

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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2024

OR

☐ **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 1-11846

Aptar 

AptarGroup, Inc .

Delaware

36-3853103

(State of Incorporation)

(I.R.S. Employer Identification No.)

265 EXCHANGE DRIVE , SUITE 301 , CRYSTAL LAKE , IL 60014
815 - 477-0424

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

<u>Title of each class</u>	<u>Trading symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$.01 par value	ATR	New York Stock Exchange

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 (§ 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.

<input checked="" type="checkbox"/> Large accelerated filer	<input type="checkbox"/> Accelerated filer	<input type="checkbox"/> Non-accelerated filer	<input type="checkbox"/> Smaller reporting company	<input type="checkbox"/> Emerging growth company
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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 ☒

The number of shares outstanding of common stock, as of October 21, 2024, was 66,543,252 shares.

AptarGroup, Inc.
Form 10-Q
Quarter Ended September 30, 2024
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PART I – FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS (UNAUDITED)
AptarGroup, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)

In thousands, except per share amounts

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net Sales	\$ 909,291	\$ 892,997	\$ 2,734,802	\$ 2,648,970
Operating Expenses:				
Cost of sales (exclusive of depreciation and amortization shown below)	558,511	566,691	1,708,707	1,697,824
Selling, research & development and administrative	141,604	138,137	443,714	427,488
Depreciation and amortization	67,015	62,686	196,332	184,212
Restructuring initiatives	3,864	6,161	9,659	19,628
Total Operating Expenses	770,994	773,675	2,358,412	2,329,152
Operating Income	138,297	119,322	376,390	319,818
Other (Expense) Income:				
Interest expense	(12,290)	(9,984)	(32,526)	(29,900)
Interest income	3,022	946	9,022	2,266
Net investment gain (loss)	1,043	(1,240)	1,495	1,839
Equity in results of affiliates	(77)	1,002	(168)	1,514
Miscellaneous income (expense), net	1,136	3	(518)	(1,341)
Total Other Expense	(7,166)	(9,273)	(22,695)	(25,622)
Income before Income Taxes	131,131	110,049	353,695	294,196
Provision for Income Taxes	31,209	25,751	80,382	72,265
Net Income	\$ 99,922	\$ 84,298	\$ 273,313	\$ 221,931
Net Loss (Gain) Attributable to Noncontrolling Interests	\$ 117	\$ (2)	\$ 284	\$ 201
Net Income Attributable to AptarGroup, Inc.	\$ 100,039	\$ 84,296	\$ 273,597	\$ 222,132
Net Income Attributable to AptarGroup, Inc. per Common Share:				
Basic	\$ 1.51	\$ 1.28	\$ 4.13	\$ 3.39
Diluted	\$ 1.48	\$ 1.26	\$ 4.05	\$ 3.32
Average Number of Shares Outstanding:				
Basic	66,445	65,707	66,274	65,550
Diluted	67,716	67,035	67,574	66,865
Dividends per Common Share	\$ 0.45	\$ 0.41	\$ 1.27	\$ 1.17

See accompanying unaudited Notes to Condensed Consolidated Financial Statements.

AptarGroup, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

In thousands

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2024	2023	2024	2023
Net Income	\$ 99,922	\$ 84,298	\$ 273,313	\$ 221,931
Other Comprehensive Income (Loss):				
Foreign currency translation adjustments	66,736	(52,514)	625	(28,639)
Changes in derivative (losses) gains, net of tax	(5,711)	2,707	(202)	(2,424)
Defined benefit pension plan, net of tax				
Actuarial (loss) gain, net of tax	(634)	(5)	(532)	63
Amortization of prior service cost included in net income, net of tax	22	33	62	98
Amortization of net loss included in net income, net of tax	214	161	578	483
Total defined benefit pension plan, net of tax	(398)	189	108	644
Total other comprehensive income (loss)	60,627	(49,618)	531	(30,419)
Comprehensive Income	160,549	34,680	273,844	191,512
Comprehensive (Income) Loss Attributable to Noncontrolling Interests	(866)	88	(158)	319
Comprehensive Income Attributable to AptarGroup, Inc.	\$ 159,683	\$ 34,768	\$ 273,686	\$ 191,831

See accompanying unaudited Notes to Condensed Consolidated Financial Statements.

AptarGroup, Inc.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

In thousands

	September 30, 2024	December 31, 2023
Assets		
Cash and equivalents	\$ 325,524	\$ 223,643
Short-term investments	2,387	—
Accounts and notes receivable, less current expected credit loss ("CECL") of \$ 14,264 in 2024 and \$ 16,217 in 2023	698,989	677,822
Inventories	488,540	513,053
Prepaid and other	150,164	134,761
Total Current Assets	1,665,604	1,549,279
Land	29,924	30,090
Buildings and improvements	776,798	748,897
Machinery and equipment	3,270,657	3,183,097
Property, Plant and Equipment, Gross	4,077,379	3,962,084
Less: Accumulated depreciation	(2,572,170)	(2,484,021)
Property, Plant and Equipment, Net	1,505,209	1,478,063
Investments in equity securities	51,052	49,203
Goodwill	968,293	963,418
Intangible assets, net	271,215	283,211
Operating lease right-of-use assets	75,416	59,074
Miscellaneous	88,426	69,642
Total Other Assets	1,454,402	1,424,548
Total Assets	\$ 4,625,215	\$ 4,451,890

See accompanying unaudited Notes to Condensed Consolidated Financial Statements.

AptarGroup, Inc.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

In thousands, except share and per share amounts

	September 30, 2024	December 31, 2023
Liabilities and Stockholders' Equity		
Current Liabilities:		
Revolving credit facility and overdrafts	\$ 222,817	\$ 81,794
Current maturities of long-term obligations, net of unamortized debt issuance costs	30,295	376,426
Accounts payable, accrued and other liabilities	773,540	793,089
Total Current Liabilities	1,026,652	1,251,309
Long-Term Obligations, net of unamortized debt issuance costs	822,731	681,188
Deferred income taxes	13,896	19,016
Retirement and deferred compensation plans	71,853	62,795
Operating lease liabilities	58,864	45,267
Deferred and other non-current liabilities	77,578	71,017
Commitments and contingencies	—	—
Total Deferred Liabilities and Other	222,191	198,095
AptarGroup, Inc. stockholders' equity		
Common stock, \$.01 par value, 199 million shares authorized, 72.3 million and 71.7 million shares issued as of September 30, 2024 and December 31, 2023, respectively	723	717
Capital in excess of par value	1,107,597	1,044,429
Retained earnings	2,299,540	2,109,816
Accumulated other comprehensive loss	(308,880)	(308,734)
Less: Treasury stock at cost, 5.8 million and 5.8 million shares as of September 30, 2024 and December 31, 2023	(559,971)	(539,404)
Total AptarGroup, Inc. Stockholders' Equity	2,539,009	2,306,824
Noncontrolling interests in subsidiaries	14,632	14,474
Total Stockholders' Equity	2,553,641	2,321,298
Total Liabilities and Stockholders' Equity	\$ 4,625,215	\$ 4,451,890

See accompanying unaudited Notes to Condensed Consolidated Financial Statements.

AptarGroup, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Unaudited)

In thousands

Three Months Ended

AptarGroup, Inc. Stockholders' Equity

September 30, 2024 and 2023

	AptarGroup, Inc. Stockholders' Equity							
	Retained	Accumulated	Other	Common	Treasury	Capital in	Non-	Total
	Earnings	(Loss) Income	Income	Stock	Stock	Excess of	Controlling	Equity
				Par Value		Par Value	Interest	
Balance - June 30, 2023	\$ 2,017,065	\$ (321,913)	\$	713	\$ (526,484)	\$ 1,005,007	\$ 14,038	\$ 2,188,426
Net income	84,296	—	—	—	—	—	2	84,298
Foreign currency translation adjustments	(1)	(52,423)	—	—	—	—	(90)	(52,514)
Changes in unrecognized pension gains and related amortization, net of tax	—	189	—	—	—	—	—	189
Changes in derivative losses, net of tax	—	2,707	—	—	—	—	—	2,707
Stock awards and option exercises	—	—	2	2,114	23,656	—	—	25,772
Cash dividends declared on common stock	(26,926)	—	—	—	—	—	—	(26,926)
Treasury stock purchased	—	—	—	(8,263)	—	—	—	(8,263)
Balance - September 30, 2023	\$ 2,074,434	\$ (371,440)	\$	715	\$ (532,633)	\$ 1,028,663	\$ 13,950	\$ 2,213,689
Balance - June 30, 2024	\$ 2,229,377	\$ (368,524)	\$	721	\$ (547,685)	\$ 1,082,560	\$ 13,766	\$ 2,410,215
Net income (loss)	100,039	—	—	—	—	—	(117)	99,922
Foreign currency translation adjustments	—	65,753	—	—	—	—	983	66,736
Changes in unrecognized pension losses and related amortization, net of tax	—	(398)	—	—	—	—	—	(398)
Changes in derivative losses, net of tax	—	(5,711)	—	—	—	—	—	(5,711)
Stock awards and option exercises	—	—	2	1,883	25,037	—	—	26,922
Cash dividends declared on common stock	(29,876)	—	—	—	—	—	—	(29,876)
Treasury stock purchased	—	—	—	(14,169)	—	—	—	(14,169)
Balance - September 30, 2024	\$ 2,299,540	\$ (308,880)	\$	723	\$ (559,971)	\$ 1,107,597	\$ 14,632	\$ 2,553,641

In thousands

Nine Months Ended

AptarGroup, Inc. Stockholders' Equity

September 30, 2024 and 2023

September 30, 2024 and 2023		AptarGroup, Inc. Stockholders' Equity												
		Accumulated				Total								
		Retained Earnings	Other Comprehensive (Loss) Income	Common Stock Par Value	Treasury Stock	Capital in Excess of Par Value	Non-Controlling Interest	Equity						
Balance - December 31, 2022	\$	1,929,240	\$	(341,366)	\$	709	\$	(503,266)	\$	968,618	\$	14,269	\$	2,068,204
Net income (loss)		222,132		—		—		—		—		(201)		221,931
Foreign currency translation adjustments		(227)		(28,294)		—		—		—		(118)		(28,639)
Changes in unrecognized pension gains and related amortization, net of tax		—		644		—		—		—		—		644
Changes in derivative losses, net of tax		—		(2,424)		—		—		—		—		(2,424)
Stock awards and option exercises		—		—		6		7,935		60,045		—		67,986
Cash dividends declared on common stock		(76,711)		—		—		—		—		—		(76,711)
Treasury stock purchased		—		—		—		(37,302)		—		—		(37,302)
Balance - September 30, 2023	\$	2,074,434	\$	(371,440)	\$	715	\$	(532,633)	\$	1,028,663	\$	13,950	\$	2,213,689
Balance - December 31, 2023	\$	2,109,816	\$	(308,734)	\$	717	\$	(539,404)	\$	1,044,429	\$	14,474	\$	2,321,298
Net income (loss)		273,597		—		—		—		—		(284)		273,313
Foreign currency translation adjustments		235		(52)		—		—		—		442		625
Changes in unrecognized pension gains and related amortization, net of tax		—		108		—		—		—		—		108
Changes in derivative losses, net of tax		—		(202)		—		—		—		—		(202)
Stock awards and option exercises		—		—		6		10,736		63,168		—		73,910
Cash dividends declared on common stock		(84,108)		—		—		—		—		—		(84,108)
Treasury stock purchased		—		—		—		(31,303)		—		—		(31,303)
Balance - September 30, 2024	\$	2,299,540	\$	(308,880)	\$	723	\$	(559,971)	\$	1,107,597	\$	14,632	\$	2,553,641

See accompanying unaudited Notes to Condensed Consolidated Financial Statements.

AptarGroup, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

In thousands, brackets denote cash outflows

Nine Months Ended September 30,	2024	2023
Cash Flows from Operating Activities:		
Net income	\$ 273,313	\$ 221,931
Adjustments to reconcile net income to net cash provided by operations:		
Depreciation	162,925	150,718
Amortization	33,407	33,494
Stock-based compensation	37,962	36,084
(Release) provision for CECL	(1,221)	3,449
Gain on disposition of fixed assets	(462)	(3,753)
Net gain on remeasurement of equity securities	(1,495)	(1,839)
Deferred income taxes	(11,653)	(16,978)
Defined benefit plan expense	9,296	10,659
Equity in results of affiliates	168	(1,514)
Changes in balance sheet items, excluding effects from foreign currency adjustments:		
Accounts and other receivables	(24,054)	(43,061)
Inventories	22,653	(5,188)
Prepaid and other current assets	(13,970)	(19,236)
Accounts payable, accrued and other liabilities	(14,371)	3,860
Income taxes payable	6,672	(8,732)
Retirement and deferred compensation plan liabilities	(3,832)	1,323
Other changes, net	(10,164)	(5,615)
Net Cash Provided by Operations	465,174	355,602
Cash Flows from Investing Activities:		
Capital expenditures	(210,416)	(231,199)
Proceeds from sale of property, plant and equipment	1,020	6,037
Maturity of short-term investment	(2,242)	—
Acquisition of businesses, net of cash acquired and release of escrow	—	(16,570)
Acquisition of intangible assets, net	(13,242)	(3,648)
Proceeds from sale of investment in equity securities	—	5,604
Notes receivable, net	(776)	439
Net Cash Used by Investing Activities	(225,656)	(239,337)
Cash Flows from Financing Activities:		
Proceeds from notes payable and overdrafts	22,302	24,392
Repayments of notes payable and overdrafts	(23,184)	(27,863)
Proceeds and (repayments) of short-term revolving credit facility, net	138,058	123,514
Proceeds from long-term obligations	168,614	257
Repayments of long-term obligations	(372,393)	(117,289)
Payment of contingent consideration obligation	—	(22,750)
Dividends paid	(84,108)	(76,711)
Proceeds from stock option exercises	44,364	39,742
Purchase of treasury stock	(31,303)	(37,302)
Net Cash Used by Financing Activities	(137,650)	(94,010)
Effect of Exchange Rate Changes on Cash	13	(12,914)
Net Increase in Cash and Equivalents and Restricted Cash	101,881	9,341
Cash and Equivalents and Restricted Cash at Beginning of Period	223,643	142,732
Cash and Equivalents and Restricted Cash at End of Period	\$ 325,524	\$ 152,073

Restricted cash included in the line item prepaid and other on the Condensed Consolidated Balance Sheets as shown below represents amounts held in escrow related to the Metaphase acquisition.

Nine Months Ended September 30,		2024	2023
Cash and equivalents	\$	325,524	\$ 151,573
Restricted cash included in prepaid and other		—	500
Total Cash and Equivalents and Restricted Cash shown in the Statement of Cash Flows	\$	325,524	\$ 152,073

See accompanying unaudited Notes to Condensed Consolidated Financial Statements.

AptarGroup, Inc.

Notes to Condensed Consolidated Financial Statements

(Dollars in Thousands, Except per Share Amounts, or as Otherwise Indicated)

(Unaudited)

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The accompanying unaudited Condensed Consolidated Financial Statements include the accounts of AptarGroup, Inc. and our subsidiaries. The terms “AptarGroup,” “Aptar,” “Company,” “we,” “us” or “our” as used herein refer to AptarGroup, Inc. and our subsidiaries. All significant intercompany accounts and transactions have been eliminated. Certain previously reported amounts have been reclassified to conform to the current period presentation.

In the opinion of management, the unaudited Condensed Consolidated Financial Statements (the “Condensed Consolidated Financial Statements”) include all normal recurring adjustments necessary for a fair statement of consolidated financial position, results of operations, comprehensive income, changes in equity and cash flows for the interim periods presented. The accompanying Condensed Consolidated Financial Statements have been prepared by the Company, pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) have been condensed or omitted pursuant to such rules and regulations, although we believe that the disclosures made are adequate to make the information presented not misleading. Also, certain financial position data included herein was derived from the audited Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2023 but does not include all disclosures required by U.S. GAAP. Accordingly, these Condensed Consolidated Financial Statements and related notes should be read in conjunction with the audited Consolidated Financial Statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2023. The results of operations of any interim period are not necessarily indicative of the results that may be expected for the year.

ADOPTION OF RECENT ACCOUNTING STANDARDS

Changes to U.S. GAAP are established by the Financial Accounting Standards Board (“FASB”) in the form of Accounting Standards Updates (“ASUs”) to the FASB’s Accounting Standards Codification.

In March 2020, the FASB issued ASU 2020-04, which provides optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. The amendments to this update apply only to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. ASU 2020-04 was further amended in January 2021 by ASU 2021-01 which clarified the applicability of certain provisions. Both standards are effective upon issuance and could be adopted any time prior to December 31, 2022. The guidance in ASU 2020-04 and ASU 2021-01 is optional and may be elected over time as reference rate reform activities occur. We adopted this guidance in the second quarter of 2023 and have transitioned away from the London Interbank Offered Rate (“LIBOR”) to the Secured Overnight Financing Rate (“SOFR”) in our revolving credit facility.

In November 2023, the FASB issued ASU 2023-07, Improvement to Reportable Segment Disclosures, which requires enhanced disclosures about significant segment expenses on an annual and interim basis. The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted, and are to be applied on a retrospective basis. We are evaluating the impact of the standard on our segment reporting disclosures.

In December 2023, the FASB issued ASU 2023-09, Improvements to Income Tax Disclosures, which is intended to improve income tax disclosure requirements by requiring (i) consistent categories and greater disaggregation of information in the rate reconciliation and (ii) the disaggregation of income taxes paid by jurisdiction. The guidance makes several other changes to income tax disclosure requirements. The amendments in ASU 2023-09 are effective for fiscal years beginning after December 15, 2024, with early adoption permitted, and are required to be applied prospectively with the option of retrospective application. We are evaluating the impact of the standard on our income tax disclosures.

Other accounting standards that have been issued by the FASB or other standards-setting bodies did not have a material impact on our Condensed Consolidated Financial Statements.

INCOME TAXES

We compute taxes on income in accordance with the tax rules and regulations of the many taxing authorities where income is earned. The income tax rates imposed by these taxing authorities may vary substantially. Taxable income may differ from pre-tax income for U.S. GAAP financial accounting purposes. To the extent that these differences create temporary differences between the tax basis of an asset or liability and our reported amount in the U.S. GAAP financial statements, an appropriate provision for deferred income taxes is made.

We maintain our assertion that the cash and distributable reserves at our non-U.S. affiliates are indefinitely reinvested with the following exceptions: all earnings in Germany and the pre-2020 earnings in Italy, Switzerland and Colombia. As of September 30, 2024, under currently enacted laws, we do not have a balance of foreign earnings that will be subject to U.S. taxation upon repatriation. We will provide for the necessary withholding and local income taxes when management decides that an affiliate should make a distribution. These decisions are made taking into consideration the financial requirements of the non-U.S. affiliates and our global cash management goals. See Note 5 – Income Taxes for more information.

We provide a liability for the amount of unrecognized tax benefits from uncertain tax positions. This liability is provided whenever we determine that a tax benefit will not meet a more-likely-than-not threshold for recognition.

We are subject to the examination of our returns and other tax matters by the U.S. Internal Revenue Service as well as other tax authorities and governmental bodies. We believe that we have adequately provided a tax reserve for any adjustments that may result from tax examinations or uncertain tax positions. However, the outcome of tax audits cannot be predicted with certainty. If any issues addressed in our tax audits are resolved in a manner inconsistent with its expectations, we could be required to adjust its provision for income taxes in the period such resolution occurs. The resolution of each of these audits is not expected to be material to our Condensed Consolidated Financial Statements.

ASSETS HELD FOR SALE

Assets to be disposed of by sale are reported at the lower of their carrying amount or fair value less costs to sell, and are not depreciated while they are held for sale. During the second quarter of 2023, we recorded \$ 0.7 million as assets held for sale within prepaid and other on our Condensed Consolidated Balance Sheets related to three buildings located in France. During the third quarter of 2023, two of the three buildings were sold and we recognized a \$ 0.8 million gain on sale. As of September 30, 2024, one building is still held for sale and expected to be sold during 2025.

SUPPLY CHAIN FINANCE PROGRAM

We facilitate a supply chain finance program (“SCF”) across Europe and the U.S. that is administered by a third-party platform. Eligible suppliers can elect to receive early payment of invoices, less an interest deduction, and negotiate their receivable sales arrangements through the third-party platform on behalf of the respective SCF bank. We are not a party to those agreements, and the terms of our payment obligations are not impacted by a supplier's participation in the SCF. Accordingly, we have concluded that this program continues to be a trade payable program and is not indicative of a borrowing arrangement. Under these agreements, the average payment terms range from 60 to 120 days and are based on industry standards and best practices within each of our regions.

All outstanding amounts related to suppliers participating in the SCF are recorded within accounts payable, accrued and other liabilities in our Condensed Consolidated Balance Sheets, and associated payments are included in operating activities within our Condensed Consolidated Statements of Cash Flows. As of September 30, 2024, the amounts due to suppliers participating in the SCF and included in accounts payable, accrued and other liabilities were approximately \$ 35.0 million.

Collection and payment periods tend to be longer for our operations located outside the United States due to local business practices. We have also seen an increasing trend in pressure from certain customers to lengthen their payment terms. As the majority of our products are made to order, we have not needed to keep significant amounts of finished goods inventory to meet customer requirements. However, some of our contracts specify an amount of finished goods safety stock we are required to maintain.

To the extent our financial position allows and there is a clear financial benefit, we from time-to-time benefit from early payment discounts with some suppliers. We have lengthened the payment terms with our suppliers to be in line with customer trends. While we have offered a third party alternative for our suppliers to receive payments sooner, we generally do not utilize these offerings from our customers as the economic conditions currently are not beneficial for us.

NOTE 2 – REVENUE

In prior years, our geographic revenue disclosure was based on shipped from location. Beginning in 2024, we have started to report our geographic sales based on shipped to locations to give the reader a better understanding of the geographies we serve. Revenue by segment and geography based on shipped to locations for the three and nine months ended September 30, 2024 and 2023 were as follows:

For the Three Months Ended September 30, 2024

Segment	Europe		Domestic		Latin America		Asia	Total
Aptar Pharma	\$	204,835	\$	142,747	\$	10,925	\$ 62,087	\$ 420,594
Aptar Beauty		182,708		59,954		37,565	22,632	302,859
Aptar Closures		57,586		88,870		20,665	18,717	185,838
Total	\$	445,129	\$	291,571	\$	69,155	\$ 103,436	\$ 909,291

For the Three Months Ended September 30, 2023

Segment	Europe		Domestic		Latin America		Asia	Total
Aptar Pharma	\$	198,546	\$	125,730	\$	13,549	\$ 51,363	\$ 389,188
Aptar Beauty		201,127		55,674		42,497	24,682	323,980
Aptar Closures		55,508		85,612		21,863	16,846	179,829
Total	\$	455,181	\$	267,016	\$	77,909	\$ 92,891	\$ 892,997

For the Nine Months Ended September 30, 2024

Segment	Europe		Domestic		Latin America		Asia	Total
Aptar Pharma	\$	624,503	\$	407,291	\$	36,848	\$ 173,778	\$ 1,242,420
Aptar Beauty		579,638		189,849		117,959	64,220	951,666
Aptar Closures		165,507		262,154		64,221	48,834	540,716
Total	\$	1,369,648	\$	859,294	\$	219,028	\$ 286,832	\$ 2,734,802

For the Nine Months Ended September 30, 2023

Segment	Europe		Domestic		Latin America		Asia	Total
Aptar Pharma	\$	598,728	\$	354,655	\$	37,415	\$ 145,136	\$ 1,135,934
Aptar Beauty		622,253		171,602		118,563	67,538	979,956
Aptar Closures		171,645		251,780		63,108	46,547	533,080
Total	\$	1,392,626	\$	778,037	\$	219,086	\$ 259,221	\$ 2,648,970

We perform our obligations under a contract with a customer by transferring goods and/or services in exchange for consideration from the customer. The timing of performance will sometimes differ from the timing of the invoicing for the associated consideration from the customer, thus resulting in the recognition of a contract asset or a contract liability. We recognize a contract asset when we transfer control of goods or services to a customer prior to invoicing for the related performance obligation. The contract asset is transferred to accounts receivable when the product is shipped and invoiced to the customer. We recognize a contract liability if the customer's payment of consideration precedes the entity's performance.

The opening and closing balances of our contract asset and contract liabilities were as follows:

	Balance as of December 31, 2023		Balance as of September 30, 2024		Increase/ (Decrease)
Contract asset (current)	\$	18,033	\$	15,000	\$ (3,033)
Contract liability (current)		60,507		64,904	4,397
Contract liability (long-term)		37,756		43,235	5,479

The differences in the opening and closing balances of our contract asset and contract liabilities are primarily the result of timing differences between our performance and the invoicing. The total amount of revenue recognized during the current year against contract liabilities is \$ 76.5 million, including \$ 40.2 million relating to contract liabilities at the beginning of the year. Current contract assets are included within Prepaid and other, while current contract liabilities and long-term contract liabilities are included within Accounts payable, accrued and other liabilities and Deferred and other non-current liabilities, respectively, within our Condensed Consolidated Balance Sheets.

Determining the Transaction Price

In most cases, the transaction price for each performance obligation is stated in the contract. In determining the variable amounts of consideration within the transaction price (such as volume-based customer rebates), we include an estimate of the expected amount of consideration as revenue. We apply the expected value method based on all of the information (historical, current, and forecast) that is reasonably available and identify reasonable estimates based on this information. We apply the method consistently throughout the contract when estimating the effect of an uncertainty on the amount of variable consideration to which we will be entitled.

Product Sales

We primarily manufacture and sell drug and consumer product dosing, dispensing and protection technologies. The amount of consideration is typically fixed for customers. At the time of delivery, the customer is invoiced at the agreed-upon price. Revenue from product sales is typically recognized upon manufacture or shipment, when control of the goods transfers to the customer.

To determine when the control transfers, we typically assess, among other things, the shipping terms of the contract, shipping being one of the indicators of transfer of control. For a majority of product sales, control of the goods transfers to the customer at the time of shipment of the goods. Once the goods are shipped, we are precluded from redirecting the shipment to another customer. Therefore, our performance obligation is satisfied at the time of shipment. For sales in which control transfers upon delivery, shipping and/or handling costs that occur before the customer obtains control of the goods are deemed to be fulfillment activities and are accounted for as fulfillment costs and revenue is recorded upon final delivery to the customer location. We have elected to account for shipping and handling costs that occur after the customer has obtained control of a good as fulfillment costs rather than as a promised service. We do not have any material significant payment terms as payment is typically received shortly after the point of sale.

There also exist instances where we manufacture highly customized products that have no alternative use to us and for which we have an enforceable right to payment for performance completed to date. For these products, we transfer control and recognize revenue over time by measuring progress towards completion using the output method based on the number of products produced. As we normally make our products to a customer's order, the time between production and shipment of our products is typically within a few weeks. We believe this measurement provides a faithful depiction of the transfer of goods as the costs incurred reflect the value of the products produced.

As a part of our customary business practice, we offer a standard warranty that the products will materially comply with the technical specifications and will be free from material defects. Because such warranties are not sold separately, do not provide for any service beyond a guarantee of a product's initial specifications, and are not required by law, there is no revenue deferral for these types of warranties.

Tooling Sales

We also build or contract for molds and other tools (collectively defined as "tooling") necessary to produce our products. As with product sales, we recognize revenue when control of the tool transfers to the customer. If the tooling is highly customized with no alternative use to us and we have an enforceable right to payment for performance completed to date, we transfer control and recognize revenue over time by measuring progress towards completion using the input method based on costs incurred relative to total estimated costs to completion. Otherwise, revenue for the tooling is recognized at the point in time when the customer approves the tool. We do not have any significant payment terms as payment is typically either received during the mold-build process or shortly after completion.

In certain instances, we offer extended warranties on our tools above and beyond the normal standard warranties. We normally receive payment at the inception of the contract and recognize revenue over the term of the contract. We do not have any material extended warranties as of September 30, 2024 or December 31, 2023.

Service Sales

We also provide services to our customers. As with product sales, we recognize revenue based on completion of each performance obligation of the service contract. Milestone deliverables and upfront payments are tied to specific performance obligations and recognized upon satisfaction of the individual performance obligation.

Royalty Revenue

We determine the amount and timing of royalty revenue based on our contractual agreements with customers. We recognize royalty revenue when earned under the terms of the agreements and when we consider realization of payment to be probable.

Contract Costs

We do not incur significant costs to obtain or fulfill revenue contracts.

Credit Risk

We are exposed to credit losses primarily through our product sales, tooling sales and services to our customers. We assess each customer's ability to pay for the products we sell by conducting a credit review. The credit review considers our expected billing exposure and timing for payment and the customer's established credit rating, or our assessment of the customer's creditworthiness based on our analysis of their financial statements when a credit rating is not available. We also consider contract terms and conditions, country and political risks, and business strategy in our evaluation. A credit limit is established for each customer based on the outcome of this review.

We monitor our ongoing credit exposure through active review of customer balances against contract terms and due dates. Our activities include timely account reconciliation, dispute resolution and payment confirmation. We may employ collection agencies and legal counsel to pursue recovery of defaulted receivables.

NOTE 3 - INVENTORIES

Inventories, by component net of reserves, consisted of:

		September 30, 2024	December 31, 2023
Raw materials	\$	140,194	\$ 145,798
Work in process		179,857	176,191
Finished goods		168,489	191,064
Total	\$	488,540	\$ 513,053

NOTE 4 – GOODWILL AND OTHER INTANGIBLE ASSETS

The changes in the carrying amount of goodwill for the nine months ended September 30, 2024 by reporting segment were as follows:

		Aptar Pharma		Aptar Beauty		Aptar Closures		Total
Balance as of December 31, 2023	\$	508,447	\$	287,097	\$	167,874	\$	963,418
Foreign currency exchange effects		4,062		986		(173)		4,875
Balance as of September 30, 2024	\$	512,509	\$	288,083	\$	167,701	\$	968,293

The table below shows a summary of intangible assets as of September 30, 2024 and December 31, 2023.

Weighted Average Amortization Period (Years)	September 30, 2024			December 31, 2023			
	Gross			Gross			
	Carrying Amount	Accumulated Amortization	Net Value	Carrying Amount	Accumulated Amortization	Net Value	
Amortized intangible assets:							
Patents	12.4	\$ 18,862	\$ (2,219)	\$ 16,643	\$ 7,362	\$ (1,754)	\$ 5,608
Acquired technology	11.3	143,652	(80,584)	63,068	142,837	(70,520)	72,317
Customer relationships	13.6	310,205	(143,613)	166,592	308,889	(124,648)	184,241
Trademarks and trade names	7.9	44,187	(36,717)	7,470	43,932	(33,368)	10,564
License agreements and other	20.3	26,471	(9,029)	17,442	17,213	(6,732)	10,481
Total intangible assets	13.3	\$ 543,377	\$ (272,162)	\$ 271,215	\$ 520,233	\$ (237,022)	\$ 283,211

Aggregate amortization expense for the intangible assets above for the quarters ended September 30, 2024 and 2023 was \$ 11,733 and \$ 11,400 , respectively. Aggregate amortization expense for the intangible assets above for the nine months ended September 30, 2024 and 2023 was \$ 33,407 and \$ 33,494 , respectively.

As of September 30, 2024, future estimated amortization expense for the years ending December 31 is as follows:

2024	\$ 11,067	(remaining estimated amortization for 2024)
2025	43,616	
2026	41,540	
2027	33,354	
2028	29,203	
Thereafter	112,435	

Future amortization expense may fluctuate depending on changes in foreign currency rates. The estimates for amortization expense noted above are based upon foreign exchange rates as of September 30, 2024.

NOTE 5 – INCOME TAXES

The tax provision for interim periods is determined using the estimated annual effective consolidated tax rate, based on the current estimate of full-year earnings and related estimated full year-taxes, adjusted for the impact of discrete quarterly items.

The Organization for Economic Co-operation and Development released Model Global Anti-Base Erosion rules under Pillar Two. Certain countries in which we operate have enacted laws implementing aspects of Pillar Two beginning in 2024. These enacted laws relate to the Pillar Two Income Inclusion Rule and Qualified Domestic Minimum Top-Up Tax with an effective date in 2024. We have analyzed the provisions in the applicable jurisdictions and provided for the appropriate tax amounts. We do not expect a material impact from the implementation of these rules for 2024 but we will continue to monitor future legislations for additional guidance.

The effective tax rate for the three months ended September 30, 2024 and 2023, respectively, was 23.8 % and 23.4 %. The effective tax rate for the three months ended September 30, 2024 was slightly higher than the same period of 2023 primarily due to an unfavorable mix of earnings forecasted in the second half of 2024.

The effective tax rate for the nine months ended September 30, 2024 and 2023, respectively, was 22.7 % and 24.6 %. On a nine-month basis, the effective tax rate was lower than the same period of 2023 primarily due to increased tax benefits from share-based compensation and tax incentives in certain non-U.S. jurisdictions for intellectual property development activities.

NOTE 6 – DEBT

Revolving Credit Facility and Overdrafts

At September 30, 2024 and December 31, 2023, our revolving credit facility and overdrafts consisted of the following:

	September 30, 2024	December 31, 2023
Revolving credit facility	\$ 222,650	\$ 80,662
Overdraft	167	1,132
	\$ 222,817	\$ 81,794

Aptar has a revolving credit facility (the “revolving credit facility”) with a syndicate of banks that provides us with unsecured financing of up to \$ 600 million, which may be increased by up to \$ 300 million more, subject to the satisfaction of certain conditions. The revolving credit facility is available in the U.S. and to our wholly-owned UK subsidiary and could be drawn in various currencies including USD, EUR, GBP, and CHF. The revolving credit facility was set to mature in June 2026, but on July 2, 2024, Aptar entered into a new amended and restated agreement (the “amended revolving credit facility”) that extended the maturity date to July 2029, subject to a maximum of two one-year extensions in certain circumstances. As of December 31, 2023, Aptar had utilized \$ 36.5 million and € 40.0 million (\$ 44.2 million) under the revolving credit facility in the U.S. and no balance was utilized by our wholly-owned UK subsidiary. As of September 30, 2024, Aptar had utilized € 200 million (\$ 222.7 million) under the amended revolving credit facility in the U.S. and no balance was utilized by our wholly-owned UK subsidiary.

On July 2, 2024, we entered into a term loan with a syndicate of banks (the “Term Loan”). The Term Loan matures in July 2027 and enabled drawings on the loan until September 30, 2024 and provided for unsecured financing of up to \$ 330 million available in the U.S. Funds are to be used to refinance near-term maturities and for general corporate purposes. As of September 30, 2024, \$ 166 million was utilized under the Term Loan facility and the unused portion expired.

There are no compensating balance requirements associated with our amended revolving credit facility. Each borrowing under the amended revolving credit facility will bear interest at rates based on SOFR (in the case of USD), EURIBOR (in the case of EUR), SONIA (in the case of GBP), SARON (in the case of CHF), prime rates or other similar rates, in each case plus an applicable margin. The amended revolving credit facility also provides mechanics relating to a transition away from designated benchmark rates for other available currencies and the replacement of any such applicable benchmark by a replacement alternative benchmark rate or mechanism for loans made in the applicable currency. A facility fee on the total amount of the amended revolving credit facility is also payable quarterly, regardless of usage. The applicable margins for borrowings under the amended revolving credit facility and the facility fee percentage may change from time to time depending on changes in our consolidated leverage ratio.

Aptar has an unsecured money market borrowing arrangement to provide short-term financing of up to \$ 30 million that is available in the U.S. No borrowing on this facility is permitted over a quarter end date. As such, no balance was utilized under this arrangement as of September 30, 2024 or December 31, 2023.

Long-Term Obligations

On February 26, 2024, we repaid in full the \$ 100 million 3.49 % Senior Unsecured Notes that were due in February 2024. On July 19, 2024, we repaid in full the € 200 million 1.17 % Senior Unsecured Notes that were due in July 2024. On September 5, 2024, we repaid in full the \$ 50 million 3.4 % Senior Unsecured Notes that were due in September 2024. These were repaid using borrowings from our revolving credit facility or the Term Loan.

At September 30, 2024 and December 31, 2023, our long-term obligations consisted of the following:

	September 30, 2024	December 31, 2023
Notes payable 0.10 % – 2.25 %, due in monthly and annual installments through 2031	\$ 16,893	\$ 14,988
Senior unsecured notes 3.4 %, due in 2024	—	50,000
Senior unsecured notes 3.5 %, due in 2024	—	100,000
Senior unsecured notes 1.2 %, due in 2024	—	220,810
Senior unsecured notes 3.6 %, due in 2025	125,000	125,000
Senior unsecured notes 3.6 %, due in 2026	125,000	125,000
Term loan 6.4 % floating, due in 2027	166,000	—
Senior unsecured notes 3.6 %, due in 2032, net of discount of \$ 0.8 million	399,232	399,154
Finance Lease Liabilities	24,917	26,478
Unamortized debt issuance costs	(4,016)	(3,816)
	\$ 853,026	\$ 1,057,614
Current maturities of long-term obligations	(30,295)	(376,426)
Total long-term obligations	\$ 822,731	\$ 681,188

The aggregate long-term maturities, excluding finance lease liabilities and unamortized debt issuance costs, which are discussed in Note 7, due annually from the current balance sheet date for the next five years and thereafter are:

Year One	\$ 26,912
Year Two	134,438
Year Three	271,276
Year Four	111
Year Five	78
Thereafter	399,310

Covenants

Our amended revolving credit facility and corporate long-term obligations require us to satisfy certain financial and other covenants including:

	Requirement	Level at September 30, 2024
Consolidated Leverage Ratio (1)	Maximum of 3.50 to 1.00	1.10 to 1.00
Consolidated Interest Coverage Ratio (1)	Minimum of 3.00 to 1.00	16.81 to 1.00

(1) Definitions of ratios are included as part of the revolving credit facility agreement and the private placement agreements.

NOTE 7 – LEASES

We lease certain warehouse, plant and office facilities, as well as certain equipment, under non-cancelable operating and finance leases expiring at various dates through the year 2042. Most of the operating leases contain renewal options and certain leases include options to purchase the related asset during or at the end of the lease term.

Amortization expense related to finance leases is included in depreciation expense, while rent expense related to operating leases is included within cost of sales and selling, research & development and administrative expenses.

The components of lease expense for the three and nine months ended September 30, 2024 and 2023 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Operating lease cost	\$ 4,795	\$ 5,150	\$ 14,530	\$ 15,841
Finance lease cost:				
Amortization of right-of-use assets	\$ 1,715	\$ 908	\$ 4,976	\$ 2,686
Interest on lease liabilities	299	289	897	883
Total finance lease cost	\$ 2,014	\$ 1,197	\$ 5,873	\$ 3,569
Short-term lease and variable lease costs	\$ 5,255	\$ 5,774	\$ 15,451	\$ 15,883

Supplemental cash flow information related to leases were as follows:

Nine Months Ended September 30,	2024	2023
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 14,845	\$ 15,993
Operating cash flows from finance leases	976	883
Financing cash flows from finance leases	2,305	2,377
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	\$ 31,819	\$ 7,764
Finance leases	1,347	401

NOTE 8 – RETIREMENT AND DEFERRED COMPENSATION PLANS

We have various noncontributory retirement plans covering certain of our domestic and foreign employees. Benefits under our retirement plans are based on participants' years of service and annual compensation as defined by each plan. Annual cash contributions to fund pension costs accrued under our domestic plans are generally at least equal to the minimum funding amounts required by the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). Certain pension commitments under our foreign plans are also funded according to local requirements or at our discretion.

Effective January 1, 2021, our domestic noncontributory retirement plans were closed to new employees and employees who were rehired after December 31, 2020. These employees are instead eligible for additional contribution to their defined contribution 401(k) employee savings plan. All domestic employees with hire/rehire dates prior to January 1, 2021 are still eligible for the domestic pension plans and continue to accrue plan benefits after this date.

Components of Net Periodic Benefit Cost:

	Domestic Plans		Foreign Plans	
Three Months Ended September 30,	2024	2023	2024	2023
Service cost	\$ 2,366	\$ 2,409	\$ 1,605	\$ 1,487
Interest cost	2,242	2,158	860	915
Expected return on plan assets	(3,116)	(3,094)	(549)	(589)
Amortization of net loss	—	—	303	230
Amortization of prior service cost	—	—	29	45
Net periodic benefit cost	\$ 1,492	\$ 1,473	\$ 2,248	\$ 2,088
Curtailement	—	—	(1,851)	—
Total Net periodic benefit cost	\$ 1,492	\$ 1,473	\$ 397	\$ 2,088

Nine Months Ended September 30,	Domestic Plans		Foreign Plans	
	2024	2023	2024	2023
Service cost	\$ 7,097	\$ 7,228	\$ 4,838	\$ 4,444
Interest cost	6,726	6,473	2,602	2,735
Expected return on plan assets	(9,347)	(9,283)	(1,671)	(1,758)
Amortization of net loss	—	—	819	687
Amortization of prior service cost	—	—	83	133
Net periodic benefit cost	\$ 4,476	\$ 4,418	\$ 6,671	\$ 6,241
Curtailment	—	—	(1,851)	—
Total Net periodic benefit cost	\$ 4,476	\$ 4,418	\$ 4,820	\$ 6,241

During the three months ended September 30, 2024, pension curtailment accounting was triggered as a result of restructuring in one of our entities in Europe. The remeasurement of the pension obligations resulted in a decrease of \$ 1.9 million. The components of net periodic benefit cost, other than the service cost component, are included in the line miscellaneous income (expense), net in the Condensed Consolidated Statements of Income.

Employer Contributions

We currently have no minimum funding requirements for our domestic and foreign plans. There were no contributions to our domestic defined benefit plans during the nine months ended September 30, 2024 and we do not expect significant payments during the rest of 2024. We contributed \$ 2.8 million to our foreign defined benefit plans during the nine months ended September 30, 2024 and do not expect additional significant contributions during the rest of 2024.

NOTE 9 – ACCUMULATED OTHER COMPREHENSIVE (LOSS) INCOME

Changes in Accumulated Other Comprehensive (Loss) Income by Component:

	Foreign Currency	Defined Benefit		Derivatives	Total
		Pension Plans			
Balance - December 31, 2022	\$ (328,740)	\$ (5,951)	\$ (6,675)	\$ (341,366)	
Other comprehensive (loss) income before reclassifications	(28,294)	63	(2,424)	(30,655)	
Amounts reclassified from accumulated other comprehensive income	—	581	—	581	
Net current-period other comprehensive (loss) income	(28,294)	644	(2,424)	(30,074)	
Balance - September 30, 2023	\$ (357,034)	\$ (5,307)	\$ (9,099)	\$ (371,440)	
Balance - December 31, 2023	\$ (280,082)	\$ (11,891)	\$ (16,761)	\$ (308,734)	
Other comprehensive (loss) income before reclassifications	(52)	(532)	(202)	(786)	
Amounts reclassified from accumulated other comprehensive income	—	640	—	640	
Net current-period other comprehensive (loss) income	(52)	108	(202)	(146)	
Balance - September 30, 2024	\$ (280,134)	\$ (11,783)	\$ (16,963)	\$ (308,880)	

Reclassifications Out of Accumulated Other Comprehensive (Loss) Income:

Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income		Affected Line in the Statement Where Net Income is Presented
	2024	2023	
Three Months Ended September 30,			
Defined Benefit Pension Plans			
Amortization of net loss	\$ 303	\$ 230	(1)
Amortization of prior service cost	29	45	(1)
	332	275	Total before tax
	(96)	(81)	Tax impact
	\$ 236	\$ 194	Net of tax
Total reclassifications for the period	\$ 236	\$ 194	

Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income		Affected Line in the Statement Where Net Income is Presented
	2024	2023	
Nine Months Ended September 30,			
Defined Benefit Pension Plans			
Amortization of net loss	\$ 819	\$ 687	(1)
Amortization of prior service cost	83	133	(1)
	902	820	Total before tax
	(262)	(239)	Tax impact
	\$ 640	\$ 581	Net of tax
Total reclassifications for the period	\$ 640	\$ 581	

(1) These accumulated other comprehensive income components are included in the computation of total net periodic benefit costs, net of tax. See Note 8 – Retirement and Deferred Compensation Plans for additional details.

NOTE 10 – DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We maintain a foreign exchange risk management policy designed to establish a framework to protect the value of our non-functional currency denominated transactions from adverse changes in exchange rates. Sales of our products can be denominated in a currency different from the currency in which the related costs to produce the product are denominated. Changes in exchange rates on such inter-country sales or intercompany loans can impact our results of operations. Our policy is not to engage in speculative foreign currency hedging activities, but to minimize our net foreign currency transaction exposure, defined as firm commitments and transactions recorded and denominated in currencies other than the functional currency. We may use foreign currency forward exchange contracts, options and cross currency swaps to economically hedge these risks.

For derivative instruments designated as hedges, we formally document the nature and relationships between the hedging instruments and the hedged items, as well as the risk management objectives, strategies for undertaking the various hedge transactions, and the method of assessing hedge effectiveness at inception. Quarterly thereafter, we formally assess whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in the fair value or cash flows of the hedged item. Additionally, in order to designate any derivative instrument as a hedge of an anticipated transaction, the significant characteristics and expected terms of any anticipated transaction must be specifically identified, and it must be probable that the anticipated transaction will occur. All derivative financial instruments used as hedges are recorded at fair value in the Condensed Consolidated Balance Sheets (See Note 11 - Fair Value).

Cash Flow Hedge

For derivative instruments that are designated and qualify as cash flow hedges, the changes in fair values are recorded in accumulated other comprehensive loss and included in changes in derivative gain/loss. The changes in the fair values of derivatives designated as cash flow hedges are reclassified from accumulated other comprehensive loss to net income when the underlying hedged item is recognized in earnings. Cash flows from the settlement of derivative contracts designated as cash flow hedges offset cash flows from the underlying hedged items and are included in operating activities in the Condensed Consolidated Statements of Cash Flows.

Net Investment Hedge

A significant number of our operations are located outside of the United States. Because of this, movements in exchange rates may have a significant impact on the translation of the financial condition and results of operations of our foreign subsidiaries. A weakening U.S. dollar has an additive effect on our financial condition and results of operations. Conversely, a strengthening U.S. dollar relative to foreign currencies has a dilutive translation effect. In some cases we maintain debt in these subsidiaries to offset the net asset exposure. In the event we plan on a full or partial liquidation of any of our foreign subsidiaries where our net investment is likely to be monetized, we will consider hedging the currency exposure associated with such a transaction.

On July 6, 2022, we entered into a seven-year USD/EUR fixed-to-fixed cross currency interest rate swap to effectively hedge the interest rate exposure relating to \$ 203 million of the \$ 400 million 3.60 % Senior Unsecured Notes due March 2032, which were issued by AptarGroup, Inc. on March 7, 2022. This USD/EUR swap agreement exchanged \$ 203 million of fixed-rate 3.60 % USD debt to € 200 million of fixed-rate 2.5224 % euro debt. We pay semi-annual fixed rate interest payments on the euro notional amount of € 2.5 million and receive semi-annual fixed rate interest payments on the USD notional amount of \$ 3.7 million. This swap has been designated as a net investment hedge to effectively hedge the foreign exchange risk associated with € 200 million of our euro denominated net assets. We elected the spot method for recording the net investment hedge. Gains and losses resulting from the settlement of the excluded components are recorded in interest expense in the Condensed Consolidated Statements of Income. Gains and losses resulting from the fair value adjustments to the cross currency swap agreements are recorded in accumulated other comprehensive (loss) income as the swaps are effective in hedging the designated risk. As of September 30, 2024, the fair value of the cross currency swap was a \$ 22.5 million liability. The swap agreement will mature on September 15, 2029.

Other

As of September 30, 2024, we have recorded the fair value of foreign currency forward exchange contracts of \$ 0.1 million in prepaid and other and \$ 1.1 million in accounts payable, accrued and other liabilities on the Condensed Consolidated Balance Sheets. All forward exchange contracts outstanding as of September 30, 2024 had an aggregate notional contract amount of \$ 77.2 million.

Fair Value of Derivative Instruments in the Condensed Consolidated Balance Sheets as of September 30, 2024 and December 31, 2023

Balance Sheet Location		September 30, 2024		December 31, 2023	
		Derivatives Designated as Hedging Instruments	Derivatives not Designated as Hedging Instruments	Derivatives Designated as Hedging Instruments	Derivatives not Designated as Hedging Instruments
Derivative Assets					
Foreign Exchange Contracts	Prepaid and other	\$ —	\$ 145	\$ —	\$ 386
		\$ —	\$ 145	\$ —	\$ 386
Derivative Liabilities					
Foreign Exchange Contracts	Accounts payable, accrued and other liabilities	\$ —	\$ 1,052	\$ —	\$ 221
Cross Currency Swap Contract (1)	Accounts payable, accrued and other liabilities	22,466	—	22,199	—
		\$ 22,466	\$ 1,052	\$ 22,199	\$ 221

(1) This cross currency swap agreement is composed of both an interest component and a foreign exchange component.

The Effect of Derivatives Designated as Hedging Instruments on Accounting on Accumulated Other Comprehensive Income (Loss) for the Three Months Ended September 30, 2024 and 2023

Derivatives Designated as Hedging Instruments	Amount of Gain (Loss) Recognized in Other Comprehensive Income on Derivative		Location of (Loss) Gain Recognized in Income on Derivatives	Amount of Gain (Loss) Reclassified from Accumulated Other Comprehensive Income on Derivative		Total Amount of Affected Income Statement Line Item
	2024	2023		2024	2023	
Cross currency swap agreement:						
Interest component	\$ —	\$ —	Interest expense	\$ —	\$ —	\$ (12,290)
Foreign exchange component	(5,711)	2,707	Miscellaneous, net	—	—	1,136
	\$ (5,711)	\$ 2,707		\$ —	\$ —	

The Effect of Derivatives Designated as Hedging Instruments on Accumulated Other Comprehensive Income (Loss) for the Nine Months Ended September 30, 2024 and 2023

Derivatives Designated as Hedging Instruments	Amount of Gain Recognized in Other Comprehensive Income on Derivative		Location of Gain Recognized in Income on Derivatives	Amount of Gain Reclassified from Accumulated Other Comprehensive Income on Derivative		Total Amount of Affected Income Statement Line Item
	2024	2023		2024	2023	
Cross currency swap agreement:						
Interest component	\$ —	\$ —	Interest expense	\$ —	\$ —	\$ (32,526)
Foreign exchange component	(202)	(2,424)	Miscellaneous, net	—	—	(518)
	\$ (202)	\$ (2,424)		\$ —	\$ —	

The Effect of Derivatives Not Designated as Hedging Instruments on the Condensed Consolidated Statements of Income for the Three Months Ended September 30, 2024 and 2023

Derivatives Not Designated as Hedging Instruments	Location of (Loss) Gain Recognized in Income on Derivatives	Amount of (Loss) Gain Recognized in Income on Derivatives	
		2024	2023
Foreign Exchange Contracts	Other (Expense) Income:		
	Miscellaneous, net	\$ (1,157)	\$ 44
		<u>\$ (1,157)</u>	<u>\$ 44</u>

The Effect of Derivatives Not Designated as Hedging Instruments on the Condensed Consolidated Statements of Income for the Nine Months Ended September 30, 2024 and 2023

Derivatives Not Designated as Hedging Instruments	Location of Loss Recognized in Income on Derivatives	Amount of Loss Recognized in Income on Derivatives	
		2024	2023
Foreign Exchange Contracts	Other (Expense) Income:		
	Miscellaneous, net	\$ (1,017)	\$ (756)
		<u>\$ (1,017)</u>	<u>\$ (756)</u>

		Gross Amounts Offset in the Statement of Financial Position	Net Amounts Presented in the Statement of Financial Position	Gross Amounts not Offset in the Statement of Financial Position		
	Gross Amount			Financial Instruments	Cash Collateral Received	Net Amount
September 30, 2024						
Derivative Assets	\$ 145	—	\$ 145	—	—	\$ 145
Total Assets	\$ 145	—	\$ 145	—	—	\$ 145
Derivative Liabilities	\$ 23,518	—	\$ 23,518	—	—	\$ 23,518
Total Liabilities	\$ 23,518	—	\$ 23,518	—	—	\$ 23,518
December 31, 2023						
Derivative Assets	\$ 386	—	\$ 386	—	—	\$ 386
Total Assets	\$ 386	—	\$ 386	—	—	\$ 386
Derivative Liabilities	\$ 22,420	—	\$ 22,420	—	—	\$ 22,420
Total Liabilities	\$ 22,420	—	\$ 22,420	—	—	\$ 22,420

NOTE 11 – FAIR VALUE

Authoritative guidelines require the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment. The three levels are defined as follows:

- Level 1: Unadjusted quoted prices in active markets for identical assets and liabilities.
- Level 2: Observable inputs other than those included in Level 1. For example, quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets.
- Level 3: Unobservable inputs reflecting management's own assumptions about the inputs used in pricing the asset or liability.

As of September 30, 2024, the fair values of our financial assets and liabilities were categorized as follows:

	Total	Level 1	Level 2	Level 3
Assets				
Investment in equity securities (1)	\$ 2,768	\$ 2,768	\$ —	\$ —
Foreign exchange contracts (2)	145	—	145	—
Convertible notes (3)	5,650	—	—	5,650
Total assets at fair value	\$ 8,563	\$ 2,768	\$ 145	\$ 5,650
Liabilities				
Foreign exchange contracts (2)	\$ 1,052	\$ —	\$ 1,052	\$ —
Cross currency swap contract (2)	22,466	—	22,466	—
Total liabilities at fair value	\$ 23,518	\$ —	\$ 23,518	\$ —

As of December 31, 2023, the fair values of our financial assets and liabilities were categorized as follows:

	Total	Level 1	Level 2	Level 3
Assets				
Investment in equity securities (1)	\$ 1,106	\$ 1,106	\$ —	\$ —
Foreign exchange contracts (2)	386	—	386	—
Convertible note (3)	5,650	—	—	5,650
Total assets at fair value	\$ 7,142	\$ 1,106	\$ 386	\$ 5,650
Liabilities				
Foreign exchange contracts (2)	\$ 221	\$ —	\$ 221	\$ —
Cross currency swap contract (2)	22,199	—	22,199	—
Total liabilities at fair value	\$ 22,420	\$ —	\$ 22,420	\$ —

(1) Investment in PureCycle Technologies ("PCT" or "PureCycle"). See Note 18 – Investment in Equity Securities for discussion of this investment.

(2) Market approach valuation technique based on observable market transactions of spot and forward rates.

(3) Investment in convertible notes in Enable Injections, Inc. and Siklus Refill Pte, Ltd. The investments are included within Miscellaneous assets in our Condensed Consolidated Balance Sheets.

The carrying amounts of our other current financial instruments such as cash and equivalents, accounts and notes receivable, notes payable and current maturities of long-term obligations approximate fair value due to the short-term maturity of the instrument. We consider our long-term debt obligations a Level 2 liability and utilize the market approach valuation technique based on interest rates that are currently available to us for issuance of debt with similar terms and maturities. The estimated fair value of our long-term obligations was \$ 775.5 million as of September 30, 2024 and \$ 620.7 million as of December 31, 2023.

NOTE 12 – COMMITMENTS AND CONTINGENCIES

In the normal course of business, we are subject to a number of lawsuits and claims both actual and potential in nature. While management believes the resolution of these claims and lawsuits will not have a material adverse effect on our financial position, results of operations or cash flows, claims and legal proceedings are subject to inherent uncertainties, and unfavorable outcomes could occur that could include amounts in excess of any accruals which management has established. Were such unfavorable final outcomes to occur, it is possible that they could have a material adverse effect on our financial position, results of operations and cash flows.

Under our Certificate of Incorporation, we have agreed to indemnify our officers and directors for certain events or occurrences while the officer or director is, or was, serving at our request in such capacity. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited; however, we have a directors and officers liability insurance policy that covers a portion of our exposure. As a result of our insurance policy coverage, we believe the estimated fair value of these indemnification agreements is minimal. We have no liabilities recorded for these agreements as of September 30, 2024 and December 31, 2023.

We are periodically subject to loss contingencies resulting from custom duties assessments. We accrue for anticipated costs when an assessment has indicated that a loss is probable and can be reasonably estimated. We have received claims worth approximately \$ 12 million in principal and \$ 14 million to \$ 15 million for interest and penalties. We are currently defending our position with respect to these claims in the respected administrative procedures. Due to uncertainty in the amount of the assessment and the timing of our appeal, no liability is recorded as of September 30, 2024.

We will continue to evaluate these liabilities periodically based on available information, including the progress of remedial investigations, the status of discussions with regulatory authorities regarding the methods and extent of remediation and the apportionment of costs and penalties among potentially responsible parties.

NOTE 13 – STOCK REPURCHASE PROGRAM

On April 18, 2019, we announced a share repurchase authorization of up to \$ 350 million of common stock. We may repurchase shares through the open market, privately negotiated transactions or other programs, subject to market conditions. On October 10, 2024, we announced a share repurchase authorization of up to \$ 500 million of common stock. This authorization replaces previous authorizations and has no expiration date.

During the three and nine months ended September 30, 2024, we repurchased approximately 95 thousand shares for \$ 14.2 million and 215 thousand shares for \$ 31.3 million, respectively. During the three and nine months ended September 30, 2023, we repurchased approximately 66 thousand shares for \$ 8.3 million and 318 thousand shares for \$ 37.3 million, respectively.

NOTE 14 – STOCK-BASED COMPENSATION

We issue restricted stock units (“RSUs”), which consist of time-based and performance-based awards, to employees under stock awards plans approved by stockholders. In addition, RSUs are issued to non-employee directors under a Restricted Stock Unit Award Agreement for Directors pursuant to the Company’s 2018 Equity Incentive Plan. RSUs granted to employees vest according to a specified performance period and/or vesting period. Time-based RSUs generally vest over three years. Performance-based RSUs vest at the end of the specified performance period, generally three years, assuming required performance or market vesting conditions are met.

For awards granted in the first quarter of 2023 and thereafter, our performance-based RSUs will vest solely based on our return on invested capital (“ROIC”). Award share payouts depend on the extent to which the ROIC performance goal has been achieved, but the final payout is adjusted by a total shareholder return (“TSR”) modifier.

At the time of vesting, the vested shares of common stock are issued in the employee’s name. In addition, RSU awards are generally net settled (shares are withheld to cover the employee tax obligation). RSUs granted to directors are only time-based and generally vest on or around the first anniversary of the date of grant.

The fair value of both time-based RSUs and performance-based RSUs pertaining to internal performance metrics is determined using the closing price of our common stock on the grant date. The fair value of performance-based RSUs pertaining to TSR is estimated using a Monte Carlo simulation. Inputs and assumptions used to calculate the fair value are shown in the table below. The fair value of these RSUs is expensed over the vesting period using the straight-line method or using the graded vesting method when an employee becomes eligible to retain the award at retirement.

Nine Months Ended September 30,	2024		2023	
Fair value per stock award	\$	145.79	\$	116.17
Grant date stock price	\$	141.00	\$	111.38
Assumptions:				
Aptar’s stock price expected volatility		18.80 %		20.00 %
Expected average volatility of peer companies		34.80 %		39.70 %
Correlation assumption		30.70 %		33.30 %
Risk-free interest rate		4.51 %		3.83 %
Dividend yield assumption		1.16 %		1.36 %

A summary of RSU activity as of September 30, 2024 and changes during the nine month period then ended is presented below:

	Time-Based RSUs		Performance-Based RSUs	
	Units	Weighted Average Grant-Date Fair Value	Units	Weighted Average Grant-Date Fair Value
Nonvested at January 1, 2024	335,874	\$ 115.15	514,383	\$ 130.10
Granted	125,454	137.03	129,614	145.79
Vested	(176,820)	119.33	(97,764)	162.33
Forfeited	(4,087)	118.06	(32,007)	143.88
Nonvested at September 30, 2024	280,421	\$ 122.18	514,226	\$ 127.11

Included in the time-based RSU activity for the nine months ended September 30, 2024 are 10,208 units granted to non-employee directors and 11,508 units vested related to non-employee directors.

Nine Months Ended September 30,	2024		2023	
Compensation expense	\$	31,677	\$	32,209
Fair value of units vested		35,434		27,662
Intrinsic value of units vested		38,578		32,319

The actual tax benefit realized for the tax deduction from RSUs was approximately \$ 7.2 million and \$ 5.6 million in the nine months ended September 30, 2024 and 2023, respectively. As of September 30, 2024, there was \$ 51.2 million of total unrecognized compensation cost relating to RSU awards which is expected to be recognized over a weighted-average period of 1.8 years.

Historically we issued stock options to our employees and non-employee directors. We did not issue stock options between 2019 and 2022. Stock options were reinstituted in 2023 and valued based on the Black-Scholes model and generally vest ratably over three years and expire 10 years after grant.

The Company uses historical data to estimate expected life and volatility. The weighted-average fair value of stock options granted under the stock awards plans were \$ 36.07 per share for all employees during the first nine months of 2024. The weighted-average fair value of stock options granted under the stock awards plans were \$ 19.84 and \$ 24.23 per share for executive officers and all other employees, respectively, during the first nine months of 2023. Aptar executive officers received stock options with an exercise price that was 110 % of the closing market price on the date of grant. These values were estimated on the respective dates of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

Stock Award Plans:

Nine Months Ended September 30,	2024	2023
Dividend Yield	1.28 %	1.41 %
Expected Stock Price Volatility	17.03 %	16.55 %
Risk-free Interest Rate	4.51 %	3.57 %
Expected Life of Option (years)	7.0	7.0

A summary of option activity under our stock plans during the nine months ended September 30, 2024 is presented below:

	Stock Awards Plans		Director Stock Option Plans	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding, January 1, 2024	2,182,784	\$ 80.63	19,000	\$ 66.59
Granted	249,805	141.00	—	—
Exercised	(610,124)	70.98	(19,000)	66.59
Forfeited or expired	(9,666)	107.82	—	—
Outstanding at September 30, 2024	1,812,799	\$ 92.05	—	\$ —
Exercisable at September 30, 2024	1,361,396	\$ 79.52	—	\$ —
Weighted-Average Remaining Contractual Term (Years):				
Outstanding at September 30, 2024	4.3		0.0	
Exercisable at September 30, 2024	2.7		0.0	
Aggregate Intrinsic Value:				
Outstanding at September 30, 2024	\$ 123,515	\$ —		
Exercisable at September 30, 2024	\$ 109,830	\$ —		
Intrinsic Value of Options Exercised During the Nine Months Ended:				
September 30, 2024	\$ 43,779	\$ 1,394		
September 30, 2023	\$ 27,392	\$ 1,978		

Nine Months Ended September 30,	2024	2023
Compensation expense (included in SG&A)	\$ 5,678	\$ 3,561
Compensation expense (included in Cost of sales)	607	314
Compensation expense, Total	\$ 6,285	\$ 3,875
Compensation expense, net of tax	6,121	3,875
Grant date fair value of options vested	2,306	—

The increase in stock option expense is due to the newly issued options as discussed above. Cash received from option exercises for the nine months ended September 30, 2024 and 2023 was approximately \$ 44.4 million and \$ 39.7 million, respectively. The actual tax benefit realized for the tax deduction from option exercises was approximately \$ 10.3 million and \$ 6.8 million in the nine months ended September 30, 2024 and 2023, respectively. As of September 30, 2024, there was \$ 5.2 million of total unrecognized compensation cost relating to stock option awards which is expected to be recognized over a weighted-average period of 2.1 years.

NOTE 15 – EARNINGS PER SHARE

Basic net income per share is calculated by dividing net income attributable to Aptar by the weighted-average number of common shares outstanding during the period. Diluted net income per share is calculated by dividing the net income attributable to Aptar by the weighted-average number of common and common equivalent shares outstanding during the applicable period. The difference between basic and diluted earnings per share is attributable to stock-based compensation awards. Stock-based compensation awards for which total employee proceeds exceed the average market price over the applicable period would have an antidilutive effect on earnings per share, and accordingly, are excluded from the calculation of diluted earnings per share. The reconciliation of basic and diluted earnings per share for the three and nine months ended September 30, 2024 and 2023 were as follows:

	Three Months Ended			
	September 30, 2024		September 30, 2023	
	Diluted	Basic	Diluted	Basic
Consolidated operations				
Income available to common stockholders	\$ 100,039	\$ 100,039	\$ 84,296	\$ 84,296
Average equivalent shares				
Shares of common stock	66,445	66,445	65,707	65,707
Effect of dilutive stock-based compensation				
Stock options	737	—	874	—
Restricted stock	534	—	454	—
Total average equivalent shares	67,716	66,445	67,035	65,707
Net income per share	\$ 1.48	\$ 1.51	\$ 1.26	\$ 1.28
	Nine Months Ended			
	September 30, 2024		September 30, 2023	
	Diluted	Basic	Diluted	Basic
Consolidated operations				
Income available to common stockholders	\$ 273,597	\$ 273,597	\$ 222,132	\$ 222,132
Average equivalent shares				
Shares of common stock	66,274	66,274	65,550	65,550
Effect of dilutive stock-based compensation				
Stock options	768	—	886	—
Restricted stock	532	—	429	—
Total average equivalent shares	67,574	66,274	66,865	65,550
Net income per share	\$ 4.05	\$ 4.13	\$ 3.32	\$ 3.39

NOTE 16 – SEGMENT INFORMATION

We are organized into three reporting segments. Operations that sell proprietary dispensing systems, drug delivery systems, sealing solutions and services to the prescription drug, consumer health care, injectables, active material science solutions and digital health markets form our Aptar Pharma segment. Operations that sell dispensing systems and sealing solutions to the beauty, personal care and home care markets form our Aptar Beauty segment. Operations that sell dispensing closures, sealing solutions and food service trays to the food, beverage, personal care, home care, beauty and healthcare markets form our Aptar Closures segment. Aptar Pharma and Aptar Beauty are named for the markets they serve with multiple product platforms, while Aptar Closures is named primarily for a single product platform that serves all available markets.

The accounting policies of the segments are the same as those described in Part II, Item 8, Note 1 - Summary of Significant Accounting Policies in our Annual Report on Form 10-K for the year ended December 31, 2023. We evaluate performance of our reporting segments and allocate resources based upon Adjusted EBITDA. Adjusted EBITDA is defined as earnings before net interest, taxes, depreciation, amortization, restructuring initiatives, acquisition-related costs, net unrealized investment gains and losses related to observable market price changes on equity securities and other special items.

Financial information regarding our reporting segments is shown below:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Total Sales:				
Aptar Pharma	\$ 420,753	\$ 389,423	\$ 1,243,026	\$ 1,136,544
Aptar Beauty	308,955	330,467	972,535	1,002,209
Aptar Closures	187,324	181,562	547,002	539,472
Total Sales	\$ 917,032	\$ 901,452	\$ 2,762,563	\$ 2,678,225
Less: Intersegment Sales:				
Aptar Pharma	\$ 159	\$ 235	\$ 606	\$ 610
Aptar Beauty	6,096	6,487	20,869	22,253
Aptar Closures	1,486	1,733	6,286	6,392
Total Intersegment Sales	\$ 7,741	\$ 8,455	\$ 27,761	\$ 29,255
Net Sales:				
Aptar Pharma	\$ 420,594	\$ 389,188	\$ 1,242,420	\$ 1,135,934
Aptar Beauty	302,859	323,980	951,666	979,956
Aptar Closures	185,838	179,829	540,716	533,080
Net Sales	\$ 909,291	\$ 892,997	\$ 2,734,802	\$ 2,648,970
Adjusted EBITDA (1):				
Aptar Pharma	\$ 151,594	\$ 136,344	\$ 425,260	\$ 371,508
Aptar Beauty	40,221	41,070	125,993	121,375
Aptar Closures	31,980	27,607	86,259	81,387
Corporate & Other, unallocated	(15,411)	(11,659)	(57,528)	(45,996)
Acquisition-related costs (2)	—	—	(140)	(255)
Restructuring Initiatives (3)	(3,864)	(6,161)	(9,659)	(19,628)
Curtailment gain related to restructuring initiatives (5)	1,851	—	1,851	—
Net unrealized investment (loss) gain (4)	1,043	(5,428)	1,495	(2,349)
Depreciation and amortization	(67,015)	(62,686)	(196,332)	(184,212)
Interest Expense	(12,290)	(9,984)	(32,526)	(29,900)
Interest Income	3,022	946	9,022	2,266
Income before Income Taxes	\$ 131,131	\$ 110,049	\$ 353,695	\$ 294,196

- (1) We evaluate performance of our reporting segments and allocate resources based upon Adjusted EBITDA. Adjusted EBITDA is defined as earnings before net interest, taxes, depreciation, amortization, restructuring initiatives, acquisition-related costs, net unrealized investment gains and losses related to observable market price changes on equity securities and other special items.
- (2) Acquisition-related costs include transaction costs (and purchase accounting adjustments related to acquisitions and investments) (see Note 17 - Acquisitions and Note 18 – Investments in Equity Securities for further details).

(3) Restructuring Initiatives includes expense items for the three and nine months ended September 30, 2024 and 2023 as follows (see Note 19 – Restructuring Initiatives for further details):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Restructuring Initiatives by Plan:				
Optimization initiative	\$ 3,864	\$ 6,586	\$ 9,676	\$ 20,069
Prior year initiatives	—	(425)	(17)	(441)
Total Restructuring Initiatives	\$ 3,864	\$ 6,161	\$ 9,659	\$ 19,628
Restructuring Initiatives by Segment:				
Aptar Pharma	\$ 564	\$ 92	\$ 653	\$ 1,657
Aptar Beauty	1,962	2,880	5,871	12,650
Aptar Closures	877	3,098	2,530	4,060
Corporate & Other	461	91	605	1,261
Total Restructuring Initiatives	\$ 3,864	\$ 6,161	\$ 9,659	\$ 19,628

(4) Net unrealized investment (loss) gain represents the change in fair value of our investment in PCT (see Note 18 – Investment in Equity Securities for further details).

(5) The curtailment gain is included in the line miscellaneous income (expense), net in the Condensed Consolidated Statements of Income (see Note 8 - Retirement and Deferred Compensation Plans).

NOTE 17 – ACQUISITIONS

Business Combinations

On August 1, 2023, we paid the remaining \$ 5.2 million purchase price in relation to the 2021 Hengyu acquisition. No further liability remains outstanding for this acquisition.

On March 1, 2023, we completed the acquisition of all the outstanding capital stock of iD SCENT. Located in Lyon, France, iD SCENT is an expert producer of paper fragrance sampling solutions that present multiple sustainability features. The purchase price was approximately \$ 9.4 million (net of \$ 1.4 million cash acquired) and was funded with cash on hand. The results of iD SCENT have been included in the consolidated financial statements within our Aptar Beauty segment since the date of acquisition.

Also on March 1, 2023, we completed the acquisition of 80 % of the equity interest of Gulf Closures W.L.L. (“Gulf Closures”). Gulf Closures, located in Bahrain, is a closure manufacturer for beverage products. The purchase price for 80 % ownership was approximately \$ 1.5 million (net of \$ 1.2 million cash acquired) and was funded with cash on hand. This values the full company equity at approximately \$ 3.3 million and implies a non-controlling interest valued at approximately \$ 0.7 million as of the acquisition date. The results of Gulf Closures have been included in the consolidated financial statements within our Aptar Closures segment since the date of acquisition.

NOTE 18 – INVESTMENT IN EQUITY SECURITIES

Our investment in equity securities consisted of the following:

	September 30, 2024	December 31, 2023
Equity Method Investments:		
BTY	\$ 33,069	\$ 33,090
Sonmol	4,796	4,751
Desotec GmbH	1,000	905
Other Investments:		
PureCycle	2,768	1,106
YAT	5,414	5,352
Loop	2,894	2,894
Others	1,111	1,105
	\$ 51,052	\$ 49,203

Equity Method Investments

Goldrain

On October 22, 2024, we acquired 40 % of the equity interests in Ningbo Jinyu Technology Industry Co., Ltd., doing business as Goldrain, (referred to as “Goldrain”), a leading manufacturer of dispensing technologies in China for an approximate purchase price of \$ 99 million. Goldrain is a leading manufacturer specialized in developing and producing packages for skin care, cosmetic, household, cleaning, personal care and perfumery products.

BTY

On January 1, 2020, we acquired 49 % of the equity interests in three related companies: Suzhou Hsing Kwang, Suqian Hsing Kwang and Suzhou BTY (collectively referred to as “BTY”) for an approximate purchase price of \$ 32.0 million. We have a call option to acquire an additional 26 % to 31 % of BTY’s equity interests following the initial lock-up period of 5 years based on a predetermined formula. Subsequent to the second lock-up period, which ends 3 years after the initial lock-up period, we have a call option to acquire the remaining equity interests of BTY based on a predetermined formula. Additionally, the selling shareholders of BTY have a put option for the remaining equity interest to be acquired by Aptar based on a predetermined formula. The BTY entities are leading Chinese manufacturers of high quality, decorative metal components, metal-plastic sub-assemblies, and complete color cosmetics packaging solutions for the beauty industry. For the nine months ended September 30, 2024 and September 30, 2023, Aptar had purchases of \$ 8.7 million and \$ 10.7 million, respectively, from BTY. As of September 30, 2024 and December 31, 2023, approximately \$ 2.0 million and \$ 1.8 million, respectively, was due to BTY and included in accounts payable, accrued and other liabilities on our Condensed Consolidated Balance Sheets.

Sonmol

On April 1, 2020, we invested \$ 5.0 million to acquire 30 % of the equity interests in Healthcare, Inc., Shanghai Sonmol Internet Technology Co., Ltd. and its subsidiary, Shanghai Sonmol Medical Equipment Co., Ltd. (collectively referred to as “Sonmol”). Sonmol is a leading Chinese pharmaceutical company that provides consumer electric devices and connected devices for asthma control.

Desotec GmbH

During 2009, we invested € 574 thousand to acquire 23 % of the equity interests in Desotec GmbH, a leading manufacturer of specialty assembly machines for bulk processing for the pharmaceutical, beauty and closures markets.

Other Investments

In prior years, we invested, through a series of transactions, an aggregate amount of \$ 2.9 million in preferred equity investments in Loop, a sustainability company.

In prior years, we also invested, through a series of transactions, \$ 3.0 million in PureCycle and received \$ 0.7 million of equity in exchange for our resource dedication for technological partnership and support. In March 2021, PureCycle became a publicly-traded company and listed its common stock on Nasdaq under the ticker symbol "PCT." At that time, our investment in PureCycle was converted into shares of common stock of PCT resulting in less than a 1 % ownership interest. This investment is now recorded at fair value based on observable market prices for identical assets and the change in fair value is recorded as a net investment gain or loss in the Condensed Consolidated Statements of Income.

We have sold the following PCT shares related to the PureCycle investment:

	Shares Sold		Proceeds		Realized Gain
2021	191,349	\$	2,434	\$	2,000
2022	157,600	\$	1,599	\$	1,213
2023	510,449	\$	5,604	\$	4,188

.....On April 26, 2024, we received \$ 0.2 million of equity in exchange for our resource dedication for technological partnership and support. For the three and nine months ended September 30, 2024 and 2023, we recorded the following net investment gain or loss on our investment in PureCycle:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net investment gain (loss)	\$ 1,043	\$ (1,240)	\$ 1,495	\$ 1,839

On July 7, 2021, we invested approximately \$ 5.9 million to acquire 10 % of the equity interests in YAT, a multi-functional, science-driven online skincare solutions company.

There were no indications of impairment noted in the nine months ended September 30, 2024 and 2023 related to these investments.

NOTE 19 – RESTRUCTURING INITIATIVES

As part of our ongoing efforts to better leverage our fixed cost base through growth and cost reduction measures, during the three and nine months ended September 30, 2024, we recognized \$ 3.9 million and \$ 9.7 million of restructuring costs related to this initiative, respectively. For the three and nine months ended September 30, 2023, we recognized \$ 6.6 million and \$ 20.1 million of restructuring costs related to this initiative, respectively. The cumulative expense incurred as of September 30, 2024 was \$ 61.3 million.

As of September 30, 2024, we have recorded the following activity associated with our optimization initiative:

	Beginning Reserve at December 31, 2023	Net Charges for the Nine Months Ended September 30, 2024	Cash Paid	Interest and FX Impact	Ending Reserve at September 30, 2024
Employee severance	\$ 27,078	\$ 6,003	\$ (15,321)	\$ 38	\$ 17,798
Professional fees and other costs	2,810	3,673	(3,560)	36	2,959
Totals	\$ 29,888	\$ 9,676	\$ (18,881)	\$ 74	\$ 20,757

During the three months ended September 30, 2024, pension curtailment accounting was triggered as a result of restructuring in one of our entities in Europe. The remeasurement of the pension obligations resulted in a decrease of \$ 1.9 million. The curtailment gain is included in the line miscellaneous income (expense), net in the Condensed Consolidated Statements of Income.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

(AMOUNTS IN THOUSANDS, EXCEPT PER SHARE AMOUNTS, OR AS OTHERWISE INDICATED)

RESULTS OF OPERATIONS

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net sales	100.0 %	100.0 %	100.0 %	100.0 %
Cost of sales (exclusive of depreciation and amortization shown below)	61.4	63.5	62.5	64.1
Selling, research & development and administrative	15.6	15.5	16.2	16.1
Depreciation and amortization	7.4	7.0	7.2	7.0
Restructuring initiatives	0.4	0.7	0.3	0.7
Operating income	15.2	13.3	13.8	12.1
Interest expense	(1.4)	(1.1)	(1.2)	(1.1)
Other expense	0.6	0.1	0.3	0.1
Income before income taxes	14.4	12.3	12.9	11.1
Net Income	11.0	9.4	10.0	8.4
Effective tax rate	23.8 %	23.4 %	22.7 %	24.6 %
Adjusted EBITDA margin (1)	22.9 %	21.7 %	21.2 %	19.9 %

(1) Adjusted EBITDA margin is calculated as Adjusted EBITDA divided by Reported Net Sales. See the reconciliation under "Non-U.S. GAAP Measures."

NET SALES

We reported net sales of \$909.3 million for the quarter ended September 30, 2024, which represents a 2% increase compared to \$893.0 million reported during the third quarter of 2023. The U.S. dollar weakened against most European currencies but strengthened against most Latin American currencies, resulting in no significant currency translation impact at the consolidated level. Therefore, core sales, which excludes acquisitions and changes in foreign currency rates, also increased by 2% in the third quarter of 2024 compared to the same period in 2023. Our 2% core sales increase was due to strong volume growth in our prescription, food, active material and personal care applications, which more than compensated for lower volumes in our prestige fragrance applications and lower tooling sales.

Third Quarter 2024	Aptar Pharma	Aptar Beauty	Aptar Closures	Total
Net Sales Change over Prior Year				
Reported Net Sales Growth	8 %	(7) %	3 %	2 %
Currency Effects (1)	(1) %	1 %	1 %	— %
Core Sales Growth	7 %	(6) %	4 %	2 %

Reported net sales for the first nine months of 2024 increased 3% to \$2.73 billion compared to \$2.65 billion for the first nine months of 2023. Changes in foreign currency exchange rates and our acquisitions of iD SCENT and Gulf Closures did not have a significant impact on our consolidated results during the first nine months of 2024. Therefore, core sales, which exclude acquisitions and changes in foreign currency rates, increased by 3% in the first nine months of 2024 compared to the same period in 2023. Our 3% core sales was again due to strong volume growth for products in our prescription and food applications along with increases in injectable and active material applications, which more than compensated lower tooling sales and pricing adjustments.

Nine Months Ended September 30, 2024				
Net Sales Change over Prior Year	Aptar Pharma	Aptar Beauty	Aptar Closures	Total
Reported Net Sales Growth	9 %	(3) %	1 %	3 %
Currency Effects (1)	— %	— %	1 %	— %
Acquisitions	— %	— %	— %	— %
Core Sales Growth	9 %	(3) %	2 %	3 %

(1) Currency effects are calculated by translating last year's amounts at this year's foreign exchange rates.

The following table sets forth, for the periods indicated, net sales by geographic location based on shipped to locations:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2024	% of Total	2023	% of Total	2024	% of Total	2023	% of Total
Domestic	\$ 291,571	32 %	\$ 267,016	30 %	\$ 859,294	31 %	\$ 778,037	29 %
Europe	445,129	49 %	455,181	51 %	1,369,648	50 %	1,392,626	53 %
Latin America	69,155	8 %	77,909	9 %	219,028	8 %	219,086	8 %
Asia	103,436	11 %	92,891	10 %	286,832	11 %	259,221	10 %

For further discussion on net sales by reporting segment, please refer to the analysis of segment net sales and segment Adjusted EBITDA on the following pages.

COST OF SALES (EXCLUSIVE OF DEPRECIATION AND AMORTIZATION SHOWN BELOW)

Cost of sales ("COS") as a percent of net sales decreased to 61.4% in the third quarter of 2024 compared to 63.5% in the third quarter of 2023. Our COS percentage was positively impacted by an improved mix of our higher-margin Pharma services and product sales compared to the same period in 2023. We also benefited from improved operational performance and cost management initiatives, which offset an increase in input costs.

For the first nine months of 2024, COS as a percent of net sales decreased to 62.5% compared to 64.1% in the same period in 2023. This decrease is mainly due to an improved mix of our higher value Pharma services and product sales along with improved operational performance and cost management initiatives as discussed above. During the prior year period, we also incurred approximately \$16 million of incremental costs related to our injectables Enterprise Resource Planning ("ERP") system implementation which did not repeat during 2024.

SELLING, RESEARCH & DEVELOPMENT AND ADMINISTRATIVE

Selling, research & development and administrative expenses ("SG&A") increased by approximately \$3.5 million to \$141.6 million in the third quarter of 2024 compared to \$138.1 million during the same period in 2023. Excluding changes in foreign currency rates, SG&A increased by approximately \$3.3 million in the quarter. Improvements from our cost management initiatives were more than offset by higher compensation costs, including accruals related to our current short-term incentive compensation and certain equity compensation programs. SG&A as a percentage of net sales increased slightly to 15.6% in the third quarter of 2024 compared to 15.5% in the same period in 2023.

Our selling, research & development and administrative expenses ("SG&A") increased by \$16.2 million to \$443.7 million in the first nine months of 2024 compared to \$427.5 million during the same period in 2023. Excluding changes in foreign currency rates, SG&A increased by approximately \$16.4 million in the first nine months of 2024 compared to the first nine months of 2023. Incremental costs related to our acquisitions of iD SCENT and Gulf Closures were \$0.4 million. As discussed above, improvements from our cost management initiatives for the first nine months of 2024 were more than offset by higher compensation costs mentioned above. We also incurred approximately \$3.4 million of costs to evaluate potential acquisition targets during the second quarter of 2024. SG&A as a percentage of net sales increased to 16.2% in the first nine months of 2024 compared to 16.1% in the same period in 2023.

DEPRECIATION AND AMORTIZATION

Reported depreciation and amortization expenses increased by approximately \$4.3 million to \$67.0 million in the third quarter of 2024 compared to \$62.7 million during the same period in 2023. Changes in foreign currency rates did not significantly affect depreciation and amortization during the third quarter 2024 compared to the third quarter of 2023. The majority of this increase relates to higher capital spending during the prior years to support our growth strategy, including new manufacturing facilities commencing production during the last year. Depreciation and amortization as a percentage of net sales increased to 7.4% in the third quarter of 2024 compared to 7.0% in the same period of the prior year.

Depreciation and amortization expenses increased by approximately \$12.1 million to \$196.3 million in the first nine months of 2024 compared to \$184.2 million during the same period a year ago. Excluding changes in foreign currency rates, depreciation and amortization increased by approximately \$12.2 million in the first nine months of 2024 compared to the same period a year ago. Incremental depreciation and amortization costs related to our acquisitions of iD SCENT and Gulf Closures were \$0.3 million. As discussed above, this increase is due to higher internal capital investments made during the prior years. Depreciation and amortization as a percentage of net sales increased to 7.2% in the first nine months of 2024 compared to 7.0% in the same period of the prior year.

RESTRUCTURING INITIATIVES

As part of our ongoing efforts to better leverage our fixed cost base through growth and cost reduction measures, during the three and nine months ended September 30, 2024, we recognized \$3.9 million and \$9.7 million of operational restructuring costs related to this initiative, respectively. For the three and nine months ended September 30, 2023, we recognized \$6.6 million and \$20.1 million of restructuring costs related to this initiative, respectively. The cumulative expense incurred as of September 30, 2024 was \$61.3 million.

Restructuring costs for the three and nine months ended September 30, 2024 and 2023 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Restructuring Initiatives by Plan:				
Optimization initiative	\$ 3,864	\$ 6,586	\$ 9,676	\$ 20,069
Prior year initiatives	—	(425)	(17)	(441)
Total Restructuring Initiatives	\$ 3,864	\$ 6,161	\$ 9,659	\$ 19,628
Restructuring Initiatives by Segment:				
Aptar Pharma	\$ 564	\$ 92	\$ 653	\$ 1,657
Aptar Beauty	1,962	2,880	5,871	12,650
Aptar Closures	877	3,098	2,530	4,060
Corporate & Other	461	91	605	1,261
Total Restructuring Initiatives	\$ 3,864	\$ 6,161	\$ 9,659	\$ 19,628

During the three months ended September 30, 2024, pension curtailment accounting was triggered as a result of restructuring in one of our entities in Europe. The remeasurement of the pension obligations resulted in a decrease of \$1.9 million. The curtailment gain is included in the line miscellaneous income (expense), net in the Condensed Consolidated Statements of Income.

OPERATING INCOME

Operating income increased approximately \$19.0 million to \$138.3 million in the third quarter of 2024 compared to \$119.3 million in the same period a year ago. Excluding changes in foreign currency rates, operating income increased by approximately \$17.7 million in the quarter compared to the same period a year ago mainly due to the strong sales growth in our Pharma segment along with improved operational performance and cost management initiatives. Operating income as a percentage of net sales increased to 15.2% in the third quarter of 2024 compared to 13.3% in the prior year period.

For the first nine months of 2024, operating income increased approximately \$56.6 million to \$376.4 million compared to \$319.8 million in the same period of the prior year. Excluding changes in foreign currency rates, operating income increased by approximately \$55.1 million in the first nine months of 2024 compared to the same period a year ago as income from our strong Pharma segment growth and improved operational performance and cost management initiatives drove the increase. Operating income as a percentage of net sales increased to 13.8% in the first nine months of 2024 compared to 12.1% for the same period in the prior year.

INTEREST EXPENSE

Interest expense increased approximately \$2.3 million to \$12.3 million in the third quarter of 2024 compared to \$10.0 million for the same period of the prior year. During 2024, we repaid more than \$370 million of private placement debt having interest rates between 1.2% and 3.5% and initiated term loan and revolving credit facility borrowings having current interest rates between 4.5% and 6.0%.

Interest expense increased \$2.6 million to \$32.5 million in the first nine months of 2024 compared to the same period in 2023. As discussed above, this increase is mainly related to higher rates on our current term loan and revolving credit facility borrowings. See Note 6 - Debt to the Condensed Consolidated Financial Statements for further details.

NET OTHER INCOME (EXPENSE)

Net other income increased \$4.4 million to \$5.1 million of income in the third quarter of 2024 from \$0.7 million of income in the same period of the prior year. Interest income increased by \$2.1 million due to increased cash flow generated from operations and therefore higher interest earned on higher cash deposits over the past year. We also recorded an increase in the value of our PureCycle investment of \$2.3 million over the prior year period. This investment is recorded at fair value based on observable market prices for identical assets with the change in fair value being recorded as a net investment gain or loss in the Condensed Consolidated Statements of Income. During the third quarter of 2024, we also reported a \$1.9 million gain on pension curtailment for a facility closure in France, which more than compensated for lower contributions from our equity results from affiliates.

Net other income increased \$5.6 million to \$9.8 million of income for the nine months ended September 30, 2024 from \$4.3 million of income in the same period of the prior year. Interest income increased by approximately \$6.8 million. This increase, along with the pension curtailment gain discussed above, more than compensated for the lower contributions from our equity results from affiliates and the change in the fair value of our PureCycle investment which resulted in \$0.3 million less income during the first nine months of 2024 compared to the prior year period.

PROVISION FOR INCOME TAXES

The tax provision for interim periods is determined using the estimated annual effective consolidated tax rate, based on the current estimate of full-year earnings and related estimated full year-taxes, adjusted for the impact of discrete quarterly items.

The effective tax rate for the three months ended September 30, 2024 and 2023, respectively, was 23.8% and 23.4%. The effective tax rate for the three months ended September 30, 2024 was slightly higher than the same period of 2023 primarily due to an unfavorable mix of earnings forecasted in the second half of 2024.

The effective tax rate for the nine months ended September 30, 2024 and 2023, respectively, was 22.7% and 24.6%. On a nine-month basis, the effective tax rate was lower than the same period of 2023 primarily due to increased tax benefits from share-based compensation and tax incentives in certain non-U.S. jurisdictions for intellectual property development activities.

NET INCOME ATTRIBUTABLE TO APTARGROUP, INC.

We reported net income attributable to AptarGroup, Inc. of \$100.0 million and \$273.6 million in the three and nine months ended September 30, 2024, respectively, compared to \$84.3 million and \$222.1 million for the same periods in the prior year.

APTAR PHARMA SEGMENT

Operations that sell proprietary dispensing systems, drug delivery systems, sealing solutions and services to the prescription drug, consumer health care, injectables, active material science solutions and digital health markets form our Aptar Pharma segment.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net Sales	\$ 420,594	\$ 389,188	\$ 1,242,420	\$ 1,135,934
Adjusted EBITDA (1)	151,594	136,344	425,260	371,508
Adjusted EBITDA margin (1)	36.0 %	35.0 %	34.2 %	32.7 %

(1) Adjusted EBITDA is calculated as earnings before net interest, taxes, depreciation, amortization, restructuring initiatives, acquisition-related costs, net unrealized investment gains and losses related to observable market price changes on equity securities and other special items. Adjusted EBITDA margin is calculated as Adjusted EBITDA divided by Reported Net Sales. See the reconciliation under "Non-U.S. GAAP Measures."

Net sales for the Aptar Pharma segment increased 8% in the third quarter of 2024 to \$420.6 million compared to \$389.2 million in the third quarter of 2023. Changes in currencies positively affected net sales by 1%. Therefore, core sales increased by 7% in the third quarter of 2024 compared to the third quarter of 2023. The majority of the sales growth is due to higher volumes in our prescription drug and active material science solutions divisions. Core sales of our products to the prescription drug market increased 20% on strong demand for our products used on emergency medicines, central nervous system and allergic rhinitis applications along with higher customer royalties. The 6% core sales decline in the consumer health care market was driven by a non-product service payment in 2023 that didn't repeat. Sales of our products and services to the injectables market decreased 12%. While product sales were off slightly, the injectables division faced a difficult comparison over the prior year period due to service revenue for a customer's product launch that did not repeat. Active material science solutions increased 10% mainly on strong growth in our probiotic applications. Digital Health currently does not represent a significant percentage of the total Pharma sales.

Third Quarter 2024 Net Sales Change over Prior Year	Active Material					
	Prescription Drug	Consumer Health Care	Injectables	Science Solutions	Digital Health	Total
Reported Net Sales Growth	21 %	(4) %	(11) %	11 %	212 %	8 %
Currency Effects (1)	(1) %	(2) %	(1) %	(1) %	(3) %	(1) %
Core Sales Growth	20 %	(6) %	(12) %	10 %	209 %	7 %

Net sales for the first nine months of 2024 increased by 9% to \$1.24 billion compared to \$1.14 billion in the first nine months of 2023. Changes in currency rates did not impact net sales during the first nine months of 2024. Therefore, core sales also increased by 9% in the first nine months of 2024 compared to the same period in the prior year. Core sales of products included in our prescription drug division increased 16% on continued strong demand for our allergic rhinitis, central nervous system and emergency medicine systems and higher customer royalties. Core sales in the consumer health care market were flat as higher demand for our nasal decongestant and eye care solutions was offset by lower sales of dermal and cough and cold products. Core sales of our products to the injectables market improved by 5% due primarily to the prior year shutdown of operations for the implementation of our new ERP system, which more than compensated for service revenue that did not repeat. Core sales of our active material science solutions increased 6% mainly on growth in our probiotics, diabetes and oral solid dose applications after a period of destocking.

Nine Months Ended September 30, 2024 Net Sales Change over Prior Year	Active Material					
	Prescription Drug	Consumer Health Care	Injectables	Science Solutions	Digital Health	Total
Reported Net Sales Growth	16 %	1 %	5 %	6 %	72 %	9 %
Currency Effects (1)	— %	(1) %	— %	— %	— %	— %
Core Sales Growth	16 %	— %	5 %	6 %	72 %	9 %

(1) Currency effects are calculated by translating last year's amounts at this year's foreign exchange rates.

Adjusted EBITDA in the third quarter of 2024 increased 11% to \$151.6 million compared to \$136.3 million in the same period of the prior year. This increase was mainly due to the profitability on strong prescription drug division and active material science solutions sales growth along with higher customer royalties discussed above. Our Adjusted EBITDA margin improved to 36.0% in the third quarter of 2024 from 35.0% in the third quarter of 2023 mainly on the strength of our higher value proprietary dispensing device sales and higher customer royalties.

Adjusted EBITDA in the first nine months of 2024 increased 14% to \$425.3 million compared to \$371.5 million in the same period of the prior year. This positive impact was mainly due to the profitability on strong core sales growth in prescription, injectables and active material solutions. During the prior year, we also incurred additional expenses related to our injectables ERP system implementation which did not repeat. Overall, our Adjusted EBITDA margin improved to 34.2% in the first nine months of 2024 compared to 32.7% in the first nine months of 2023.

APTAR BEAUTY SEGMENT

Operations that sell dispensing systems and sealing solutions to the beauty, personal care and home care markets form our Aptar Beauty segment.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net Sales	\$ 302,859	\$ 323,980	\$ 951,666	\$ 979,956
Adjusted EBITDA (1)	40,221	41,070	125,993	121,375
Adjusted EBITDA margin (1)	13.3 %	12.7 %	13.2 %	12.4 %

(1) Adjusted EBITDA is calculated as earnings before net interest, taxes, depreciation, amortization, restructuring initiatives, acquisition-related costs, net unrealized investment gains and losses related to observable market price changes on equity securities and other special items. Adjusted EBITDA margin is calculated as Adjusted EBITDA divided by Reported Net Sales. See the reconciliation under "Non-U.S. GAAP Measures."

Reported net sales for the quarter ended September 30, 2024 decreased 7% to \$302.9 million compared to \$324.0 million in the third quarter of the prior year. Changes in currency rates negatively impacted net sales by 1% in the third quarter of 2024. Therefore, core sales decreased 6% in the third quarter of 2024 compared to the same quarter of the prior year. Lower tooling sales negatively impacted overall third quarter 2024 Beauty net sales by 4%, while product sales decreased by the remaining 2%. Regionally, improving results in North America were offset in Europe by difficult comparisons to the prior year period. Core sales of our products to the beauty market decreased 14% due to lower sales in prestige fragrance after a high demand of new product launches during the same period in 2023. Personal care improved by 5% on strong sales of our hair care and body and skin care applications, while home care core sales increased 18% on higher demand for our air care and automotive, industrial and paint products, mainly in North America.

Third Quarter 2024		Personal		Home	
Net Sales Change over Prior Year		Care	Beauty	Care	Total
Reported Net Sales Growth		4 %	(14) %	17 %	(7) %
Currency Effects (1)		1 %	— %	1 %	1 %
Core Sales Growth		5 %	(14) %	18 %	(6) %

For the first nine months of 2024, reported net sales of \$951.7 million decreased 3% compared to \$980.0 million reported in the first nine months of the prior year. Changes in currency rates and our acquisition of iD SCENT did not have an impact on segment sales. Therefore, core sales also decreased 3% in the first nine months of 2024 compared to the same period in the prior year. Core sales of our products to the beauty market during the first nine months of 2024 decreased 7% due to the lower tooling sales and difficult European comparisons to prior year mentioned above. Personal care core sales improved 1% over the prior year as higher sales of our body and skin care products more than compensated for lower sales of our sun care and personal cleansing applications. Core sales of our home care market products improved 10% on higher demand from our customers selling air care and automotive products.

Nine Months Ended September 30, 2024		Personal		Home	
Net Sales Change over Prior Year		Care	Beauty	Care	Total
Reported Net Sales Growth		1 %	(7) %	10 %	(3) %
Currency Effects (1)		— %	— %	— %	— %
Acquisitions		— %	— %	— %	— %
Core Sales Growth		1 %	(7) %	10 %	(3) %

(1) Currency effects are calculated by translating last year's amounts at this year's foreign exchange rates.

Adjusted EBITDA in the third quarter of 2024 decreased 2% to \$40.2 million compared to \$41.1 million in the same period in the prior year. This is primarily attributable to the lower tooling sales and difficult comparisons to prior year prestige fragrance sales discussed above along with rising input costs, which more than offset our improved operational performance and benefits realized from our cost management initiatives during the third quarter of 2024. However, these operational improvements lead to our Adjusted EBITDA margin increasing from 12.7% in the third quarter of 2023 to 13.3% during the third quarter of 2024.

Adjusted EBITDA in the first nine months of 2024 increased 4% to \$126.0 million compared to \$121.4 million reported in the same period in the prior year. This increase was mainly due to improved operational performance along with benefits realized from our cost management initiatives, which more than compensated for rising input costs. Therefore, our Adjusted EBITDA margin improved from 12.4% in the first nine months of 2023 to 13.2% during the first nine months of 2024.

APTAR CLOSURES SEGMENT

Operations that sell dispensing closures, sealing solutions and food service trays to the food, beverage, personal care, home care, beauty and healthcare markets form our Aptar Closures segment. Aptar's food protection business and elastomeric flow-control technology business continue to report through the Aptar Closures segment.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net Sales	\$ 185,838	\$ 179,829	\$ 540,716	\$ 533,080
Adjusted EBITDA (1)	31,980	27,607	86,259	81,387
Adjusted EBITDA margin (1)	17.2 %	15.4 %	16.0 %	15.3 %

(1) Adjusted EBITDA is calculated as earnings before net interest, taxes, depreciation, amortization, restructuring initiatives, acquisition-related costs, net unrealized investment gains and losses related to observable market price changes on equity securities and other special items. Adjusted EBITDA margin is calculated as Adjusted EBITDA divided by Reported Net Sales. See the reconciliation under "Non-U.S. GAAP Measures."

Reported sales for the quarter ended September 30, 2024 increased approximately 3% to \$185.8 million compared to \$179.8 million in the third quarter of the prior year. Changes in currency rates negatively impacted net sales by 1%. Therefore, core sales for the third quarter of 2024 increased approximately 4% from the same quarter of the prior year. The majority of the increase during the current quarter is due to higher product sales. Sales to the food market increased 10% on higher sales of our dispensing closures used on sauces and condiments, spreads, jellies and honey and dairy products. The 1% increase in beverage market sales was mainly due to higher sales of our closures on functional drink products. Personal care sales declined 3% mainly due to lower demand for our skin care and hair care closures. Other sales decreased 3% on lower sales of our dish care products as we realized strong demand from a new product launch during the third quarter of 2023.

Third Quarter 2024

Net Sales Change over Prior Year	Food	Beverage	Personal Care	Other (2)	Total
Reported Net Sales Growth	9 %	— %	(5) %	(3) %	3 %
Currency Effects (1)	1 %	1 %	2 %	— %	1 %
Core Sales Growth	10 %	1 %	(3) %	(3) %	4 %

Net sales for the first nine months of 2024 increased approximately 1% to \$540.7 million compared to \$533.1 million in the first nine months of 2023. Changes in currency rates negatively impacted net sales by 1% while our acquisition of Gulf Closures had no significant impact on net sales. Therefore, core sales increased approximately 2% in the first nine months of 2024 compared to the same period in the prior year. Core sales to the food market improved 3% compared to prior year on strong sales of our closures on sauces and condiments, dry spices and seasonings products. Core sales to our beverage customers increased 1% in the first nine months of 2024 compared to the same period of the prior year on improving bottled water and functional drink sales. Personal care declined slightly on lower sales of our hair care solutions, while other sales were consistent with prior year as strong sales of our laundry care products offset slightly lower sales of our dish care applications after the 2023 product launch mentioned above.

Nine Months Ended September 30, 2024

Net Sales Change over Prior Year	Food	Beverage	Personal Care	Other (2)	Total
Reported Net Sales Growth	3 %	2 %	(2) %	(1) %	1 %
Currency Effects (1)	— %	— %	1 %	1 %	1 %
Acquisitions	— %	(1) %	— %	— %	— %
Core Sales Growth	3 %	1 %	(1) %	— %	2 %

(1) Currency effects are calculated by translating last year's amounts at this year's foreign exchange rates.

(2) Other includes beauty, home care and healthcare markets.

Adjusted EBITDA in the third quarter of 2024 increased 16% to \$32.0 million compared to \$27.6 million reported in the same period of the prior year. Sales growth, operational improvements and cost containment initiatives more than compensated for a \$0.6 million negative resin impact due to timing of cost pass-throughs to our customers. Therefore, our Adjusted EBITDA margin improved from 15.4% in the third quarter of 2023 to 17.2% during the third quarter of 2024.

Adjusted EBITDA in the first nine months of 2024 increased 6% to \$86.3 million compared to \$81.4 million reported in the same period of the prior year. Our profitability was positively impacted by the higher sales along with operational improvements and containing costs discussed above. These improvements more than compensate for a negative resin pass-through impact of \$2.5 million. This led to our Adjusted EBITDA margin improving from 15.3% in the first nine months of 2023 to 16.0% during the first nine months of 2024.

CORPORATE & OTHER

In addition to our three reporting segments, we assign certain costs to "Corporate & Other," which is presented separately in Note 16 – Segment Information of the Notes to the Condensed Consolidated Financial Statements. For Corporate & Other, Adjusted EBITDA (which excludes net interest, taxes, depreciation, amortization, restructuring initiatives, acquisition-related costs, net unrealized investment gains and losses related to observable market price changes on equity securities and other special items) primarily includes certain professional fees, compensation and information system costs which are not allocated directly to our reporting segments.

For the quarter ended September 30, 2024, Corporate & Other Adjusted EBITDA increased to \$15.4 million of expense from \$11.7 million of expense in the third quarter of 2023. During the prior year period, we recognized approximately \$4.2 million of realized gains on the sale of shares related to our investment in PureCycle which drove the majority of the year over year change.

Corporate & Other Adjusted EBITDA in the first nine months of 2024 increased to \$57.5 million of expense compared to \$46.0 million of expense reported in the same period of the prior year. As mentioned above, we realized a \$4.2 million gain on sales of PureCycle shares last year. During 2024, we recognized approximately \$3.4 million of costs to evaluate potential acquisition targets. We also incurred higher incentive compensation costs, including accruals related to our current short-term and equity compensation programs during the current year period.

NON-U.S. GAAP MEASURES

In addition to the information presented herein that conforms to U.S. GAAP, we also present financial information that does not conform to U.S. GAAP, which are referred to as non-U.S. GAAP financial measures. Management may assess our financial results both on a U.S. GAAP basis and on a non-U.S. GAAP basis. We believe it is useful to present these non-U.S. GAAP financial measures because they allow for a better period over period comparison of operating results by removing the impact of items that, in management's view, do not reflect our core operating performance. These non-U.S. GAAP financial measures should not be considered in isolation or as a substitute for U.S. GAAP financial results, but should be read in conjunction with the unaudited Condensed Consolidated Statements of Income and other information presented herein. Investors are cautioned against placing undue reliance on these non-U.S. GAAP measures. Further, investors are urged to review and consider carefully the adjustments made by management to the most directly comparable U.S. GAAP financial measures to arrive at these non-U.S. GAAP financial measures.

In our Management's Discussion and Analysis, we exclude the impact of foreign currency translation when presenting net sales and other information, which we define as "constant currency." Core sales, which excludes the impact of foreign currency translation is a non-U.S. GAAP financial measure. Core sales growth is calculated as current period core sales less prior period core sales divided by prior period core sales multiplied by a hundred. As a worldwide business, it is important that we take into account the effects of foreign currency translation when we view our results and plan our strategies. Consequently, when our management looks at our financial results to measure the core performance of our business, we may exclude the impact of foreign currency translation by translating our prior period results at current period foreign currency exchange rates. As a result, our management believes that these presentations are useful internally and may be useful to investors. We also exclude the impact of material acquisitions when comparing results to prior periods. Changes in operating results excluding the impact of acquisitions are non-U.S. GAAP financial measures. We believe it is important to exclude the impact of acquisitions on period over period results in order to evaluate performance on a more comparable basis.

We present earnings before net interest and taxes ("EBIT") and earnings before net interest, taxes, depreciation and amortization ("EBITDA"). We also present our adjusted earnings before net interest and taxes ("Adjusted EBIT") and adjusted earnings before net interest, taxes, depreciation and amortization ("Adjusted EBITDA"), both of which exclude restructuring initiatives, acquisition-related costs, purchase accounting adjustments related to acquisitions and investments and net unrealized investment gains and losses related to observable market price changes on equity securities. Our Outlook is also provided on a non-U.S. GAAP basis because certain reconciling items are dependent on future events that either cannot be controlled, such as exchange rates and changes in the fair value of equity investments, or reliably predicted because they are not part of our routine activities, such as restructuring initiatives and acquisition-related costs.

We provide a reconciliation of Net Debt to Net Capital as a non-U.S. GAAP measure. "Net Debt" is calculated as interest-bearing debt less cash and equivalents and short-term investments while "Net Capital" is calculated as stockholders' equity plus Net Debt. Net Debt to Net Capital measures a company's financial leverage, which gives users an idea of a company's financial structure, or how it is financing its operations, along with insight into its financial strength. We believe that it is meaningful to take into consideration the balance of our cash, cash equivalents and short-term investments when evaluating our leverage. If needed, such assets could be used to reduce our gross debt position.

Finally, we provide a reconciliation of free cash flow as a non-U.S. GAAP measure. Free cash flow is calculated as cash provided by operating activities less capital expenditures plus proceeds from government grants related to capital expenditures. We use free cash flow to measure cash flow generated by operations that is available for dividends, share repurchases, acquisitions and debt repayment. We believe that it is meaningful to investors in evaluating our financial performance and measuring our ability to generate cash internally to fund our initiatives.

Three Months Ended
September 30, 2024

	Consolidated	Aptar Pharma	Aptar Beauty	Aptar Closures	Corporate & Other	Net Interest
Net Sales	\$ 909,291	\$ 420,594	\$ 302,859	\$ 185,838	\$ —	\$ —
Reported net income	\$ 99,922					
Reported income taxes	31,209					
Reported income before income taxes	131,131	120,243	17,839	18,042	(15,725)	(9,268)
Adjustments:						
Restructuring initiatives	3,864	564	1,962	877	461	
Curtailment gain related to restructuring initiatives	(1,851)	—	—	(1,851)	—	
Net investment gain	(1,043)				(1,043)	
Adjusted earnings before income taxes	132,101	120,807	19,801	17,068	(16,307)	(9,268)
Interest expense	12,290					12,290
Interest income	(3,022)					(3,022)
Adjusted earnings before net interest and taxes (Adjusted EBIT)	141,369	120,807	19,801	17,068	(16,307)	—
Depreciation and amortization	67,015	30,787	20,420	14,912	896	
Adjusted earnings before net interest, taxes, depreciation and amortization (Adjusted EBITDA)	\$ 208,384	\$ 151,594	\$ 40,221	\$ 31,980	\$ (15,411)	\$ —
Reported net income margin (Reported net income / Reported Net Sales)	11.0 %					
Adjusted EBITDA margins (Adjusted EBITDA / Reported Net Sales)	22.9 %	36.0 %	13.3 %	17.2 %		

Three Months Ended
September 30, 2023

	Consolidated	Aptar Pharma	Aptar Beauty	Aptar Closures	Corporate & Other	Net Interest
Net Sales	\$ 892,997	\$ 389,188	\$ 323,980	\$ 179,829	\$ —	\$ —
Reported net income	\$ 84,298					
Reported income taxes	25,751					
Reported income before income taxes	110,049	108,113	17,415	11,647	(18,088)	(9,038)
Adjustments:						
Restructuring initiatives	6,161	92	2,880	3,098	91	
Net investment loss	1,240				1,240	
Realized gain on investments included in net investment loss above	4,188				4,188	
Adjusted earnings before income taxes	121,638	108,205	20,295	14,745	(12,569)	(9,038)
Interest expense	9,984					9,984
Interest income	(946)					(946)
Adjusted earnings before net interest and taxes (Adjusted EBIT)	130,676	108,205	20,295	14,745	(12,569)	—
Depreciation and amortization	62,686	28,139	20,775	12,862	910	
Adjusted earnings before net interest, taxes, depreciation and amortization (Adjusted EBITDA)	\$ 193,362	\$ 136,344	\$ 41,070	\$ 27,607	\$ (11,659)	\$ —
Reported net income margin (Reported net income / Reported Net Sales)	9.4 %					
Adjusted EBITDA margins (Adjusted EBITDA / Reported Net Sales)	21.7 %	35.0 %	12.7 %	15.4 %		

Nine Months Ended
September 30, 2024

	Consolidated	Aptar Pharma	Aptar Beauty	Aptar Closures	Corporate & Other	Net Interest
Net Sales	\$ 2,734,802	\$ 1,242,420	\$ 951,666	\$ 540,716	\$ —	\$ —
Reported net income	\$ 273,313					
Reported income taxes	80,382					
Reported income before income taxes	353,695	335,409	57,808	42,883	(58,901)	(23,504)
Adjustments:						
Restructuring initiatives	9,659	653	5,871	2,530	605	
Curtailment gain related to restructuring initiatives	(1,851)	—	—	(1,851)	—	
Net investment gain	(1,495)				(1,495)	
Transaction costs related to acquisitions	140	—	140	—	—	
Adjusted earnings before income taxes	360,148	336,062	63,819	43,562	(59,791)	(23,504)
Interest expense	32,526					32,526
Interest income	(9,022)					(9,022)
Adjusted earnings before net interest and taxes (Adjusted EBIT)	383,652	336,062	63,819	43,562	(59,791)	—
Depreciation and amortization	196,332	89,198	62,174	42,697	2,263	
Adjusted earnings before net interest, taxes, depreciation and amortization (Adjusted EBITDA)	\$ 579,984	\$ 425,260	\$ 125,993	\$ 86,259	\$ (57,528)	\$ —
Reported net income margin (Reported net income / Reported Net Sales)	10.0 %					
Adjusted EBITDA margins (Adjusted EBITDA / Reported Net Sales)	21.2 %	34.2 %	13.2 %	16.0 %		

Nine Months Ended
September 30, 2023

	Consolidated	Aptar Pharma	Aptar Beauty	Aptar Closures	Corporate & Other	Net Interest
Net Sales	\$ 2,648,970	\$ 1,135,934	\$ 979,956	\$ 533,080	\$ —	\$ —
Reported net income	\$ 221,931					
Reported income taxes	72,265					
Reported income before income taxes	294,196	288,603	46,643	39,174	(52,590)	(27,634)
Adjustments:						
Restructuring initiatives	19,628	1,657	12,650	4,060	1,261	
Net investment gain	(1,839)				(1,839)	
Realized gain on investments included in net investment gain above	4,188				4,188	
Transaction costs related to acquisitions	255	—	199	56	—	
Adjusted earnings before income taxes	316,428	290,260	59,492	43,290	(48,980)	(27,634)
Interest expense	29,900					29,900
Interest income	(2,266)					(2,266)
Adjusted earnings before net interest and taxes (Adjusted EBIT)	344,062	290,260	59,492	43,290	(48,980)	—
Depreciation and amortization	184,212	81,248	61,883	38,097	2,984	
Adjusted earnings before net interest, taxes, depreciation and amortization (Adjusted EBITDA)	\$ 528,274	\$ 371,508	\$ 121,375	\$ 81,387	\$ (45,996)	\$ —
Reported net income margin (Reported net income / Reported Net Sales)	8.4 %					
Adjusted EBITDA margins (Adjusted EBITDA / Reported Net Sales)	19.9 %	32.7 %	12.4 %	15.3 %		

Net Debt to Net Capital Reconciliation

	September 30, 2024	December 31, 2023
Revolving credit facility and overdrafts	\$ 222,817	\$ 81,794
Current maturities of long-term obligations, net of unamortized debt issuance costs	30,295	376,426
Long-Term Obligations, net of unamortized debt issuance costs	822,731	681,188
Total Debt	1,075,843	1,139,408
Less:		
Cash and equivalents	325,524	223,643
Net Debt	\$ 747,932	\$ 915,765
Total Stockholders' Equity	\$ 2,553,641	\$ 2,321,298
Net Debt	747,932	915,765
Net Capital	\$ 3,301,573	\$ 3,237,063
Net Debt to Net Capital	22.7 %	28.3 %

Free Cash Flow Reconciliation	September 30, 2024	September 30, 2023
Net Cash Provided by Operations	\$ 465,174	\$ 355,602
Capital Expenditures	(210,416)	(231,199)
Free Cash Flow	\$ 254,758	\$ 124,403

FOREIGN CURRENCY

Because of our international presence, movements in exchange rates may have a significant impact on the translation of the financial statements of our foreign subsidiaries. Our primary foreign exchange exposure is to the euro, but we also have foreign exchange exposure to the Chinese yuan, Brazilian real, Mexican peso, Swiss franc and other Asian, European and South American currencies. A weakening U.S. dollar has an additive effect. Conversely, a strengthening U.S. dollar relative to foreign currencies has a dilutive translation effect on our financial statements. In some cases, we sell products denominated in a currency different from the currency in which the related costs are incurred. Any changes in exchange rates on such inter-country sales could materially impact our results of operations. During the third quarter ended September 30, 2024, the U.S. dollar was weaker compared to most European currencies and the Chinese yuan while strengthening against most Latin American currencies, except for the Brazilian real. During the nine months ended September 30, 2024, the U.S. dollar was stronger compared to all currencies except the Colombian and Mexican pesos, Swiss franc and the British pound. This resulted in a neutral impact on our translated results during the third quarter and year-to-date period of 2024 when compared to the third quarter and year-to-date period of 2023.

QUARTERLY TRENDS

Our results of operations in the fourth quarter of the year are typically negatively impacted by customer plant shutdowns in December. Several of the markets we serve are impacted by the seasonality of underlying consumer products. This, in turn, may have an impact on our net sales and results of operations for those markets. The diversification of our product portfolio minimizes fluctuations in our overall quarterly financial statements and results in an immaterial seasonality impact on our Condensed Consolidated Financial Statements when viewed quarter over quarter.

Generally, we have incurred higher stock-based compensation expense in the first quarter compared with the rest of the fiscal year due to the timing and recognition of stock-based expense from substantive vesting for retirement eligible employees. As of September 30, 2024, our estimated stock-based compensation expense on a pre-tax basis for the year 2024 compared to 2023 is as follows:

	2024	2023
First Quarter	\$ 18,276	\$ 15,042
Second Quarter	9,277	10,391
Third Quarter	10,409	10,051
Fourth Quarter (estimated for 2024)	9,506	5,809
	\$ 47,468	\$ 41,293

LIQUIDITY AND CAPITAL RESOURCES

Given our current level of leverage and our ability to generate cash flow from operations, we believe we are in a strong financial position to meet our business requirements in the foreseeable future. We have historically used cash flow from operations, our revolving and other credit facilities, proceeds from stock options and debt, as needed, as our primary sources of liquidity. Our primary uses of cash are to invest in equipment and working capital for the continued growth of our business, including facilities that are necessary to support our growth, pay quarterly dividends to stockholders, to make acquisitions and repurchase shares of our common stock that will contribute to the achievement of our strategic objectives. Due to uncertain macroeconomic conditions, including rising interest rates and the inflationary environment, in the event that customer demand decreases significantly for a prolonged period of time and adversely impacts our cash flows from operations, we would have the ability to restrict and significantly reduce capital expenditure levels and share repurchases, as well as reevaluate our acquisition strategy. A prolonged and significant reduction in capital expenditure levels could increase future repairs and maintenance costs as well as have a negative impact on operating margins if we were unable to invest in new innovative products.

Cash and equivalents and restricted cash increased to \$325.5 million at September 30, 2024 from \$223.6 million at December 31, 2023. Total short and long-term interest-bearing debt decreased from \$1.14 billion at December 31, 2023 to \$1.08 billion at September 30, 2024. The ratio of our Net Debt (interest-bearing debt less cash and cash equivalents) to Net Capital (stockholders' equity plus Net Debt) decreased to 22.7% at September 30, 2024 from 28.3% at December 31, 2023. See the reconciliation under "Non-U.S. GAAP Measures."

In the first nine months of 2024, our operations provided approximately \$465.2 million in net cash flow compared to \$355.6 million for the same period a year ago. In both periods, cash flow from operations was primarily derived from earnings before depreciation and amortization and better working capital management.

We used \$225.7 million in cash for investing activities during the first nine months of 2024 compared to \$239.3 million during the same period a year ago. Our investment in capital projects decreased \$20.8 million during the first nine months of 2024 compared to the first nine months of 2023 as we completed larger projects that had significant spend in the prior year. The capital expenditures accrued within accounts payable, accrued and other liabilities was \$21.3 million as of September 30, 2024 compared to \$20.1 million as of September 30, 2023.

Financing activities used \$137.7 million in cash during the first nine months of 2024 compared to \$94.0 million in cash used by financing activities during the same period a year ago. The increased use of cash in the first nine months of 2024 is primarily related to the debt refinancing of \$100.0 million of Senior Unsecured Notes in the first quarter of 2024, €200 million of Senior Unsecured Notes in the second quarter of 2024 and \$50.0 million of Senior Unsecured Notes in the third quarter of 2024. This was partially offset by the new term loan of \$166.0 million and increased borrowings on our amended revolving credit facility of \$14.5 million.

In October 2020, we entered into an unsecured money market borrowing arrangement to provide short-term financing of up to \$30 million that is available in the U.S. No borrowing on this facility is permitted over a quarter end date. As such, no balance was utilized under this arrangement as of September 30, 2024.

Aptar has a revolving credit facility (the "revolving credit facility") with a syndicate of banks which provides us with unsecured financing of up to \$600 million, which may be increased by up to \$300 million subject to certain conditions. The revolving credit facility is available in the U.S. and to our wholly-owned UK subsidiary and can be drawn in various currencies including USD, EUR, GBP, and CHF. The revolving credit facility was set to mature in June 2026, but on July 2, 2024, we entered into a new amended and restated agreement (the "amended revolving credit facility") that extended the maturity date to July 2029, subject to a maximum of two one-year extensions in certain circumstances. As of December 31, 2023, Aptar had utilized \$36.5 million and €40.0 million (\$44.2 million) under the revolving credit facility in the U.S. and no balance was utilized by our wholly-owned UK subsidiary. As of September 30, 2024, Aptar had utilized €200 million (\$222.7 million) under the revolving credit facility in the U.S. and no balance was utilized by our wholly-owned UK subsidiary.

On July 2, 2024, we entered into a term loan with a syndicate of banks (the "Term Loan"). The Term Loan matures in July 2027 and enabled drawings on the loan until September 30, 2024 and provided for unsecured financing of up to \$330 million available in the U.S. Funds are to be used to refinance near-term maturities and for general corporate purposes. As of September 30, 2024, \$166 million was utilized under the Term Loan facility and the unused portion expired.

There are no compensating balance requirements associated with our amended revolving credit facility. Each borrowing under the revolving credit facility will bear interest at rates based on SOFR (in the case of USD), EURIBOR (in the case of EUR), SONIA (in the case of GBP), SARON (in the case of CHF), prime rates or other similar rates, in each case plus an applicable margin. The amended revolving credit facility also provides mechanics relating to a transition away from designated benchmark rates for other available currencies and the replacement of any such applicable benchmark by a replacement alternative benchmark rate or mechanism for loans made in the applicable currency. A facility fee on the total amount of the amended revolving credit facility is also payable quarterly, regardless of usage. The applicable margins for borrowings under the amended revolving credit facility and the facility fee percentage may change from time to time depending on changes in our consolidated leverage ratio. Credit facility balances are included in revolving credit facility and overdrafts on the Condensed Consolidated Balance Sheets.

Our revolving credit facility and corporate long-term obligations require us to satisfy certain financial and other covenants including:

	Requirement	Level at September 30, 2024
Consolidated Leverage Ratio (1)	Maximum of 3.50 to 1.00	1.10 to 1.00
Consolidated Interest Coverage Ratio (1)	Minimum of 3.00 to 1.00	16.81 to 1.00

(1) Definitions of ratios are included as part of the amended revolving credit facility agreement and private placement agreements.

Based upon the above consolidated leverage ratio covenant, we would have the ability to borrow approximately an additional \$1.7 billion before the 3.50 to 1.00 maximum ratio requirement would be exceeded.

On July 6, 2022, we entered into an agreement to swap approximately \$200 million of our fixed USD debt to fixed EUR debt which would generate interest savings of approximately \$0.5 million per quarter based upon exchange rates as of the transaction date.

On October 10, 2024, the Board of Directors declared a quarterly cash dividend of \$0.45 per share payable on November 14, 2024 to stockholders of record as of October 24, 2024.

Our foreign operations have historically met cash requirements with the use of internally generated cash or uncommitted short-term borrowings. We also have committed financing arrangements in both the U.S. and the UK as detailed above. We manage our global cash requirements considering (i) available funds among the many subsidiaries through which we conduct business, (ii) the geographic location of our liquidity needs, and (iii) the cost to access international cash balances.

CONTINGENCIES

The Company, in the normal course of business, is subject to a number of lawsuits and claims both actual and potential in nature. Please refer to Note 12 - Commitments and Contingencies of the Notes to Condensed Consolidated Financial Statements for a discussion of contingencies affecting our business.

RECENTLY ISSUED ACCOUNTING STANDARDS

We have reviewed the recently issued ASUs to the FASB's Accounting Standards Codification that have future effective dates. Standards that have been adopted during 2024 are discussed in Note 1 – Summary of Significant Accounting Policies of the Notes to Condensed Consolidated Financial Statements.

Other accounting standards that have been issued by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on our Condensed Consolidated Financial Statements upon adoption.

OUTLOOK

We expect earnings per share for the fourth quarter of 2024, excluding any restructuring expenses, changes in the fair value of equity investments and acquisition costs, to be in the range of \$1.22 to \$1.30 and this guidance is based on an effective tax rate range of 20% to 22%. Our total 2024 estimated cash outlays for capital expenditures net of government grant proceeds are expected to be approximately \$280 million to \$300 million.

FORWARD-LOOKING STATEMENTS

Certain statements in Management's Discussion and Analysis and other sections of this Form 10-Q are forward-looking and involve a number of risks and uncertainties, including certain statements set forth in the Significant Developments, Restructuring Initiatives, Quarterly Trends, Liquidity and Capital Resources, Contingencies and Outlook sections of this Form 10-Q. Words such as "expects," "anticipates," "believes," "estimates," "future," "potential", "are optimistic" and other similar expressions or future or conditional verbs such as "will," "should," "would" and "could" are intended to identify such forward-looking statements. Forward-looking statements are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and are based on our beliefs as well as assumptions made by and information currently available to us. Accordingly, our actual results or other events may differ materially from those expressed or implied in such forward-looking statements due to known or unknown risks and uncertainties that exist in our operations and business environment including, but not limited to:

- geopolitical conflicts worldwide including the invasion of Ukraine by the Russian military and the recent events in the Middle East and the resulting indirect impact on demand from our customers selling their products into these countries, as well as rising input costs and certain supply chain disruptions;
- the availability of raw materials and components (particularly from sole sourced suppliers for some of our Pharma solutions) as well as the financial viability of these suppliers;
- lower demand and asset utilization due to an economic recession either globally or in key markets we operate within;
- economic conditions worldwide, including inflationary conditions and potential deflationary conditions in other regions we rely on for growth;
- the execution of our fixed cost reduction initiatives, including our optimization initiative;
- cybersecurity threats against our systems and/or service providers that could impact our networks and reporting systems;
- our ability to successfully implement facility expansions and new facility projects;
- fluctuations in the cost of materials, components, transportation cost as a result of supply chain disruptions and labor shortages, and other input costs (particularly resin, metal, anodization costs and energy costs);
- significant fluctuations in foreign currency exchange rates or our effective tax rate;
- the impact of tax reform legislation, changes in tax rates and other tax-related events or transactions that could impact our effective tax rate and cash flow;
- financial conditions of customers and suppliers;
- consolidations within our customer or supplier bases;
- changes in customer and/or consumer spending levels;
- loss of one or more key accounts;
- our ability to offset inflationary impacts with cost containment, productivity initiatives and price increases;
- changes in capital availability or cost, including rising interest rates;
- volatility of global credit markets;

- our ability to identify potential new acquisitions and to successfully acquire and integrate such operations, including the successful integration of the businesses we have acquired;
- our ability to build out acquired businesses and integrate the product/service offerings of the acquired entities into our existing product/service portfolio;
- direct or indirect consequences of acts of war, terrorism or social unrest;
- the impact of natural disasters and other weather-related occurrences;
- fiscal and monetary policies and other regulations;
- changes, difficulties or failures in complying with government regulation, including FDA or similar foreign governmental authorities;
- changing regulations or market conditions regarding environmental sustainability;
- work stoppages due to labor disputes;
- competition, including technological advances;
- our ability to protect and defend our intellectual property rights, as well as litigation involving intellectual property rights;
- the outcome of any legal proceeding that has been or may be instituted against us and others;
- our ability to meet future cash flow estimates to support our goodwill impairment testing;
- the demand for existing and new products;
- the success of our customers' products, particularly in the pharmaceutical industry;
- our ability to manage worldwide customer launches of complex technical products, particularly in developing markets;
- difficulties in product development and uncertainties related to the timing or outcome of product development;
- significant product liability claims; and
- other risks associated with our operations.

Although we believe that our forward-looking statements are based on reasonable assumptions, there can be no assurance that actual results, performance or achievements will not differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Please refer to Item 1A (Risk Factors) of Part I included in our Annual Report on Form 10-K for the year ended December 31, 2023 for additional risks and uncertainties that may cause our actual results or other events to differ materially from those expressed or implied in such forward-looking statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

A significant number of our operations are located outside of the United States. Because of this, movements in exchange rates may have a significant impact on the translation of the financial condition and results of operations of our subsidiaries. Our primary foreign exchange exposure is to the euro, but we also have foreign exchange exposure to the Chinese yuan, Brazilian real, Argentine peso, Mexican peso, Swiss franc and other Asian, European and Latin American currencies. A strengthening U.S. dollar relative to foreign currencies has a dilutive translation effect on our financial statements. Conversely, a weakening U.S. dollar has an additive effect. Additionally, in some cases, we sell products denominated in a currency different from the currency in which the related costs are incurred. Any changes in exchange rates on such inter-country sales may impact our results of operations.

The table below provides information as of September 30, 2024 about our forward currency exchange contracts. The majority of the contracts expire before the end of the fourth quarter of 2024.

Buy/Sell		Contract Amount (in thousands)	Average Contractual Exchange Rate	Min / Max Notional Volumes
EUR / USD	\$	18,014	1.1003	16,363 - 38,873
MXN / USD		13,000	0.0539	13,000 - 13,000
CZK / EUR		11,926	0.0395	9,808 - 12,138
EUR / BRL		10,485	6.1288	10,030 - 10,485
USD / EUR		4,918	0.9089	4,379 - 9,706
CHF / EUR		4,655	1.0443	3,481 - 4,655
EUR / CNY		4,298	7.8244	4,298 - 5,372
EUR / THB		4,168	38.4985	3,762 - 4,168
USD / CNY		2,000	7.1418	2,000 - 2,940
EUR / MXN		1,340	21.0235	541 - 1,340
GBP / EUR		1,315	1.1760	0 - 1,315
USD / GBP		362	0.7627	41 - 362
EUR / GBP		268	0.8429	268 - 3,885
CZK / USD		213	0.0444	0 - 213
EUR / CHF		204	0.9370	0 - 204
USD / CHF		2	0.8422	0 - 2
Total	\$	77,168		

As of September 30, 2024, we have recorded the fair value of foreign currency forward exchange contracts of \$0.1 million in prepaid and other and \$1.1 million in accounts payable, accrued and other liabilities on the Condensed Consolidated Balance Sheets. On July 6, 2022, we entered into a seven year USD/EUR fixed-to-fixed cross currency interest rate swap to effectively hedge the interest rate exposure relating to \$203 million of the \$400 million 3.60% Senior Notes due March 2032 which were issued by AptarGroup, Inc. on March 7, 2022. This USD/EUR swap agreement exchanged \$203 million of fixed-rate 3.60% USD debt to €200 million of fixed-rate 2.5224% EUR debt. The fair value of this net investment hedge is \$22.5 million reported in accounts payable, accrued and other liabilities on the Condensed Consolidated Balance Sheets.

ITEM 4. CONTROLS AND PROCEDURES

DISCLOSURE CONTROLS AND PROCEDURES

Management has evaluated, with the participation of the chief executive officer and chief financial officer of the Company, the effectiveness of our disclosure controls and procedures (as that term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of September 30, 2024. Based on that evaluation, the chief executive officer and chief financial officer have concluded that these controls and procedures were effective as of such date.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

During the fiscal quarter ended September 30, 2024, we implemented ERP systems at two operating units. Consequently, the control environments have been modified at these locations to incorporate the controls contained within the new ERP systems. Except for the foregoing, no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) occurred during our fiscal quarter ended September 30, 2024 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

RECENT SALES OF UNREGISTERED SECURITIES

Certain French employees are eligible to participate in the FCP Aptar Savings Plan (the "Plan"). An independent agent purchases shares of common stock available under the Plan for cash on the open market and we do not issue shares. We do not receive any proceeds from the purchase of common stock under the Plan. The agent under the Plan is BNP Paribas Fund Services. No underwriters are used under the Plan. All shares are sold in reliance upon the exemption from registration under the Securities Act of 1933 provided by Regulation S promulgated under that Act. During the quarter ended September 30, 2024, the Plan purchased no shares of our common stock on behalf of the participants, and sold 4,617 shares of our common stock on behalf of the participants at an average price of \$150.16, for an aggregate amount of \$693 thousand. At September 30, 2024, the Plan owned 108,693 shares of our common stock.

ISSUER PURCHASES OF EQUITY SECURITIES

Our previous \$350 million share repurchase authorization approved in 2019 was replaced on October 10, 2024 with a new share purchase authorization of up to \$500 million of common stock. This authorization replaces previous authorizations and has no expiration date. We may repurchase shares through the open market, privately negotiated transactions or other programs, subject to market conditions.

During the three and nine months ended September 30, 2024, we repurchased approximately 95 thousand shares for \$14.2 million and 215 thousand shares for \$31.3 million, respectively. As of September 30, 2024, there was \$29.4 million of authorized share repurchases remaining under the existing authorization.

The following table summarizes our purchases of our securities for the quarter ended September 30, 2024:

Period	Total Number Of Shares Purchased	Average Price Paid Per Share	Total Number Of Shares Purchased As Part Of Publicly Announced Plans Or Programs	Dollar Value Of Shares That May Yet Be Purchased Under The Plans Or Programs (in millions)
7/1/24 - 7/31/24	—	\$ —	—	\$ 43.5
8/1/24 - 8/31/24	48,700	147.07	48,700	36.4
9/1/24 - 9/30/24	46,300	151.35	46,300	29.4
Total	95,000	\$ 149.15	95,000	\$ 29.4

ITEM 5. OTHER INFORMATION

Rule 10b5-1 Plan Elections

During the three months ended September 30, 2024, no director or officer of the Company adopted , modified or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as each term is defined in Item 408 of Regulation S-K.

Amendment and Restatement of By-Laws

On October 23, 2024, the Board of Directors adopted amendments to the Company's Amended and Restated By-Laws (the "Amended and Restated By-Laws"), effective immediately. The amendments:

- Update the existing procedural mechanics and disclosure requirements for stockholder nominations of directors and submissions of stockholder proposals (other than proposals to be included in the Company's proxy statement pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended) to, among other things, align such provisions with recent developments in Delaware law;
- Provide that the interview requirement for election or appointment to the Board of Directors is applicable to all director nominees; and
- Make various other non-substantive updates, including ministerial and conforming changes.

The foregoing summary of the amendments does not purport to be complete and is qualified in its entirety by reference to the complete text of the Amended and Restated By-Laws, which are attached hereto as Exhibit 3.1 and are incorporated herein by reference.

ITEM 6. EXHIBITS

Exhibit 3.1*	Amended and Restated By-Laws of AptarGroup, Inc.
Exhibit 10.1	Second Amended and Restated Credit Agreement, dated as of July 2, 2024, among the Company, the financial institutions party thereto as Lenders and Wells Fargo Bank, National Association, as administrative agent and swingline lender, filed as Exhibit 10.1 to the Company's current report on Form 8-K filed on July 3, 2024, is hereby incorporated by reference.
Exhibit 10.2	Employment Agreement dated as of July 24, 2024 between AptarGroup, Inc. and Vanessa Kanu, filed as Exhibit 10.1 to the Company's current report on Form 8-K filed on July 25, 2024, is hereby incorporated by reference.**
Exhibit 10.3*	Advisory Agreement dated July 24, 2024 between AptarGroup, Inc. and Robert Kuhn.**
Exhibit 31.1*	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 31.2*	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
Exhibit 32.2*	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
Exhibit 101	The following information from our Quarterly Report on Form 10-Q for the third quarter of fiscal 2024, filed with the SEC on October 25, 2024, formatted in Inline Extensible Business Reporting Language (XBRL): (i) the Cover Page, (ii) the Condensed Consolidated Statements of Income – Three and Nine Months Ended September 30, 2024 and 2023, (iii) the Condensed Consolidated Statements of Comprehensive Income – Three and Nine Months Ended September 30, 2024 and 2023, (iv) the Condensed Consolidated Balance Sheets – September 30, 2024 and December 31, 2023, (v) the Condensed Consolidated Statements of Changes in Equity – Three and Nine Months Ended September 30, 2024 and 2023, (vi) the Condensed Consolidated Statements of Cash Flows - Nine Months Ended September 30, 2024 and 2023 and (vii) the Notes to Condensed Consolidated Financial Statements.
Exhibit 104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

* Filed or furnished herewith.

** Management contract or compensatory plan or arrangement.

SIGNATURE

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.

AptarGroup, Inc.

(Registrant)

By /s/ ROBERT W. KUHN

Robert W. Kuhn

Executive Vice President and Chief Financial Officer

(Duly Authorized Officer and Principal Financial Officer)

Date: October 25, 2024

APTARGROUP, INC.
a Delaware Corporation

**AMENDED AND RESTATED
BY-LAWS**

Effective October 23, 2024

**1.
MEETINGS OF STOCKHOLDERS**

1.1. *Place of Meeting.* All meetings of the stockholders shall be held at such place, within or without the State of Delaware, as is fixed in the notice of the meeting.

1.2. *Annual Meeting.* An annual meeting of the stockholders of the Corporation for the election of directors and the transaction of such other business as may properly be brought before the meeting in accordance with these amended and restated by-laws of the Corporation (as amended from time to time in accordance with the provisions hereof, these "By-Laws") shall be held on a date specified by the Board of Directors and at the time and place specified by the Board of Directors. If for any reason any annual meeting shall not be held during any year, the business thereof may be transacted at any special meeting of the stockholders. The Board of Directors may postpone, reschedule or cancel any annual meeting of the stockholders for any reason.

1.3. *Special Meeting.* Special meetings of stockholders may be called only in the manner provided in the Certificate of Incorporation. The Board of Directors may postpone, reschedule or cancel any special meeting of the stockholders for any reason.

1.4. *Notice of Meetings. Remote Meetings.* Notice of the date, time and place of each annual and each special meeting of the stockholders shall be given to each of the stockholders entitled to vote at such meeting as of the record date for determining stockholders entitled to notice of the meeting by mailing the same in a postage prepaid wrapper addressed to each such stockholder at his or her address as it appears on the books of the Corporation, or by delivering the same personally to any such stockholder, in lieu of such mailing, at least ten (10) days prior to, and not more than sixty (60) days before such meeting by or at the direction of the Chair of the Board, the Chief Executive Officer, the Board of Directors or the Secretary, and meetings may be held without notice if all of the stockholders entitled to vote thereat are present in person or by proxy, or if notice thereof is waived by all such stockholders not present in person or by proxy, before or after the meeting. If mailed, such notice shall be deemed to be given when deposited in the United States mail with postage thereon prepaid, addressed to the stockholder at the stockholder's address as it appears on the books of the Corporation. If notice is given by means of electronic transmission, such notice shall be deemed to be given at the times provided

in the Delaware General Corporation Law (the "DGCL"). Any stockholder may waive notice of any meeting before or after the meeting. The attendance of a stockholder at any meeting shall constitute a waiver of notice of such meeting, except where the stockholder attends the meeting for the express purpose of objecting, and does so object, at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened. For the purposes of these By-Laws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof and that may be directly reproduced in paper form by such a recipient through an automated process. The notice of each special meeting of the stockholders shall set forth the purposes thereof and the business transacted at all special meetings of stockholders shall be confined to the purposes stated in the notice thereof.

The Board of Directors, acting in its sole discretion, may determine that any meeting of the stockholders will not be held at any place but will be held solely by means of remote communication, and may establish guidelines and procedures in accordance with applicable provisions of the DGCL and any other applicable law or regulation for participation in a stockholder meeting by means of remote communication. Subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxyholders not physically present at a stockholder meeting held by means of remote communication may be deemed present in person, may participate in the meeting and may vote, whether such meeting is to be held at a designated place or solely by means of remote communication; provided, however, that (i) the Corporation shall implement measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxyholder, (ii) the Corporation shall implement measures to provide such stockholders and proxyholders an opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (iii) if any stockholder or proxyholder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the Corporation or a delegate thereof.

1.5. *Setting of Record Date.* The Board of Directors shall have the power to fix a record date which (i) in the case of any meeting of stockholders, shall be not more than sixty (60) nor less than ten (10) days before the date of such meeting, (ii) in the case of the payment of any dividend, the allotment of rights, the exercise of any rights in respect of any change or conversion or exchange of capital stock, shall be not more than sixty (60) days before such action or (iii) (in the event the Certificate of Incorporation is amended to permit action to be taken by stockholders by consent) in the case of obtaining the consent of stockholders for any purpose, shall be not more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. The record date shall be used by the Corporation for the determination of the stockholders entitled (a) to notice of and to vote at any meeting of stockholders, unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination of the stockholders entitled to vote, (b) to receive payment of any dividend or allotment of rights, (c) to exercise the right in respect of any change, conversion or exchange of capital stock or (d) to give any consent of stockholders, and in such case only such stockholders as shall be

stockholders of record on the date so fixed shall be entitled to such notice of and to vote at such meeting or to receive payment of such dividend or to receive such allotment of rights or to exercise such rights or to give such consent, as the case may be, notwithstanding any transfer of any stock on the books of the Corporation after any such record date fixed as aforesaid.

1.6. *Organization.* At each meeting of the stockholders, the Chief Executive Officer, or in the case of vacancy in office or absence of the Chief Executive Officer, the Chair of the Board, or in the case of vacancy in office or absence of the Chair of the Board, a director chosen by a majority of the directors present, shall act as chair, and the Secretary, or, in the absence of the Secretary, an Assistant Secretary, or in the absence of both the Secretary and Assistant Secretaries, a person appointed by the chair, shall act as secretary.

1.7. *Voting at Stockholders' Meetings; Proxies*

1.7.1. General. At each meeting of the stockholders, every stockholder having the right to vote thereat shall be entitled to vote in person, by means of remote communication (if any) or by proxy. Stockholders shall have the voting rights specified in the Certificate of Incorporation. The Board of Directors, in its discretion, or the chair presiding at a meeting of stockholders, in such chair's discretion, may require that any votes cast at such meeting shall be cast by written ballot. Each stockholder entitled to vote at a meeting of stockholders of the Corporation may authorize another person or persons to act for such stockholder by proxy filed with the Secretary before or at the time of the meeting. No such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy expressly provides for a longer period. A duly executed proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. Any stockholder directly or indirectly soliciting proxies from other stockholders may use any proxy card color other than white, which shall be reserved for exclusive use of the Board of Directors.

1.7.2. Matters Other than Election of Directors. Any matter brought before any meeting of the stockholders, other than the election of directors, shall be decided by the affirmative vote of the holders of a majority of the voting power of the Corporation's capital stock present in person, present by means of remote communication, if any, or represented by proxy at the meeting and entitled to vote on such matter, voting as a single class, unless the matter is one upon which, by express provision of law, the Certificate of Incorporation, or these By-Laws, a different vote is required, in which case such express provision shall govern and control the decision of such matter.

1.7.3. Required Vote for Election of Directors. Except as otherwise required by law or by the Certificate of Incorporation, each director shall be elected by the vote of the majority of the votes cast in person or represented by proxy and entitled to vote on the election of directors with respect to the director at any meeting for the election of directors at which a quorum is present; provided, however, that each director shall be elected by a plurality of the votes cast in person or represented by proxy at the meeting and entitled to vote on the election of directors for any meeting for the election of directors for which (i) the Secretary receives a notice that a stockholder has nominated one or more candidates for election to the Board of Directors in compliance with the requirements set forth in these By-Laws and (ii) such nomination has not yet

been withdrawn by such stockholder on or prior to the tenth (10th) day preceding the date that the Corporation first mails its notice of meeting for such election. For purposes of this Section 1.7, "majority of the votes cast" means that the number of shares voted "for" a director exceeds the number of shares voted "against" that director (with "abstentions" and "broker nonvotes" not counted as a vote cast either "for" or "against" that director's election).

1.8. *Quorum and Adjournment*. Except as otherwise provided by law or by the Certificate of Incorporation, at any meeting of the stockholders the presence, in person or by proxy, of the holders of shares of stock of the Corporation entitled to cast at least a majority of the votes which the outstanding stock entitled to vote thereat is entitled to cast on a particular matter shall be requisite and shall constitute a quorum entitled to take action with respect to that vote on that matter. If at any meeting of stockholders there shall be less than a quorum so present, the stockholders present in person or by proxy and entitled to vote thereat on such matter may without further notice, except as required by law, adjourn the meeting from time to time until a quorum shall be present, but no business shall be transacted at any such adjourned meeting except such as might have been lawfully transacted had the meeting not been adjourned. Regardless of whether a quorum is present, the chair of a meeting of the stockholders or the Board of Directors may adjourn the meeting for any reason. At an adjourned meeting of the stockholders at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the meeting as originally noticed. Notice need not be given of any such adjourned meeting (including an adjournment taken to address a technical failure to convene or continue a meeting using remote communication) if the time and place, if any, thereof, and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person or represented by proxy and vote at such adjourned meeting, are (a) announced at the meeting at which the adjournment is taken, (b) displayed during the time scheduled for the meeting, on the same electronic network used to enable stockholders and proxy holders to participate in the meeting by means of remote communication or (c) set forth in the notice of meeting given in accordance with these By-Laws. If the adjournment is for more than thirty (30) days or if after the adjournment, a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder entitled to vote at the meeting.

1.9. *List of Stockholders*. The Secretary shall prepare, no later than the tenth (10th) day before each meeting of stockholders, a complete list of the stockholders entitled to vote at such meeting (provided, however, that if the record date for determining the stockholders entitled to vote is less than ten (10) days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth (10th) day before the meeting date), arranged in alphabetical order and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Nothing contained in this Section 1.9 shall require the Corporation to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to examination of any stockholder, for any purpose germane to the meeting, for a period of ten (10) days ending on the day before the meeting date: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the Corporation. In the event that the Corporation determines to make the list available on an

electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation.

1.10. *Advance Notice of Stockholder Proposals and Director Nominations*

1.10.1. Meetings of Stockholders. Nominations of persons for election to the Board of Directors and the proposal of business to be transacted by the stockholders may be made at an annual or special meeting of the stockholders only (a) pursuant to the Corporation's notice of meeting (or any supplement thereto) with respect to such meeting, given by or at the direction of the Board of Directors (or any duly authorized committee thereof), (b) by any stockholder of the Corporation who was a stockholder of record at the time of the giving of the notice as provided for in Section 1.5 through the date of such annual meeting, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section 1.10, or (c) as otherwise properly brought before such meeting by or at the direction of the Board of Directors (or any duly authorized committee thereof). For nominations or other business to be properly brought before an annual or special meeting by a stockholder pursuant to clause (b) above, the stockholder must give timely notice thereof in writing to the Secretary of the Corporation and such business must be a proper matter for stockholder action under the DGCL and a proper matter for consideration at such meeting under the Certificate of Incorporation and these By-Laws. For the avoidance of doubt, compliance with the foregoing clause (b) shall be the exclusive means for a stockholder to make nominations or to propose any other business (other than a proposal included in the Corporation's proxy materials pursuant to and in compliance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended (such act, and the rules and regulations promulgated thereunder, the "Exchange Act")), at a meeting of stockholders.

1.10.2. Timing of Notice for Annual Meetings. In addition to any other applicable requirements, for nominations or other business to be properly brought before a meeting by a stockholder pursuant to Section 1.10(i)(b) above:

1.10.2.1. in the case of special meetings of the stockholders, a stockholder's notice must be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the one hundred twentieth (120th) day prior to such meeting and not later than the Close of Business on the later of the ninetieth (90th) day prior to such meeting or the Close of Business on the tenth (10th) day following the day on which Public Disclosure (as defined below) of the date of such meeting is first made; and

1.10.2.2. in the case of all annual meetings of stockholders, a stockholder's notice must be delivered to the Secretary at the principal executive offices of the Corporation not later than the Close of Business on the ninetieth (90th) day and not earlier than the one hundred and twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting of stockholders; provided further, however, that in the event that the date of the annual meeting is more than thirty (30) days prior to or more than sixty (60) days after such anniversary date or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than the one hundred twentieth (120th) day prior to such annual meeting and not later than the Close of Business on the later of (1) the ninetieth (90th) day prior to such annual

meeting and (2) the tenth (10th) day following the day on which Public Disclosure of the date of the meeting is first made by the Corporation.

1.10.2.3. In no event shall the adjournment, recess, postponement, judicial stay or rescheduling of an annual meeting (or the Public Disclosure thereof) commence a new time period (or extend any time period) for the giving of notice.

1.10.3. Form of Notice. To be in proper written form, the notice of any stockholder of record giving notice under this Section 1.10, shall set forth:

1.10.3.1. as to each individual whom the stockholder proposes to nominate for election or reelection as a director (each, a "Proposed Nominee"), if any:

1.10.3.1.1. the name, age, business address and residence address of such Proposed Nominee;

1.10.3.1.2. the principal occupation and employment of such Proposed Nominee;

1.10.3.1.3. a written questionnaire with respect to the background and qualifications of such Proposed Nominee completed by the Proposed Nominee in the form required by the Corporation (in the form to be provided by the Secretary upon written request of any stockholder of record within ten (10) days of receiving such request);

1.10.3.1.4. such Proposed Nominee's executed written consent to being named in the proxy statement and form of proxy for the meeting of the stockholders as a nominee and consent to the public disclosure of information regarding or relating to such Proposed Nominee provided to the Corporation by such Proposed Nominee or otherwise pursuant to this Section 1.10;

1.10.3.1.5. such Proposed Nominee's written representation and agreement completed by such Proposed Nominee, in the form required by the Corporation (in the form to be provided by the Secretary upon written request of any stockholder of record within ten (10) days of receiving such request), that such Proposed Nominee: (I) is not and will not become a party to any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such Proposed Nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or any Voting Commitment that could limit or interfere with such Proposed Nominee's ability to comply, if elected as a director of the Corporation, with such Proposed Nominee's fiduciary duties under applicable law; (II) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a

director or nominee with respect to the Corporation that has not been disclosed to the Corporation; (III) would, if elected as a director, comply with all applicable rules of any securities exchanges upon which the Corporation's securities are listed, the Certificate of Incorporation, these By-Laws all of the Corporation's applicable publicly disclosed corporate governance, ethics, conflict of interest, confidentiality and stock ownership and trading policies and all other guidelines and policies applicable generally to the Corporation's directors (which other guidelines and policies will be provided to such Proposed Nominee within five (5) business days after the Secretary receives any written request therefor from such stockholder) and all applicable fiduciary duties under state law and, if elected as a director of the Corporation, currently would be in compliance with any such policies and guidelines that have been publicly disclosed; (IV) intends to serve a full term if elected as a director of the Corporation; and (V) will provide facts, statements and other information in all communications with the Corporation and its stockholders that are or will be true and correct in all material respects, and that do not and will not omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they are made, not misleading in any material respect;

1.10.3.1.6. a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings, written or oral, during the past three (3) years, and any other material relationships, between or among the Proposed Nominee, on the one hand, and the stockholder giving notice and any Stockholder Associated Person (as defined below), on the other hand, or that such Proposed Nominee knows any of such Proposed Nominee's Associates (as defined below) has with any stockholder giving notice or any Stockholder Associated Person including all information that would be required to be disclosed pursuant to Item 404 promulgated under Regulation S-K if the stockholder giving notice and any Stockholder Associated Person were the "registrant" for purposes of such rule and the person being nominated were a director or executive officer of such registrant;

1.10.3.1.7. a description of any business or personal interests that would reasonably be expected to place such Proposed Nominee in a potential conflict of interest with the Corporation or any of its subsidiaries; and

1.10.3.1.8. all other information relating to such Proposed Nominee or Proposed Nominee's Associates that would be required to be disclosed in a proxy statement or other filings required to be made in connection with the solicitation of proxies by such stockholder or any Stockholder Associated Person (as defined below) for a director election in contested election pursuant to the Proxy Rules (as defined below);

1.10.3.2. as to any other business that the stockholder proposes to bring before the meeting of the stockholders:

1.10.3.2.1. a brief description of the business desired to be brought before the meeting;

1.10.3.2.2. the reasons for conducting such business at the meeting;

1.10.3.2.3. the text of the proposal or business (including the complete text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend these By-Laws, the language of the proposed amendment); and

1.10.3.2.4. a description of any material interest in such business of the stockholder giving notice and any Stockholder Associated Person, individually or in the aggregate, including any anticipated benefit to the stockholder and any Stockholder Associated Person therefrom, and all other information related to such proposed business that would be required to be disclosed in a proxy statement or other filing required to be made by the stockholder or any Stockholder Associated Person in connection with the solicitation of proxies or consents in support of such proposed business by such stockholder or any Stockholder Associated Person pursuant to the Proxy Rules;

1.10.3.3. as to the stockholder giving notice and any Stockholder Associated Person:

1.10.3.3.1. the name and address of such stockholder, as they appear on the Corporation's books and records, and the name and address of any Stockholder Associated Person;

1.10.3.3.2. the class, series and number of shares of each class or series of capital stock (if any) of the Corporation which are, directly or indirectly, owned beneficially and/or of record (specifying the type of ownership) by such stockholder, Proposed Nominee and Stockholder Associated Person (including any right to acquire beneficial ownership at any time in the future, whether such right is exercisable immediately or only after the passage of time or the fulfillment of a condition), and the date or dates on which such shares were acquired;

1.10.3.3.3. the name of each nominee holder for, and number of, any Corporation securities owned beneficially but not of record by such stockholder, Proposed Nominee or Stockholder Associated Person and any pledge by such stockholder or any Stockholder Associated Person with respect to any of such securities;

1.10.3.3.4. (I) a description of all agreements, arrangements or understandings (whether written or oral) (including any derivative or short positions, profit interests, forwards, futures, swaps, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, repurchase agreements or arrangements, borrowed or loaned shares and so-called "stock

borrowing" agreements or arrangements) that have been entered into by, or on behalf of, such stockholder, Proposed Nominee or Stockholder Associated Person, the effect or intent of which is to mitigate loss, manage risk or benefit from changes in the price of any securities of the Corporation, or maintain, increase or decrease the voting power of such stockholder or any Stockholder Associated Person with respect to securities of the Corporation, whether or not such instrument or right shall be subject to settlement in underlying shares of capital stock of the Corporation (any of the foregoing, a "Derivative Instrument") and (II) all other information relating to Derivative Instruments that would be required to be disclosed in a proxy statement in connection with the solicitation of proxies by such stockholder or any Stockholder Associated Person in support of the business proposed by such stockholder, if any, or for the election of any Proposed Nominee in a contested election pursuant to the Proxy Rules if the creation, termination or modification of Derivative Instruments were treated the same as trading in the securities of the Corporation under the Proxy Rules;

1.10.3.3.5. any rights to dividends on the shares of the Corporation owned beneficially by such stockholder, Proposed Nominee or Stockholder Associated Person that are separated or separable from the underlying shares of the Corporation;

1.10.3.3.6. any proportionate interest in shares of capital stock of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership, limited liability company or similar entity in which such stockholder, Proposed Nominee or Stockholder Associated Person (I) is a general partner or, directly or indirectly, beneficially owns an interest in a general partner of such general or limited partnership or (II) is the manager, managing member or, directly or indirectly, beneficially owns an interest in the manager or managing member of such limited liability company or similar entity;

1.10.3.3.7. any substantial interest, direct or indirect (including any existing or prospective commercial, business or contractual relationship with the Corporation) of such stockholder or, to the knowledge of such stockholder (or the beneficial owner(s) on whose behalf such stockholder is submitting a notice to the Corporation), any Stockholder Associated Person, in the Corporation or any Affiliate (as defined below) thereof or in the proposed business or nomination to be brought before the meeting by such stockholder, other than an interest arising from the ownership of the Corporation's securities where such stockholder, Proposed Nominee or Stockholder Associated Person receives no extra or special benefit not shared on a *pro rata* basis by all other holders of the same class or series;

1.10.3.3.8. a description of all agreements, arrangements or understandings, written or oral(I) between or among the stockholder giving notice and any Stockholder Associated Person or (II) between or among the stockholder

giving notice or, to the knowledge of such stockholder (or the beneficial owner(s) on whose behalf such stockholder is submitting a notice to the Corporation), any Stockholder Associated Person and any other person or entity (naming each such person or entity) in each case, relating to acquiring, holding, voting or disposing of any securities of the Corporation, including any proxy (other than any revocable proxy given in response to a solicitation made pursuant to, and in accordance with, the Proxy Rules by way of a solicitation statement filed on Schedule 14A);

1.10.3.3.9. a description of any pending or, to the knowledge of such stockholder (or the beneficial owner(s) on whose behalf such stockholder is submitting a notice to the Corporation), threatened legal proceeding or investigation in which such stockholder, Proposed Nominee or any Stockholder Associated Person is a party or participant directly involving or directly relating to the Corporation or, to such stockholder's knowledge, any current or former officer, director, or Affiliate of the Corporation;

1.10.3.3.10. any direct or indirect interest (other than solely as a result of security ownership) of such stockholder or any Stockholder Associated Person in any agreement with the Corporation or any Affiliate of the Corporation or any competitor of the Corporation identified in Part I, Item 1 of the annual report on Form 10-K or amendment thereto most recently filed by the Corporation with the Securities and Exchange Commission or in Item 8.01 of any current report on Form 8-K filed by the Corporation with the Securities and Exchange Commission thereafter but prior to the tenth (10th) day before the deadline for a stockholder's notice under this Section 1.10 (including any employment agreement, collective bargaining agreement or consulting agreement);

1.10.3.3.11. a representation that (I) neither such stockholder nor any Stockholder Associated Person has breached any agreement, arrangement or understanding with the Corporation except as disclosed to the Corporation pursuant hereto and (II) such stockholder and each Stockholder Associated Person has complied, and will comply, with all applicable requirements of state law and the Exchange Act with respect to the matters set forth in this Section 1.10;

1.10.3.3.12. a representation from such stockholder or any Stockholder Associated Person as to whether such stockholder or Stockholder Associated Person intends or is part of a group (as such term is used in Rule 13d-5 under the Exchange Act) which intends to (I) solicit proxies in support of the election of any Proposed Nominee in accordance with Rule 14a-19 under the Exchange Act or (II) engage in a solicitation (within the meaning of Exchange Act Rule 14a-1(I)) with respect to the nomination or other business, as applicable, and if so, the name of each participant (as defined in Instruction 3 to Item 4 of Schedule 14A under the Exchange Act) in such solicitation;

1.10.3.3.13. a description of the investment strategy or objective, if any, of such stockholder (or the beneficial owner(s) on whose behalf such stockholder is submitting a notice to the Corporation);

1.10.3.3.14. all information that would be required to be set forth in a Schedule 13D filed pursuant to Rule 13d-1(a) under the Exchange Act or an amendment pursuant to Rule 13d 2(a) under the Exchange Act if such a statement were required to be filed under the Exchange Act by such stockholder or any Stockholder Associated Person with respect to the Corporation (regardless of whether such person or entity is actually required to file a Schedule 13D), including a description of any agreement, arrangement or understanding that would be required to be disclosed by such stockholder, any Stockholder Associated Person pursuant to Item 5 or Item 6 of Schedule 13D;

1.10.3.3.15. a certification that such stockholder and each Stockholder Associated Person has complied with all applicable federal, state and other legal requirements in connection with such stockholder's or Stockholder Associated Person's acquisition of shares of capital stock or other securities of the Corporation and such stockholder's or Stockholder Associated Person's acts or omissions as a stockholder of the Corporation, if such Stockholder Associated Person is or has been a stockholder of the Corporation;

1.10.3.3.16. a representation from the stockholder giving notice that (I) such stockholder (A) is a holder of record of stock of the Corporation entitled to vote at the meeting, (B) intends to vote such stock at the meeting and (C) intends to appear in person or by proxy at the meeting to nominate any Proposed Nominees or bring such business before the meeting; and (II) an acknowledgement that, if such stockholder does not appear to present such Proposed Nominee or business at the meeting, the Corporation need not present such Proposed Nominee or business for a vote at such meeting, notwithstanding that proxies in respect of such vote may have been received by the Corporation; and

1.10.3.3.17. all other information relating to such stockholder or any Stockholder Associated Person that would be required to be disclosed in a proxy statement in connection with the solicitation of proxies in support of the business proposed by such stockholder or any Stockholder Associated Person, if any, or for the election of any Proposed Nominee in a contested election pursuant to the Proxy Rules;

provided, however, that the disclosures described in the foregoing subclauses (1) through (17) of this Section 1.10 shall not include any such disclosures with respect to the ordinary course business activities of any depositary or any broker, dealer, commercial bank, trust company or other nominee who is a stockholder giving notice solely as a result of being the stockholder directed to prepare and

submit the notice required by these By-Laws on behalf of a beneficial owner (any such entity, an Exempt Party").

1.10.4. Additional Information. In addition to the information required in this Section 1.10, the Corporation may require any stockholder giving a notice to furnish such other information as may reasonably be required by the Corporation with respect to any item of business proposed by such stockholder under this Section 1.10, with respect to the solicitation of proxies from the Corporation's stockholders or to determine the eligibility, suitability or qualifications of such Proposed Nominee to serve as a director of the Corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such Proposed Nominee, under the listing standards of each principal securities exchange upon which the shares of the Corporation are listed, any applicable rules of the Securities and Exchange Commission and any publicly disclosed standards used by the Board of Directors in selecting nominees for election as a director and for determining and disclosing the independence of the Corporation's directors, including those applicable to a director's service on any of the committees of the Board of Directors, or the requirements of any other laws or regulations applicable to the Corporation. If requested by the Corporation, any supplemental information required under this paragraph shall be provided by a stockholder giving notice within ten (10) days after it has been requested by the Corporation.

1.10.5. General.

1.10.5.1. No person shall be eligible for election as a director of the Corporation unless the person is nominated by a stockholder in accordance with the procedures set forth in this Section 1.10 or the person is nominated by the Board of Directors, and no business shall be conducted at a meeting of the stockholders except pursuant to Rule 14a-8 of the Exchange Act and business brought by a stockholder in accordance with the procedures set forth in this Section 1.10 or by the Board of Directors. The number of Proposed Nominees a stockholder may include in a notice under this Section 1.10 may not exceed the number of directors to be elected at such meeting (based on Public Disclosure by the Corporation prior to the date of such notice), and for the avoidance of doubt, no stockholder shall be entitled to identify any additional or substitute persons as Proposed Nominees following the expiration of the time periods set forth in Section 1.10(ii)(a) or Section 1.10(ii)(b), as applicable. Except as otherwise provided by law, the Board of Directors or the chair of a meeting shall have the power and the duty to determine whether a nomination or any business proposed to be brought before the meeting has been made or proposed in accordance with the procedures set forth in these By-Laws, and, if the Board of Directors or the chair of the meeting determines that any proposed nomination or business was not properly brought before the meeting, the chair of the meeting (or the Board of Directors) shall declare to the meeting that such nomination shall be disregarded or such business shall not be transacted, and no vote shall be taken with respect to such nomination or proposed business, in each case, notwithstanding that proxies with respect to such vote may have been received by the Corporation. Notwithstanding the foregoing provisions of this Section 1.10, unless otherwise required by law, if the stockholder proposing a nominee for director or

business to be conducted at a meeting (other than business brought pursuant to Rule 14a-8 of the Exchange Act) does not appear at the meeting of the stockholders to present such nomination or propose such business, such proposed nomination shall be disregarded or such proposed business shall not be transacted, as applicable, and no vote shall be taken with respect to such nomination or proposed business, notwithstanding that proxies with respect to such vote may have been received by the Corporation.

1.10.5.2. A stockholder providing notice under this Section 1.10 shall update such notice, if necessary, so that the information provided or required to be provided in such notice shall continue to be true and correct in all material respects (a) as of the record date determining the stockholders entitled to receive notice of for the meeting and (b) as of the date that is ten (10) business days prior to the meeting (or any postponement, adjournment or recess thereof), and such update shall:

1.10.5.2.1. be delivered to, or mailed and received by, the Secretary at the principal executive office of the Corporation (I) not later than five (5) business days after the record date for the meeting (in the case of an update required to be made as of the record date) and (II) not later than seven (7) business days prior to the date of the meeting, if practicable or, if not practicable, on the first practicable date prior to the meeting or any adjournment, recess or postponement thereof (in the case of an update required to be made as of ten (10) business days prior to the meeting or any adjournment, recess or postponement thereof);

1.10.5.2.2. be made only to the extent that information has changed since such stockholder's prior submission; and

1.10.5.2.3. clearly identify the information that has changed in any material respect since such stockholder's prior submission. For the avoidance of doubt, any information provided pursuant to this Section 1.10(v)(b) shall not be deemed to cure any deficiencies or inaccuracies in a notice previously delivered pursuant to this Section 1.10 and shall not extend the time period for the delivery of notice pursuant to this Section 1.10. If a stockholder giving notice fails to provide any update in accordance with the foregoing provisions, the information as to which such written update relates may be deemed not to have been provided in accordance with this Section 1.10.

1.10.5.3. If any information submitted pursuant to this Section 1.10 by any stockholder proposing business for consideration or individuals to nominate for election or reelection as a director at a meeting of stockholders shall be inaccurate in any material respect (as determined by the Board of Directors or a committee thereof), such information may be deemed not to have been provided in accordance with these By-Laws. Any such stockholder shall notify the Corporation of any material inaccuracy or change in any such information (including if any stockholder or any Stockholder Associated Person no longer intends to solicit proxies in accordance with the representation made pursuant to Section 1.10(iii)(c)(12)) within two (2) business days of becoming aware of such material inaccuracy or change, and any such notification shall

clearly identify such material inaccuracy or change, it being understood that no such notification may cure any deficiencies or inaccuracies with respect to any prior submission by such stockholder. Upon written request by the Secretary of the Corporation, the Board of Directors or any duly authorized committee thereof, any such stockholder shall provide, within seven (7) business days of delivery of such request (or such other period as may reasonably be specified in such request), (1) written verification, reasonably satisfactory to the Board of Directors, any committee thereof or any authorized officer of the Corporation, to demonstrate the accuracy of any information submitted by the stockholder pursuant to this Section 1.10, and (2) a written update of any information (including written confirmation by such stockholder that it continues to intend to bring such nomination or other business proposal before the meeting) submitted by the stockholder pursuant to this Section 1.10 as of an earlier date. If a stockholder fails to provide such written verification within such period, the information as to which written verification was requested may be deemed not to have been provided in accordance with this Section 1.10.

1.10.5.4. Notwithstanding the provisions of this Section 1.10, a stockholder shall also comply with all applicable requirements of state law and all applicable requirements of the Exchange Act with respect to matters set forth in this Section 1.10, provided, however, that any references in these By-Laws to the Exchange Act are not intended to and shall not limit the requirements applicable to stockholder proposals to be considered pursuant to this Section 1.10. Nothing in this Section 1.10 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act. Subject to Rule 14a-8 under the Exchange Act, nothing in these By-Laws shall be construed to permit any stockholder, or give any stockholder the right, to include or have disseminated or described in the Corporation's proxy statement any nomination of a director or directors or any other business proposal.

1.10.5.5. Any written notice, supplement, update or other information required to be delivered by a stockholder to the Corporation pursuant to this Section 1.10 must be given by personal delivery, by overnight courier or by registered or certified mail, postage prepaid, to the Secretary at the Corporation's principal executive offices and shall be deemed not to have been delivered unless so given.

1.10.5.6. Notwithstanding anything herein to the contrary, if (1) any stockholder or any Stockholder Associated Person provides notice pursuant to Rule 14a-19(b) under the Exchange Act with respect to any Proposed Nominee and (2) (I) such stockholder or Stockholder Associated Person subsequently (A) notifies the Corporation that such stockholder or Stockholder Associated Person no longer intends to solicit proxies in support of the election or reelection of such Proposed Nominee in accordance with Rule 14a-19(b) under the Exchange Act or (B) fails to comply with the requirements of Rule 14a-19(a)(2) or Rule 14a-19(a)(3) under the Exchange Act (or fails to timely provide reasonable evidence sufficient to satisfy the Corporation that such stockholder or Stockholder Associated Person has met the requirements of

Rule 14a-19(a)(3) under the Exchange Act in accordance with the following sentence) and (II) no other stockholder or Stockholder Associated Person that has provided notice pursuant to Rule 14a-19(b) under the Exchange Act with respect to such Proposed Nominee (A) to the Corporation's knowledge based on information provided pursuant to Rule 14a-19 under the Exchange Act or these By-Laws, still intends to solicit proxies in support of the election or reelection of such Proposed Nominee in accordance with Rule 14a-19(b) under the Exchange Act and (B) has complied with the requirements of Rule 14a-19(a)(2) and Rule 14a-19(a)(3) under the Exchange Act and the requirements set forth in the following sentence, then the nomination of such Proposed Nominee shall be disregarded and no vote on the election of such Proposed Nominee shall occur (notwithstanding that proxies in respect of such vote may have been received by the Corporation). Upon request by the Corporation, if any stockholder or Stockholder Associated Person provides notice pursuant to Rule 14a-19(b) under the Exchange Act, such stockholder shall deliver to the Secretary, no later than five (5) business days prior to the applicable meeting date, reasonable evidence that the requirements of Rule 14a-19(a)(3) under the Exchange Act have been satisfied.

1.10.5.7. As used in these By-Laws:

1.10.5.7.1. "Affiliate" and "Associate" each shall have the respective meanings set forth in Rule 12b-2 under the Exchange Act;

1.10.5.7.2. "beneficial owner" or "beneficially owned" shall have the meaning set forth for such terms in Section 13(d) of the Exchange Act;

1.10.5.7.3. "Close of Business" shall mean 5:00 p.m. Eastern Time on any calendar day, whether or not the day is a business day;

1.10.5.7.4. "Proxy Rules" shall mean Section 14 of the Exchange Act and the rules promulgated thereunder;

1.10.5.7.5. "Public Disclosure" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service, in a document filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act or in a notice pursuant to the applicable rules of an exchange on which the securities of the Corporation are listed; and

1.10.5.7.6. "Stockholder Associated Person" shall mean, with respect to a stockholder giving notice and if different from such stockholder, any beneficial owner of shares of stock of the Corporation on whose behalf such stockholder is providing notice of any nomination or other business proposed: (I) any person or entity who is a member of a group (as such term is used in Rule 13d-5 under the Exchange Act) with such stockholder or such beneficial owner(s) with respect to acquiring, holding, voting or disposing of any securities of the Corporation, (II) any Affiliate or Associate of such stockholder (other than

a stockholder that is an Exempt Party) or such beneficial owner(s), (III) any participant (as defined in Instruction 3 to Item 4 of Schedule 14A) with such stockholder or such beneficial owner(s) with respect to any proposed business or nomination, as applicable, under these By-Laws, (IV) any beneficial owner of shares of stock of the Corporation owned of record by such stockholder (other than a stockholder that is an Exempt Party) and (V) any Proposed Nominee.

1.11. *Conduct of Meetings.* The Board of Directors may adopt rules, regulations and procedures for the conduct of any meeting of the stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chair of any meeting of the stockholders shall have the right and authority to prescribe rules, regulations and procedures and to take all acts as, in the judgment of such chair, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chair of the meeting, may include or address, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) the determination of when the polls shall open and close for any given matter to be voted on at the meeting; (iii) maintenance of order at the meeting and the safety of those present; (iv) compliance with state and local laws and regulations, including those concerning safety and security; (v) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chair of the meeting shall determine; (vi) restrictions on entry to the meeting after the time fixed for the commencement thereof; (vii) limitations on the time allotted to questions or comments by participants; (viii) removal of any stockholder or any other individual who refuses to comply with meeting procedures, rules or guidelines; (ix) the conclusion, recess or adjournment of the meeting, regardless of whether a quorum is present, to a later date and time and at a place announced at the meeting; (x) restrictions on the use of audio and video recording devices, cell phones and other electronic devices; (xi) procedures (if any) requiring attendees to provide the Corporation advance notice of their intent to attend the meeting; and (xii) any rules, regulations or procedures as the chair of the meeting may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting, whether such meeting is to be held at a designated place or solely by means of remote communication. The Board of Directors or the chair of the meeting, in addition to making any other determinations that may be appropriate regarding the conduct of the meeting, shall determine and declare to the meeting that a matter of business was not properly brought before the meeting, and, if the chair of the meeting or the Board of Directors should so determine, the chair of the meeting shall so declare to the meeting and any such matter of business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the chair of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

1.12. *Inspectors of Election.* In advance of any meeting of the stockholders of the Corporation, the Chair of the Board, the Chief Executive Officer or the Board of Directors, by resolution, shall appoint one or more inspectors to act at the meeting and make a written report thereof. One or more other persons may be designated as alternate inspectors to replace any

inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the chair of the meeting shall appoint one or more inspectors to act at the meeting. Unless otherwise required by applicable law, inspectors may be officers, employees or agents of the Corporation. Each inspector, before entering upon the discharge of the duties of inspector, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability. The inspector shall have the duties prescribed by law and shall take charge of the polls and, when the vote is completed, shall make a certificate of the result of the vote taken and of such other facts as may be required by applicable law.

2. DIRECTORS

2.1. *Number of Directors; Eligibility.* Subject to any rights of the holders of the Preferred Stock or any series thereof to elect additional directors under specified circumstances, the number of directors which shall constitute the whole Board of Directors of the Corporation shall be such number as shall from time to time be fixed by resolution adopted by directors constituting not less than seventy percent (70%) of the whole Board of Directors. No person shall be eligible for election or appointment as a director unless such person has, within ten (10) days following any reasonable request therefor from the Board of Directors or any committee thereof, made himself or herself available to be interviewed by the Board of Directors (or any committee or other subset thereof) with respect to such person's qualifications to serve as a director or any other matter reasonably related to such person's candidacy or service as a director of the Corporation.

2.2. *Chair of the Board.* At each regular annual meeting of the Board of Directors, a majority of the members of the Board of Directors shall select one of its members as Chair of the Board. The Chair of the Board shall hold such position until the first regular annual meeting of the Board of Directors following such selection or until the Chair's successor is selected and qualifies, provided that the Chair may be removed at any time as Chair of the Board, with or without cause, by the affirmative vote therefor of a majority of the whole Board of Directors.

2.3. *Vacancies and Newly Created Directorships.* Subject to any rights of the holders of the Preferred Stock or any series thereof to fill such newly created directorships or vacancies, any newly created directorships resulting from any increase in the authorized number of directors and any vacancies in the Board of Directors resulting from death, resignation, disqualification, removal or other cause shall, unless otherwise provided by law or by resolution of directors constituting not less than seventy percent (70%) of the whole Board of Directors, be filled only by a resolution of directors constituting not less than seventy percent (70%) of the whole Board of Directors, and any director so chosen shall hold office until the next election of the class for which such director shall have been chosen, and until his or her successor shall have been duly elected and qualified, unless he or she shall resign, die, become disqualified or be removed. Notwithstanding the foregoing, in the event that at the time of the existence of an unfilled newly created directorship or any such vacancy there are unfilled newly created directorships and/or vacancies constituting more than thirty percent (30%) of the whole Board of Directors, a majority of the directors then serving on the Board of Directors shall have the authority to fill

enough of such unfilled newly created directorships and/or vacancies so that, after giving effect thereto, there will be the minimum number of directors serving on the Board of Directors necessary to constitute seventy percent (70%) of the whole Board of Directors.

2.4. *Powers, Qualifications and Removal.* The business of the Corporation shall be managed by or under the direction of the Board of Directors. Any director may tender his or her resignation at any time. Subject to any rights of the holders of the Preferred Stock or any series thereof, any director or the entire Board of Directors may be removed at any time, but only for cause.

2.5. *Regular and Special Meetings of the Board of Directors* The Board of Directors may hold its meetings, whether organizational, regular or special, either within or without the State of Delaware. Regular meetings of the Board of Directors may be held with or without notice at such time and place as shall from time to time be determined by resolution of the Board of Directors. Whenever the time or place of regular meetings of the Board of Directors shall have been determined by resolution of the Board of Directors, no regular meetings shall be held pursuant to any resolution of the Board of Directors altering or modifying its previous resolution relating to the time or place of the holding of regular meetings, without first giving three (3) days' notice to each director, either personally or by facsimile telecommunication, or five (5) days' written notice to each director by mail, of the substance and effect of such new resolution relating to the time and place at which regular meetings of the Board of Directors may thereafter be held without notice. Special meetings of the Board of Directors shall be held whenever called in writing by the Chair of the Board, Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer or any three (3) directors. Notice of each special meeting of the Board of Directors shall be delivered personally to each director or sent by telegraph to his or her residence or usual place of business at least three (3) days before the meeting, or mailed to such director's residence or usual place of business at least five (5) days before the meeting; provided, however, that less than twenty-four (24) hours' notice may be provided if the person or persons calling such special meeting deem it necessary or appropriate under the circumstances. Meetings of the Board of Directors, whether regular or special, may be held at any time and place, and for any purpose, without notice, when all the directors are present or when all directors not present shall, in writing, waive notice of and consent to the holding of such meeting, which waiver and consent may be given after the holding of such meeting.

2.6. *Organization.* At every meeting of the Board of Directors, the Chair of the Board or, in the case of vacancy in such position or absence of the Chair of the Board, one of the following officers present in the order stated: the Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer, the Vice Presidents in their order of rank and seniority, or a chair chosen by a majority of the directors present, shall preside, and the Secretary, or, in the absence of the Secretary, an Assistant Secretary, or in the absence of the Secretary and the Assistant Secretaries, any person appointed by the chair of the meeting, shall act as secretary.

2.7. *Quorum and Adjournment.* At all meetings of the Board of Directors a majority of the whole Board of Directors shall be necessary and sufficient to constitute a quorum for the

transaction of business except as may otherwise be specifically provided in the Certificate of Incorporation or in these By-Laws; provided, that if a quorum of directors shall not be present at any duly called or regular meeting thereof, the directors present may adjourn said meeting from time to time for a period of not exceeding two (2) weeks in the aggregate and notice of any such adjourned meeting shall not be necessary unless an adjournment was taken *sine die*.

2.8. *Executive Committee.* There shall be a committee of the Board of Directors designated as the Executive Committee, to consist of three (3) or more of the directors, as shall from time to time be appointed by resolution of directors constituting not less than seventy percent (70%) of the whole Board of Directors. Except as otherwise limited by resolution of directors constituting not less than seventy percent (70%) of the whole Board of Directors or by law, the Certificate of Incorporation or these By-Laws, the Executive Committee shall have and may exercise, when the Board of Directors is not in session, all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but the Executive Committee shall not, except to the extent both permitted by law and expressly so authorized in a resolution of directors constituting not less than seventy percent (70%) of the whole Board of Directors, have power (i) to fill vacancies in the Board of Directors, (ii) to change the membership of or to fill vacancies in the Executive Committee, (iii) to remove or replace the chair of the Executive Committee, (iv) to authorize the Corporation to sell, lease or otherwise dispose of assets of the Corporation, (v) to authorize the Corporation to liquidate, dissolve or effect a recapitalization or reorganization in any form of transaction, (vi) to authorize the Corporation to acquire any interest in any business (whether by a purchase of assets, purchase of stock, merger or otherwise) or enter into any joint venture, (vii) to adopt a bonus or other compensation plan in which directors or officers of the Corporation are eligible to participate, (viii) to authorize the Corporation to create, incur, assume or suffer to exist any indebtedness or (ix) to amend these By-Laws. An affirmative vote of directors constituting at least seventy percent (70%) of the whole Board of Directors shall be required to change the size, membership or powers of the Executive Committee, to fill vacancies in it, or to dissolve it. The Executive Committee may make rules for the conduct of its business and may appoint such assistants as it shall from time to time deem necessary. A majority of the members of the Executive Committee shall constitute a quorum. A member of the Executive Committee shall be appointed chair of the Executive Committee by resolution of directors constituting at least seventy percent (70%) of the whole Board of Directors and shall preside at all meetings of the Executive Committee; provided that in the case of vacancy in such position or absence of the chair of the Executive Committee at the time of any such meeting, a member of the Executive Committee selected by a majority of the members of the Executive Committee shall preside at such meeting.

2.9. *Audit Committee.* There shall be a committee of the Board of Directors designated as the Audit Committee, to consist of not fewer than three (3) members of the Board of Directors as shall from time to time be appointed by resolution of the Board of Directors. No member of the Board of Directors who is an officer or an employee of the Corporation or any subsidiary of the Corporation shall be eligible to serve on the Audit Committee. The Audit Committee shall review and, as it shall deem appropriate, approve internal accounting and financial controls for

the Corporation and accounting principles and auditing practices and procedures to be employed in the preparation and review of financial statements of the Corporation. The Audit Committee shall engage independent public accountants to audit the annual financial statements of the Corporation and its subsidiaries and shall arrange with such accountants the scope of the audit to be undertaken by such accountants. The Board of Directors shall have the power at any time to change the membership of the Audit Committee, to fill vacancies in it, or to dissolve it. The Audit Committee may make rules for the conduct of its business and may appoint such assistants as it shall from time to time deem necessary. A majority of the members of the Audit Committee shall constitute a quorum.

2.10. *Compensation Committee.* There shall be a committee of the Board of Directors designated as the Compensation Committee, to consist of not fewer than two (2) members of the Board of Directors as shall from time to time be appointed by resolution of directors constituting at least seventy percent (70%) of the whole Board of Directors. No member of the Board of Directors who is an officer or an employee of the Corporation or any subsidiary of the Corporation shall be eligible to serve on the Compensation Committee. The Compensation Committee shall make such determinations and perform such other duties as are expressly delegated to it from time to time pursuant to the terms of any stock option, equity bonus or other employee benefit plan of the Corporation, and make such recommendations to the Board of Directors regarding other compensation of officers and employees of the Corporation as it deems appropriate. The Board of Directors shall have the power at any time to change the size, membership or powers of the Compensation Committee, to fill vacancies in it, or to dissolve it; provided, however, that an affirmative vote of directors constituting at least seventy percent (70%) of the whole Board of Directors shall be required to take any such action. The Compensation Committee may make rules for the conduct of its business and may appoint such assistants as it shall from time to time deem necessary. A majority of the members of the Compensation Committee shall constitute a quorum.

2.11. *Corporate Governance Committee.* There shall be a committee of the Board of Directors designated as the Corporate Governance Committee, to consist of not fewer than two (2) members of the Board of Directors as shall from time to time be appointed by resolution of directors constituting at least seventy percent (70%) of the whole Board of Directors. The Corporate Governance Committee shall (i) identify, evaluate and recommend individuals qualified to be directors of the Corporation to the Board of Directors for either appointment to the Board of Directors or to stand for election at a meeting of the stockholders, (ii) review and recommend to the Board of Directors appropriate compensation for the Corporation's directors and (iii) develop and recommend to the Board of Directors corporate governance principles for the Corporation. The Board of Directors shall have the power at any time to change the membership or powers of the Corporate Governance Committee, to fill vacancies in it, or to dissolve it; provided, however, that an affirmative vote of directors constituting at least seventy percent (70%) of the whole Board of Directors shall be required to take any such action. The Corporate Governance Committee may make rules for the conduct of its business (including, without limitation, rules as to whether and on what basis, if any, it will consider suggestions regarding candidates for election submitted by stockholders) and may appoint such assistants as

it shall from time to time deem necessary. A majority of the members of the Corporate Governance Committee shall constitute a quorum.

2.12. *Other Committees; Designation of Replacement Members of Committees* The Board of Directors may also, by resolution or resolutions passed by the affirmative vote therefor of directors constituting at least seventy percent (70%) of the whole Board of Directors, designate one or more other committees, which, to the extent provided in said resolution or resolutions, shall have and may exercise, when the Board of Directors is not in session, the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board of Directors. A majority of the members of any such committee may determine its action and fix the time and place of its meetings unless directors constituting at least seventy percent (70%) of the whole Board of Directors shall otherwise provide. The Board of Directors shall have power, through the affirmative vote of directors constituting at least seventy percent (70%) of the whole Board of Directors, at any time to fill vacancies in, to change the size membership or powers of, or to dissolve any such committee. The Board of Directors may designate in advance a person to replace a specified director as a member of any committee of the Board of Directors in the event that such director shall for any reason cease to be a member of such committee. The vote of the Board of Directors required to designate in advance a person for such purpose shall be the same as that which is required under these By-Laws to appoint a member of such committee. In the event that any member of any committee of the Board of Directors shall for any reason cease to be a member of such committee, the person designated in advance to replace such member, if any, shall, without any further action on the part of the Board of Directors and so long as such person is at that time a member of the Board of Directors, become a member of such committee. Such person shall also assume the chairship of such committee if held by the member such person is replacing immediately prior to such member ceasing to be a member of such committee.

2.13. *Compensation of Directors.* By resolution of the Board of Directors, the directors shall be paid their reasonable expenses, if any, for attendance at each regular or special meeting of the Board of Directors or of any committee designated in these By-Laws or by the Board of Directors pursuant to these By-Laws and, by resolution of directors constituting at least seventy percent (70%) of the whole Board of Directors, may be paid a fixed sum for attendance at such meeting, or a stated salary as director, or both, or may be paid other compensation (in cash, stock or other form) for acting as directors. Nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity and receiving compensation therefor; provided however that directors who are also salaried officers of the Corporation or any subsidiary of the Corporation shall not receive fees or salaries as directors.

2.14. *Communications Equipment.* Members of the Board of Directors or any committee thereof may participate in and act at any meeting of the Board of Directors or such committee through the use of a conference telephone or other communications equipment by

means of which all persons participating in the meeting can hear each other, and participation in the meeting pursuant to this Section 2.14 shall constitute presence in person at the meeting.

2.15. *Waiver of Notice and Presumption of Assent.* Any member of the Board of Directors or any committee thereof who is present at a meeting shall be conclusively presumed to have waived notice of such meeting except when such member attends for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened. Such member shall be conclusively presumed to have assented to any action taken unless his or her dissent shall be entered in the minutes of the meeting or unless his or her written dissent to such action shall be filed with the person acting as the secretary of the meeting before the adjournment thereof or shall be forwarded by registered mail to the secretary of the corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to any member who voted in favor of such action.

2.16. *Action by Written Consent.* Unless otherwise restricted by the Certificate of Incorporation, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee.

3. OFFICERS

3.1. *Designation, Term, Vacancies.* The officers of the Corporation shall be a Chief Executive Officer, a Vice-Chair of the Board, a President, a Chief Operating Officer, one or more Vice-Presidents, a Secretary, one or more Assistant Secretaries, a Treasurer, one or more Assistant Treasurers and such other officers as the Board of Directors may from time to time deem necessary. Such officers may have and perform the powers and duties usually pertaining to their respective offices, the powers and duties respectively prescribed by law and by these By-Laws, and such additional powers and duties as may from time to time be prescribed by the Board of Directors. The same person may hold any two (2) or more offices.

At each regular annual meeting of the Board of Directors, the Board of Directors shall, at its discretion, elect the Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer, the Secretary, the Treasurer and, at their discretion, such Vice-Presidents as the Board of Directors shall determine, all of whom shall hold office until the first regular annual meeting of the Board of Directors following their appointment or until their successors are appointed and qualify, provided that they, or any of them, may be removed at any time, with or without cause, by the affirmative vote therefor of a majority of the whole Board of Directors. All other agents and employees of the Corporation shall hold office during the pleasure of the Board of Directors. Vacancies occurring among the officers of the Corporation shall be filled by the Board of Directors. The salaries of all officers of the Corporation shall be fixed by the Board of Directors.

3.2. *Chief Executive Officer.* The Chief Executive Officer shall be the chief executive officer of the Corporation and shall exercise such other powers as may from time to time be delegated to the Chief Executive Officer by these By-Laws or by resolution of the Board of Directors. Subject to the Board of Directors, the Chief Executive Officer shall have general charge of the entire business of the Corporation. The Chief Executive Officer may sign certificates of stock and may sign and seal bonds, debentures, contracts or other obligations authorized by the Board of Directors, and may, without previous authority of the Board of Directors, make such contracts as the ordinary conduct of the Corporation's business requires. The Chief Executive Officer shall have the usual powers and duties vested in a chief executive officer of a corporation. He or she shall have power to select and appoint all necessary officers and employees of the Corporation, except those selected by the Board of Directors, and to remove all such officers and employees, except those selected by the Board of Directors, and make new appointments to fill vacancies. The Chief Executive Officer may delegate any of his or her powers to the Vice-Chair of the Board, the President, the Chief Operating Officer or a Vice-President of the Corporation. The Chief Executive Officer shall at all times be subject to the direction of the Board of Directors.

3.3. *Vice-Chair of the Board.* The Vice-Chair of the Board shall have such of the Chief Executive Officer's powers and duties as the Chief Executive Officer may from time to time delegate to him or her and shall exercise such other powers as may from time to time be delegated to the Vice-Chair of the Board by these By-Laws or by resolution of the Board of Directors. The Vice-Chair of the Board may sign certificates of stock and may sign and seal bonds, debentures, contracts or other obligations authorized by the Board of Directors, and may, without previous specific authority of the Board of Directors, make such contracts as the ordinary conduct of the Corporation's business requires.

3.4. *President.* The President shall have such powers as may from time to time be delegated to the President by these By-Laws or by resolution of the Board of Directors. The President may sign certificates of stock and may sign and seal bonds, debentures, contracts or other obligations authorized by the Board of Directors, and may, without previous specific authority of the Board of Directors, make such contracts as the ordinary conduct of the Corporation's business requires.

3.5. *Chief Operating Officer.* The Chief Operating Officer shall have such powers as may from time to time be delegated to the Chief Operating Officer by these By-Laws or by resolutions of the Board of Directors. The Chief Operating Officer may sign certificates of stock and may sign and seal bonds, debentures, contracts or other obligations authorized by the Board of Directors, and may, without previous specific authority of the Board of Directors, make such contracts as the ordinary conduct of the Corporation's business requires.

3.6. *Vice-Presidents.* Each Vice-President shall have such of the Chief Executive Officer's, the Vice-Chair of the Board's, the President's and the Chief Operating Officer's powers and duties as the Chief Operating Officer, the Vice Chair of the Board, the President and the Chief Operating Officer, respectively, may from time to time delegate to such Vice-President

and each Vice-President shall have such other powers and perform such other duties as may be assigned to such Vice-President by these By-Laws or by resolution of the Board of Directors.

3.7. *Treasurer.* The Treasurer shall have custody of such funds and securities of the Corporation as may come to the Treasurer's hands or be committed to the Treasurer's care by the Board of Directors. Whenever necessary or proper, the Treasurer shall endorse on behalf of the Corporation, for collection, checks, notes, or other obligations, and shall deposit the same to the credit of the Corporation in such bank or banks or depositories, approved by the Board of Directors, as the Board of Directors, Chief Executive Officer, Vice-Chair of the Board, President or Chief Operating Officer may designate. The Treasurer may sign receipts or vouchers for payments made to the Corporation, and the Board of Directors may require that such receipts or vouchers shall also be signed by some other officer to be designated by them. Whenever required by the Board of Directors, the Treasurer shall render a statement of the Corporation's cash accounts and such other statements respecting the affairs of the Corporation as may be required. The Treasurer shall keep proper and accurate books of account. The Treasurer shall perform all acts incident to the office of Treasurer, subject to the direction of the Board of Directors.

3.8. *Secretary.* The Secretary shall have custody of the seal of the Corporation and when required by the Board of Directors, or when any instrument signed by another officer of the Corporation duly authorized to sign the same so requires, or when necessary to attest any proceedings of the stockholders or directors, shall affix it to any instrument requiring the same and shall attest the same with his or her signature, provided that the seal may be affixed by the Chief Executive Officer, the Vice Chair of the Board, the President, the Chief Operating Officer or a Vice-President or other officer of the Corporation to any document executed by any of them respectively on behalf of the Corporation which does not require the attestation of the Secretary. The Secretary shall attend to the giving and serving of notices of meetings. The Secretary shall have charge of such books and papers as properly belong to such office or as may be committed to his or her care by the Board of Directors. The Secretary shall perform such other duties as appertain to such office or as may be required by the Board of Directors.

3.9. *Assistant Secretary.* Each Assistant Secretary shall be vested with such powers and duties as may be delegated to him or her by the President, the Chief Operating Officer or the Secretary and any act may be done or duty performed by an Assistant Secretary with like effect as though done or performed by the Secretary; and shall have such other powers and perform such other duties as may be assigned to him or her by the Board of Directors.

3.10. *Assistant Treasurer.* Each Assistant Treasurer shall be vested with such powers and duties as may be delegated to him or her by the Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer or the Treasurer, and any act may be performed by an Assistant Treasurer with like effect as though done or performed by the Treasurer; and shall have such other powers and perform such other duties as may be assigned to him or her by the Board of Directors.

3.11. *Delegation.* In case of the absence of any officer of the Corporation, or for any other reason that the Board of Directors may deem sufficient, the Board of Directors may

delegate, for the time being, the powers or duties, or any of them, of such officer to any other officer or to any director.

3.12. *Compensation.* The compensation of any officer of the Corporation for serving in such capacity, other than compensation under any plan which has received stockholder approval, shall require the approval of directors constituting at least a majority of the directors serving on the Board of Directors who are not salaried officers of the Corporation or any subsidiary of the Corporation.

4. STOCK

4.1. *Certificates of Stock.* All certificates of shares of the capital stock of the Corporation shall be in such form not inconsistent with the Certificate of Incorporation, these By-Laws and the laws of the State of Delaware, as shall be approved by the Board of Directors, and shall be signed by the Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer or a Vice-President and by the Secretary or an Assistant Secretary or the Treasurer or an Assistant Treasurer and shall bear the seal of the Corporation and shall not be valid unless so signed and sealed. Certificates countersigned by a duly appointed transfer agent and/or registered by a duly appointed registrar shall be deemed to be so signed and sealed whether the signatures be manual or facsimile signatures and whether the seal be a facsimile seal or any other form of seal. All certificates for each class of stock shall be consecutively numbered and the name of the person owning the shares represented thereby, his or her address, with the number of such shares and the date of issue, shall be entered on the Corporation's books. All certificates surrendered shall be canceled and no new certificates shall be issued until the former certificates for the same number of shares shall have been surrendered and canceled, except in cases provided for herein.

In case any officer or officers who shall have signed, or whose facsimile signature or signatures shall have been affixed to, any such certificate or certificates shall cease to be such officer or officers of the Corporation before such certificate or certificates shall have been delivered by the Corporation, such certificate or certificates may nevertheless be adopted by the Corporation, and may be issued and delivered as though the person or persons who signed such certificates, or whose facsimile signature or signatures shall have been affixed thereto, had not ceased to be such officer or officers of the Corporation.

4.2. *Uncertificated Shares; Transfers of Shares.* The Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of, the Corporation as provided for in these By-Laws and the laws of the State of Delaware. Transfers of certificated shares of stock shall be made upon the books of the Corporation by the holder in person or by attorney, upon the surrender and cancellation of the certificate or certificates for such shares. But the Board of

Directors may appoint one or more suitable banks and/or trust companies as transfer agents and/or registrars of transfers, for facilitating transfers of any class or series of stock of the Corporation by the holders thereof under such regulations as the Board of Directors may from time to time prescribe. Upon such appointment being made all certificates of such class or series thereafter issued shall be countersigned by one of such transfer agents and/or one of such registrars or transfers, and shall not be valid unless so countersigned. Uncertificated shares of the stock of the Corporation shall be transferred on the books of the Corporation only by the person then registered in the stock records of the Corporation as the owner of such shares or by such person's representative as determined in accordance with generally accepted securities industry practices.

4.3. *Stolen, Lost, Mutilated and Destroyed Certificates.* The Board of Directors may in its sole discretion direct that a new certificate or certificates of stock may be issued in place of any certificate or certificates of stock theretofore issued by the Corporation, alleged to have been stolen, lost, mutilated or destroyed, and the Board of Directors when authorizing the issuance of such new certificate or certificates may, in its discretion, and as a condition precedent thereto, require the owner of such mutilated certificate to surrender the same and the owner of such stolen, lost, mutilated or destroyed certificate or certificates or his or her legal representatives to give to the Corporation, and to such registrar or registrars and/or transfer agent or transfer agents as may be authorized or required to countersign such new certificate or certificates, a bond in such sum as the Corporation may direct not exceeding double the value of the stock represented by the certificate alleged to have been stolen, lost, mutilated or destroyed, as indemnity against any claim that may be made against them or any of them for or in respect of the shares of stock represented by the certificate alleged to have been stolen, lost, mutilated or destroyed.

4.4. *Registered Stockholders.* The Corporation shall be entitled to treat the holder of record of any share or shares of stock as the owner in fact thereof and accordingly shall not be bound to recognize any equitable or other claim to or interest in such share on the part of any other person, whether or not it shall have express or other notice thereof, save as expressly provided by the laws of Delaware.

5.

CONTRACTS, CHECKS, DRAFTS, BANK ACCOUNTS

5.1. *Contracts.* Subject to the provisions of the Certificate of Incorporation, the Board of Directors or the Executive Committee (subject to Section 2.8) may authorize any officer or officers, fiscal agent or other agent or employee of the Corporation to enter into any contract or execute or deliver any instrument in the name of or on behalf of the Corporation and such authority may be general or confined to specific instances; and unless so authorized by the Board of Directors or by these By-Laws, no officer, fiscal or other agent or employee of the Corporation shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose.

5.2. *Loans.* The Chair of the Board or any officer or agent of the Corporation when authorized by the Board of Directors or the Executive Committee may negotiate loans and advances for the Corporation from any bank, trust company or other institution or from any firm,

corporation or individual, and for such loans and advances, when authorized by the Board of Directors or the Executive Committee (subject to Section 2.8), may make, execute and deliver promissory notes or other evidences of indebtedness of the Corporation, and pledge, hypothecate or transfer as security for the payment thereof securities or other property at any time held by the Corporation. No loans shall be contracted on behalf of the Corporation and no notes or other evidences of indebtedness shall be issued in its behalf unless and except as authorized by the Board of Directors or the Executive Committee (if authorized pursuant to Section 2.8).

5.3. *Deposits.* All funds of the Corporation shall be deposited from time to time to the credit of the Corporation in such banks or trust companies or with such bankers or other depositories in the United States or elsewhere as the Board of Directors, the Executive Committee, the Chief Executive Officer, the Vice-Chair of the Board, the President or the Chief Operating Officer may approve.

5.4. *Checks, Drafts, Etc.* All notes, drafts, acceptances, checks, endorsements or other evidences of indebtedness shall be signed by the Chair of the Board, Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer or a Vice-president and shall be countersigned by the Treasurer or an Assistant Treasurer of the Corporation, or by such officers as may, from time to time, be designated by resolution of the Board of Directors or the Executive Committee for that purpose. Endorsements for deposit to the credit of the Corporation in any of its duly authorized depositories may be made by the Treasurer or an Assistant Treasurer or by any other officer or agent who may be designated by resolution of the Board of Directors or the Executive Committee.

5.5. *Safe Deposit Vaults.* To the extent permitted by law, securities of the Corporation may be deposited in such safe deposit vaults in the United States or elsewhere as the Board of Directors or the Executive Committee may approve, and access to such vaults shall be only by such officer together with such additional officer or officers and/or responsible employee or employees as may from time to time be designated for the purpose by resolution of the Board of Directors.

5.6. *Deposit of Securities for Safekeeping.* From time to time, to the extent permitted by law, the Board of Directors or the Executive Committee may deposit for safekeeping with one or more banks, trust companies or other financial institutions to be selected by them in the United States or elsewhere, any securities owned by the Corporation and not otherwise deposited or pledged as security. Any and all securities so deposited may be withdrawn from time to time only by such officer of the Corporation together with such additional officer or officers and/or responsible employee or employees as may from time to time, to the extent permitted by law, be designated for the purpose by resolution of the Board of Directors or the Executive Committee.

6. GENERAL

6.1. *Seal.* The corporate seal shall have inscribed thereon the name of the Corporation, and shall be in such form as may be approved from time to time by the Board of Directors. One or more duplicate dies for impressing such seal may be kept and used.

6.2. *Books and Records.* Subject to the provisions of the statute under which the Corporation is organized, the Corporation may keep its books outside the State of Delaware.

The Board of Directors shall have power, from time to time, to determine whether and to what extent and at what times and places and under what conditions and regulations the accounts and books of the Corporation (except such as may by statute be specifically open to inspection), or any of them shall be open to the inspection of the stockholders and no stockholder shall have any right to inspect any account or book or document of the Corporation except as conferred by statute or authorized by the Board of Directors.

6.3. *Fiscal Year.* The fiscal year shall begin the first day of January in each year.

6.4. *Notices.* Whenever under the provisions of these By-Laws notice is required to be given to any director, officer or stockholder, it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, by depositing the same in the post office or letter-box, in a post-paid sealed wrapper, addressed to such stockholder, officer or director at such address as appears on the books of the Corporation, or, in default of other address, to such director, officer or stockholder at his or her last known post office address and such notice shall be deemed to be given at the time when the same shall be thus mailed.

Any stockholder, director or officer may waive any notice required to be given under these By-Laws by instrument in writing signed (either before or after the holding of any meeting in respect of which the notice is required) by such stockholder, director or officer and filed with the Corporation.

6.5. *Stock of Other Corporations.* The Chair of the Board, Chief Executive Officer, the Vice-Chair of the Board, the President, the Chief Operating Officer and each Vice-President are each individually authorized on behalf of the Corporation, in person or by proxy, to attend, act and vote at meetings of the stockholders of any corporation in which the Corporation shall hold stock, and to exercise thereat any and all rights and powers incident to the ownership of such stock, and to execute waivers of notice of such meetings and calls therefor, and to take or participate in the taking of action by the stockholders of such corporation by consent in lieu of a meeting. The Board of Directors or the Executive Committee may also authorize any other director, officer or other person on behalf of the Corporation to take any and all of such actions, and authority may be given to exercise such authority either on one or more designated occasions, or generally on all occasions until revoked by the Board of Directors or the Executive Committee.

6.6. *Registration of Securities.* Any stocks or securities owned by the Corporation may, if so determined by the Board of Directors or the Executive Committee, be registered either in the name of the Corporation or in the name of any nominee or nominees appointed for that purpose by the Board of Directors or the Executive Committee.

6.7. *Amendments.* These By-Laws may be altered or amended by the holders of shares of stock of the Corporation entitled to vote with respect thereto, present in person or by proxy at any regular or special meeting of the stockholders, if notice of the proposed alteration or

amendment be contained in the notice of the meeting, or by the affirmative vote therefor of directors constituting at least seventy percent (70%) of the whole Board of Directors, provided, however, that these By-Laws may not be altered or amended either by action of the stockholders or by action of the Board of Directors to make provisions contrary to or in conflict with or in any way modifying any provision of the Certificate of Incorporation and provided, further, that the vote of stockholders necessary to alter or amend these By-Laws shall be as provided for in the Certificate of Incorporation. For purposes of these By-Laws, "whole Board of Directors" means the total number of directors which the Corporation would have on the Board of Directors if there were no vacancies.

7.

FORUM FOR ADJUDICATION OF DISPUTES

7.1. *Forum for Adjudication of Disputes.* Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware) shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, the Certificate of Incorporation or these By-Laws and (iv) any action asserting a claim governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Section 7.1.

8.

EMERGENCY BY-LAWS

8.1. *Emergency By-Laws.* Notwithstanding anything to the contrary in the Certificate of Incorporation or these By-Laws, in the event there is any emergency, disaster or catastrophe, as referred to in Section 110 of the DGCL, or other similar emergency condition (each, an "emergency") and irrespective of whether a quorum of the Board of Directors or a standing committee thereof can readily be convened for action, this Article VIII shall apply.

8.1.1. Any director or senior executive officer of the Corporation may call a meeting of the Board of Directors or any committee thereof by any feasible means and with such advance notice as circumstances permit in the judgment of the person calling the meeting. Neither the business to be transacted nor the purpose of any such meeting need be specified in the notice thereof.

8.1.2. At any meeting called in accordance with Section 8.1(i), the director or directors in attendance shall constitute a quorum. In the event that no directors are able to attend the meeting, the Designated Officers in attendance shall be deemed directors for such meeting. For purposes of this Section 8.1(ii), a "Designated Officer" means an officer who is included on a list of officers of the Corporation who shall be deemed to be directors of the Corporation for purposes of obtaining a quorum during an emergency if a quorum of directors cannot otherwise

be obtained, which officers have been designated by the Board of Directors prior to such time as an emergency may have occurred.

8.1.3. Directors may take action to appoint one or more of the directors to membership on any standing or temporary committees of the Board of Directors as they deem advisable. Directors may also take action to designate one or more of the officers of the Corporation to serve as directors of the Corporation while this Article VIII applies.

8.1.4. To the extent that it considers it practical to do so, the Board of Directors shall manage the business of the Corporation during an emergency in a manner that is consistent with the Certificate of Incorporation and these By-Laws. It is recognized, however, that in an emergency, it may not always be practical to act in this manner and this Article VIII is intended to, and does hereby, empower the Board of Directors with the maximum authority possible under the DGCL and all other applicable law to conduct the interim management of the affairs of the Corporation in an emergency in what it considers to be in the best interests of the Corporation, including, without limitation, taking any action that it determines to be practical and necessary to address the circumstances of the emergency.

8.1.5. No director, officer or employee acting in accordance with this Article VIII or otherwise pursuant to Section 110 of the DGCL (or any successor section) shall be liable except for willful misconduct.

8.1.6. This Article VIII shall continue to apply until such time following the emergency when it is feasible for at least a majority of the Board of Directors immediately prior to the emergency to resume management of the business of the Corporation.

8.1.7. At any meeting called in accordance with Section 8.1(i), the Board of Directors may modify, amend or add to the provisions of this Article VIII in order to make any provision that may be practical or necessary given the circumstances of the emergency.

8.1.8. The provisions of this Article VIII shall be subject to repeal or change by further action of the Board of Directors or by action of the stockholders, but no such repeal or change shall modify the provisions of Section 8.1(v) with regard to action taken prior to the time of such repeal or change.

8.1.9. Nothing contained in this Article VIII shall be deemed exclusive of any other provisions for emergency powers consistent with other sections of the DGCL that have been or may be adopted by corporations created under the DGCL.

9. MISCELLANEOUS

9.1. *Section Headings.* Section headings in these By-Laws are for convenience of reference only and shall not be given any substantive effect in limiting or otherwise construing any provision herein.

9.2. *Inconsistent Provisions.* In the event that any provision of these By-Laws is or becomes inconsistent with any provision of the Certificate of Incorporation, the DGCL or any other applicable law, the provision of these By-Laws shall not be given any effect to the extent of such inconsistency but shall otherwise be given full force and effect.

9.3. *Severability.* To the extent any provision of these By-Laws would be, in the absence of this Section 9.3, invalid, illegal or unenforceable for any reason whatsoever, such provision shall be severable from the other provisions of these By-Laws, and all provisions of these By-Laws shall be construed so as to give effect to the intent manifested by these By-Laws, including, to the maximum extent possible, the provision that would be otherwise invalid, illegal or unenforceable.

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**APTARGROUP, INC.
265 EXCHANGE DRIVE, SUITE 301
CRYSTAL LAKE, ILLINOIS 60014**

July 24, 2024

Mr. Robert Kuhn
265 Exchange Drive, Suite 301
Crystal Lake, IL 60014

Dear Bob:

On behalf of AptarGroup, Inc. (the "Company") and its Board of Directors (the "Board"), I want to thank you for your many years of dedicated service to the Company, during which you have demonstrated remarkable leadership and have made immeasurable contributions to the Company. We appreciate your willingness to provide continued support and expertise to the Company as a non-employee advisor.

This letter agreement ("Agreement") supplements the terms of the Employment Agreement by and among you and the Company, effective January 1, 2012, as amended (the "Employment Agreement"), as follows:

Term. You will serve as Executive Vice President, Chief Financial Officer through December 31, 2024 and, effective January 1, 2025, will become a non-executive employee of the Company until January 3, 2025 (the "Retirement Date"), on which date you will become a non-employee advisor until December 31, 2025 (the period from the Retirement Date through December 31, 2025, the "Advisory Period"); provided, however, your service with the Company may be terminated during the Advisory Period for any reason by the Company or by you. In your role as an advisor, you agree to provide transition and other related services to the Company during the Advisory Period to provide an effective transition of your executive responsibilities to the Company's incoming Chief Financial Officer and to advise on matters for which you were responsible for during your employment with the Company. As an advisor, you shall report directly to the Company's Chief Executive Officer. You and the Company agree that as of the Retirement Date, you will incur a "separation from service" under Section 409A of the Internal Revenue Code of 1986, as amended, and following the Retirement Date you will be providing less than 20% of the average level of bona fide services you provided to the Company and its affiliates over the immediately preceding 36-month period prior to the Retirement Date.

Upon the Retirement Date (or your earlier termination of your employment for any reason), unless otherwise agreed to be the parties, you shall be deemed to have resigned, without any further action by you, from any and all officer and director positions that you, immediately prior to such termination, (i) held with the Company or any of its affiliates or (ii) held with any other entities at the direction of, or as a result of your affiliation with, the Company or any of its affiliates; provided, however, you shall cease to serve as the Company's Chief Accounting Officer, effective August 1, 2024. If for any reason this Agreement is deemed to be insufficient to effectuate such resignations, then you shall, upon the Company's request, execute any documents or instruments that the Company may deem necessary or desirable to effectuate such resignations.

Compensation. Except as set forth below, through the Retirement Date, you will continue to receive your annual base salary and participate in the Company's benefit programs applicable to you. During the Advisory Period, you will be paid an advisor fee in the amount of \$10,000 per month, subject to the terms of this Agreement. The monthly fee for each month of the Term shall be processed during the last week of the month and paid on or before the 15th day of the following month. For the avoidance of doubt, you will not participate in the Company's annual incentive program or be eligible to participate in the Company's long-term incentive programs for 2025 and you will be entitled to no additional compensation for your services following the Retirement Date except as set forth in this Agreement, Section 4(j) of the Employment Agreement, the Company's retirement plans, including the Employees' Retirement Plan and Supplemental Plan, or as otherwise approved by the Management Development and Compensation Committee of the Board. Notwithstanding anything in this Agreement to the contrary, your 2024 annual bonus and your outstanding equity awards will remain subject to the applicable award agreements and underlying plan documents. As a non-employee advisor, you shall be an independent contractor and shall not be eligible to participate in any of the Company's employee benefit plans during the Advisory Period. Further, as an independent contractor, you shall bear all expense of, and be solely responsible for, all federal, state and local taxes due with respect to the monthly advisor fee and the Company shall not withhold taxes with respect the monthly advisory fee and your shall be solely responsible for all taxes associated with such fee.

Existing Employment Agreement. For the avoidance of doubt, subject to your remaining employed with the Company through the Retirement Date, upon the termination of your employment on the Retirement Date, you will become entitled to the continuation of base salary payments and medical and life insurance benefits described in Section 4(j) of the Employment Agreement, subject to the terms and conditions set forth in the Employment Agreement (including, without limitation, the required six-month delay for the payment of nonqualified deferred compensation upon your separation from service). You acknowledge that you shall continue to be bound by the covenants set forth in Sections 5 and 6 of the Employment Agreement including, without limitation, the non-competition, non-solicitation and confidentiality covenants set forth therein.

Notwithstanding anything in this Agreement or the Employment Agreement to the contrary, you understand that nothing contained in this Agreement or the Employment Agreement limits your ability to report possible violations of law or regulation to or file a charge or complaint with any federal, state or local governmental agency or commission or regulatory authority (collectively, "Government Agencies"). You further understand that neither this Agreement nor the Employment Agreement limits your ability to communicate with any Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to the Company. Furthermore (I) you shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that: (A) is made (i) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal, and (II) if you file a lawsuit for retaliation by the Company for reporting a suspected violation of law, you may disclose a trade secret to your attorney and use the trade secret information in the court proceeding, if you file any document containing the trade secret under seal and do not disclose the trade secret except pursuant to court order.

Again, thank you for your many years of dedicated service to the Company and your agreement to assist the Company in its leadership transition.

Sincerely,

APTARGROUP, INC.

By: /s/ Stephan B. Tanda

Name: Stephan B.
Tanda

Title: President and
CEO

This letter agreement correctly reflects our understanding, and I hereby confirm my agreement to the same as of the date set forth above.

/s/ Robert Kuhn

ROBERT KUHN

CERTIFICATION

I, Stephan B. Tanda, certify that:

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

Date: October 25, 2024

By: /s/ STEPHAN B. TANDA

Stephan B. Tanda

President and Chief Executive Officer

CERTIFICATION

I, Robert W. Kuhn, certify that:

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

Date: October 25, 2024

By: /s/ ROBERT W. KUHN

Robert W. Kuhn

Executive Vice President and Chief Financial Officer

Certificate Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

I, Stephan B. Tanda, president and chief executive officer of AptarGroup, Inc., certify that (i) the Quarterly Report on Form 10-Q of AptarGroup, Inc. for the quarter ended September 30, 2024 (the "Form 10-Q") fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of AptarGroup, Inc.

By: /s/ STEPHAN B. TANDA

Stephan B. Tanda

President and Chief Executive Officer

October 25, 2024

Certificate Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

I, Robert W. Kuhn, executive vice president and chief financial officer of AptarGroup, Inc., certify that (i) the Quarterly Report on Form 10-Q of AptarGroup, Inc. for the quarter ended September 30, 2024 (the "Form 10-Q") fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of AptarGroup, Inc.

By: /s/ ROBERT W. KUHN

Robert W. Kuhn

Executive Vice President and Chief Financial Officer

October 25, 2024
