

How's Business? OEM

Bishop & Associates tracks sales and profits of 13 market sectors and more than 120 companies. The objectives are to determine how selected electronic markets have performed, identify sales and profit trends for forecasting purposes, and monitor company performance within market sectors.

The following tables provide the 2022/2021 percent change in revenues, and the first nine months of 2022 versus the first nine months of 2023 sales and percent change in sales by market sector.

Market Sector	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Telecom/Datacom	6.6%	\$342,960.4	\$332,344.7	-3.1%
Automotive	17.1%	\$1,312,569.6	\$1,504,768.1	14.6%
Industrial	8.9%	\$277,197.6	\$300,708.0	8.5%
Mil/Aero	2.0%	\$243,517.7	\$250,102.5	2.7%
Computers	12.9%	\$312,239.8	\$274,565.5	-12.1%
Peripherals	11.2%	\$51,435.4	\$43,133.3	-16.1%
Consumer	13.3%	\$279,249.3	\$277,505.2	-0.6%
Transportation	15.1%	\$233,308.1	\$273,527.4	17.2%
Medical	14.7%	\$92,587.0	\$87,309.0	-5.7%
Instrumentation	16.9%	\$51,421.1	\$48,437.9	-5.8%
Semiconductors	32.4%	\$297,855.3	\$224,303.4	-24.7%
CEMs	10.1%	\$65,383.9	\$66,787.9	2.1%
Distribution	24.1%	\$67,956.0	\$60,432.9	-11.1%
Total Market Sectors	-2.7%	\$3,627,681.2	\$3,743,925.7	3.2%

\$ Millions

For the period first nine months 2022 versus first nine months 2023, five of the 13 market sectors saw year-over-year sales increase. The largest increase was in Transportation, where sales increased 17.2% year-over-year, followed by Automotive at 14.6% and Industrial at 8.5%.

As a note: This database is not static. Companies are acquired or go into bankruptcy; thus, their financial data is no longer available, and they are removed from the database. These types of activities occurred frequently in 2009 and 2010, and because of this, as well as additions we have made to the database, it is not possible to directly compare current numbers to numbers referenced in past Bishop "How's Business? OEMs." These analyses are meant to be used as a relative measure of market sector performance. If you have any questions about this database or specific market sectors, please feel free to contact us.

The following pages display each market sector in detail, including the companies selected for each sector.

Telecom/Datacom Equipment Sector

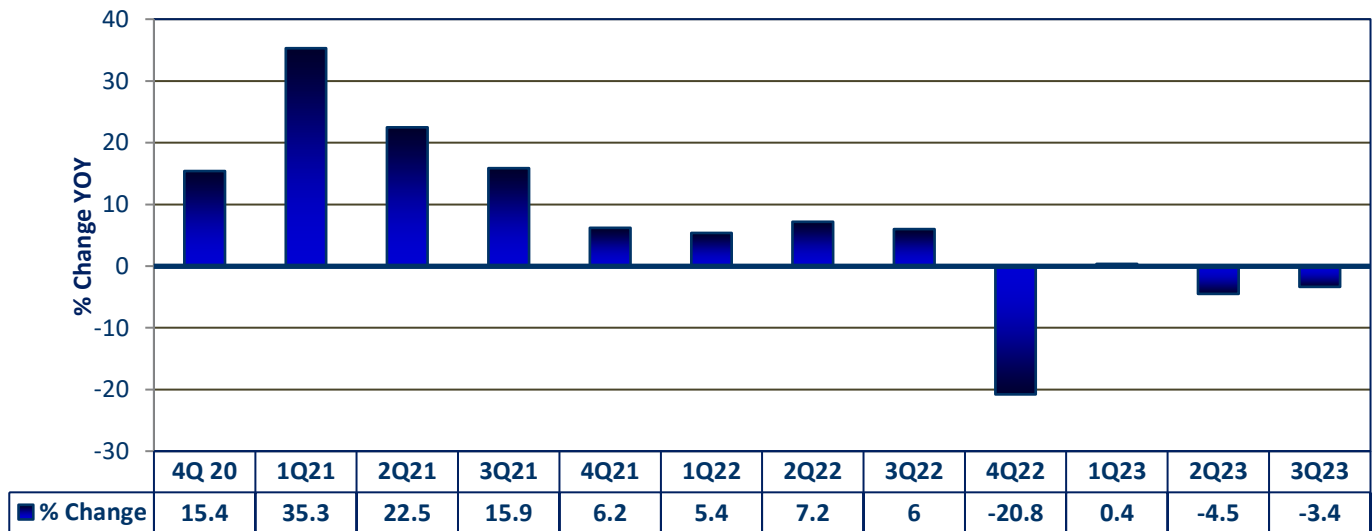
The telecom/datacom equipment sector recorded a sales decrease of -1.5% in 2022. Sales in the first nine months of 2023 versus the first nine months of 2022 were down -3.1% year-over-year. Net income as a percent of sales totaled 20.7% for the period, up 1.6% year-over-year.

Telecom/Datacom Equipment Sector – Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Cisco Systems	3.1%	\$39,569.0	\$44,442.0	12.3%
Motorola Solutions Inc	11.5%	\$6,405.0	\$7,130.0	11.3%
Nokia	2.4%	\$18,296.9	\$17,934.3	-2.0%
Apple (iPhone)	-8.8%	\$133,861.0	\$134,808.0	0.7%
Samsung	-0.8%	\$74,837.1	\$67,266.4	-10.1%
Qualcomm	19.2%	\$33,496.0	\$26,357.0	-21.3%
Ericsson	-0.8%	\$18,770.1	\$18,075.0	-3.7%
Juniper Networks	12.0%	\$3,853.0	\$4,200.0	9.0%
ZTE Corporation	4.5%	\$13,872.3	\$12,132.0	-12.5%
Total Sales	-1.5%	\$342,960.4	\$332,344.7	-3.1%
Total Net Income		\$67,814.0	\$68,876.4	1.6%

\$ Millions

Telecom/Datacom
Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 5.5%. Year-over-year, sales decreased -3.4% in the third quarter.

Automotive Equipment Sector

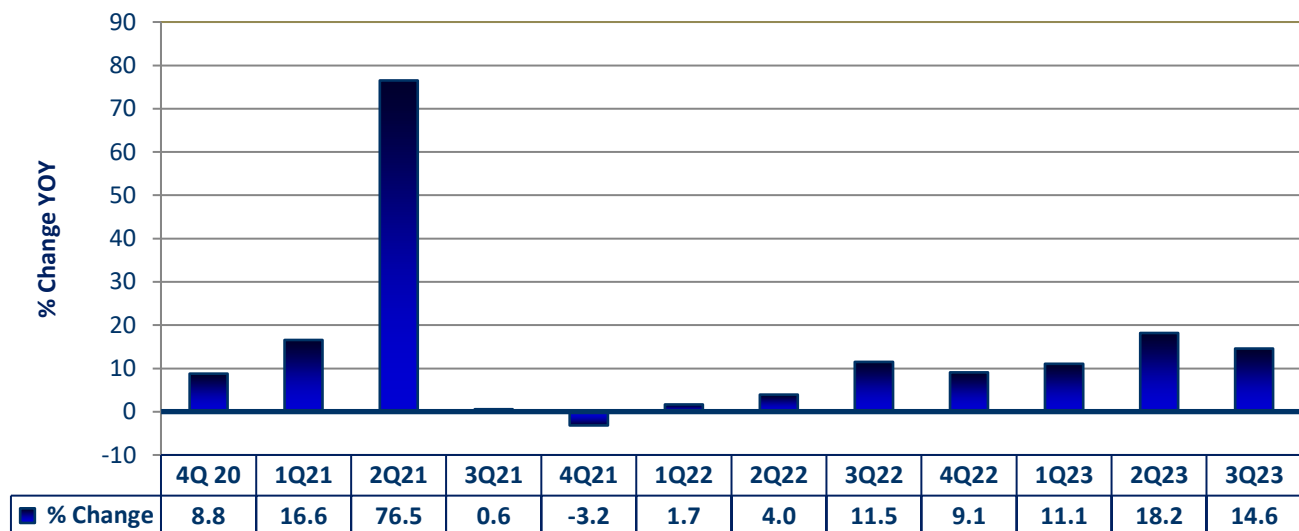
The automotive equipment sector recorded a sales increase of 6.5% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 were up 14.6% year-over-year. Net income as a percent of sales totaled 8.0% for the period, up 29.4% year-over-year.

Automotive Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Borg Warner Auto	6.5%	\$11,693.0	\$12,322.0	5.4%
Daimler	13.4%	\$105,189.3	\$122,434.2	16.4%
Ford Motor Co.	15.9%	\$114,058.0	\$130,229.0	14.2%
General Motors	23.4%	\$113,627.0	\$128,862.0	13.4%
Lear Corp.	8.4%	\$15,512.0	\$17,625.0	13.6%
Honda	-3.6%	\$94,210.9	\$101,358.0	7.6%
Toyota	-3.5%	\$203,173.2	\$229,285.0	12.9%
Volkswagon	-3.7%	\$216,115.2	\$254,856.6	17.9%
Kia Motors	9.8%	\$50,033.3	\$57,993.0	15.9%
Nissan	-6.0%	\$54,589.2	\$66,454.4	21.7%
Stellantis	7.3%	\$136,592.6	\$156,194.8	14.4%
BMW AG	14.0%	\$109,633.4	\$121,978.0	11.3%
Tesla Auto	51.4%	\$57,144.0	\$71,606.0	25.3%
Continental AG	7.3%	\$30,998.6	\$33,570.2	8.3%
Total Sales	6.5%	\$1,312,569.6	\$1,504,768.1	14.6%
Total Net Income		\$93,339.4	\$120,777.3	29.4%

\$ Millions

**Automotive
Year-Over-Year Percentage Change in Sales by Quarter**



Quarter-to-quarter (3Q23 versus 2Q23) sales decreased -2.0%. Year-over-year, sales increased 14.6% in the third quarter.

Industrial Equipment Sector

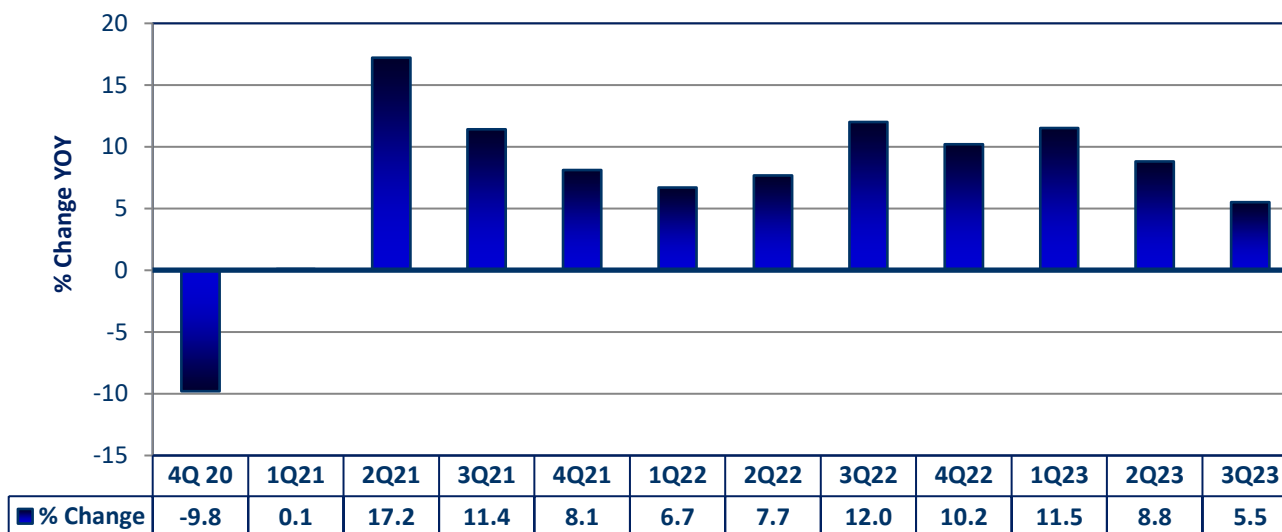
The industrial equipment sector recorded a sales increase of 9.2% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 were up 8.5% year-over-year. Net income as a percent of sales totaled 13.9% for the period, up 131.5% year-over-year.

Industrial Equipment Sector – Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Baker Hughes	3.3%	\$15,251.0	\$18,672.0	22.4%
Caterpillar	16.6%	\$42,830.0	\$49,990.0	16.7%
Deere & Co.	25.9%	\$42,977.0	\$48,600.0	13.1%
FMC Corp.	15.0%	\$4,180.0	\$3,341.0	-20.1%
General Electric	3.3%	\$54,767.0	\$48,539.0	-11.4%
Parker Hannifin	12.4%	\$12,507.0	\$15,005.0	20.0%
Schlumberger	22.9%	\$20,297.0	\$24,148.0	19.0%
ABB	4.5%	\$21,814.3	\$23,990.0	10.0%
Siemens	1.3%	\$58,981.3	\$64,711.0	9.7%
Danaher	-23.5%	\$3,593.0	\$3,712.0	3.3%
Total Sales	9.2%	\$277,197.6	\$300,708.0	8.5%
Total Net Income		\$17,998.5	\$41,663.3	131.5%

\$ Millions

Industrial Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales decreased -13.9%. Year-over-year, sales increased 5.5% in the third quarter.

Military/Aerospace Equipment Sector

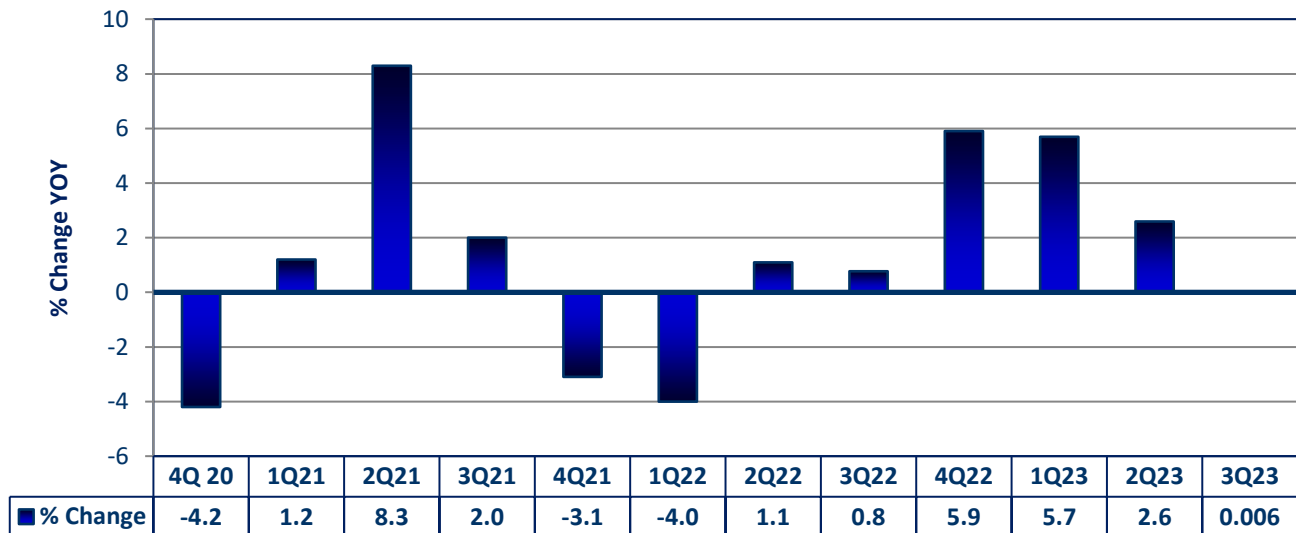
The military/aerospace equipment sector recorded a sales increase of 0.5% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 were up 2.7% year-over-year. Net income as a percent of sales totaled 7.0% for the period, up 13.6% year-over-year.

Mil/Aero Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Boeing (Mil/Aero)	-12.7%	\$16,981.0	\$18,187.0	7.1%
Airbus (Mil/Aero)	13.7%	\$16,885.9	\$13,042.6	-22.8%
General Dynamics	2.4%	\$28,556.0	\$30,604.0	7.2%
Honeywell	3.1%	\$26,273.0	\$27,216.0	3.6%
Lockheed Martin	-1.6%	\$46,993.0	\$48,697.0	3.6%
Northrop Grumman	2.6%	\$26,569.0	\$28,652.0	7.8%
Textron	3.9%	\$9,233.0	\$9,791.0	6.0%
Raytheon Technologies Corp.	4.2%	\$48,981.0	\$48,993.0	0.0%
L-3 Harris	-4.2%	\$12,484.0	\$14,079.0	12.8%
Leonardo	-9.8%	\$10,561.8	\$10,840.9	2.6%
Total Sales	0.5%	\$243,517.7	\$250,102.5	2.7%
Total Net Income		\$15,358.2	\$17,440.9	13.6%

\$ Millions

Military/Aerospace
Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 5.8%. Year-over-year, sales increased .006% in the third quarter.

Computer Equipment Sector

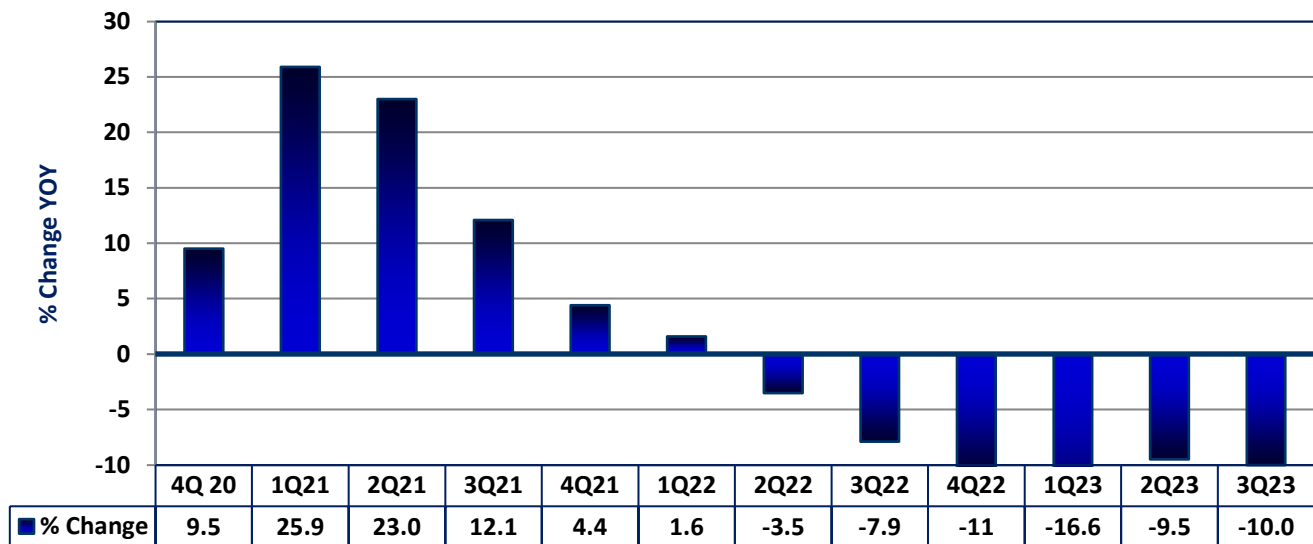
The computer equipment sector recorded a sales decrease of -5.4% in 2022. Sales for the first nine months of 2022 versus the first nine months of 2023 were down -12.1% year-over-year. Net income as a percent of sales totaled 9.1% for the period, up 18.5% year-over-year.

Computer Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Apple (Computers)	0.7%	\$51,369.0	\$40,526.0	-21.1%
Dell Technologies	-5.0%	\$76,508.0	\$66,107.0	-13.6%
Hewlett-Packard	-9.4%	\$45,484.0	\$40,035.0	-12.0%
Hewlett Packard Enterprise	4.0%	\$21,212.0	\$21,326.0	0.5%
IBM	-13.1%	\$43,839.0	\$44,479.0	1.5%
NCR	9.6%	\$5,835.0	\$5,894.0	1.0%
ASUS	-5.6%	\$14,046.7	\$11,688.5	-16.8%
Unisys	-3.6%	\$1,422.9	\$1,457.8	2.5%
Lenovo	-6.4%	\$50,760.1	\$41,452.9	-18.3%
Advantech	10.1%	\$1,763.2	\$1,599.4	-9.3%
Total Sales	-5.4%	\$312,239.8	\$274,565.5	-12.1%
Total Net Income		\$21,136.4	\$25,042.0	18.5%

\$ Millions

Computer Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 1.6%. Year-over-year, sales decreased -10.0% in the third quarter.

Peripheral Equipment Sector

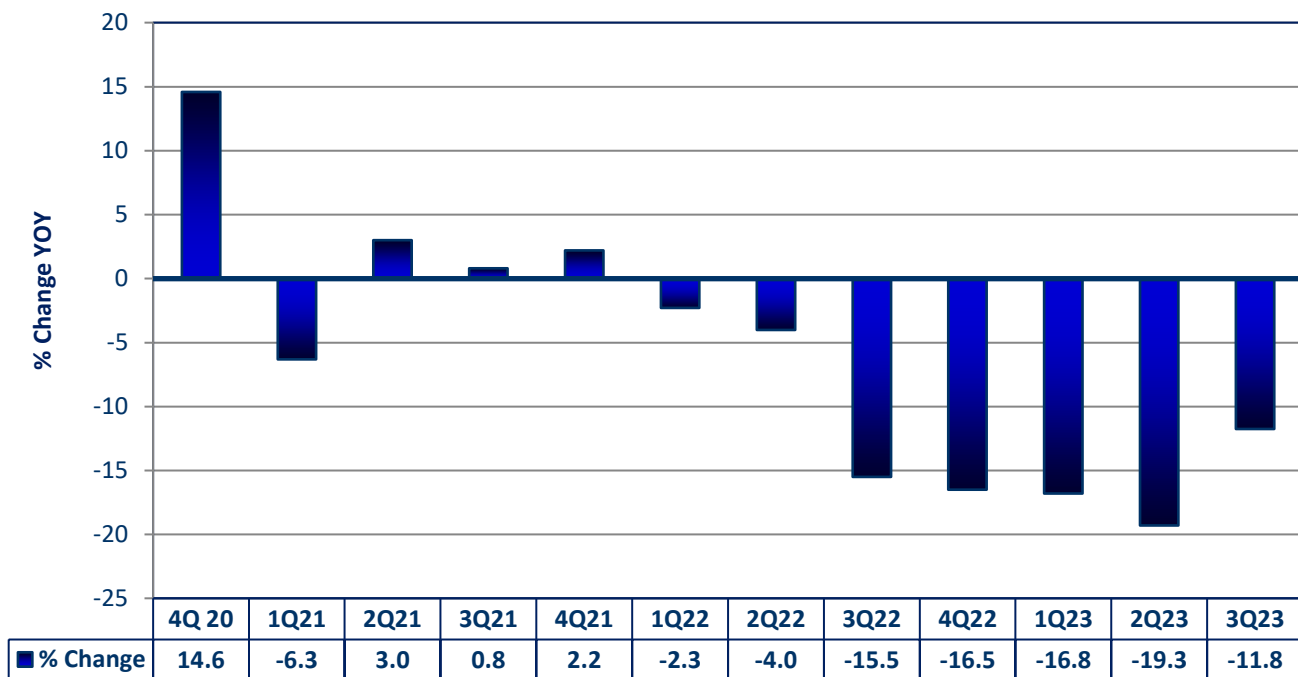
The peripheral equipment sector recorded a sales decrease of -9.8% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 were down -16.1% year-over-year. Net income as a percent of sales totaled -2.4% for the period, down -149.9% year-over-year.

Peripheral Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Western Digital	-16.8%	\$12,645.0	\$8,225.0	-35.0%
Xerox	1.0%	\$5,170.0	\$5,122.0	-0.9%
Seagate	-21.9%	\$7,465.0	\$4,916.0	-34.1%
Logitech	-15.0%	\$3,539.8	\$2,990.6	-15.5%
Canon	-2.3%	\$22,615.6	\$21,879.7	-3.3%
Total Sales	-9.8%	\$51,435.4	\$43,133.3	-16.1%
Total Net Income		\$2,102.1	(\$1,048.5)	-149.9%

\$ Millions

Peripheral Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales decreased -3.0%. Year-over-year, sales decreased -11.8% in the third quarter.

Consumer Equipment Sector

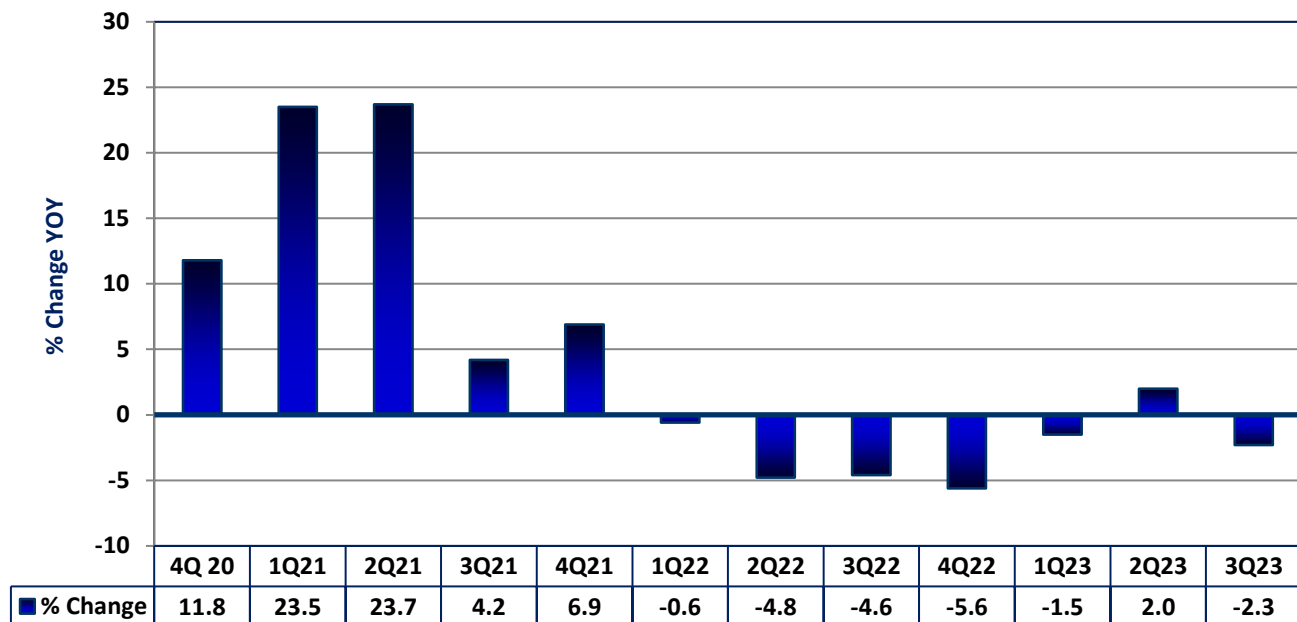
The consumer equipment sector recorded a sales decrease of -4.0% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 decreased -0.6% year-over-year. Net income as a percent of sales totaled 8.4% for the period, up 5.4% year-over-year.

Consumer Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Eastman Kodak	4.8%	\$900.0	\$742.0	-17.6%
Panasonic	-4.9%	\$47,533.0	\$45,546.9	-4.2%
Whirlpool Corp	-10.3%	\$14,801.0	\$14,369.0	-2.9%
Sony	-9.0%	\$57,541.8	\$64,342.4	11.8%
Philips	14.1%	\$13,005.7	\$14,279.1	9.8%
Samsung	-1.0%	\$62,817.6	\$56,873.1	-9.5%
Nintendo	-16.3%	\$8,171.1	\$7,998.1	-2.1%
Apple	-2.6%	\$25,570.0	\$26,363.0	3.1%
LG	-1.7%	\$48,909.1	\$46,991.6	-3.9%
Total Sales	-4.0%	\$279,249.3	\$277,505.2	-0.6%
Total Net Income		\$22,095.8	\$23,284.4	5.4%

\$ Millions

Consumer Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales decreased -0.7%. Year-over-year, sales decreased -2.3% in the third quarter.

Transportation Equipment Sector

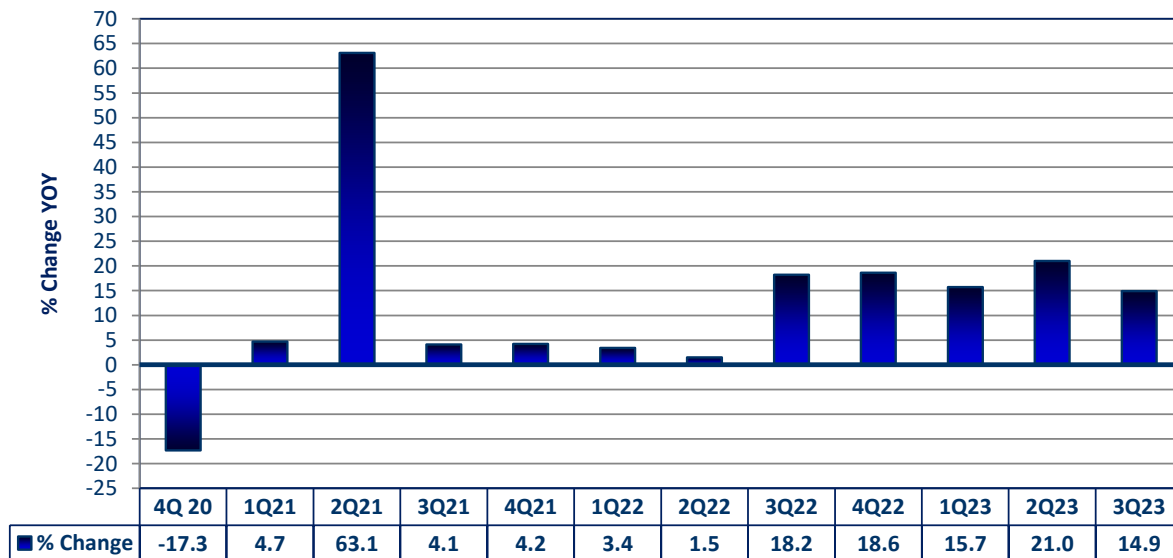
The transportation equipment sector recorded a sales increase of 10.5% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 were up 17.2% year-over-year. Net income as a percent of sales totaled 6.9% for the period, down -1.1% year-over-year.

Transportation Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Boeing (Commercial)	32.7%	\$16,643.0	\$23,420.0	40.7%
Airbus (Commercial)	4.0%	\$27,953.4	\$34,328.3	22.8%
Bombardier	2.1%	\$4,256.3	\$4,983.9	17.1%
Cummins Engine	16.9%	\$20,304.0	\$25,522.0	25.7%
Harley-Davidson	7.9%	\$4,613.0	\$4,784.0	3.7%
PACCAR	22.5%	\$20,708.0	\$26,065.0	25.9%
Trinity Industries	13.2%	\$1,386.1	\$2,185.0	57.6%
Wabash Nat'l. Corp.	38.8%	\$1,844.7	\$1,940.4	5.2%
Wabtec	6.9%	\$6,056.0	\$7,151.0	18.1%
Agco Corp.	13.6%	\$8,753.0	\$10,613.0	21.2%
Volvo	8.2%	\$34,398.0	\$37,946.0	10.3%
Hyundai Heavy Ind.	2.3%	\$10,202.2	\$12,067.3	18.3%
Daimler (Truck/Bus)	16.3%	\$38,409.6	\$44,381.0	15.5%
Isuzu Motors Ltd.	8.4%	\$17,515.0	\$18,046.5	3.0%
CRRC	-6.5%	\$20,265.8	\$20,094.0	-0.8%
Total Sales	10.5%	\$233,308.1	\$273,527.4	17.2%
Total Net Income		\$18,994.7	\$18,791.6	-1.1%

\$ Millions

**Transportation
Year-Over-Year Percentage Change in Sales by Quarter**



Quarter-to-quarter (3Q23 versus 2Q23) sales decreased -3.8%. Year-over-year, sales increased 14.9% in the third quarter.

Medical Equipment Sector

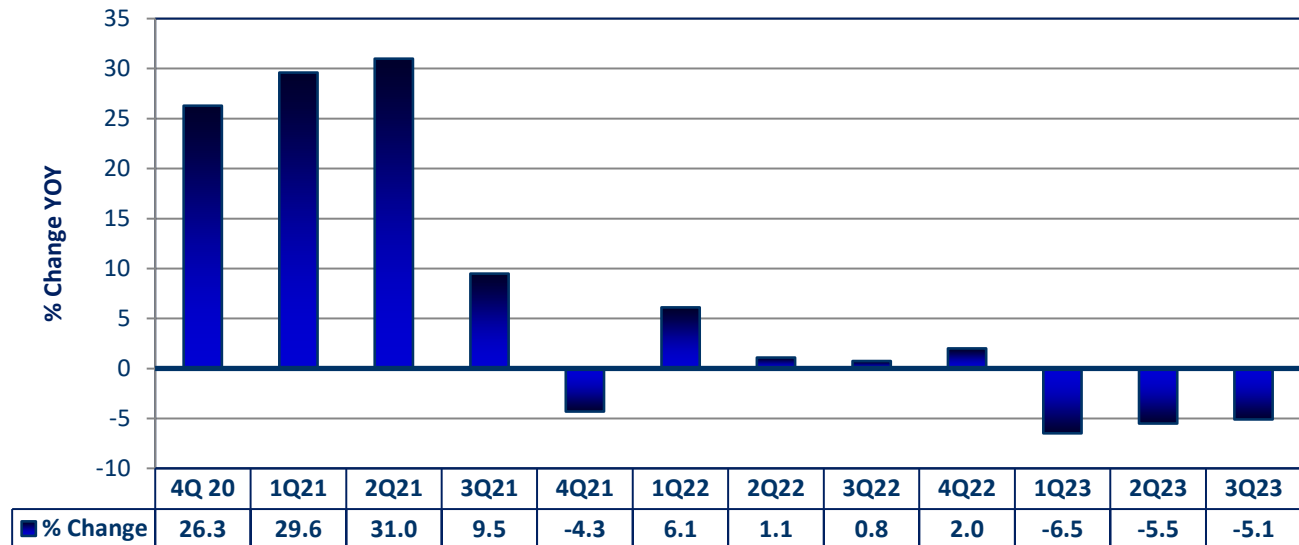
The medical equipment sector recorded a sales increase of 2.5% in 2022. Sales for the first nine months of 2022 versus the first nine months of 2023 were down -5.7% year-over-year. Net income as a percent of sales totaled 9.3% for the period, up 5.1% year-over-year.

Medical Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Becton Dickinson	-4.7%	\$14,413.0	\$14,786.0	2.6%
Boston Scientific	6.7%	\$9,440.0	\$10,515.0	11.4%
Medtronic	-3.2%	\$23,045.0	\$24,230.0	5.1%
Owens & Minor	1.7%	\$7,404.0	\$7,678.0	3.7%
Quest Diagnostics	-8.4%	\$7,550.0	\$6,964.0	-7.8%
Baxter	18.2%	\$11,226.0	\$11,064.0	-1.4%
Danaher	11.4%	\$19,509.0	\$12,072.0	-38.1%
Total Sales	2.5%	\$92,587.0	\$87,309.0	-5.7%
Total Net Income		\$7,737.0	\$8,133.0	5.1%

\$ Millions

Medical Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 1.2%. Year-over-year, sales decreased -5.1% in the third quarter.

Instrumentation Equipment Sector

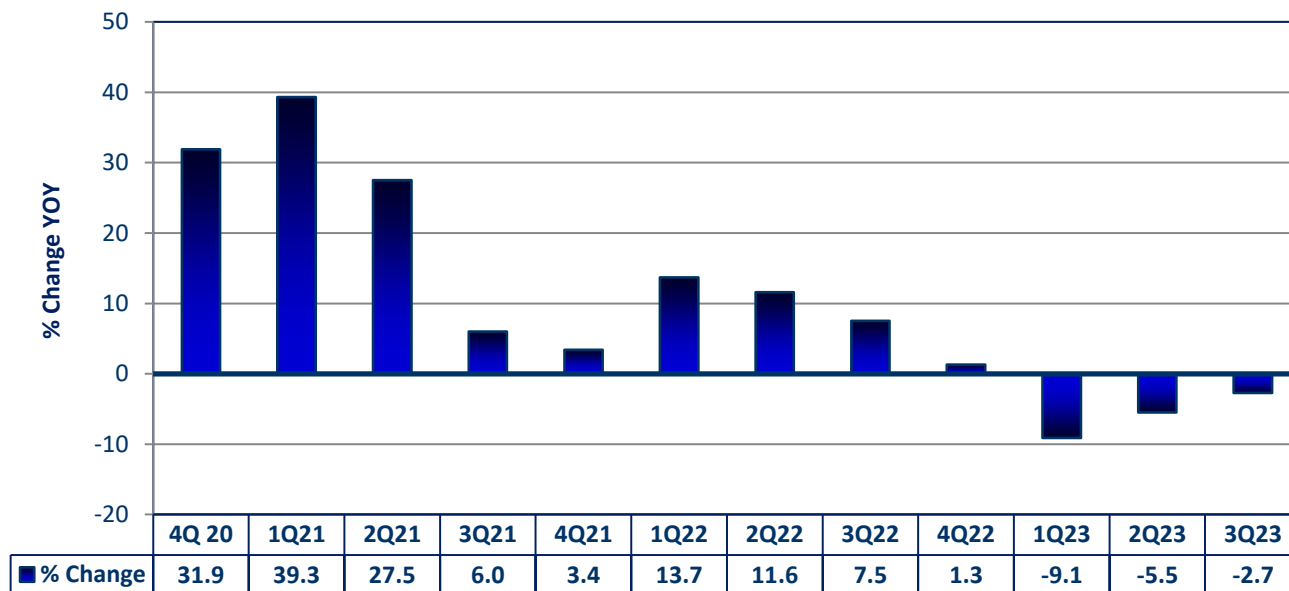
The instrumentation equipment sector recorded a sales increase of 8.3% in 2022. Sales for the first nine months of 2022 versus the first nine months of 2023 were down -5.8% year-over-year. Net income as a percent of sales totaled 14.4% for the period, down -17.5% year-over-year.

Instrumentation Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
ThermoFisher Scient.	14.5%	\$33,465.0	\$31,971.0	-4.5%
Mettler Toledo	5.4%	\$2,862.0	\$2,853.0	-0.3%
PerkinElmer	-22.2%	\$3,201.0	\$2,054.7	-35.8%
Teradyne	-14.8%	\$2,423.1	\$2,000.2	-17.5%
Agilent Technologies	7.5%	\$5,174.0	\$5,077.0	-1.9%
Fortive	10.9%	\$4,296.0	\$4,482.0	4.3%
Total Sales	8.3%	\$51,421.1	\$48,437.9	-5.8%
Total Net Income		\$8,449.5	\$6,973.0	-17.5%

\$ Millions

Instrumentation Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales decreased -1.2%. Year-over-year, sales decreased -2.7% in the third quarter.

Semiconductor Equipment Sector

The semiconductor equipment sector recorded a sales decrease of -0.6% in 2022. Sales for the first nine months of 2022 versus the first nine months of 2023 were down -24.7% year-over-year. Net income as a percent of sales totaled 8.6% for the period, down -77.0% year-over-year.

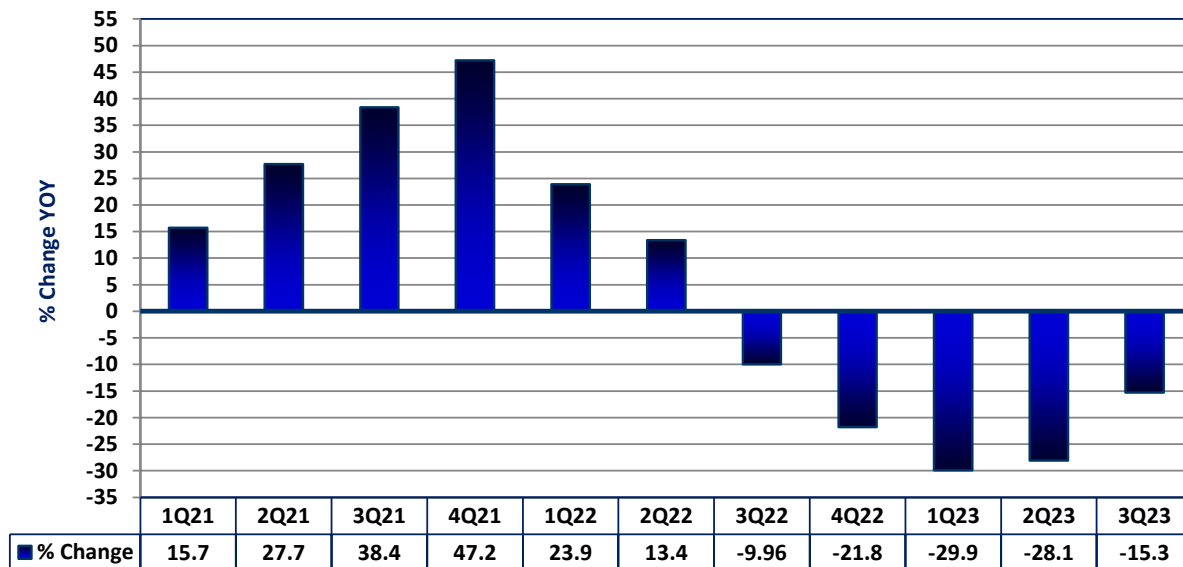
Semiconductor Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
AMD	32.9%	\$18,002.0	\$10,712.0	-40.5%
Analog Devices	49.0%	\$9,330.0	\$6,339.0	-32.1%
Intel	-20.2%	\$49,012.0	\$24,664.0	-49.7%
Micron Tech.	-8.3%	\$23,071.0	\$7,445.0	-67.7%
Texas Instruments	9.2%	\$15,358.0	\$8,910.0	-42.0%
Taiwan Semi	30.0%	\$55,967.8	\$32,357.8	-42.2%
Infineon Tech.	15.3%	\$11,749.3	\$8,878.5	-24.4%
Microchip Tech	24.9%	\$5,881.0	\$4,522.0	-23.1%
Samsung	-20.1%	\$62,659.0	\$21,993.1	-64.9%
ON Semi	23.5%	\$6,223.0	\$4,054.0	-34.9%
Hynix	-5.9%	\$29,338.9	\$9,548.2	-67.5%
Renesas	27.5%	\$8,741.3	\$5,404.8	-38.2%
Xilinx	-15.1%	\$2,522.0	*	
Total Sales	-0.6%	\$297,855.3	\$224,303.4	-24.7%
Total Net Income		\$80,628.8	\$18,534.9	-77.0%

\$ Millions

* Xilinx Acquired by AMD

Semiconductor
Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 8.0%. Year-over-year, sales decreased -15.3% in the third quarter.

Contract Electronic Manufacturers (CEM) Sector

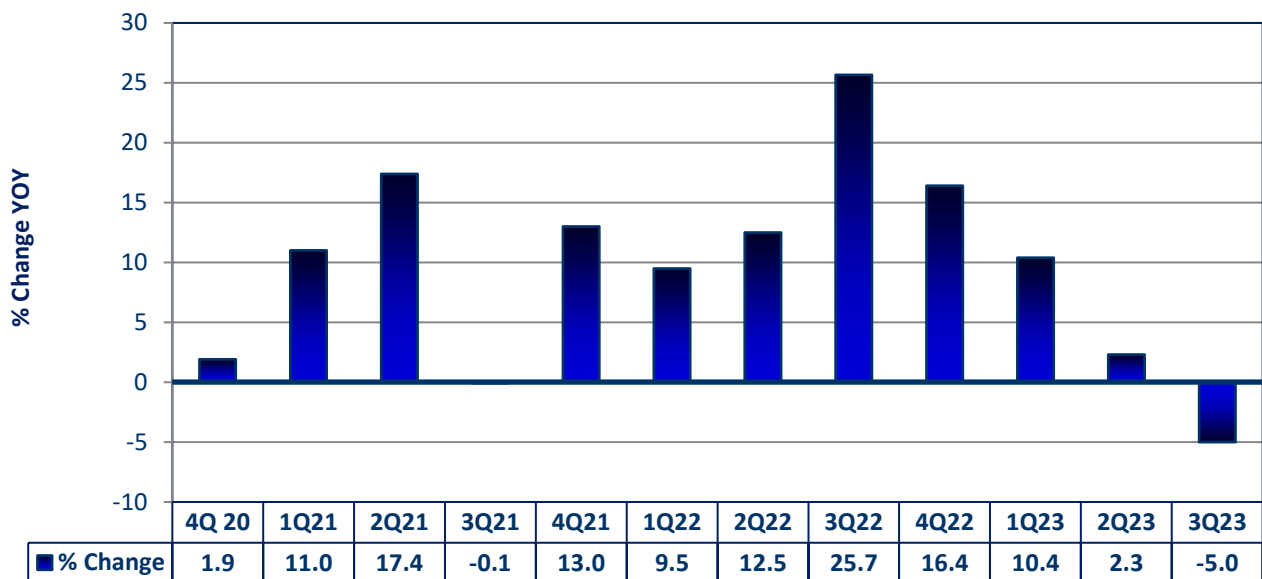
The CEM sector recorded a sales increase of 16.1% in 2022. Sales for the first nine months of 2022 versus the first nine months of 2023 increased 2.1% year-over-year. Net income as a percent of sales totaled 2.7% for the period, down -11.4% year-over-year.

CEM Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Benchmark Elec.	28.0%	\$2,135.7	\$2,147.6	0.6%
Celestica	26.5%	\$5,205.5	\$5,821.4	11.8%
Flex	16.8%	\$21,964.0	\$22,284.0	1.5%
Jabil Circuit, Inc.	12.9%	\$24,911.0	\$25,067.0	0.6%
Plexus Corp.	21.8%	\$2,994.1	\$3,117.0	4.1%
Sanmina	25.7%	\$6,134.0	\$6,579.0	7.3%
Venture Corp	-7.9%	\$2,039.6	\$1,771.9	-13.1%
Total Sales	16.1%	\$65,383.9	\$66,787.9	2.1%
Total Net Income		\$2,065.1	\$1,830.3	-11.4%

\$ Millions

CEM Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 0.4%. Year-over-year, sales decreased by -5.0% in the third quarter.

Electronic Distribution Sector

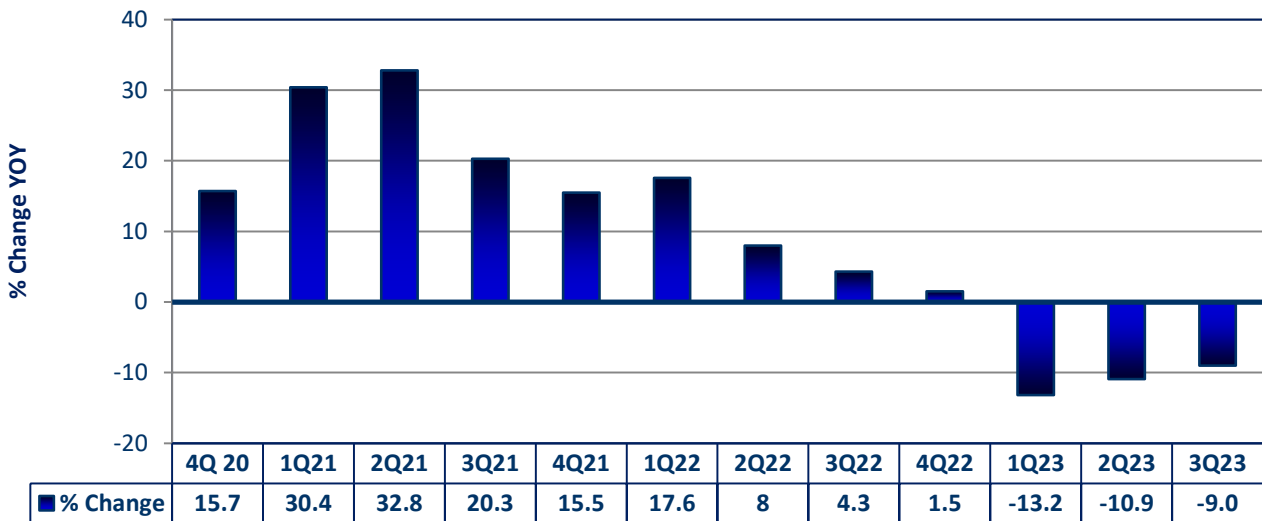
The electronic distribution sector recorded a sales increase of 6.8% in 2022. Sales for the first nine months of 2023 versus the first nine months of 2022 decreased -11.1% year-over-year. Net income as a percent of sales totaled 2.3% for the period, down -29.7% year-over-year.

Electronic Distribution Equipment Sector - Sales and Net Income

Company	2021/2022 % Change	Nine Months 2022	Nine Months 2023	Percent Change
Arrow Electronics	7.7%	\$27,801.0	\$25,258.0	-9.1%
Avnet	21.9%	\$19,611.0	\$19,406.0	-1.0%
WPG Holdings	-6.1%	\$20,544.0	\$15,768.9	-23.2%
Total Sales	6.8%	\$67,956.0	\$60,432.9	-11.1%
Total Net Income		\$2,003.9	\$1,409.0	-29.7%

\$ Millions

Electronic Distribution
Year-Over-Year Percentage Change in Sales by Quarter



Quarter-to-quarter (3Q23 versus 2Q23) sales increased 0.5%. Year-over-year, sales decreased -9.0% in the third quarter.