ 0.52
Weighted average shares outstanding - basic	144,792	144,554
Weighted average shares outstanding - diluted	145,295	145,289
Cash dividends per share	\$ 0.0950	\$ 0.0850

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Statements of Comprehensive Income
(Unaudited - In thousands)

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Net earnings	\$ 27,384	\$ 75,641
Other comprehensive income (loss), net of tax		
Pension and other post-retirement actuarial items	1,601	1,457
Foreign currency translation adjustment	<u>(23,129)</u>	<u>(9,989)</u>
Other comprehensive income (loss)	<u>(21,528)</u>	<u>(8,532)</u>
Comprehensive income	<u>5,856</u>	<u>67,109</u>
Less: comprehensive income attributable to noncontrolling interests	165	182
Comprehensive income attributable to Vishay stockholders	<u>\$ 5,691</u>	<u>\$ 66,927</u>

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Statements of Cash Flows
(Unaudited - In thousands)

	Three fiscal months ended	
	April 4, 2020	March 30, 2019
Operating activities		
Net earnings	\$ 27,384	\$ 75,641
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	41,520	40,428
(Gain) loss on disposal of property and equipment	(45)	(173)
Accretion of interest on convertible debt instruments	3,637	3,490
Inventory write-offs for obsolescence	5,643	6,967
Deferred income taxes	(3,517)	(2,614)
Loss on extinguishment of debt	2,920	1,307
Other	3,524	(1,744)
Net change in operating assets and liabilities, net of effects of businesses acquired	(46,588)	(43,784)
Net cash provided by operating activities	<u>34,478</u>	<u>79,518</u>
Investing activities		
Capital expenditures	(24,328)	(36,367)
Proceeds from sale of property and equipment	53	395
Purchase of businesses, net of cash received	-	(11,862)
Purchase of short-term investments	(35,463)	(1,920)
Maturity of short-term investments	-	71,455
Other investing activities	(1,507)	2,893
Net cash provided by (used in) investing activities	<u>(61,245)</u>	<u>24,594</u>
Financing activities		
Repurchase of convertible debentures	(19,849)	(22,695)
Net proceeds (payments) on revolving credit lines	54,000	-
Net changes in short-term borrowings	85	-
Dividends paid to common stockholders	(12,592)	(11,249)
Dividends paid to Class B common stockholders	(1,149)	(1,028)
Cash withholding taxes paid when shares withheld for vested equity awards	(1,991)	(2,659)
Net cash provided by (used in) financing activities	<u>18,504</u>	<u>(37,631)</u>
Effect of exchange rate changes on cash and cash equivalents	<u>(5,167)</u>	<u>(3,087)</u>
Net increase (decrease) in cash and cash equivalents	<u>(13,430)</u>	<u>63,394</u>
Cash and cash equivalents at beginning of period	<u>694,133</u>	<u>686,032</u>
Cash and cash equivalents at end of period	<u>\$ 680,703</u>	<u>\$ 749,426</u>

See accompanying notes.

VISHAY INTERTECHNOLOGY, INC.
Consolidated Condensed Statements of Equity
(Unaudited - In thousands, except share and per share amounts)

	<u>Common Stock</u>	<u>Class B Convertible Common Stock</u>	<u>Capital in Excess of Par Value</u>	<u>Retained Earnings (Accumulated Deficit)</u>	<u>Accumulated Other Comprehensive Income (Loss)</u>	<u>Total Vishay Stockholders' Equity</u>	<u>Noncontrolling Interests</u>	<u>Total Equity</u>
Balance at December 31, 2018	\$ 13,212	\$ 1,210	\$ 1,436,011	\$ (61,258)	\$ (6,791)	\$ 1,382,384	\$ 2,286	\$ 1,384,670
Cumulative effect of accounting change for adoption of ASU 2016- 02	-	-	-	23,013	-	23,013	-	23,013
Net earnings (loss)	-	-	-	75,459	-	75,459	182	75,641
Other comprehensive income	-	-	-	-	(8,532)	(8,532)	-	(8,532)
Conversion of Class B shares (18 shares)	-	-	-	-	-	-	-	-
Temporary equity reclassification	-	-	3	-	-	3	-	3
Issuance of stock and related tax withholdings for vested restricted stock units (220,718 shares)	22	-	(2,681)	-	-	(2,659)	-	(2,659)
Dividends declared (0.085 per share)	-	-	15	(12,292)	-	(12,277)	-	(12,277)
Stock compensation expense	-	-	3,536	-	-	3,536	-	3,536
Repurchase of convertible debentures due 2040 and due 2042	-	-	(11,783)	-	-	(11,783)	-	(11,783)
Balance at March 30, 2019	<u>\$ 13,234</u>	<u>\$ 1,210</u>	<u>\$ 1,425,101</u>	<u>\$ 24,922</u>	<u>\$ (15,323)</u>	<u>\$ 1,449,144</u>	<u>\$ 2,468</u>	<u>\$ 1,451,612</u>
Balance at December 31, 2019	13,235	1,210	1,425,170	72,180	(26,646)	1,485,149	2,540	1,487,689
Cumulative effect of accounting change for adoption of ASU 2016- 13 (see Note 1)	-	-	-	(1,070)	-	(1,070)	-	(1,070)
Net earnings	-	-	-	27,219	-	27,219	165	27,384
Other comprehensive income (loss)	-	-	-	-	(21,528)	(21,528)	-	(21,528)
Temporary equity reclassification	-	-	174	-	-	174	-	174
Issuance of stock and related tax withholdings for vested restricted stock units (199,251 shares)	20	-	(2,011)	-	-	(1,991)	-	(1,991)
Dividends declared (0.095 per share)	-	-	18	(13,759)	-	(13,741)	-	(13,741)
Stock compensation expense	-	-	2,998	-	-	2,998	-	2,998
Repurchase of convertible senior debentures due 2041	-	-	(10,089)	-	-	(10,089)	-	(10,089)
Balance at April 4, 2020	<u>\$ 13,255</u>	<u>\$ 1,210</u>	<u>\$ 1,416,260</u>	<u>\$ 84,570</u>	<u>\$ (48,174)</u>	<u>\$ 1,467,121</u>	<u>\$ 2,705</u>	<u>\$ 1,469,826</u>

See accompanying notes.

Note 1 – Basis of Presentation

The accompanying unaudited consolidated condensed financial statements of Vishay Intertechnology, Inc. (“Vishay” or the “Company”) have been prepared in accordance with the instructions to Form 10-Q and therefore do not include all information and footnotes necessary for presentation of financial position, results of operations, and cash flows required by accounting principles generally accepted in the United States (“GAAP”) for complete financial statements. The information furnished reflects all normal recurring adjustments which are, in the opinion of management, necessary for a fair summary of the financial position, results of operations, and cash flows for the interim periods presented. The financial statements should be read in conjunction with the consolidated financial statements filed with the Company’s Annual Report on Form 10-K for the year ended December 31, 2019. The results of operations for the fiscal quarter and three fiscal months ended April 4, 2020 are not necessarily indicative of the results to be expected for the full year.

The Company reports interim financial information for 13-week periods beginning on a Sunday and ending on a Saturday, except for the first fiscal quarter, which always begins on January 1, and the fourth fiscal quarter, which always ends on December 31. The four fiscal quarters in 2020 ended on April 4, 2020, July 4, 2020, October 3, 2020, and December 31, 2020, respectively. The four fiscal quarters in 2019 ended on March 30, 2019, June 29, 2019, September 28, 2019, and December 31, 2019, respectively.

Recently Adopted Accounting Guidance

In June 2016, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The ASU replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The Company adopted the ASU effective January 1, 2020.

Payment terms for the Company’s sales are generally less than ninety days. Substantially all of the Company’s receivables are collected within twelve months of the transfer of products to the customer and the Company expects this to continue going forward. The credit loss allowance is determined through an analysis of the aging of accounts receivable and assessments of risk that are based on historical trends and an evaluation of the impact of current and projected economic conditions. Receivables from customers with deteriorating financial condition and those over 180 days past due are removed from the pool and evaluated separately. The adoption of ASU 2016-13 on January 1, 2020 had no material impact on the Company’s allowance for accounts receivable credit losses.

The Company’s cash equivalents, short-term investments, and restricted investments are accounted for as held-to-maturity debt instruments, at amortized cost. Interest income on these instruments is recorded as “Other income” on the consolidated condensed statements of operations and interest receivable is recognized as a separate asset and recorded in “Prepaid expenses and other current assets” on the consolidated condensed balance sheets. The Company has not experienced a credit loss on the principal or interest receivable of its cash equivalents, short-term investments, or restricted investments. The Company pools its cash equivalents, short-term investments, and restricted investments by credit rating of the issuing financial institution and estimates an allowance for credit losses based on the corporate bond default ratios, evaluation of the impact of current and projected economic conditions, and probability of credit loss. The Company recorded a cumulative-effect adjustment of \$810 to January 1, 2020 retained earnings to recognize an allowance for credit losses for these financial instruments upon the adoption of ASU 2016-13. The Company does not measure an allowance for credit losses on interest receivable. Any uncollectible interest receivable will be recognized by reversing interest income within the fiscal quarter that the interest becomes uncollectible.

The Company has an immaterial amount of other short-term held-to-maturity debt instruments recorded within “Prepaid expenses and other current assets” on the consolidated condensed balance sheets. The Company analyzes these assets on a separate asset basis and estimates an allowance for credit losses based on historical credit loss rates and an evaluation of the impact of current and projected economic conditions. The Company recorded a cumulative-effect adjustment of \$260 to January 1, 2020 retained earnings to recognize an allowance for credit losses for these financial instruments upon the adoption of ASU 2016-13.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current financial statement presentation.

Note 2 – Impact of Coronavirus Outbreak

The Company's operations have been impacted by the coronavirus ("COVID-19") outbreak. Some manufacturing facilities are or were temporarily closed and some are operating at levels less than full capacity. The Company has incurred incremental costs separable from normal operations that are directly related to the outbreak and containment efforts, primarily wages paid to manufacturing employees during government-mandated shut-downs, additional wages and hardship allowances for working during lockdown periods, additional costs of cleaning and disinfecting facilities, costs of additional safety equipment for employees, and temporary housing for employees due to travel restrictions, which were partially offset by government subsidies. The net impact of the costs and subsidies are reported as cost of products sold (\$3,130) and selling, general, and administrative expenses (\$317) based on employee function on the consolidated condensed statement of operations.

The Company's insurance coverages generally exclude losses incurred due to pandemics. Any amounts that may be received will not be recognized until all contingencies are settled.

Note 3 – Leases

The Company leases buildings and machinery and equipment used for manufacturing and/or sales and administrative purposes. The Company is also party to various service, warehousing, and other agreements that it evaluates for potential embedded leases.

The Company leases assets in each region in which it operates. No individual lease is considered significant and there are no leases that have not yet commenced that are considered significant.

The net right of use assets and lease liabilities recognized on the consolidated condensed balance sheets for the Company's operating leases were as follows:

	<u>April 4,</u> <u>2020</u>	<u>December</u> <u>31, 2019</u>
Right of use assets		
<i>Operating Leases</i>		
Buildings and improvements	\$ 94,353	\$ 87,689
Machinery and equipment	5,153	5,473
Total	<u>\$ 99,506</u>	<u>\$ 93,162</u>
Current lease liabilities		
<i>Operating Leases</i>		
Buildings and improvements	\$ 18,324	\$ 17,410
Machinery and equipment	2,709	2,807
Total	<u>\$ 21,033</u>	<u>\$ 20,217</u>
Long-term lease liabilities		
<i>Operating Leases</i>		
Buildings and improvements	\$ 81,036	\$ 75,877
Machinery and equipment	2,404	2,634
Total	<u>\$ 83,440</u>	<u>\$ 78,511</u>
Total lease liabilities	<u>\$ 104,473</u>	<u>\$ 98,728</u>

NOTES TO THE CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
(dollars in thousands, except per share amounts)

Lease expense is classified on the statement of operations based on asset use. Total lease cost recognized on the consolidated condensed statements of operations is as follows:

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
<u>Lease expense</u>		
Operating lease expense	\$ 5,652	\$ 5,536
Short-term lease expense	194	833
Variable lease expense	23	12
Total lease expense	\$ 5,869	\$ 6,381

The Company paid \$5,609 and \$5,050 for its operating leases in the three fiscal months ended April 4, 2020 and March 30, 2019, respectively, which are included in operating cash flows on the consolidated condensed statements of cash flows. The weighted-average remaining lease term for the Company's operating leases is 8.8 years and the weighted-average discount rate is 5.9% as of April 4, 2020.

The undiscounted future lease payments for the Company's operating lease liabilities are as follows:

	April 4, 2020
2020 (excluding the three fiscal months ended April 4, 2020)	\$ 16,499
2021	19,647
2022	16,044
2023	13,699
2024	12,640
Thereafter	57,162

The undiscounted future lease payments presented in the table above include payments through the term of the lease, which may include periods beyond the noncancellable term. The difference between the total payments above and the lease liability balance is due to the discount rate used to calculate lease liabilities.

Note 4 – Restructuring and Related Activities

In the third fiscal quarter of 2019, the Company announced global cost reduction and management rejuvenation programs as part of its continuous efforts to improve efficiency and operating performance.

The programs are primarily designed to reduce manufacturing fixed costs and selling, general, and administrative costs company-wide, and provide management rejuvenation. The Company expects to incur charges of approximately \$25,000, primarily related to cash severance costs, to implement these programs. The Company expects these cost reductions to be fully achieved by December 2020.

The following table summarizes the activity to date related to this program:

Expense recorded in 2019	\$ 24,139
Cash paid	(1,330)
Foreign currency translation	<u>35</u>
Balance at December 31, 2019	\$ 22,844
Cash paid	(3,742)
Foreign currency translation	(307)
Balance at April 4, 2020	<u>\$ 18,795</u>

The payment terms vary by country, but generally are paid in a lump sum at cessation of employment. The current portion of the liability is \$15,348 and is included in other accrued expenses on the consolidated condensed balance sheet. The non-current portion of the liability is \$3,447 and is included in other liabilities on the consolidated condensed balance sheet.

Note 5 – Income Taxes

The provision for income taxes consists of provisions for federal, state, and foreign income taxes. The effective tax rates for the periods ended April 4, 2020 and March 30, 2019 reflect the Company's expected tax rate on reported income from continuing operations before income tax and tax adjustments. The Company operates in a global environment with significant operations in various jurisdictions outside the United States. Accordingly, the consolidated income tax rate is a composite rate reflecting the Company's earnings and the applicable tax rates in the various jurisdictions where the Company operates.

The Company has approximately \$100,000 of unremitted foreign earnings that it has deemed not permanently reinvested and thus has accrued foreign withholding and other taxes. The Company plans to repatriate these foreign earnings in the second fiscal quarter of 2020.

The Company repurchased a portion of outstanding convertible debentures in the first fiscal quarters of 2020 and 2019 (see Note 6). The Company recognized tax benefits on the pre-tax loss on early extinguishment of debt. The Company also recognized tax benefits of \$1,346 and \$1,312 in the first fiscal quarters of 2020 and 2019, respectively, reflecting the reduction in deferred tax liabilities related to the special tax attributes of the extinguished debentures.

Income tax expense for the first fiscal quarter of 2019 includes tax benefits of \$585 for the periodic remeasurement of the deferred tax liability recorded for the foreign taxes associated with the Company's cash repatriation program.

During the fiscal quarter ended April 4, 2020, the liabilities for unrecognized tax benefits decreased by \$1,264 on a net basis, primarily due to currency translation adjustments and the expiration of a statute, partially offset by interest.

Note 6 – Long-Term Debt

Long-term debt consists of the following:

	April 4, 2020	December 31, 2019
Credit facility	\$ 54,000	\$ -
Convertible senior notes, due 2025	512,745	509,128
Convertible senior debentures, due 2040	127	126
Convertible senior debentures, due 2041	1,050	6,677
Deferred financing costs	<u>(15,826)</u>	<u>(16,784)</u>
	552,096	499,147
Less current portion	-	-
	<u>\$ 552,096</u>	<u>\$ 499,147</u>

The following table summarizes some key facts and terms regarding the outstanding convertible debt instruments as of April 4, 2020:

	Convertible Senior Notes Due 2025	Convertible Senior Debentures Due 2040	Convertible Senior Debentures Due 2041
Issuance date	June 12, 2018	November 9, 2010	May 13, 2011
Maturity date	June 15, 2025	November 15, 2040	May 15, 2041
Principal amount as of April 4, 2020	\$ 600,000	\$ 300	\$ 2,640
Cash coupon rate (per annum)	2.25%	2.25%	2.25%
Nonconvertible debt borrowing rate at issuance (per annum)	5.50%	8.00%	8.375%
Conversion rate effective March 11, 2020 (per \$1 principal amount)	31.8278	80.4668	58.7205
Effective conversion price effective March 11, 2020 (per share)	\$ 31.42	\$ 12.43	\$ 17.03
130% of the conversion price (per share)	\$ 40.85	\$ 16.16	\$ 22.14
Call date	n/a	November 20, 2020	May 20, 2021

The terms of the convertible senior debentures due 2040 and due 2041 are generally congruent.

Prior to three months before the maturity date, the holders may convert their convertible senior debentures due 2040 and due 2041 only under the following circumstances: (1) during any fiscal quarter after the first full quarter subsequent to issuance, if the sale price of Vishay common stock reaches 130% of the conversion price for a specified period; (2) the trading price of the debentures falls below 98% of the product of the sale price of Vishay's common stock and the conversion rate for a specified period; (3) Vishay calls any or all of the debentures for redemption, at any time prior to the close of business on the third scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events. The convertible senior debentures due 2040 and due 2041 are not currently convertible.

Prior to December 15, 2024, the holders of the convertible senior notes due 2025 may convert their notes only under the following circumstances: (1) during any fiscal quarter after the fiscal quarter ending September 29, 2018, if the sale price of Vishay common stock reaches 130% of the conversion price for a specified period; (2) the trading price of the notes falls below 98% of the product of the sale price of Vishay's common stock and the conversion rate for a specified period; or (3) upon the occurrence of specified corporate transactions.

The quarterly cash dividend program of the Company results in adjustments to the conversion rate and effective conversion price for the convertible debt instruments effective as of the ex-dividend date of each cash dividend. The conversion rate and effective conversion price for the convertible senior notes due 2025 is adjusted for quarterly cash dividends to the extent such dividends exceed \$0.085 per share of common stock.

GAAP requires an issuer to separately account for the liability and equity components of the instrument in a manner that reflects the issuer's nonconvertible debt borrowing rate when interest costs are recognized in subsequent periods. The resulting discount on the debt is amortized as non-cash interest expense in future periods.



NOTES TO THE CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
(dollars in thousands, except per share amounts)

The carrying values of the liability and equity components of the convertible debt instruments are reflected in the Company's consolidated condensed balance sheets as follows:

	Principal amount of the debt instruments	Unamortized discount	Carrying value of liability component	Equity component (including temporary equity) -net carrying value
April 4, 2020				
Convertible senior notes due 2025	\$ 600,000	(87,255)	\$ 512,745	\$ 85,262
Convertible senior debentures due 2040 and due 2041	\$ 2,940	(1,763)	\$ 1,177	\$ 1,216
Total	<u>\$ 602,940</u>	<u>\$ (89,018)</u>	<u>\$ 513,922</u>	<u>\$ 86,478</u>
December 31, 2019				
Convertible senior notes due 2025	\$ 600,000	(90,872)	\$ 509,128	\$ 85,262
Convertible senior debentures due 2040 and due 2041	\$ 17,190	(10,387)	\$ 6,803	\$ 7,129
Total	<u>\$ 617,190</u>	<u>\$ (101,259)</u>	<u>\$ 515,931</u>	<u>\$ 92,391</u>

Interest is payable on the convertible debt instruments semi-annually at the cash coupon rate; however, the remaining debt discount is being amortized as additional non-cash interest expense using an effective annual interest rate equal to the Company's estimated nonconvertible debt borrowing rate at the time of issuance. In addition to ordinary interest, contingent interest will accrue in certain circumstances relating to the trading price of the convertible senior debentures due 2040 and due 2041 and under certain other circumstances, beginning in 2020 and 2021, respectively. The convertible senior notes due 2025 do not possess contingent interest features.

Interest expense related to the convertible debt instruments is reflected on the consolidated condensed statements of operations for the fiscal quarters ended:

	Contractual coupon interest	Non-cash amortization of debt discount	Other non- cash interest expense	Total interest expense related to the debt instruments
April 4, 2020				
Convertible senior notes due 2025	\$ 3,375	3,617	454	\$ 7,446
Convertible senior debentures	\$ 44	20	-	\$ 64
Total	<u>\$ 3,419</u>	<u>\$ 3,637</u>	<u>\$ 454</u>	<u>\$ 7,510</u>
March 30, 2019				
Convertible senior notes due 2025	\$ 3,375	3,426	454	\$ 7,255
Convertible senior debentures	\$ 148	64	(16)	\$ 196
Total	<u>\$ 3,523</u>	<u>\$ 3,490</u>	<u>\$ 438</u>	<u>\$ 7,451</u>

Other non-cash interest expense includes amortization of deferred financing costs and changes in the value of embedded derivative liabilities.

The Company used cash to repurchase \$14,250 principal amount of convertible senior debentures due 2041 in the first fiscal quarter of 2020. The net carrying value of the debentures repurchased was \$5,645. In accordance with the authoritative accounting guidance for convertible debentures, the aggregate repurchase payment of \$19,926 was allocated between the liability (\$9,837) and equity (\$10,089) components of the convertible debentures, using the Company's nonconvertible debt borrowing rate at the time of the repurchase. As a result, the Company recognized a loss on extinguishment of convertible debentures of \$2,920, including the write-off of unamortized debt issuance costs.

Note 7 – Revenue Recognition

Sales returns and allowances accrual activity is shown below:

	Fiscal quarters ended	
	April 4,	March 30,
	2020	2019
Beginning balance	\$ 40,508	\$ 42,663
Sales allowances	22,632	28,211
Credits issued	(27,982)	(33,062)
Foreign currency	(346)	(235)
Ending balance	<u>\$ 34,812</u>	<u>\$ 37,577</u>

See disaggregated revenue information in Note 11.

Note 8 – Accumulated Other Comprehensive Income (Loss)

The cumulative balance of each component of other comprehensive income (loss) and the income tax effects allocated to each component are as follows:

	Pension and other post- retirement actuarial items	Currency translation adjustment	Total
Balance at January 1, 2020	\$ (68,020)	\$ 41,374	\$ (26,646)
Other comprehensive income before reclassifications	-	(23,129)	\$ (23,129)
Tax effect	-	-	\$ -
Other comprehensive income before reclassifications, net of tax	-	(23,129)	\$ (23,129)
Amounts reclassified out of AOCI	2,223	-	\$ 2,223
Tax effect	(622)	-	\$ (622)
Amounts reclassified out of AOCI, net of tax	1,601	-	\$ 1,601
Net other comprehensive income	\$ 1,601	\$ (23,129)	\$ (21,528)
Balance at April 4, 2020	\$ (66,419)	\$ 18,245	\$ (48,174)

Reclassifications of pension and other post-retirement actuarial items out of AOCI are included in the computation of net periodic benefit cost. See Note 9 for further information.

Note 9 – Pensions and Other Postretirement Benefits

The Company maintains various retirement benefit plans. The service cost component of net periodic pension cost is classified in costs of products sold or selling, general, and administrative expenses on the consolidated condensed statements of operations based on the respective employee's function. The other components of net periodic pension cost are classified as other expense on the consolidated condensed statements of operations.

Defined Benefit Pension Plans

The following table shows the components of the net periodic pension cost for the first fiscal quarters of 2020 and 2019 for the Company's defined benefit pension plans:

	Fiscal quarter ended April 4, 2020		Fiscal quarter ended March 30, 2019	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Net service cost	\$ -	\$ 1,074	\$ -	\$ 852
Interest cost	342	924	424	1,291
Expected return on plan assets	-	(495)	-	(490)
Amortization of prior service cost	36	30	36	51
Amortization of losses	298	1,592	118	1,359
Curtailment and settlement losses	-	229	-	505
Net periodic benefit cost	<u>\$ 676</u>	<u>\$ 3,354</u>	<u>\$ 578</u>	<u>\$ 3,568</u>

Other Postretirement Benefits

The following table shows the components of the net periodic benefit cost for the first fiscal quarters of 2020 and 2019 for the Company's other postretirement benefit plans:

	Fiscal quarter ended April 4, 2020		Fiscal quarter ended March 30, 2019	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Service cost	\$ 28	\$ 69	\$ 35	\$ 72
Interest cost	59	15	77	30
Amortization of losses (gains)	7	31	(32)	27
Net periodic benefit cost	<u>\$ 94</u>	<u>\$ 115</u>	<u>\$ 80</u>	<u>\$ 129</u>

Note 10 – Stock-Based Compensation

The Company has various stockholder-approved programs which allow for the grant of stock-based compensation to officers, employees, and non-employee directors of the Company.

The amount of compensation cost related to stock-based payment transactions is measured based on the grant-date fair value of the equity instruments issued. The Company determines compensation cost for restricted stock units (“RSUs”) and phantom stock units based on the grant-date fair value of the underlying common stock adjusted for expected dividends paid over the required vesting period for non-participating awards. Compensation cost is recognized over the period that an officer, employee, or non-employee director provides service in exchange for the award.

The following table summarizes stock-based compensation expense recognized:

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Restricted stock units	\$ 2,783	\$ 3,359
Phantom stock units	215	177
Total	\$ 2,998	\$ 3,536

The Company recognizes compensation cost for RSUs that are expected to vest and records cumulative adjustments in the period that the expectation changes.

The following table summarizes unrecognized compensation cost and the weighted average remaining amortization periods at April 4, 2020 (amortization periods in years):

	Unrecognized Compensation Cost	Weighted Average Remaining Amortization Periods
Restricted stock units	\$ 5,041	1.0
Phantom stock units	-	0.0
Total	\$ 5,041	

The Company currently expects all performance-based RSUs to vest and all of the associated unrecognized compensation cost for performance-based RSUs presented in the table above to be recognized.

2007 Stock Incentive Plan

The Company's 2007 Stock Incentive Program (the "2007 Program"), as amended and restated, permits the grant of up to 6,500,000 shares of restricted stock, unrestricted stock, RSUs, stock options, and phantom stock units, to officers, employees, and non-employee directors of the Company. Such instruments are available for grant until May 20, 2024.

Restricted Stock Units

RSU activity under the 2007 Program as of April 4, 2020 and changes during the three fiscal months then ended are presented below (number of RSUs in thousands):

	<u>Number of RSUs</u>	<u>Weighted Average Grant-date Fair Value per Unit</u>
Outstanding:		
January 1, 2020	842	\$ 17.93
Granted	272	18.30
Vested*	(293)	15.52
Cancelled or forfeited	-	-
Outstanding at April 4, 2020	<u>821</u>	<u>\$ 18.91</u>
Expected to vest at April 4, 2020	<u>808</u>	

* The number of RSUs vested includes shares that the Company withheld on behalf of employees to satisfy the statutory tax withholding requirements.

The number of performance-based RSUs that are scheduled to vest increases ratably based on the achievement of defined performance criteria between the established target and maximum levels. RSUs with performance-based vesting criteria are expected to vest as follows (number of RSUs in thousands):

<u>Vesting Date</u>	<u>Expected to Vest</u>	<u>Not Expected to Vest</u>	<u>Total</u>
January 1, 2021	141	-	141
January 1, 2022	174	-	174
January 1, 2023	152	-	152

Phantom Stock Units

The 2007 Program authorizes the grant of phantom stock units to the extent provided for in the Company's employment agreements with certain executives. Each phantom stock unit entitles the recipient to receive a share of common stock at the individual's termination of employment or any other future date specified in the applicable employment agreement. Phantom stock units participate in dividend distribution on the same basis as the Company's common stock and Class B common stock. Dividend equivalents are issued in the form of additional units of phantom stock. The phantom stock units are fully vested at all times.

Phantom stock unit activity under the phantom stock plan as of April 4, 2020 and changes during the three fiscal months then ended are presented below (number of phantom stock units in thousands):

	<u>Number of units</u>	<u>Grant-date Fair Value per Unit</u>
Outstanding:		
January 1, 2020	183	
Granted	10	\$ 21.49
Dividend equivalents issued	1	
Outstanding at April 4, 2020	<u>194</u>	

Note 11 – Segment Information

Vishay is a global manufacturer and supplier of electronic components. Vishay operates, and its chief operating decision maker makes strategic and operating decisions with regards to assessing performance and allocating resources based on, six reporting segments: MOSFETs, Diodes, Optoelectronic Components, Resistors, Inductors, and Capacitors. These segments represent groupings of product lines based on their functionality:

- Metal oxide semiconductor field-effect transistors ("MOSFETs") function as solid-state switches to control power.
- Diodes route, regulate, and block radio frequency, analog, and power signals; protect systems from surges or electrostatic discharge damage; or provide electromagnetic interference filtering.
- Optoelectronic components emit light, detect light, or do both.
- Resistors are basic components used in all forms of electronic circuitry to adjust and regulate levels of voltage and current.
- Inductors use an internal magnetic field to change alternating current phase and resist alternating current.
- Capacitors store energy and discharge it when needed.

The current six segment alignment reflects a change in reporting structure made during the fourth fiscal quarter of 2019. The fiscal period ended March 30, 2019 has been recast to separately present Resistors and Inductors.

Vishay's reporting segments generate substantially all of their revenue from product sales to the industrial, automotive, telecommunications, computing, consumer products, power supplies, military and aerospace, and medical end markets. A small portion of revenues is from royalties.

The Company evaluates business segment performance on operating income, exclusive of certain items ("segment operating income"). Only dedicated, direct selling, general, and administrative expenses of the segments are included in the calculation of segment operating income. The Company's calculation of segment operating income excludes such selling, general, and administrative costs as global operations, sales and marketing, information systems, finance and administration groups, as well as restructuring and severance costs, the impact of the COVID-19 outbreak, goodwill and long-lived asset impairment charges, and other items. Management believes that evaluating segment performance excluding such items is meaningful because it provides insight with respect to intrinsic operating results of the Company. These items represent reconciling items between segment operating income and consolidated operating income. Business segment assets are the owned or allocated assets used by each business.

The Company also regularly evaluates gross profit by segment to assist in the analysis of consolidated gross profit. The Company considers segment operating income to be the more important metric because it more fully captures the business operations of the segments.

NOTES TO THE CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
(dollars in thousands, except per share amounts)

The following tables set forth business segment information:

	<u>MOSFETs</u>	<u>Diodes</u>	<u>Optoelectronic Components</u>	<u>Resistors</u>	<u>Inductors</u>	<u>Capacitors</u>	<u>Corporate / Other*</u>	<u>Total</u>
<u>Fiscal quarter ended April 4,</u>								
<u>2020:</u>								
Net revenues	\$ 116,893	\$ 115,343	\$ 54,179	\$ 159,208	\$ 73,785	\$ 93,433	\$ -	\$ 612,841
Gross profit	\$ 28,152	\$ 19,518	\$ 14,585	\$ 44,773	\$ 22,987	\$ 20,355	\$ (3,130)	\$ 147,240
Segment operating income	\$ 18,658	\$ 14,422	\$ 10,686	\$ 38,885	\$ 20,310	\$ 15,070	\$ (3,130)	\$ 114,901
<u>Fiscal quarter ended March 30,</u>								
<u>2019:</u>								
Net revenues	\$ 137,341	\$ 167,840	\$ 60,562	\$ 188,831	\$ 71,640	\$ 118,945	\$ -	\$ 745,159
Gross profit	\$ 36,059	\$ 43,492	\$ 16,017	\$ 62,589	\$ 23,280	\$ 29,722	\$ -	\$ 211,159
Segment operating income	\$ 26,678	\$ 38,128	\$ 11,710	\$ 56,347	\$ 20,640	\$ 24,566	\$ -	\$ 178,069

*Amounts reported in Corporate/Other above represent unallocated costs directly related to the COVID-19 outbreak, which are reported as costs of products sold on the consolidated condensed statement of operations.

	<u>Fiscal quarters ended</u>	
	<u>April 4,</u>	<u>March 30,</u>
	<u>2020</u>	<u>2019</u>
Reconciliation:		
Segment Operating Income	\$ 114,901	\$ 178,069
Impact of COVID-19 Outbreak on Selling, General, and Administrative Expenses	(317)	-
Unallocated Selling, General, and Administrative Expenses	(67,176)	(70,334)
Consolidated Operating Income	\$ 47,408	\$ 107,735
Unallocated Other Income (Expense)	(11,274)	(7,787)
Consolidated Income Before Taxes	<u>\$ 36,134</u>	<u>\$ 99,948</u>

NOTES TO THE CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
(dollars in thousands, except per share amounts)

The Company has a broad line of products that it sells to OEMs, EMS companies, and independent distributors. The distribution of sales by customer type is shown below:

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Distributors	\$ 305,446	\$ 411,560
OEMs	261,129	282,636
EMS companies	46,266	50,963
Total Revenue	<u>\$ 612,841</u>	<u>\$ 745,159</u>

Net revenues were attributable to customers in the following regions:

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Asia	\$ 217,084	\$ 259,726
Europe	233,052	278,899
Americas	162,705	206,534
Total Revenue	<u>\$ 612,841</u>	<u>\$ 745,159</u>

The Company generates substantially all of its revenue from product sales to end customers in the industrial, automotive, telecommunications, computing, consumer products, power supplies, military and aerospace, and medical end markets. Sales by end market are presented below:

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Industrial	\$ 215,111	\$ 281,590
Automotive	201,943	214,786
Telecommunications	29,692	53,280
Computing	45,223	47,508
Consumer Products	20,553	34,049
Power Supplies	25,194	30,127
Military and Aerospace	43,935	47,561
Medical	31,190	36,258
Total revenue	<u>\$ 612,841</u>	<u>\$ 745,159</u>

Note 12 – Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share attributable to Vishay stockholders (*shares in thousands*):

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Numerator:		
Net earnings attributable to Vishay stockholders	\$ 27,219	\$ 75,459
Denominator:		
Denominator for basic earnings per share:		
Weighted average shares	144,599	144,375
Outstanding phantom stock units	193	179
Adjusted weighted average shares - basic	144,792	144,554
Effect of dilutive securities:		
Convertible debt instruments	95	237
Restricted stock units	408	498
Dilutive potential common shares	503	735
Denominator for diluted earnings per share:		
Adjusted weighted average shares - diluted	145,295	145,289
Basic earnings per share attributable to Vishay stockholders	\$ 0.19	\$ 0.52
Diluted earnings per share attributable to Vishay stockholders	\$ 0.19	\$ 0.52

NOTES TO THE CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
(dollars in thousands, except per share amounts)

Diluted earnings per share for the periods presented do not reflect the following weighted average potential common shares that would have an antidilutive effect or have unsatisfied performance conditions (in thousands):

	Fiscal quarters ended	
	April 4, 2020	March 30, 2019
Convertible debt instruments:		
Convertible senior notes due 2025	19,088	19,052
Convertible senior debentures due 2041	88	-
Weighted average other	325	315

The Company's convertible debt instruments are only convertible for specified periods upon the occurrence of certain events. The Company's convertible debt instruments are not currently convertible. In periods that the convertible debt instruments are not convertible, the certain conditions which could trigger conversion of the debt instruments have been deemed to be non-substantive, and accordingly, the Company assumes the conversion of these instruments in its diluted earnings per share computation during periods in which they are dilutive.

At the direction of its Board of Directors, the Company intends, upon conversion, to repay the principal amounts of any of the convertible debt instruments in cash and settle any additional amounts in shares of Vishay common stock. Accordingly, the convertible instruments are included in the diluted earnings per share computation using the "treasury stock method" (similar to options and warrants) rather than the "if converted method" otherwise required for convertible debt. Under the "treasury stock method," Vishay calculates the number of shares issuable under the terms of the debentures based on the average market price of Vishay common stock during the period, and that number is included in the total diluted shares figure for the period. If the average market price is less than \$12.43, no shares are included in the diluted earnings per share computation for the convertible senior debentures due 2040, if the average market price is less than \$17.03, no shares are included in the diluted earnings per share computation for the convertible senior debentures due 2041, and if the average market price is less than \$31.42, no shares are included in the diluted earnings per share computation for the convertible senior notes due 2025.

Note 13 – Fair Value Measurements

The fair value measurement accounting guidance establishes a valuation hierarchy of the inputs used to measure fair value. This hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The following is a brief description of those three levels:

Level 1: Observable inputs such as quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.

Level 3: Unobservable inputs that reflect the Company’s own assumptions.

An asset or liability’s classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. There have been no changes in the classification of any financial instruments within the fair value hierarchy in the periods presented.

The following table provides the financial assets and liabilities carried at fair value measured on a recurring basis:

	<u>Total Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
April 4, 2020				
<u>Assets:</u>				
Assets held in rabbi trusts	\$ 48,137	\$ 33,687	\$ 14,450	\$ -
Available for sale securities	\$ 4,073	4,073	-	-
	<u>\$ 52,210</u>	<u>\$ 37,760</u>	<u>\$ 14,450</u>	<u>\$ -</u>
December 31, 2019				
<u>Assets:</u>				
Assets held in rabbi trusts	\$ 52,148	\$ 34,280	17,868	\$ -
Available for sale securities	\$ 4,405	4,405	-	-
	<u>\$ 56,553</u>	<u>\$ 38,685</u>	<u>\$ 17,868</u>	<u>\$ -</u>

As described in Note 6, the Company allocated the aggregate repurchase payment of convertible senior debentures between the associated liability and equity components of the repurchased convertible senior debentures based on a nonrecurring fair value measurement of the convertible senior debentures due 2041 immediately prior to the repurchase. The nonrecurring fair value measurement is considered a Level 3 measurement. See Note 6 for further information on the measurement and input.

The Company maintains non-qualified trusts, referred to as “rabbi” trusts, to fund payments under deferred compensation and non-qualified pension plans. Rabbi trust assets consist primarily of marketable securities, classified as available-for-sale and company-owned life insurance assets. The marketable securities held in the rabbi trusts are valued using quoted market prices on the last business day of the period. The company-owned life insurance assets are valued in consultation with the Company’s insurance brokers using the value of underlying assets of the insurance contracts. The fair value measurement of the marketable securities held in the rabbi trust is considered a Level 1 measurement and the measurement of the company-owned life insurance assets is considered a Level 2 measurement within the fair value hierarchy.

The Company holds investments in equity securities that are intended to fund a portion of its pension and other postretirement benefit obligations outside of the United States. The investments are valued based on quoted market prices on the last business day of the period. The fair value measurement of the investments is considered a Level 1 measurement within the fair value hierarchy.

The fair value of the long-term debt, excluding the derivative liabilities and deferred financing costs, at April 4, 2020 and December 31, 2019 is approximately \$574,800 and \$632,200, respectively, compared to its carrying value, excluding the derivative liabilities and deferred financing costs, of \$567,922 and \$515,931, respectively. The Company estimates the fair value of its long-term debt using a combination of quoted market prices for similar financing arrangements and expected future payments discounted at risk-adjusted rates, which are considered Level 2 inputs.

At April 4, 2020 and December 31, 2019, the Company's short-term investments were comprised of time deposits with financial institutions that have maturities that exceed 90 days from the date of acquisition; however they all mature within one year from the respective balance sheet dates. The Company's short-term investments are accounted for as held-to-maturity debt instruments, at amortized cost, which approximates their fair value. The investments are funded with excess cash not expected to be needed for operations prior to maturity; therefore, the Company believes it has the intent and ability to hold the short-term investments until maturity. At each reporting date, the Company performs an evaluation to determine if any unrealized losses are other-than-temporary. No other-than-temporary impairments have been recognized on these securities, and there are no unrecognized holding gains or losses for these securities during the periods presented. There have been no transfers to or from the held-to-maturity classification. All decreases in the account balance are due to returns of principal at the securities' maturity dates. Interest on the securities is recognized as interest income when earned.

At April 4, 2020 and December 31, 2019, the Company's cash and cash equivalents were comprised of demand deposits, time deposits with maturities of three months or less when purchased, and money market funds. The Company estimates the fair value of its cash, cash equivalents, and short-term investments using level 2 inputs. Based on the current interest rates for similar investments with comparable credit risk and time to maturity, the fair value of the Company's cash, cash equivalents, and held-to-maturity short-term investments approximate the carrying amounts reported in the consolidated condensed balance sheets.

The Company's financial instruments also include accounts receivable, short-term notes payable, and accounts payable. The carrying amounts for these financial instruments reported in the consolidated condensed balance sheets approximate their fair values.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Management's Discussion and Analysis ("MD&A") is intended to provide an understanding of Vishay's financial condition, results of operations and cash flows by focusing on changes in certain key measures from period to period. The MD&A should be read in conjunction with our Consolidated Condensed Financial Statements and accompanying Notes included in Item 1. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in our Annual Report on Form 10-K, particularly in Item 1A. "Risk Factors," filed with the Securities and Exchange Commission on February 14, 2020.

Overview

Vishay Intertechnology, Inc. ("Vishay," "we," "us," or "our") is a global manufacturer and supplier of discrete semiconductors and passive components, including power MOSFETs, power integrated circuits, transistors, diodes, optoelectronic components, resistors, capacitors, and inductors. Discrete semiconductors and passive components manufactured by Vishay are used in virtually all types of electronic products, including those in the industrial, computing, automotive, consumer electronic products, telecommunications, power supplies, military/aerospace, and medical industries.

We operate in six product segments: MOSFETs, Diodes, Optoelectronic Components, Resistors, Inductors, and Capacitors. The current six segment alignment reflects a change in reporting structure made during the fourth fiscal quarter of 2019. The fiscal quarter ended March 30, 2019 results presented herein have been recast to separately present Resistors and Inductors.

We are focused on enhancing stockholder value by growing our business and improving earnings per share. Since 1985, we have pursued a business strategy of growth through focused research and development and acquisitions. We plan to continue to grow our business through intensified internal growth supplemented by opportunistic acquisitions, while at the same time maintaining a prudent capital structure. To foster intensified internal growth, we have increased our worldwide R&D and engineering technical staff; we are expanding critical manufacturing capacities; we are increasing our technical field sales force in Asia to increase our market access to the industrial segment and increase the design-in of our products in local markets; and we are directing increased funding and focus on developing products to capitalize on the connectivity, mobility, and sustainability growth drivers of our business. In addition to our growth plan, we also have opportunistically repurchased our stock and, as further described below, reduced dilution risks by repurchasing a portion of our convertible senior debentures.

In 2014, our Board of Directors instituted a quarterly dividend payment program and declared the first cash dividend in the history of Vishay. We have paid dividends each quarter since the first fiscal quarter of 2014, and further increased the quarterly cash dividend to \$0.095 per share in the second fiscal quarter of 2019.

We continued to repurchase convertible senior debentures in open market and privately-negotiated transactions with holders in the first fiscal quarter of 2020, further reducing the principal amount of outstanding convertible senior debentures to \$2.9 million.

Our business and operating results have been and will continue to be impacted by worldwide economic conditions. Our revenues are dependent on end markets that are impacted by consumer and industrial demand, and our operating results can be adversely affected by reduced demand in those global markets. The worldwide economy and, specifically, our business have been impacted by the outbreak of the coronavirus ("COVID-19"). The outbreak has significantly impacted the global market, including our customers, suppliers, and shipping partners, which has impacted our net revenues. We have also incurred incremental costs separable from normal operations that are directly attributable to the outbreak and containment efforts, primarily salaries and wages for employees impacted by quarantines and additional safety measures, including masks and temperature scanners, which were partially offset by government subsidies. The net impact of the costs and subsidies are classified as cost of products sold (\$3.1 million) and selling, general, and administrative expenses (\$0.3 million) based on employee function on the consolidated condensed statement of operations. We exclude from the amounts reported above indirect financial changes from the outbreak of COVID 19 such as higher shipping costs due to reduced shipping capacity and any missing revenues during the outbreak.

We believe the economic impact of the COVID 19 outbreak on Vishay will be temporary. We have significant liquidity to withstand the temporary disruptions in the economic environment. However, we continue to closely monitor our fixed costs, capital expenditure plans, inventory, and capital resources to respond to changing conditions and to ensure we have the management, business processes, and resources to meet our future needs. We will react quickly and professionally to changes in demand to minimize manufacturing inefficiencies and excess inventory build. In the third fiscal quarter of 2019, we announced global cost reduction and management rejuvenation programs as part of our continuous efforts to improve efficiency and operating performance.

We utilize several financial metrics, including net revenues, gross profit margin, segment operating income, end-of-period backlog, book-to-bill ratio, inventory turnover, change in average selling prices, net cash and short-term investments (debt), and free cash generation to evaluate the performance and assess the future direction of our business. See further discussion in "Financial Metrics" and "Financial Condition, Liquidity, and Capital Resources" below. The outbreak of COVID-19 has impacted almost all key financial metrics. We experienced a substantial recovery in orders, particularly from distributors, in the first fiscal quarter of 2020, some of which may have been due to customers preparing for potential disruptions in the supply chain caused by the COVID-19 outbreak. This increase in orders has positively impacted almost all key financial metrics.

Net revenues for the fiscal quarter ended April 4, 2020 were \$612.8 million, compared to \$609.6 million and \$745.2 million for the fiscal quarters ended December 31, 2019 and March 30, 2019, respectively. The net earnings attributable to Vishay stockholders for the fiscal quarter ended April 4, 2020 were \$27.2 million, or \$0.19 per diluted share, compared to \$14.0 million, or \$0.10 per diluted share for the fiscal quarter ended December 31, 2019, and \$75.5 million, or \$0.52 per diluted share for the fiscal quarter ended March 30, 2019.

We define adjusted net earnings as net earnings determined in accordance with GAAP adjusted for various items that management believes are not indicative of the intrinsic operating performance of our business. We define free cash as the cash flows generated from continuing operations less capital expenditures plus net proceeds from the sale of property and equipment. The reconciliations below include certain financial measures which are not recognized in accordance with GAAP, including adjusted net earnings, adjusted earnings per share, and free cash. These non-GAAP measures should not be viewed as alternatives to GAAP measures of performance or liquidity. Non-GAAP measures such as adjusted net earnings, adjusted earnings per share, and free cash do not have uniform definitions. These measures, as calculated by Vishay, may not be comparable to similarly titled measures used by other companies. Management believes that adjusted net earnings and adjusted earnings per share are meaningful because they provide insight with respect to our intrinsic operating results. Management believes that free cash is a meaningful measure of our ability to fund acquisitions, repay debt, and otherwise enhance stockholder value through stock repurchases or dividends.

Net earnings attributable to Vishay stockholders for the fiscal quarters ended April 4, 2020, December 31, 2019, and March 30, 2019 include items affecting comparability. The items affecting comparability are (*in thousands, except per share amounts*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
GAAP net earnings attributable to Vishay stockholders	\$ 27,219	\$ 13,962	\$ 75,459
Reconciling items affecting gross income:			
Impact of COVID-19 outbreak	\$ 3,130	\$ -	\$ -
Other reconciling items affecting operating income:			
Restructuring and severance costs	\$ -	\$ 16,884	\$ -
Impact of COVID-19 outbreak	317	-	-
Reconciling items affecting other income (expense):			
Loss on early extinguishment of debt	\$ 2,920	\$ 723	\$ 1,307
Reconciling items affecting tax expense:			
Change in deferred taxes due to early extinguishment of debt	\$ (1,346)	\$ (289)	\$ (1,312)
Effects of cash repatriation programs	-	(11,554)	(585)
Effects of changes in uncertain tax positions	-	2,831	-
Tax effects of pre-tax items above	(1,482)	(4,277)	(290)
Adjusted net earnings	<u>\$ 30,758</u>	<u>\$ 18,280</u>	<u>\$ 74,579</u>
Adjusted weighted average diluted shares outstanding	145,295	145,202	145,289
Adjusted earnings per diluted share	\$ 0.21	\$ 0.13	\$ 0.51

Although the term "free cash" is not defined in GAAP, each of the elements used to calculate free cash for the year-to-date period is presented as a line item on the face of our consolidated condensed statement of cash flows prepared in accordance with GAAP and the quarterly amounts are derived from the year-to-date GAAP statements as of the beginning and end of the respective quarter.

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net cash provided by continuing operating activities	\$ 34,478	\$ 84,423	\$ 79,518
Proceeds from sale of property and equipment	53	91	395
Less: Capital expenditures	(24,328)	(56,374)	(36,367)
Free cash	<u>\$ 10,203</u>	<u>\$ 28,140</u>	<u>\$ 43,546</u>

Our results for the fiscal quarter ended April 4, 2020 represent the beginning of an expected recovery, which was negatively impacted by the COVID-19 outbreak. Our results for the fiscal quarters ended December 31, 2019 and March 30, 2019 represent the effects of the normalization of demand that we began to experience in the fourth fiscal quarter of 2018 and accelerated through 2019 as supply, in general, caught up with demand, and customers, particularly distributors, significantly reduced their orders as they decreased their inventory. Our percentage of euro-based sales approximates our percentage of euro-based expenses so the foreign currency impact on revenues was substantially offset by the impact on expenses. Our pre-tax results were consistent with expectations based on our business model.

Financial Metrics

We utilize several financial metrics to evaluate the performance and assess the future direction of our business. These key financial measures and metrics include net revenues, gross profit margin, operating margin, segment operating income, end-of-period backlog, and the book-to-bill ratio. We also monitor changes in inventory turnover and our or publicly available average selling prices (“ASP”).

Gross profit margin is computed as gross profit as a percentage of net revenues. Gross profit is generally net revenues less costs of products sold, but also deducts certain other period costs, particularly losses on purchase commitments and inventory write-downs. Losses on purchase commitments and inventory write-downs have the impact of reducing gross profit margin in the period of the charge, but result in improved gross profit margins in subsequent periods by reducing costs of products sold as inventory is used. Gross profit margin is clearly a function of net revenues, but also reflects our cost management programs and our ability to contain fixed costs.

Operating margin is computed as gross profit less operating expenses as a percentage of net revenues. We evaluate business segment performance on segment operating margin. Only dedicated, direct selling, general, and administrative expenses of the segments are included in the calculation of segment operating income. Segment operating margin is computed as operating income less items such as restructuring and severance costs, asset write-downs, goodwill and indefinite-lived intangible asset impairments, inventory write-downs, gains or losses on purchase commitments, global operations, sales and marketing, information systems, finance and administrative groups, and other items, expressed as a percentage of net revenues. We believe that evaluating segment performance excluding such items is meaningful because it provides insight with respect to intrinsic operating results of the segment. Operating margin is clearly a function of net revenues, but also reflects our cost management programs and our ability to contain fixed costs.

End-of-period backlog is one indicator of future revenues. We include in our backlog only open orders that we expect to ship in the next twelve months. If demand falls below customers’ forecasts, or if customers do not control their inventory effectively, they may cancel or reschedule the shipments that are included in our backlog, in many instances without the payment of any penalty. Therefore, the backlog is not necessarily indicative of the results to be expected for future periods.

An important indicator of demand in our industry is the book-to-bill ratio, which is the ratio of the amount of product ordered during a period as compared with the product that we ship during that period. A book-to-bill ratio that is greater than one indicates that our backlog is building and that we are likely to see increasing revenues in future periods. Conversely, a book-to-bill ratio that is less than one is an indicator of declining demand and may foretell declining revenues.

We focus on our inventory turnover as a measure of how well we are managing our inventory. We define inventory turnover for a financial reporting period as our costs of products sold for the four fiscal quarters ending on the last day of the reporting period divided by our average inventory (computed using each fiscal quarter-end balance) for this same period. A higher level of inventory turnover reflects more efficient use of our capital.

Pricing in our industry can be volatile. Using our and publicly available data, we analyze trends and changes in average selling prices to evaluate likely future pricing. We attempt to offset deterioration in the average selling prices of established products with ongoing cost reduction activities and new product introductions. Our specialty passive components are more resistant to average selling price erosion. All pricing is subject to governing market conditions and is independently set by us.

The quarter-to-quarter trends in these financial metrics can also be an important indicator of the likely direction of our business. The following table shows net revenues, gross profit margin, operating margin, end-of-period backlog, book-to-bill ratio, inventory turnover, and changes in ASP for our business as a whole during the five fiscal quarters beginning with the first fiscal quarter of 2019 through the first fiscal quarter of 2020 (*dollars in thousands*):

	<u>1st Quarter 2019</u>	<u>2nd Quarter 2019</u>	<u>3rd Quarter 2019</u>	<u>4th Quarter 2019</u>	<u>1st Quarter 2020</u>
Net revenues	\$ 745,159	\$ 685,240	\$ 628,329	\$ 609,577	\$ 612,841
Gross profit margin ⁽¹⁾	28.3%	25.5%	23.9%	22.2%	24.0%
Operating margin ⁽²⁾	14.5%	11.6%	8.1%	4.0%	7.7%
End-of-period backlog	\$ 1,331,800	\$ 1,126,700	\$ 935,400	\$ 911,300	\$ 1,005,200
Book-to-bill ratio	0.79	0.69	0.72	0.94	1.17
Inventory turnover	4.3	4.3	4.1	4.3	4.2
Change in ASP vs. prior quarter	(0.4)%	(0.9)%	(1.1)%	(0.8)%	(1.1)%

(1) Gross margin for the first fiscal quarter of 2020 includes \$3.1 million of expenses directly related to the COVID-19 outbreak (see Note 2 to our consolidated condensed financial statements).

(2) Operating margin for the third and fourth fiscal quarters of 2019 includes \$7.3 million and \$16.9 million, respectively, of restructuring and severance expenses (see Note 4 to our consolidated condensed financial statements). Operating margin for the first fiscal quarter of 2020 also includes in total \$3.4 million of expenses directly related to the COVID-19 outbreak (see Note 2 to our consolidated condensed financial statements).

See “Financial Metrics by Segment” below for net revenues, book-to-bill ratio, and gross profit margin broken out by segment.

Revenues increased versus the prior fiscal quarter, but decreased versus the first fiscal quarter of 2019. After a period of relatively high levels of inventory in the supply chain, inventory levels are now at widely normalized levels. Strong orders, particularly from global distributor customers, and from Asia in general, increased the book-to-bill ratio and the backlog. Average selling prices in total decreased consistent with historical performance, while the decrease for our commodity semiconductor products is accelerating.

Gross profit margin increased versus the prior fiscal quarter, but decreased versus the first fiscal quarter of 2019. The fluctuations are primarily volume-driven.

The book-to-bill ratio in the first fiscal quarter of 2020 increased to 1.17 versus 0.94 in the fourth fiscal quarter of 2019. The book-to-bill ratios in the first fiscal quarter of 2020 for distributors and original equipment manufacturers (“OEM”) were 1.30 and 1.04, respectively, versus ratios of 0.94 and 0.95, respectively, during the fourth fiscal quarter of 2019.

For the second fiscal quarter of 2020, despite substantial uncertainties, we anticipate revenues between \$540 million and \$580 million and gross margins of 21% plus/minus 90 basis points at the exchange rates of the first fiscal quarter of 2020.

Financial Metrics by Segment

The following table shows net revenues, book-to-bill ratio, gross profit margin, and segment operating margin broken out by segment for the five fiscal quarters beginning with the first fiscal quarter of 2019 through the first fiscal quarter of 2020 (*dollars in thousands*):

	<u>1st Quarter 2019</u>	<u>2nd Quarter 2019</u>	<u>3rd Quarter 2019</u>	<u>4th Quarter 2019</u>	<u>1st Quarter 2020</u>
<u>MOSFETs</u>					
Net revenues	\$ 137,341	\$ 128,842	\$ 126,747	\$ 116,215	\$ 116,893
Book-to-bill ratio	0.84	0.54	0.54	0.94	1.12
Gross profit margin	26.3%	24.8%	24.1%	23.7%	24.1%
Segment operating margin	19.4%	17.5%	16.6%	16.1%	16.0%
<u>Diodes</u>					
Net revenues	\$ 167,840	\$ 142,042	\$ 123,879	\$ 123,382	\$ 115,343
Book-to-bill ratio	0.63	0.52	0.57	0.88	1.36
Gross profit margin	25.9%	20.3%	17.1%	16.3%	16.9%
Segment operating margin	22.7%	16.9%	13.3%	12.6%	12.5%
<u>Optoelectronic Components</u>					
Net revenues	\$ 60,562	\$ 60,675	\$ 50,702	\$ 51,047	\$ 54,179
Book-to-bill ratio	0.83	0.70	0.86	1.11	1.40
Gross profit margin	26.4%	26.8%	21.5%	20.2%	26.9%
Segment operating margin	19.3%	19.8%	13.7%	12.7%	19.7%
<u>Resistors</u>					
Net revenues	\$ 188,831	\$ 165,359	\$ 155,119	\$ 147,883	\$ 159,208
Book-to-bill ratio	0.89	0.81	0.82	0.95	1.05
Gross profit margin	33.1%	28.3%	27.4%	23.5%	28.1%
Segment operating margin	29.8%	25.2%	23.8%	19.0%	24.4%
<u>Inductors</u>					
Net revenues	\$ 71,640	\$ 77,024	\$ 73,458	\$ 76,520	\$ 73,785
Book-to-bill ratio	0.97	1.01	0.95	1.05	0.98
Gross profit margin	32.5%	31.9%	31.9%	33.5%	31.2%
Segment operating margin	28.8%	28.3%	28.3%	30.3%	27.5%
<u>Capacitors</u>					
Net revenues	\$ 118,945	\$ 111,298	\$ 98,424	\$ 94,530	\$ 93,433
Book-to-bill ratio	0.67	0.68	0.76	0.84	1.20
Gross profit margin	25.0%	23.5%	22.0%	17.9%	21.8%
Segment operating margin	20.7%	19.0%	16.9%	12.3%	16.1%



Cost Management

We place a strong emphasis on controlling our costs, and use various measures and metrics to evaluate our cost structure.

We define variable costs as expenses that vary with respect to quantity produced. Fixed costs do not vary with respect to quantity produced over the relevant time period. Contributive margin is calculated as net revenue less variable costs. It may be expressed in dollars or as a percentage of net revenue. Management uses this measure to determine the amount of profit to be expected for any change in revenues. While these measures are typical cost accounting measures, none of these measures are recognized in accordance with GAAP. The classification of expenses as either variable or fixed is judgmental and other companies might classify such expenses differently. These measures, as calculated by Vishay, may not be comparable to similarly titled measures used by other companies.

We closely monitor variable costs and seek to achieve the contributive margin in our business model. Over a period of many years, we have generally maintained a contributive margin of between 45% - 47% of revenues. The erosion of average selling prices, particularly of our semiconductor products, that is typical of our industry and inflation negatively impact contributive margin and drive us to continually seek ways to reduce our variable costs. Our variable cost reduction efforts include increasing the efficiency in our production facilities by expending capital for automation, reducing materials costs, materials substitution, increasing wafer size and shrinking dies to maximize efficiency in our semiconductor production processes, and other yield improvement activities.

Our cost management strategy also includes a focus on controlling fixed costs recorded as costs of products sold or selling, general, and administrative expenses and maintaining our break-even point (adjusted for acquisitions). We seek to limit increases in selling, general, and administrative expenses to the rate of inflation, excluding foreign currency exchange effects and substantially independent of sales volume changes. At constant fixed costs, we would expect each \$1 million increase in revenues to increase our operating income by approximately \$450,000 to \$470,000. Sudden changes in the business conditions, such as the current COVID-19 situation, may not allow us to quickly adapt our manufacturing capacity and cost structure.

Occasionally, our ongoing cost containment activities are not adequate and we must take actions to maintain our cost competitiveness. We incurred significant restructuring expenses in our past to reduce our cost structure. Historically, our primary cost reduction technique was through the transfer of production to the extent possible from high-labor-cost countries to lower-labor-cost countries. We believe that our manufacturing footprint is suitable to serve our customers and end markets, while maintaining lower manufacturing costs. Since 2013, our cost reduction programs have primarily focused on reducing fixed costs, including selling, general, and administrative expenses.

We continue to monitor the economic environment and its potential effects on our customers and the end markets that we serve, especially in light of the ongoing COVID-19 situation.

In the third fiscal quarter of 2019, we announced global cost reduction and management rejuvenation programs as part of our continuous efforts to improve efficiency and operating performance. We incurred restructuring expense of \$24.1 million since the inception of the programs. We did not incur any restructuring expenses during the three fiscal months ended April 4, 2020.

The programs are primarily designed to reduce manufacturing fixed costs and selling, general, and administrative ("SG&A") costs company-wide, and provide management rejuvenation. The programs in total are expected to lower costs by approximately \$15 million annually when fully implemented, of which approximately 50% is expected to be realized as reduced manufacturing fixed costs and 50% is expected to be realized as reduced SG&A expenses. We expect to incur costs (primarily cash severance expenses) of approximately \$25 million related to the programs. The implementation of these programs will not impact planned research and development activities.

We first solicited volunteers to accept a voluntary separation / early retirement offer, which was generally successful. The voluntary separation benefits vary by country and job classification, but generally offer a cash loyalty bonus. A limited number of involuntary terminations are necessary to achieve the cost reduction targets. We expect these cost reductions to be fully achieved by December 2020.

No manufacturing facility closures are currently expected pursuant to these programs. Except for these programs, we do not anticipate any other material restructuring activities in 2020. However, a continued sluggish business environment for the electronics industry, a prolonged impact of the COVID-19 outbreak, or a significant economic downturn may require us to implement additional restructuring initiatives.

In uncertain times, we focus on managing our production capacities in accordance with customer requirements, and maintain discipline in terms of our fixed costs and capital expenditures. Even as we seek to manage our costs, we remain cognizant of the future requirements of our demanding markets. We continue to pursue our growth plans through investing in capacities for strategic product lines, and through increasing our resources for R&D, technical marketing, and field application engineering; supplemented by opportunistic acquisitions of specialty businesses.

Our long-term strategy includes growth through the integration of acquired businesses, and GAAP requires plant closure and employee termination costs that we incur in connection with our acquisition activities to be recorded as expenses in our consolidated statement of operations, as such expenses are incurred. We have not incurred any material plant closure or employee termination costs related to any of the businesses acquired since 2011, but we expect to have some level of future restructuring expenses due to acquisitions.

Foreign Currency Translation

We are exposed to foreign currency exchange rate risks, particularly due to transactions in currencies other than the functional currencies of certain subsidiaries. We occasionally use forward exchange contracts to economically hedge a portion of these exposures.

GAAP requires that we identify the “functional currency” of each of our subsidiaries and measure all elements of the financial statements in that functional currency. A subsidiary’s functional currency is the currency of the primary economic environment in which it operates. In cases where a subsidiary is relatively self-contained within a particular country, the local currency is generally deemed to be the functional currency. However, a foreign subsidiary that is a direct and integral component or extension of the parent company’s operations generally would have the parent company’s currency as its functional currency. We have both situations among our subsidiaries.

Foreign Subsidiaries which use the Local Currency as the Functional Currency

We finance our operations in Europe and certain locations in Asia in local currencies, and accordingly, these subsidiaries utilize the local currency as their functional currency. For those subsidiaries where the local currency is the functional currency, assets and liabilities in the consolidated condensed balance sheets have been translated at the rate of exchange as of the balance sheet date. Translation adjustments do not impact the results of operations and are reported as a separate component of stockholders’ equity.

For those subsidiaries where the local currency is the functional currency, revenues and expenses incurred in the local currency are translated at the average exchange rate for the year. While the translation of revenues and expenses incurred in the local currency into U.S. dollars does not directly impact the statements of operations, the translation effectively increases or decreases the U.S. dollar equivalent of revenues generated and expenses incurred in those foreign currencies. The dollar generally was stronger during the first fiscal quarter of 2020 compared to the prior fiscal quarter and prior year period, with the translation of foreign currency revenues and expenses into U.S. dollars decreasing reported revenues and expenses versus the prior fiscal quarter and prior year period.

Foreign Subsidiaries which use the U.S. Dollar as the Functional Currency

Our operations in Israel and most significant locations in Asia are largely financed in U.S. dollars, and accordingly, these subsidiaries utilize the U.S. dollar as their functional currency. For those foreign subsidiaries where the U.S. dollar is the functional currency, all foreign currency financial statement amounts are remeasured into U.S. dollars. Exchange gains and losses arising from remeasurement of foreign currency-denominated monetary assets and liabilities are included in the results of operations. While these subsidiaries transact most business in U.S. dollars, they may have significant costs, particularly payroll-related, which are incurred in the local currency. The cost of products sold for the first fiscal quarter of 2020 have been slightly favorably impacted compared to the prior fiscal quarter and prior year period by local currency transactions of subsidiaries which use the U.S. dollar as their functional currency.

Results of Operations

Statements of operations' captions as a percentage of net revenues and the effective tax rates were as follows:

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Cost of products sold	76.0%	77.8%	71.7%
Gross profit	24.0%	22.2%	28.3%
Selling, general & administrative expenses	16.3%	15.5%	13.9%
Operating income (loss)	7.7%	4.0%	14.5%
Income (loss) before taxes and noncontrolling interest	5.9%	1.9%	13.4%
Net earnings (loss) attributable to Vishay stockholders	4.4%	2.3%	10.1%
Effective tax rate	24.2%	-25.4%	24.3%

Net Revenues

Net revenues were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 612,841	\$ 609,577	\$ 745,159

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ 3,264	0.5%
March 30, 2019	\$ (132,318)	-17.8%

Changes in net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	1.6%	-15.0%
Decrease in average selling prices	-1.1%	-2.9%
Foreign currency effects	-0.1%	-0.8%
Other	0.1%	0.9%
Net change	0.5%	-17.8%

We experienced a substantial, broad-based increase in demand for our products beginning in 2017 that continued through the third fiscal quarter of 2018. Demand started to decrease in the fourth fiscal quarter of 2018 and the decrease accelerated through 2019 as customers, particularly distributors, reduced orders as they decreased their inventory. The decrease in demand resulted in decreased net revenues compared to the fiscal quarter ended March 30, 2019. Net revenues began to increase in the first fiscal quarter of 2020, but have been impacted by the COVID-19 outbreak.

Gross Profit Margins

Gross profit margins for the fiscal quarter ended April 4, 2020 were 24.0%, versus 22.2% and 28.3% for the comparable prior fiscal quarter and prior year period, respectively. The increase versus the prior fiscal quarter is primarily due to increased volume, manufacturing efficiencies, and changes in tariffs. The decrease versus the prior year quarter is primarily due to decreased sales volume and average selling prices. We were able to offset the negative impacts of inflation and average selling price decline and maintain our contributive margin.

Segments

Analysis of revenues and gross profit margins for our segments is provided below.

MOSFETs

Net revenues and gross profit margin of the MOSFETs segment were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 116,893	\$ 116,215	\$ 137,341
Gross profit margin	24.1%	23.7%	26.3%

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ 678	0.6%
March 30, 2019	\$ (20,448)	-14.9%

Changes in MOSFETs segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	0.9%	-9.8%
Decrease in average selling prices	-0.2%	-5.8%
Foreign currency effects	-0.1%	-0.4%
Other	0.0%	1.1%
Net change	0.6%	-14.9%

The MOSFETs segment net revenues increased slightly versus the prior fiscal quarter, but decreased significantly versus the prior year quarter. The slight increase versus the prior fiscal quarter was the net result from significant increases in the Asia and Americas regions, partially offset by a significant decrease in the Europe region primarily due to a singularity of a last-time-buy in the prior fiscal quarter. The decrease versus the prior year quarter was primarily due to distributor inventory reductions and the temporary closure of our main manufacturing facility in China due to the COVID-19 outbreak. The decrease was partially offset by significant growth in revenues from automotive customers as well as with our IC product business particularly in Europe and Asia.

Gross profit margin increased versus the prior fiscal quarter, but decreased versus the prior year quarter. The increase versus the prior fiscal quarter is due to cost reduction measures. The decrease versus the prior year quarter is primarily due to lower average selling prices and significantly lower volume, partially offset by cost reduction measures.

We experienced a slight decrease in average selling prices versus the prior fiscal quarter. The reduced customer demand versus the prior year quarter significantly increased pricing pressure and resulted in a significant decrease in average selling prices.

We continue to invest to expand mid- and long-term manufacturing capacity for strategic product lines.

Diodes

Net revenues and gross profit margins of the Diodes segment were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 115,343	\$ 123,382	\$ 167,840
Gross profit margin	16.9%	16.3%	25.9%

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ (8,039)	-6.5%
March 30, 2019	\$ (52,497)	-31.3%

Changes in Diodes segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Decrease in volume	-4.2%	-28.1%
Decrease in average selling prices	-2.5%	-5.6%
Foreign currency effects	-0.1%	-0.5%
Other	0.3%	2.9%
Net change	<u>-6.5%</u>	<u>-31.3%</u>

Net revenues of the Diodes segment decreased significantly versus the prior fiscal quarter and the prior year quarter. Inventory reductions by distributors continue to burden our business. The first fiscal quarter of 2020 was also impacted by the temporary closure of our main manufacturing facility in China due to the COVID-19 outbreak. The decrease versus the prior fiscal quarter was primarily due to decreased revenue from distribution customers, partially offset by significant growth with end customers in the Americas and Europe regions. The decrease versus the prior year quarter was in all regions and sales channels, particularly distributor customers.

Gross profit margin increased versus the prior fiscal quarter, but decreased versus the prior year quarter. The increase versus the prior fiscal quarter was primarily due to a change in the impact of U.S. tariffs on goods imported from China. Gross profit margin decreased versus the prior year quarter due to decreased sales volume and lower average selling prices.

Average selling prices decreased moderately versus the prior fiscal quarter and significantly versus the prior year quarter. Unfavorable product mix contributed to the decreases in average selling prices.

Optoelectronic Components

Net revenues and gross profit margins of the Optoelectronic Components segment were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 54,179	\$ 51,047	\$ 60,562
Gross profit margin	26.9%	20.2%	26.4%

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ 3,132	6.1%
March 30, 2019	\$ (6,383)	-10.5%

Changes in Optoelectronic Components segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	5.6%	-7.9%
Decrease in average selling prices	-0.8%	-2.2%
Foreign currency effects	-0.2%	-1.2%
Other	1.5%	0.8%
Net change	6.1%	-10.5%

Net revenues of our Optoelectronic Components segment increased significantly versus the prior fiscal quarter, but decreased significantly versus the prior year quarter. The increase versus the prior fiscal quarter is primarily due to significant growth in the Americas and Europe regions, particularly with distributor customers. The increase was partially offset by significant decrease in revenues from the Asia region. The decrease versus the prior year quarter was in all regions and sales channels, particularly in the Americas and Asia regions.

The gross profit margin increased versus the prior fiscal quarter and the prior year quarter. The increase versus the prior fiscal quarter is primarily due to increased sales volume, which led to manufacturing efficiencies, and an increase in inventory, partially offset by lower average selling prices and cost inflation. The increase versus the prior year quarter is primarily due to cost reductions, partially offset by lower average selling prices and cost inflation.

Average selling prices decreased slightly versus the prior fiscal quarter and prior year quarter.

Resistors

Net revenues and gross profit margins of the Resistors segment were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 159,208	\$ 147,883	\$ 188,831
Gross profit margin	28.1%	23.5%	33.1%

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ 11,325	7.7%
March 30, 2019	\$ (29,623)	-15.7%

Changes in Resistors segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	8.9%	-12.0%
Decrease in average selling prices	-0.6%	-1.0%
Foreign currency effects	-0.3%	-1.2%
Other	-0.3%	-1.5%
Net change	<u>7.7%</u>	<u>-15.7%</u>

Net revenues of the Resistors segment increased significantly versus the prior fiscal quarter, but decreased significantly versus the prior year period. The increase versus the prior fiscal quarter is primarily attributable to the Europe and Americas regions and distributor, industrial, and automotive customers. The decrease versus the prior year quarter is due to all regions and primarily distributor and industrial customers.

The gross profit margin increased versus the prior fiscal quarter, but decreased versus the prior year period. The increase versus the prior fiscal quarter is primarily due to increased sales volume and manufacturing efficiencies, partially offset by lower average selling prices. The decrease versus the prior year quarter is due to decreased sales volume, decreased average selling prices, labor and materials cost increases, and negative impact of exchange rates.

Average selling prices decreased slightly versus the prior fiscal quarter and prior year quarter.

Inductors

Net revenues and gross profit margins of the Inductors segment were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 73,785	\$ 76,520	\$ 71,640
Gross profit margin	31.2%	33.5%	32.5%

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ (2,735)	-3.6%
March 30, 2019	\$ 2,145	3.0%

Changes in Inductors segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Change in volume	-0.9%	6.5%
Decrease in average selling prices	-2.6%	-2.7%
Foreign currency effects	0.0%	-0.6%
Other	-0.1%	-0.2%
Net change	<u>-3.6%</u>	<u>3.0%</u>

Net revenues of the Inductors segment decreased versus the prior fiscal quarter, but increased versus the prior year quarter. The decrease versus the prior fiscal quarter is primarily due to the Asia region and distributor and automotive customers. The increase versus the prior year quarter is primarily due to the Americas and Asia regions and medical and military and aerospace customers.

The gross profit margin decreased versus the prior fiscal quarter and the prior year quarter. The decrease versus the prior fiscal quarter is primarily due to decreased volume and average selling prices. The decrease versus the prior year quarter is primarily due to decreased average selling prices and inventory obsolescence.

Average selling prices decreased slightly versus the prior fiscal quarter and prior year quarter.

We expect long-term growth in this segment, and are positioned to capitalize on future market upturns.

Capacitors

Net revenues and gross profit margins of the Capacitors segment were as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Net revenues	\$ 93,433	\$ 94,530	\$ 118,945
Gross profit margin	21.8%	17.9%	25.0%

The change in net revenues versus the comparable prior periods was as follows (*dollars in thousands*):

	Fiscal quarter ended April 4, 2020	
	Change in net revenues	% change
December 31, 2019	\$ (1,097)	-1.2%
March 30, 2019	\$ (25,512)	-21.4%

Changes in Capacitors segment net revenues were attributable to the following:

	vs. Prior Quarter	vs. Prior Year Quarter
Change attributable to:		
Decrease in volume	-0.5%	-21.1%
Change in average selling prices	-0.6%	0.8%
Foreign currency effects	-0.2%	-1.1%
Other	0.1%	0.0%
Net change	<u>-1.2%</u>	<u>-21.4%</u>

Net revenues of the Capacitors segment decreased slightly versus the prior fiscal quarter and significantly versus the prior year quarter. Net revenues decreased versus the prior fiscal quarter primarily in the Asia region, which was partially offset by increases in the Americas and Europe regions and increased revenues from automotive customers. The decrease in net revenues versus the prior year quarter is due to all regions and primarily distributor and industrial customers.

The gross profit margin increased versus the prior fiscal quarter, but decreased versus the prior year quarter. The increase versus the prior fiscal quarter is primarily due to a more profitable product mix and manufacturing efficiencies. The decrease versus the prior year quarter is primarily due to lower sales volume.

Despite the significantly lower sales volume, average selling prices increased slightly versus the prior year quarter primarily due to increased prices for certain materials that were passed through to our customers. Average selling prices decreased slightly versus the prior fiscal quarter.

Selling, General, and Administrative Expenses

Selling, general, and administrative (“SG&A”) expenses are summarized as follows (*dollars in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	March 30, 2019
Total SG&A expenses	\$ 99,832	\$ 94,299	\$ 103,424
as a percentage of revenues	16.3%	15.5%	13.9%

SG&A expenses for the fiscal quarter ended April 4, 2020 include \$0.3 million of incremental costs separable from normal operations directly attributable to the COVID-19 outbreak. SG&A expenses increased versus the prior fiscal quarter primarily due to incentive compensation, but were below expectations due to reduced travel and other discretionary spending due to the COVID-19 outbreak.

Other Income (Expense)

Interest expense for the fiscal quarter ended April 4, 2020 was unchanged versus the fiscal quarter ended December 31, 2019 and increased by \$0.2 million versus the fiscal quarter ended March 30, 2019. The increase is primarily due to borrowings on the revolving credit facility, partially offset by reduced interest expense on the convertible senior debentures as a result of repurchases in 2019 and 2020.

We repurchased \$14.3 million principal amount of convertible senior debentures in 2020. We recognized a \$2.9 million loss on early extinguishment of the repurchased convertible debentures.

The following tables analyze the components of the line “Other” on the consolidated condensed statements of operations (*in thousands*):

	Fiscal quarters ended		
	April 4, 2020	December 31, 2019	Change
Foreign exchange gain (loss)	\$ 1,864	\$ (1,576)	\$ 3,440
Interest income	1,854	1,734	120
Other components of other periodic pension cost	(3,068)	(3,848)	780
Investment income (expense)	(437)	(97)	(340)
Other	(15)	135	(150)
	<u>\$ 198</u>	<u>\$ (3,652)</u>	<u>\$ 3,850</u>

	Fiscal quarters ended		
	April 4, 2020	March 30, 2019	Change
Foreign exchange gain (loss)	\$ 1,864	\$ (470)	\$ 2,334
Interest income	1,854	2,199	(345)
Other components of other periodic pension cost	(3,068)	(3,396)	328
Investment income (expense)	(437)	3,590	(4,027)
Other	(15)	(11)	(4)
	<u>\$ 198</u>	<u>\$ 1,912</u>	<u>\$ (1,714)</u>

Income Taxes

For the fiscal quarter ended April 4, 2020, our effective tax rate was 24.2%, as compared to -25.4% and 24.3% for the fiscal quarters ended December 31, 2019 and March 30, 2019, respectively. With the reduction in the U.S. statutory rate to 21% beginning January 1, 2018, we expect that our effective tax rate will now be higher than the U.S. statutory rate, excluding unusual transactions. Historically, the effective tax rates were generally less than the U.S. statutory rate primarily because of earnings in foreign jurisdictions. Discrete tax items impacted our effective tax rate for each fiscal quarter presented.

We recorded additional tax benefits of \$0.6 million in the first fiscal quarter 2019 due to the remeasurement of the deferred tax liability related to our cash repatriation program, primarily due to foreign currency effects. These types of remeasurement adjustments will continue until the amounts are repatriated.

The effective tax rates for the fiscal quarters ended April 4, 2020, December 31, 2019, and March 30, 2019 were also impacted by the effect of the repurchase of convertible senior debentures. We recognized tax benefits of \$1.3 million, \$0.3 million, and \$1.3 million in the fiscal quarters ended April 4, 2020, December 31, 2019, and March 30, 2019, respectively, resulting from the extinguishments, reflecting the reduction in deferred tax liabilities related to the special tax attributes of the debentures.

During the three fiscal months ended April 4, 2020, the liabilities for unrecognized tax benefits decreased by \$1.3 million on a net basis, primarily due to currency translation adjustments and the expiration of a statute, partially offset by interest.

We operate in a global environment with significant operations in various locations outside the United States. Accordingly, the consolidated income tax rate is a composite rate reflecting our earnings and the applicable tax rates in the various locations where we operate. Part of our historical strategy has been to achieve cost savings through the transfer and expansion of manufacturing operations to countries where we can take advantage of lower labor costs and available tax and other government-sponsored incentives. Accordingly, our effective tax rate has historically been less than the U.S. statutory rate, except in years where there are material discrete items.

Additional information about income taxes is included in Note 5 to our consolidated condensed financial statements.

Financial Condition, Liquidity, and Capital Resources

We focus on our ability to generate cash flows from operations. The cash generated from operations is used to fund our capital expenditure plans, and cash in excess of our capital expenditure needs is available to fund our acquisition strategy, to reduce debt levels, and to pay dividends and repurchase stock. We have generated cash flows from operations in excess of \$200 million in each of the last 18 years, and cash flows from operations in excess of \$100 million in each of the last 25 years.

Management uses a non-GAAP measure, "free cash," to evaluate our ability to fund acquisitions, repay debt, and otherwise enhance stockholder value through stock repurchases or dividends. See "Overview" above for "free cash" definition and reconciliation to GAAP. Vishay has generated positive "free cash" in each of the past 23 years, and "free cash" in excess of \$80 million in each of the last 18 years. In this volatile economic environment, we continue to focus on the generation of free cash, including an emphasis on cost controls.

During 2019, we repatriated \$188.7 million to the United States, and paid cash taxes of \$38.8 million related to the repatriations. The payment of these cash taxes was recorded as an operating cash flow and any future cash taxes associated with the TCJA transition tax and related foreign taxes on repatriated cash will generally be recorded as operating cash flows. The payment of these cash taxes significantly impacted cash flows from operations and free cash for the year ended December 31, 2019. We expect our business to continue to be a reliable generator of free cash, partially offset by such tax payments. There is no assurance, however, that we will be able to continue to generate cash flows from operations and free cash at the same levels, or at all, going forward if the current economic environment worsens.

We maintain a revolving credit facility, which provides an aggregate commitment of \$750 million of revolving loans available until June 5, 2024. The maximum amount available on the revolving credit facility is restricted by the financial covenants described below. The credit facility also provides us the ability to request up to \$300 million of incremental facilities, subject to the satisfaction of certain conditions, which could take the form of additional revolving commitments, incremental "term loan A" or "term loan B" facilities, or incremental equivalent debt.

At April 4, 2020, we had \$54 million outstanding on our revolving credit facility. We had no amounts outstanding at December 31, 2019. We borrowed \$57 million and repaid \$3 million on the revolving credit facility during the three fiscal months ended April 4, 2020. The average outstanding balance on our revolving credit facility calculated at fiscal month-ends was \$34.3 million and the highest amount outstanding on our revolving credit facility at a fiscal month end was \$54 million during the three fiscal months ended April 4, 2020.

The revolving credit facility limits or restricts us from, among other things, incurring indebtedness, incurring liens on its respective assets, making investments and acquisitions (assuming our pro forma leverage ratio is greater than 2.75 to 1.00), making asset sales, and paying cash dividends and making other restricted payments (assuming our pro forma leverage ratio is greater than 2.50 to 1.00), and requires us to comply with other covenants, including the maintenance of specific financial ratios.

The financial maintenance covenants include (a) an interest coverage ratio of not less than 2.00 to 1; and (b) a leverage ratio of not more than 3.25 to 1 (and a pro forma ratio of 3.00 to 1 on the date of incurrence of additional debt). The computation of these ratios is prescribed in Article VI of the Credit Agreement between Vishay Intertechnology, Inc. and JPMorgan Chase Bank, N.A., which has been filed with the SEC as Exhibit 10.1 to our current report on Form 8-K filed June 5, 2019.

We were in compliance with all financial covenants under the credit facility at April 4, 2020. Our interest coverage ratio and leverage ratio were 15.44 to 1 and 1.67 to 1, respectively. We expect to continue to be in compliance with these covenants based on current projections. Based on our current EBITDA and outstanding revolver balance, the usable capacity on the revolving credit facility is approximately \$619 million.

If we are not in compliance with all of the required financial covenants, the credit facility could be terminated by the lenders, and any amounts then outstanding pursuant to the credit facility could become immediately payable. Additionally, our convertible senior debentures due 2040 and due 2041 and our convertible senior notes due 2025 have cross-default provisions that could accelerate repayment in the event the indebtedness under the credit facility is accelerated.

The credit facility allows an unlimited amount of defined "Investments," which include certain intercompany transactions and acquisitions, provided our pro forma leverage ratio is equal to or less than 2.75 to 1.00. If our pro forma leverage ratio is greater than 2.75 to 1.00, such Investments are subject to certain limitations.

The credit facility also allows an unlimited amount of defined "Restricted Payments," which include cash dividends and share repurchases, provided our pro forma leverage ratio is equal to or less than 2.50 to 1.00. If our pro forma leverage ratio is greater than 2.50 to 1.00, the credit facility allows such payments up to \$100 million per annum (subject to a cap of \$300 million for the term of the facility, with up to \$25 million of any unused amount of the \$100 million per annum base available for use in the next succeeding calendar year).

Borrowings under the credit facility bear interest at LIBOR plus an interest margin. The applicable interest margin is based on our leverage ratio. Based on our current leverage ratio, any new borrowings will bear interest at LIBOR plus 1.75%. The interest rate on any borrowings decreases to LIBOR plus 1.50% if our leverage ratio is below 1.50 to 1 and increases to 2.00% if our leverage ratio equals or exceeds 2.50 to 1.

We also pay a commitment fee, also based on its leverage ratio, on undrawn amounts. The undrawn commitment fee, based on Vishay's current leverage ratio, is 0.30% per annum. Such undrawn commitment fee decreases to 0.25% per annum if our leverage ratio is below 1.50 to 1 and increases to 0.35% per annum if our leverage ratio equals or exceeds 2.50 to 1.

The borrowings under the credit facility are secured by a lien on substantially all assets, including accounts receivable, inventory, machinery and equipment, and general intangibles (but excluding real estate, intellectual property registered or licensed solely for use in, or arising solely under the laws of, any country other than the United States, assets located solely outside of the United States and deposit and securities accounts), of Vishay and certain significant subsidiaries located in the United States, and pledges of stock in certain significant domestic and foreign subsidiaries; and are guaranteed by certain significant subsidiaries.

During the first fiscal quarter of 2020, we repurchased \$14.3 million principal amount of convertible senior debentures due 2041 for \$19.9 million. We borrowed from our revolving credit facility to fund the repurchases.

We have approximately \$100 million of unremitted foreign earnings that we have deemed not permanently reinvested and thus have accrued foreign withholding and other taxes. We plan to repatriate the remaining amounts in the second fiscal quarter of 2020, but the current COVID-19 outbreak could cause us to defer these plans. We also continue to evaluate the TCJA's provisions and may further adjust our financial and capital structure and business practices accordingly.

As of April 4, 2020, substantially all of our cash and cash equivalents and short-term investment were held in countries outside of the United States. Our substantially undrawn credit facility provides us with significant operating liquidity in the United States. We expect to fund any future repurchases of convertible debentures, as well as other obligations required to be paid by the U.S. parent company, Vishay Intertechnology, Inc., including cash dividends to stockholders, share repurchases, and principal and interest payments on our debt instruments by borrowing under our revolving credit facility. Our U.S. subsidiaries also have operating cash needs.

Management expects to use the credit facility from time-to-time to meet certain short-term financing needs. We expect that cash on-hand and cash flows from operations will be sufficient to meet our longer-term financing needs related to normal operating requirements, regular dividend payments, and our research and development and capital expenditure plans. Additional acquisition activity, share repurchases, convertible debt repurchases, or conversion of our convertible debentures may require additional borrowing under our credit facility or may otherwise require us to incur additional debt. No principal payments on our debt are due before the maturity of our revolving credit facility in June 2024.

Prior to three months before the maturity date, our convertible senior debentures are convertible by the holders under certain circumstances. The convertible senior debentures due 2040 and due 2041 and the convertible senior notes due 2025 are not currently convertible. At the direction of our Board of Directors, we intend, upon conversion, to repay the principal amount of the any convertible debt instruments in cash and settle any additional amounts in shares of our common stock. We intend to finance the principal amount of any converted debentures using borrowings under our credit facility. No conversions have occurred to date.

We invest a portion of our excess cash in highly liquid, high-quality instruments with maturities greater than 90 days, but less than 1 year, which we classify as short-term investments on our consolidated balance sheets. As these investments were funded using a portion of excess cash and represent a significant aspect of our cash management strategy, we include the investments in the calculation of net cash and short-term investments (debt).

The interest rates on our short-term investments vary by location, but can be up to 150 bps higher than the interest rates on our cash accounts. The average interest rate on our short-term investments was 0.65% due to the low interest rate environment in Europe. Transactions related to these investments are classified as investing activities on our consolidated condensed statements of cash flows.

The amount of short-term investments at April 4, 2020 is lower than normal due to 2018 and 2019 completed cash repatriation activity.

The following table summarizes the components of net cash and short-term investments (debt) at April 4, 2020 and December 31, 2019 (*in thousands*):

	<u>April 4, 2020</u>	<u>December 31, 2019</u>
Credit facility	\$ 54,000	\$ -
Convertible senior notes, due 2025*	512,745	509,128
Convertible senior debentures, due 2040*	127	126
Convertible senior debentures, due 2041*	1,050	6,677
Deferred financing costs	<u>(15,826)</u>	<u>(16,784)</u>
Total debt	552,096	499,147
Cash and cash equivalents	680,703	694,133
Short-term investments	140,725	108,822
Net cash and short-term investments (debt)	<u>\$ 269,332</u>	<u>\$ 303,808</u>

*Represents the carrying amount of the convertible instruments, which is comprised of the principal amount of the instruments, net of the unamortized discount and the associated embedded derivative liability, when applicable.

"Net cash and short-term investments (debt)" does not have a uniform definition and is not recognized in accordance with GAAP. This measure should not be viewed as an alternative to GAAP measures of performance or liquidity. However, management believes that an analysis of "net cash and short-term investments (debt)" assists investors in understanding aspects of our cash and debt management. The measure, as calculated by us, may not be comparable to similarly titled measures used by other companies.

Our financial condition as of April 4, 2020 continued to be strong, with a current ratio (current assets to current liabilities) of 3.5 to 1, as compared to 3.3 to 1 as of December 31, 2019. The increase is primarily due to the decrease in accounts payable and other accrued expenses. Our ratio of total debt to Vishay stockholders' equity was 0.38 to 1 at April 4, 2020, as compared to 0.34 to 1 at December 31, 2019. The increase in the ratio is primarily due to borrowings on the revolving credit facility.

Cash flows provided by operating activities were \$34.5 million for the three fiscal months ended April 4, 2020, as compared to cash flows provided by operations of \$79.5 million for the three fiscal months ended March 30, 2019.

Cash paid for property and equipment for the three fiscal months ended April 4, 2020 was \$24.3 million, as compared to \$36.4 million for the three fiscal months ended March 30, 2019. We expect capital spending of approximately \$110 million in 2020, in accordance with requirements of our markets.

Cash paid for dividends to our common and Class B common stockholders totalled \$13.7 million and \$12.3 million for the three fiscal months ended April 4, 2020 and March 30, 2019, respectively. We expect dividend payments in 2020 to total approximately \$55.0 million. However, any future dividend declaration and payment remains subject to authorization by our Board of Directors.

Contractual Commitments and Off-Balance Sheet Arrangements

Our Annual Report on Form 10-K for the year ended December 31, 2019 filed on February 14, 2020, includes a table of contractual commitments. There were no material changes to these commitments during the three fiscal months ended April 4, 2020.

Dividends

In 2014, our Board of Directors approved the initiation of a quarterly cash dividend program. Quarterly cash dividends have been paid in each quarter since the first fiscal quarter of 2014. We expect to continue to pay quarterly dividends, although each dividend is subject to approval by our Board of Directors.

The following table summarizes the quarterly cash dividends declared (*in thousands*):

<u>Fiscal Period</u>	<u>Amount</u>	<u>Month of Payment</u>
Three fiscal months ended April 4, 2020	\$ 13,741	March

Safe Harbor Statement

From time to time, information provided by us, including but not limited to statements in this report, or other statements made by or on our behalf, may contain “forward-looking” information within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “believe,” “estimate,” “will be,” “will,” “would,” “expect,” “anticipate,” “plan,” “project,” “intend,” “could,” “should,” or other similar words or expressions often identify forward-looking statements.

Such statements are based on current expectations only, and are subject to certain risks, uncertainties, and assumptions, many of which are beyond our control. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results, performance, or achievements may vary materially from those anticipated, estimated, or projected. Among the factors that could cause actual results to materially differ include: general business and economic conditions; delays or difficulties in implementing our cost reduction strategies; delays or difficulties in expanding our manufacturing capacities; manufacturing or supply chain interruptions or changes in customer demand because of COVID-19 or similar diseases; an inability to attract and retain highly qualified personnel; changes in foreign currency exchange rates; uncertainty related to the effects of changes in foreign currency exchange rates; competition and technological changes in our industries; difficulties in new product development; difficulties in identifying suitable acquisition candidates, consummating a transaction on terms which we consider acceptable, and integration and performance of acquired businesses; changes in applicable domestic and foreign tax regulations and uncertainty regarding the same; changes in U.S. and foreign trade regulations and tariffs and uncertainty regarding the same; changes in applicable accounting standards and other factors affecting our operations, markets, capacity to meet demand, products, services, and prices that are set forth in our filings with the SEC, including our annual reports on Form 10-K and our quarterly reports on Form 10-Q. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Our 2019 Annual Report on Form 10-K listed various important factors that could cause actual results to differ materially from projected and historic results. We note these factors for investors as permitted by the Private Securities Litigation Reform Act of 1995. Readers can find them in Part I, Item 1A, of that filing under the heading “Risk Factors.” You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider any such list to be a complete set of all potential risks or uncertainties.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Part II, Item 7A, “Quantitative and Qualitative Disclosures About Market Risk,” of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 14, 2020, describes our exposure to market risks. There have been no material changes to our market risks since December 31, 2019.

Item 4. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

An evaluation was performed under the supervision and with the participation of our management, including the Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), of the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and Rule 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of the end of the period covered by this quarterly report to ensure that information required to be disclosed in reports that we file or submit under the Exchange Act are: (1) recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms; and (2) accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

Item 3 of Part I of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 14, 2020 describes certain of our legal proceedings. Except as disclosed below, there have been no material developments to the legal proceedings previously disclosed.

Effective February 26, 2020 Holy Stone Enterprise Co., Ltd. ("Holy Stone") entered into a settlement agreement on behalf of itself, Milestone Global Technology, Inc. and Vishay Polytech Co., Ltd. ("VPC"), formerly known as Holy Stone Polytech Co., Ltd. (the "Settlement Agreement"). VPC was acquired from Holy Stone by a Vishay subsidiary in June 2014. Under the Settlement Agreement, Holy Stone agreed to pay \$28,000,000 as full settlement of the In Re Capacitors Antitrust Litigation Civil Action No. 3:14-cv-03264-JD filed in the United States District Court, Northern District of California (the "Complaint"). According to the Settlement Agreement, VPC will be dismissed from the Complaint, and along with Vishay, Vishay Israel Ltd. and others, will be released from all future claims relating to the conduct alleged in the Complaint to the extent the conduct relates to the sale or manufacturing of aluminum, tantalum or film capacitors in the United States. The purported wrongdoing attributable to VPC as described in the Complaint occurred prior to its acquisition by Vishay. VPC expressly denies any allegations included in the Complaint. The Settlement Agreement is subject to court approval and notice to the members of the plaintiff class.

Pursuant to the terms and conditions of the indemnification agreement between Vishay and Holy Stone related to Vishay's acquisition of VPC in 2014, neither Vishay nor VPC will contribute any amount toward the settlement.

Item 1A. Risk Factors

Except as described below, there have been no material changes to the risk factors we previously disclosed under Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 14, 2020.

Our business may be adversely affected by the widespread outbreak of diseases, including the recent COVID-19 outbreak and the mitigation efforts by governments worldwide to control its spread.

The widespread global outbreak of COVID-19 has adversely affected our business. Impacts have included disruptions in our ability to manufacture products and disruptions in the operations of our customers and modes of shipping. While we are unable to accurately predict the full extent to which the COVID-19 outbreak and the mitigation efforts by governments to attempt to control its spread will have on our business due to numerous uncertainties, thus far the impacts have resulted in increased costs and a reduction in sales to certain regions and end-markets. We cannot predict when the impact of the COVID-19 outbreak will end or when future coronavirus outbreaks will occur.

The potential risks and effects of the COVID-19 outbreak and economic crisis, including potential global or regional recessions or depressions, that could have an adverse effect on our business include, but are not limited to:

- Adverse impact on our customers and supply channels;
- Decrease in sales, product demand and pricing and unfavorable economic and market conditions;
- Increased costs, including higher shipping costs due to reduced shipping capacity;
- Restrictions on our manufacturing, support operations or workforce, or similar limitations for our customers, vendors, and suppliers, that could limit our ability to meet customer demand;
- Potential increased credit risk if customers, distributors, and resellers are unable to pay us, or must delay paying their obligations to us;
- Restrictions or disruptions of transportation, such as reduced availability of air transport, port closures, and increased border controls or closures could result in delays; and
- Impact on our workforce/employees due to the ease with which the virus spreads and the current shelter-in-place orders.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

- [10.1](#) [First Amendment to Employment Agreement, dated February 28, 2020, between Vishay Europe GmbH \(an indirect wholly owned subsidiary of Vishay Intertechnology, Inc.\), Vishay Intertechnology, Inc., and Lori Lipcaman. Incorporated by reference to Exhibit 10.1 to our current report on Form 8-K, filed February 28, 2020.](#)
- [31.1](#) [Certification pursuant to Rule 13a-14\(a\) or 15d-14\(a\) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - Dr. Gerald Paul, Chief Executive Officer.](#)
- [31.2](#) [Certification pursuant to Rule 13a-14\(a\) or 15d-14\(a\) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - Lori Lipcaman, Chief Financial Officer.](#)
- [32.1](#) [Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – Dr. Gerald Paul, Chief Executive Officer.](#)
- [32.2](#) [Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 – Lori Lipcaman, Chief Financial Officer.](#)
- 101 Interactive Data File (Quarterly Report on Form 10-Q, for the quarterly period ended April 4, 2020, furnished in iXBRL (Inline eXtensible Business Reporting Language)).
- 104 Cover Page Interactive Data File (formatted as Inline eXtensible Business Reporting Language and contained in Exhibit 101)

SIGNATURES

Pursuant to the requirements 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.

VISHAY INTERTECHNOLOGY, INC.

/s/ Lori Lipcaman

Lori Lipcaman

Executive Vice President and Chief Financial Officer

(as a duly authorized officer and principal financial and accounting officer)

Date: May 12, 2020

CERTIFICATIONS

I, Dr. Gerald Paul, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Vishay Intertechnology, 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(s) 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 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(s) 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: May 12, 2020

/s/ Gerald Paul
Dr. Gerald Paul
Chief Executive Officer

CERTIFICATIONS

I, Lori Lipcaman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Vishay Intertechnology, 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(s) 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 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(s) 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: May 12, 2020

/s/ Lori Lipcaman

Lori Lipcaman
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 Quarterly Report of Vishay Intertechnology, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended April 4, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Dr. Gerald Paul, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that:

- (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 results of operations of the Company.

/s/ Gerald Paul
Dr. Gerald Paul
Chief Executive Officer
May 12, 2020

**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 Quarterly Report of Vishay Intertechnology, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended April 4, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lori Lipcaman, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that:

- (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 results of operations of the Company.

/s/ Lori Lipcaman

Lori Lipcaman
Chief Financial Officer
May 12, 2020