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, 2022**

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: 1-3247

CORNING INCORPORATED

(Exact name of registrant as specified in its charter)

New York	**16-0393470**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One Riverfront Plaza, Corning, New York	**14831**
(Address of principal executive offices)	(Zip Code)

607-974-9000
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.50 par value per share	**GLW**	**New York Stock Exchange (NYSE)**

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.

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐
		Emerging Growth Company	☐

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

Yes ☐ No ☐

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

Yes ☐ No ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding as of October 21, 2022
Corning's Common Stock, $0.50 par value per share	845,811,376 shares

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CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF INCOME
(Unaudited; in millions, except per share amounts)

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Net sales	$ 3,488	$ 3,615	$ 10,783	$ 10,406
Cost of sales	2,426	2,294	7,192	6,614
Gross margin	1,062	1,321	3,591	3,792
Operating expenses:				
Selling, general and administrative expenses	461	486	1,381	1,351
Research, development and engineering expenses	278	251	766	715
Amortization of purchased intangibles	31	32	92	97
Operating income	292	552	1,352	1,629
Interest income	3	3	9	8
Interest expense	(73)	(72)	(216)	(227)
Translated earnings contract (loss) gain, net (Note 11)	(68)	(13)	257	262
Other income, net	106	23	391	169
Income before income taxes	260	493	1,793	1,841
Provision for income taxes (Note 4)	(34)	(109)	(380)	(402)
Net income	226	384	1,413	1,439
Net income attributable to non-controlling interests	(18)	(13)	(61)	(20)
Net income attributable to Corning Incorporated	$ 208	$ 371	$ 1,352	$ 1,419
Earnings per common share available to common shareholders:				
Basic (Note 5)	$ 0.25	$ 0.44	$ 1.60	$ 0.72
Diluted (Note 5)	$ 0.24	$ 0.43	$ 1.58	$ 0.71
Reconciliation of net income attributable to Corning Incorporated versus net income available to common shareholders:				
Net income attributable to Corning Incorporated	$ 208	$ 371	$ 1,352	$ 1,419
Series A convertible preferred stock dividend				(24)
Excess consideration paid for redemption of preferred shares (1)				(803)
Net income available to common shareholders	$ 208	$ 371	$ 1,352	$ 592

(1) Refer to Note 5 (Earnings per Common Share) and Note 13 (Shareholders' Equity) to the consolidated financial statements for additional information.

The accompanying notes are an integral part of these consolidated financial statements.

CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(Unaudited; in millions)

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Net income	$ 226	$ 384	$ 1,413	$ 1,439
Foreign currency translation adjustments and other	(685)	(192)	(1,535)	(515)
Unamortized gains (losses) and prior service credits (costs) for postretirement benefit plans	3		(49)	(1)
Net unrealized losses on designated hedges	(15)	(15)	(32)	(3)
Other comprehensive loss, net of tax	(697)	(207)	(1,616)	(519)
Comprehensive (loss) income	(471)	177	(203)	920
Comprehensive income attributable to non-controlling interests	(18)	(13)	(61)	(20)
Comprehensive (loss) income attributable to Corning Incorporated	$ (489)	$ 164	$ (264)	$ 900

The accompanying notes are an integral part of these consolidated financial statements.

CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED BALANCE SHEETS
(Unaudited; in millions, except share and per share amounts)

	September 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 1,630	$ 2,148
Trade accounts receivable, net of doubtful accounts - $39 and $42	1,620	2,004
Inventories, net (Note 6)	2,951	2,481
Other current assets	1,603	1,026
Total current assets	7,804	7,659
Property, plant and equipment, net of accumulated depreciation - $13,348 and $13,969	14,645	15,804
Goodwill, net	2,368	2,421
Other intangible assets, net	1,049	1,148
Deferred income taxes (Note 4)	998	1,066
Other assets	1,871	2,056
Total Assets	$ 28,735	$ 30,154
Liabilities and Equity		
Current liabilities:		
Current portion of long-term debt and short-term borrowings (Note 8)	$ 208	$ 55
Accounts payable	1,808	1,612
Other accrued liabilities (Note 7 and Note 10)	3,151	3,139
Total current liabilities	5,167	4,806
Long-term debt (Note 8)	6,525	6,989
Postretirement benefits other than pensions (Note 9)	585	622
Other liabilities (Note 7 and Note 10)	4,910	5,192
Total liabilities	17,187	17,609
Commitments and contingencies (Note 10)		
Shareholders' equity (Note 13):		
Common stock – Par value $0.50 per share; Shares authorized 3.8 billion; Shares issued: 1.8 billion and 1.8 billion	910	907
Additional paid-in capital – common stock	16,649	16,475
Retained earnings	17,044	16,389
Treasury stock, at cost; Shares held: 977 million and 970 million	(20,528)	(20,263)
Accumulated other comprehensive loss	(2,791)	(1,175)
Total Corning Incorporated shareholders' equity	11,284	12,333
Non-controlling interests	264	212
Total equity	11,548	12,545
Total Liabilities and Equity	$ 28,735	$ 30,154

The accompanying notes are an integral part of these consolidated financial statements.

CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited; in millions)

	Nine months ended September 30,	
	2022	2021
Cash Flows from Operating Activities:		
Net income	$ 1,413	$ 1,439
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	1,014	1,005
Amortization of purchased intangibles	92	97
Loss on disposal of assets	110	8
Gain on sale of business	(53)	(54)
Share-based compensation expense	145	117
Translation gain on Japanese yen-denominated debt	(321)	(127)
Deferred tax provision	58	68
Translated earnings contract gain	(257)	(262)
Unrealized translation losses on transactions	140	65
Changes in assets and liabilities:		
Trade accounts receivable	161	(146)
Inventories	(637)	(72)
Other current assets	(5)	(210)
Accounts payable and other current liabilities	25	471
Customer deposits and government incentives	144	62
Deferred income	(15)	(92)
Other, net	(16)	20
Net cash provided by operating activities	1,998	2,389
Cash Flows from Investing Activities:		
Capital expenditures	(1,201)	(1,014)
Proceeds from sale of business	77	102
Investment in and proceeds from unconsolidated entities, net	(10)	87
Realized gains on translated earnings contract	209	30
Other, net	(44)	(8)
Net cash used in investing activities	(969)	(803)
Cash Flows from Financing Activities:		
Repayments of short-term borrowings	(87)	(144)
Repayments of long-term debt		(716)
Proceeds from issuance of short-term debt	70	
Proceeds from issuance of long-term debt	37	19
Payment for redemption of preferred stock	(507)	(507)
Payments of employee withholding tax on stock awards	(44)	(57)
Proceeds from exercise of stock options	35	91
Purchases of common stock for treasury	(221)	(22)
Dividends paid	(696)	(659)
Other, net	(17)	5
Net cash used in financing activities	(1,430)	(1,990)
Effect of exchange rates on cash	(117)	(56)
Net decrease in cash and cash equivalents	(518)	(460)
Cash and cash equivalents at beginning of period	2,148	2,672
Cash and cash equivalents at end of period	$ 1,630	$ 2,212

The accompanying notes are an integral part of these consolidated financial statements.

CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(Unaudited; in millions, except per share amounts)

	Common stock	Additional paid-in capital common	Retained earnings	Treasury stock	Accumulated other comprehensive loss	Total Corning Incorporated shareholders' equity	Non-controlling interests	Total
Balance, December 31, 2021	$ 907	$ 16,475	$ 16,389	$ (20,263)	$ (1,175)	$ 12,333	$ 212	$ 12,545
Net income			581			581	22	603
Other comprehensive loss					(187)	(187)		(187)
Purchase of common stock for treasury				(151)		(151)		(151)
Shares issued to benefit plans and for option exercises	1	56				57		57
Common dividends ($0.27 per share)			(233)			(233)		(233)
Other, net (1)				(5)		(5)		(5)
Balance, March 31, 2022	$ 908	$ 16,531	$ 16,737	$ (20,419)	$ (1,362)	$ 12,395	$ 234	$ 12,629
Net income			563			563	21	584
Other comprehensive loss					(732)	(732)	(2)	(734)
Purchase of common stock for treasury				(53)		(53)		(53)
Shares issued to benefit plans and for option exercises	2	59				61		61
Common dividends ($0.54 per share)			(463)			(463)		(463)
Other, net (1)				(37)		(37)	(5)	(42)
Balance, June 30, 2022	$ 910	$ 16,590	$ 16,837	$ (20,509)	$ (2,094)	$ 11,734	$ 248	$ 11,982
Net income			208			208	18	226
Other comprehensive loss					(697)	(697)	(2)	(699)
Purchase of common stock for treasury				(17)		(17)		(17)
Shares issued to benefit plans and for option exercises		59				59		59
Other, net (1)			(1)	(2)		(3)		(3)
Balance, September 30, 2022	**$ 910**	**$ 16,649**	**$ 17,044**	**$ (20,528)**	**$ (2,791)**	**$ 11,284**	**$ 264**	**$ 11,548**

	Convertible preferred stock	Common stock	Additional paid-in capital common	Retained earnings	Treasury stock	Accumulated other comprehensive loss	Total Corning Incorporated shareholders' equity	Non-controlling interests	Total
Balance, December 31, 2020	$ 2,300	$ 863	$ 14,642	$ 16,120	$ (19,928)	$ (740)	$ 13,257	$ 191	$ 13,448
Net income				599			599	2	601
Other comprehensive loss						(352)	(352)	(1)	(353)
Shares issued to benefit plans and for option exercises		1	80				81		81
Common dividends ($0.24 per share)				(187)			(187)		(187)
Preferred dividends ($10,625 per share)				(24)			(24)		(24)
Other, net (1)				1	(6)		(5)	(3)	(8)
Balance, March 31, 2021	$ 2,300	$ 864	$ 14,722	$ 16,509	$ (19,934)	$ (1,092)	$ 13,369	$ 189	$ 13,558
Net income				449			449	5	454
Other comprehensive income						40	40	1	41
Redemption of preferred stock (2)	(700)			(803)			(1,503)		(1,503)
Conversion of preferred stock to common stock (3)	(1,600)	40	1,560				—		—
Purchase of common stock for treasury					(1)		(1)		(1)
Shares issued to benefit plans and for option exercises		3	70				73		73
Common dividends ($0.48 per share)				(416)			(416)		(416)
Other, net (1)					(51)		(51)	(13)	(64)
Balance, June 30, 2021	$ —	$ 907	$ 16,352	$ 15,739	$ (19,986)	$ (1,052)	$ 11,960	$ 182	$ 12,142
Net income				371			371	13	384
Other comprehensive loss						(207)	(207)	(1)	(208)
Purchase of common stock for treasury					(24)		(24)		(24)
Shares issued to benefit plans and for option exercises			46				46		46
Other, net (1)					(1)		(1)	16	15
Balance, September 30, 2021	**$ —**	**$ 907**	**$ 16,398**	**$ 16,110**	**$ (20,011)**	**$ (1,259)**	**$ 12,145**	**$ 210**	**$ 12,355**

(1) Treasury stock includes the deemed surrender to the Company of common stock to satisfy employee tax withholding obligations.
(2) Refer to Note 5 (Earnings per Common Share) and Note 13 (Shareholders' Equity) to the consolidated financial statements for additional information.
(3) Refer to Note 13 (Shareholders' Equity) to the consolidated financial statements for additional information.

The accompanying notes are an integral part of these consolidated financial statements.

CORNING INCORPORATED AND SUBSIDIARY COMPANIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Significant Accounting Policies

Basis of Presentation

In these notes, the terms "Corning," "Company," "we," "us," or "our" mean Corning Incorporated and its subsidiary companies.

The accompanying unaudited consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information and in accordance with U.S. Generally Accepted Accounting Principles ("GAAP"). Certain information and note disclosures normally included in financial statements prepared in accordance with GAAP have been omitted or condensed. These interim consolidated financial statements should be read in conjunction with Corning's consolidated financial statements and notes thereto included in its Annual Report on Form 10-K for the year ended December 31, 2021 ("2021 Form 10-K").

The unaudited consolidated financial statements reflect all adjustments which, in the opinion of management, are necessary for a fair statement of the results of operations, financial position and cash flows for the interim periods presented. All such adjustments are of a normal recurring nature. The results for interim periods are not necessarily indicative of results which may be expected for any other interim period or for the full year.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and the disclosure of contingent assets and liabilities. The non-controlling interests as recorded in the consolidated financial statements represent amounts attributable to the minority shareholders of Hemlock Semiconductor Group ("Hemlock") and other less-than-wholly-owned consolidated subsidiaries.

Certain prior year amounts have been reclassified to conform to the current-year presentation. These reclassifications had no material impact on the results of operations, financial position, or changes in shareholders' equity.

New Accounting Standards

In November 2021, the FASB issued Accounting Standards Update ("ASU") 2021-10 Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance, effective for financial statements issued for annual periods beginning after December 15, 2021. ASU 2021-10 requires business entities to disclose information in the notes to the financial statements about certain types of government assistance. The annual disclosure requirements apply to transactions with a government that are accounted for by analogizing to either a grant model or a contribution model. We plan to adopt ASU 2020-10 when we issue our annual financial statements. We do not expect it to have a material impact on our financial position or results of operations.

2. Restructuring, Impairment, and Other Charges and Credits

During the three and nine months ended September 30, 2022, we recorded $138 million and $217 million, respectively, in accelerated depreciation, asset write-offs and other related charges, of which $125 million and $193 million, respectively, were reflected in cost of sales in the consolidated statements of income. The activity primarily related to capacity optimization of an emerging growth business.

There were no material restructuring, impairment and other charges and credits for the three and nine months ended September 30, 2021.

3. Revenue

Revenue Disaggregation Table

The following table shows revenues by major product categories, similar to the Company's reportable segment disclosure. Within each product category, contract terms, conditions and economic factors affecting the nature, amount, timing and uncertainty of revenue recognition and cash flows are substantially similar. Commercial markets and selling channels are also similar. Except for an inconsequential amount of revenue for Telecommunications products, product category revenues are recognized at the point in time when control transfers to the customer.

Revenues by product category were as follows (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Telecommunication products	$ 1,317	$ 1,131	$ 3,828	$ 3,143
Display products	558	936	2,223	2,758
Specialty glass products	516	556	1,494	1,490
Environmental substrate and filter products	393	382	1,130	1,233
Life science products	297	304	908	917
Polycrystalline silicon and all other products	407	306	1,200	865
Total net sales	$ 3,488	$ 3,615	$ 10,783	$ 10,406
Impact of constant currency reporting (1)	178	24	389	
Net sales of reportable segments and Hemlock and Emerging Growth Businesses	$ 3,666	$ 3,639	$ 11,172	$ 10,406

(1) This amount represents the impact of foreign currency adjustments primarily in the Display Technologies segment. Refer to Note 15 (Reportable Segments) for additional information.

Contract Assets and Liabilities

Contract assets, such as incremental costs to obtain or fulfill contracts, are an insignificant component of Corning's revenue recognition process. Most of Corning's fulfillment costs as a manufacturer of products are classified as inventory, fixed assets and intangible assets, which are accounted for under the respective guidance for those asset types. Other contract fulfillment costs are immaterial due to the nature of the products and their respective manufacturing processes.

Contract liabilities include customer deposits, deferred revenue and other advance payments. Customer deposits are predominately related to Display products and deferred revenue is predominately related to Hemlock. Other advance payments are not significant to operations and are classified as part of other accrued liabilities in the consolidated financial statements.

Customer Deposits

As of September 30, 2022 and December 31, 2021, Corning had customer deposits of approximately $1.3 billion. Most of these customer deposits were non-refundable and allowed customers to secure rights to products produced by Corning under long-term supply agreements. The duration of these long-term supply agreements ranges up to 10 years. As products are shipped to customers, Corning will recognize revenue and reduce the amount of the customer deposit liability.

Customer deposits used were $24 million and $155 million for the three and nine months ended September 30, 2022, respectively, and $59 million and $182 million for the three and nine months ended September 30, 2021, respectively. As of September 30, 2022 and December 31, 2021, $1.1 billion were classified as other long-term liabilities. The remaining $166 million and $223 million as of September 30, 2022 and December 31, 2021, respectively, were classified as other accrued liabilities.

Deferred Revenue

As of September 30, 2022 and December 31, 2021, Corning had deferred revenue of approximately $902 million and $912 million, respectively. The deferred revenue was primarily related to the performance obligations of non-refundable consideration previously received by Hemlock from its customers under long-term supply agreements. The deferred revenue is tracked on a per-customer contract-unit basis. As customers take delivery of the committed volumes under the terms of the contract, a per-unit amount of deferred revenue is recognized when control of the promised goods is transferred to the customer based upon the units shipped.

As of September 30, 2022 and December 31, 2021, $732 million and $764 million, respectively, were classified as other long-term liabilities and $170 million and $148 million, respectively, were classified as other accrued liabilities.

4. Income Taxes

The provision for income taxes and the related effective income tax rates were as follows (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Provision for income taxes	$ (34)	$ (109)	$ (380)	$ (402)
Effective tax rate	13.1%	22.1%	21.2%	21.8%

For the three months ended September 30, 2022, the effective income tax rate differed from the United States ("U.S.") statutory rate of 21%, primarily due to the net impact of changes in tax legislation and changes in estimates based on the final 2021 U.S. Federal Income Tax Return, partially offset by changes in tax reserves. For the nine months ended September 30, 2022, the effective income tax rate differed from the U.S. statutory rate of 21%, primarily due to differences arising from foreign earnings and changes in tax reserves, partially offset by the net impact of changes in tax legislation, changes in estimates based on the final 2021 U.S. Federal Income Tax Return and adjustments related to share-based compensation.

For the three months ended September 30, 2021, the effective income tax rate differed from the U.S. statutory rate of 21%, primarily due to non-deductible expenses for tax purposes, foreign rate differential, and tax reform items. For the nine months ended September 30, 2021, the effective income tax rate differed from the U.S. statutory rate of 21% primarily due to an adjustment to the permanently reinvested foreign income position, excess tax benefit related to share-based compensation payments, foreign rate differential, and tax reform items related to The Tax Cuts and Jobs Act of 2017.

Corning Precision Materials is currently appealing certain tax assessments and tax refund claims in South Korea for tax years 2010 through 2018. The Company was required to deposit the disputed amounts with the South Korean government as a condition of its appeal of any tax assessments. Corning believes that it is more likely than not the Company will prevail in the appeals process. As of September 30, 2022 and December 31, 2021, non-current receivables of $322 million and $350 million, respectively, were recorded related to these appeals.

5. Earnings per Common Share

The following table sets forth the computation of basic and diluted earnings per common share (in millions, except per share amounts):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Net income attributable to Corning Incorporated	$ 208	$ 371	$ 1,352	$ 1,419
Less: Series A convertible preferred stock dividend				24
Less: Excess consideration paid for redemption of preferred shares				803
Net income available to common shareholders – basic	208	371	1,352	592
Net income available to common shareholders – diluted	$ 208	$ 371	$ 1,352	$ 592
Weighted-average common shares outstanding – basic	843	852	843	821
Effect of dilutive securities:				
Employee stock options and other dilutive securities	12	14	14	16
Weighted-average common shares outstanding – diluted	855	866	857	837
Basic earnings per common share	$ 0.25	$ 0.44	$ 1.60	$ 0.72
Diluted earnings per common share	$ 0.24	$ 0.43	$ 1.58	$ 0.71
Anti-dilutive potential shares excluded from diluted earnings per common share:				
Series A convertible preferred stock (1)				41
Employee stock options and awards	3		2	
Total	3	—	2	41

(1) For the nine months ended September 30, 2021, the Preferred Stock was anti-dilutive; therefore, it was excluded from the calculation of diluted earnings per share.

Fixed Rate Cumulative Convertible Preferred Stock, Series A

As of December 31, 2020, Corning had 2,300 outstanding shares of Fixed Rate Cumulative Convertible Preferred Stock, Series A (the "Preferred Stock"). On January 16, 2021, the Preferred Stock became convertible into 115 million common shares, in whole or in part, at the option of the holder, Samsung Display Co., Ltd. ("SDC"). On April 5, 2021, Corning and SDC executed the Share Repurchase Agreement ("SRA").

Pursuant to the SRA, on April 8, 2021, the Preferred Stock was fully converted into 115 million common shares. The preferred shares were removed from the calculation of diluted earnings per share. The Company repurchased 35 million of the converted common shares pursuant to the SRA and excluded them from the weighted average common shares outstanding for the calculation of the Company's basic and diluted earnings per share. The redemption of these common shares resulted in a reduction of retained earnings of $803 million which reduced the net income available to common shareholders. The remaining 80 million common shares are outstanding and are included in the weighted-average common shares outstanding for the calculation of the Company's basic and diluted earnings per share.

Refer to Note 13 (Shareholders' Equity) to the consolidated financial statements for more information.

6. Inventories, Net

Inventories, net were as follows (in millions):

	September 30, 2022	December 31, 2021
Finished goods	$ 1,394	$ 1,215
Work in process	507	358
Raw materials and accessories	571	427
Supplies and packing materials	479	481
Total inventories, net	$ 2,951	$ 2,481

7. Other Liabilities

Other liabilities were as follows (in millions):

	September 30, 2022	December 31, 2021
Current liabilities:		
Wages and employee benefits	$ 595	$ 824
Income taxes	99	196
Derivative instruments (Note 11)	494	144
Deferred revenue (Note 3)	170	148
Customer deposits (Note 3)	166	223
Share repurchase liability (Note 13)	504	506
Short-term operating leases	97	94
Other current liabilities	1,026	1,004
Other accrued liabilities	$ 3,151	$ 3,139
Non-current liabilities:		
Defined benefit pension plan liabilities	$ 698	$ 707
Derivative instruments (Note 11)	238	49
Deferred revenue (Note 3)	732	764
Customer deposits (Note 3)	1,115	1,072
Share repurchase liability (Note 13)	18	517
Deferred tax liabilities	136	258
Long-term operating leases	648	691
Other non-current liabilities	1,325	1,134
Other liabilities	$ 4,910	$ 5,192

8. Debt

Based on borrowing rates currently available to us for loans with similar terms and maturities, the fair value of long-term debt was $5.9 billion and $8.3 billion at September 30, 2022 and December 31, 2021, respectively, compared to recorded book values of $6.5 billion and $7.0 billion at September 30, 2022 and December 31, 2021, respectively. The Company measures the fair value of its long-term debt using Level 2 inputs based primarily on current market yields for its existing debt traded in the secondary market.

Debt Issuances and Redemptions

In the second quarter of 2022, Corning amended and restated its existing revolving credit agreement, which provides a committed $1.5 billion unsecured multi-currency line of credit, primarily to extend the term to 2027. Additionally, Corning amended and restated its 25 billion Japanese yen liquidity facility, equivalent to approximately $173 million, primarily to extend the term to 2025. As of September 30, 2022 and December 31, 2021, there were no outstanding amounts under either the amended and restated or the existing facilities.

In the second quarter of 2021, Corning redeemed $375 million of 2.9% debentures due in 2022, paying a premium of $10 million by exercising our make-whole call. The bond redemption resulted in an $11 million loss during the same quarter. In the third quarter of 2021, Corning redeemed $250 million of 3.7% debentures due in 2023, paying a premium of $19 million by exercising our make-whole call. The bond redemption resulted in a $20 million loss during the same quarter.

Corning had no outstanding commercial paper as of September 30, 2022 and December 31, 2021.

9. Employee Retirement Plans

Corning has defined benefit pension plans covering certain domestic and international employees. The Company's funding policy is to contribute, over time, an amount exceeding the minimum requirements to achieve the Company's long-term funding targets. During the nine months ended September 30, 2022, contributions to our international pension plans were not material. The Company does not expect to make additional contributions in the fourth quarter of 2022.

The following table summarizes the components of net periodic benefit expense for Corning's defined benefit pension and postretirement health care and life insurance plans (in millions):

	Pension benefits				Postretirement benefits			
	Three months ended September 30,		Nine months ended September 30,		Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021	2022	2021	2022	2021
Service cost	$ 32	$ 32	$ 96	$ 96	$ 3	$ 3	$ 7	$ 8
Interest cost	28	22	82	65	3	3	11	11
Expected return on plan assets	(55)	(54)	(164)	(162)				
Amortization of prior service cost (credit)	1	1	4	3	(2)	(1)	(4)	(4)
Recognition of actuarial loss (gain)			22	10	(2)		(3)	1
Total pension and postretirement benefit expense	$ 6	$ 1	$ 40	$ 12	$ 2	$ 5	$ 11	$ 16

The components of net periodic benefit expense, other than the service cost component, are included in the line item other income, net, in the consolidated statements of income.

10. Commitments and Contingencies

Corning is a defendant in various lawsuits and is subject to various claims that arise in the normal course of business, the most significant of which are summarized below. In the opinion of management, the likelihood that the ultimate disposition of these matters will have a material adverse effect on Corning's consolidated financial position, liquidity, or results of operations, is remote.

Dow Corning Chapter 11 Related Matters

Until June 1, 2016, Corning and Dow each owned 50% of the common stock of Dow Corning. On May 31, 2016, Corning and Dow realigned their ownership interest in Dow Corning. Following the realignment, Corning no longer owned any interest in Dow Corning. With the realignment, Corning agreed to indemnify Dow Corning for 50% of Dow Corning's non-ordinary course, pre-closing liabilities to the extent such liabilities exceed the amounts reserved for them by Dow Corning as of May 31, 2016, subject to certain conditions and limits.

Dow Corning Breast Implant Litigation

In May 1995, Dow Corning filed for bankruptcy protection to address pending and claimed liabilities arising from many thousands of breast implant product lawsuits. On June 1, 2004, Dow Corning emerged from Chapter 11 with a Plan of Reorganization (the "Plan") which provided for the settlement or other resolution of implant claims. The Plan includes releases for Corning and Dow as shareholders in exchange for contributions to the Plan.

Under the terms of the Plan, Dow Corning has established and funded a Settlement Trust and a Litigation Facility, to provide a means for tort claimants to settle or litigate their claims. Inclusive of insurance, Dow Corning has paid approximately $1.8 billion to the Settlement Trust. As of May 31, 2016, Dow Corning had recorded a reserve for breast implant litigation of $290 million. In the event Dow Corning's total liability for these claims exceeds such amount, Corning may be required to indemnify Dow for up to 50% of the excess liability, subject to certain conditions and limits. As of September 30, 2022 and December 31, 2021, Dow Corning had recorded a reserve for breast implant litigation of $87 million and $130 million, respectively. As a result, Corning does not believe its indemnity obligation for Dow Corning's breast implant litigation liability, if any, will be material.

Dow Corning Bankruptcy Pendency Interest Claims

As a separate matter arising from the bankruptcy proceedings, Dow Corning had been defending claims asserted by commercial creditors who claimed additional compounded interest at default and state statutory judgment rates as well as attorneys' fees and other enforcement costs, during the period from May 1995 through June 2004. As of May 31, 2016, Dow Corning had recorded a reserve for these claims of $107 million. Dow Corning settled those claims as of September 30, 2019 and received approval of the settlement from the bankruptcy court. Corning does not believe its indemnity obligation, if any, for Dow Corning's liability to be material.

Dow Corning Environmental Claims

In September 2019, Dow formally notified Corning of certain environmental matters for which Dow asserts that it has, or will, experience losses arising from remediation and response at a number of sites. In the event Dow is liable for these claims, Corning may be required to indemnify Dow for up to 50% of that liability, subject to certain conditions and limits. As of September 30, 2022, Corning has determined a potential liability for these environmental matters is probable and the amount reserved was not material.

Environmental Litigation

Corning has been designated by federal or state governments under environmental laws, including Superfund, as a potentially responsible party that may be liable for cleanup costs associated with 19 hazardous waste sites. It is Corning's policy to accrue for its estimated liability related to such hazardous waste sites and other environmental liabilities related to property owned by Corning based on expert analysis and continual monitoring by both internal and external consultants. As of September 30, 2022 and December 31, 2021, Corning had accrued approximately $111 million and $55 million, respectively, for the estimated undiscounted liability for environmental cleanup and related litigation. Based upon the information developed to date, management believes that the accrued reserve is a reasonable estimate of the Company's liability and that the risk of an additional loss in an amount materially higher than that accrued is remote.

11. Hedging Activities

Designated Hedges

Corning uses over-the-counter ("OTC") foreign exchange forward contracts as cash flow hedges to reduce the risk that movements in exchange rates will adversely affect the net cash flows resulting from the sale of products to customers and purchases from suppliers. The total gross notional values for foreign currency cash flow hedges are $578 million and $780 million at September 30, 2022 and December 31, 2021, respectively, with maturities through 2024. Corning defers gains and losses related to the cash flow hedges into accumulated other comprehensive loss on the consolidated balance sheets until the hedged item impacts earnings. At September 30, 2022, the amount expected to be reclassified into earnings within the next 12 months is a pre-tax gain of $30 million.

Corning has entered into leases of precious metals with maturities through 2025. To offset the risk of changes in the fair value of the Company's separate accounting pool of leased precious metals due to adverse changes in the respective market prices, Corning designated the bifurcated embedded derivatives included in these leases as fair value hedges. The gain or loss on the derivatives, as well as the offsetting loss or gain on the hedged item attributable to the hedged risk, are recognized in current earnings. The amounts representing the time value component of the derivatives are excluded from the assessment of effectiveness and amortized in earnings. The impact of the excluded component on Corning's other comprehensive income and earnings is not material. The carrying amount of the leased precious metals pool, which is included in the property, plant and equipment, net of accumulated depreciation line of the consolidated balance sheets is $324 million and $107 million at September 30, 2022 and December 31, 2021, respectively.

Undesignated Hedges

Corning uses OTC foreign exchange forward and option contracts not designated as hedging instruments for accounting purposes to offset economic currency risks. The undesignated hedges limit exposure to foreign functional currency fluctuations related to certain subsidiaries' monetary assets, monetary liabilities and net earnings in foreign currencies.

A significant portion of the Company's non-U.S. revenue and expenses are denominated in Japanese yen, South Korean won, new Taiwan dollar, Chinese yuan, and euro. When this revenue and these expenses are translated back to U.S. dollars, the Company is exposed to foreign exchange rate movements. To protect translated earnings against movements in these currencies, the Company has entered into a series of average rate forwards and option contracts. Most of these contracts hedge a significant portion of the Company's exposure to the Japanese yen, with maturities through 2024, and South Korean won, with maturities through 2026.

The following table summarizes the total gross notional value for translated earnings contracts at September 30, 2022 and December 31, 2021 (in billions):

	September 30, 2022	December 31, 2021
Average rate forward contracts:		
Japanese yen-denominated	$ 0.8	$ 2.9
South Korean won-denominated	2.3	1.2
Euro-denominated	0.1	0.2
Other foreign currencies (1)	0.6	0.1
Option contracts:		
Japanese yen-denominated (2)	4.5	3.6
Other foreign currencies (3)		0.9
Total gross notional value for translated earning contracts	$ 8.3	$ 8.9

(1) Denominational currencies for other average rate forward contracts include the Chinese yuan, New Taiwan dollar, and British pound.
(2) Japanese yen-denominated option contracts include purchased put and call options and zero-cost collars. With respect to the zero-cost collars, the gross notional amount includes the value of the put and call options. However, due to the nature of the zero-cost collars, only the put or call option can be exercised at maturity.
(3) Other foreign currency option contracts are purchased basket options that include a basket of underlying currencies, including the Japanese yen, South Korean won, euro and British pound, and each basket option are settled against U.S. dollars.

The following table summarizes the notional amounts and respective fair values of Corning's derivative financial instruments on a gross basis for September 30, 2022 and December 31, 2021 (in millions):

	Notional amount		Asset derivatives			Liability derivatives		
				Fair value			Fair value	
	September 30, 2022	December 31, 2021	Balance sheet location	September 30, 2022	December 31, 2021	Balance sheet location	September 30, 2022	December 31, 2021
Derivatives designated as hedging instruments (1)								
Foreign exchange contracts and other	$ 578	$ 780	Other current assets	$ 36	$ 49	Other accrued liabilities	$ (6)	$ (2)
			Other assets	40	10	Other liabilities	(15)	(9)
Derivatives not designated as hedging instruments								
Foreign exchange contracts	3,130	3,864	Other current assets	147	91	Other accrued liabilities	(161)	(95)
Translated earnings contracts	8,296	8,899	Other current assets	697	196	Other accrued liabilities	(327)	(47)
			Other assets	191	154	Other liabilities	(223)	(40)
Total derivatives	$ 12,004	$ 13,543		$ 1,111	$ 500		$ (732)	$ (193)

(1) At September 30, 2022, derivatives designated as hedging instruments include foreign exchange cash flow hedges with gross notional amounts of $578 million and fair value hedges of leased precious metals with gross notional amounts of 23,152 troy ounces. At December 31, 2021, derivatives designated as hedging instruments include foreign exchange cash flow hedges with gross notional amounts of $780 million and fair value hedges of leased precious metals with gross notional amounts of 7,559 troy ounces.

The following tables summarize the effect of Corning's derivative financial instruments on the consolidated financial statements (in millions):

	Three months ended September 30,				
	Gain (loss) recognized in other comprehensive income (OCI)		Location of gain reclassified from accumulated OCI into income	Gain reclassified from accumulated OCI into income	
Derivative hedging relationships for cash flow and fair value hedges	2022	2021	effective (ineffective)	2022	2021
			Net sales	$ 15	$ 3
Foreign exchange contracts and other	$ 4	$ (5)	Cost of sales	6	11
Total cash flow and fair value hedges	$ 4	$ (5)		$ 21	$ 14

	Nine months ended September 30,				
	Gain recognized in other comprehensive income (OCI)		Location of gain reclassified from accumulated OCI into income	Gain reclassified from accumulated OCI into income	
Derivative hedging relationships for cash flow and fair value hedges	2022	2021	effective (ineffective)	2022	2021
			Net sales	$ 38	$ 9
Foreign exchange contracts and other	$ 24	$ 36	Cost of sales	19	28
Total cash flow and fair value hedges	$ 24	$ 36		$ 57	$ 37

		Gain (loss) gain recognized in income			
		Three months ended September 30,		Nine months ended September 30,	
Undesignated derivatives	Location of gain (loss) recognized in income	2022	2021	2022	2021
Foreign exchange contracts	Other income, net	$ 11	$ (9)	$ 70	$ 26
Translated earnings contracts	Translated earnings contract (loss) gain, net	(68)	(13)	257	262
Total undesignated		$ (57)	$ (22)	$ 327	$ 288

12. Fair Value Measurements

Fair value standards under GAAP define fair value, establish a framework for measuring fair value in applying generally accepted accounting principles, and require disclosures about fair value measurements. The standards identify two kinds of inputs that are used to determine the fair value of assets and liabilities: observable and unobservable. Observable inputs are based on market data or independent sources, while unobservable inputs are based on the Company's own market assumptions. Once inputs have been characterized, the inputs are prioritized into one of three broad levels (provided in the table below) used to measure fair value. Fair value standards apply whenever an entity is measuring fair value under other accounting pronouncements that require or permit fair value measurement and require the use of observable market data when available.

The following table provides fair value measurement information for the Company's major categories of financial assets and liabilities measured on a recurring basis; Level 1 ("L1"), quoted market prices in active markets for identical assets, Level 2 ("L2"), significant other observable inputs, and Level 3 ("L3"), significant unobservable inputs as of our reportable dates (in millions):

	September 30, 2022				December 31, 2021			
	L1	L2	L3	Total	L1	L2	L3	Total
Current assets:								
Other current assets [1]	$ 2	$ 880	$ 46	$ 928	$ 10	$ 336	$ 6	$ 352
Non-current assets:								
Other assets [1]		$ 231	$ 3	$ 234		$ 164	$ 11	$ 175
Current liabilities:								
Other accrued liabilities [1]		$ 494		$ 494		$ 144		$ 144
Non-current liabilities:								
Other liabilities [1]		$ 255		$ 255		$ 66		$ 66

[1] Derivative assets and liabilities mainly consist of foreign exchange contracts which were measured using observable inputs for similar assets and liabilities.

Assets and Liabilities Measured on a Non-Recurring Basis

There were no significant financial assets and liabilities measured on a non-recurring basis as of September 30, 2022 and December 31, 2021.

13. Shareholders' Equity

Fixed Rate Cumulative Convertible Preferred Stock, Series A

On January 16, 2021, the Preferred Stock became convertible into 115 million common shares. On April 5, 2021, Corning and SDC executed the SRA, and the Preferred Stock was fully converted as of April 8, 2021. Immediately following the conversion, Corning repurchased and retired 35 million of the common shares held by SDC for an aggregate purchase price of approximately $1.5 billion, of which approximately $507 million was paid on April 8, 2022 and 2021, respectively. The remaining payment of approximately $507 million will be paid on April 8, 2023.

The remaining 80 million common shares were accounted for as a conversion of Preferred Stock and resulted in an increase of common stock and additional paid-in-capital based on the carrying value of the Preferred Stock. These common shares were included in the weighted-average common shares outstanding for the calculation of the Company's basic and diluted earnings per share. SDC has the option to sell 22 million common shares to Corning subject to certain conditions beginning in 2024-2027. The remaining 58 million common shares are subject to a seven-year lock-up period expiring in 2027.

Share Repurchases

On April 26, 2018, Corning's Board of Directors approved a $2 billion share repurchase program with no expiration date (the "2018 Repurchase Program"). On July 17, 2019, Corning's Board of Directors authorized $5 billion in share repurchases with no expiration date (the "2019 Repurchase Program").

For the three and nine months ended September 30, 2022, the Company repurchased 0.5 million shares and 6.0 million shares, respectively, of common stock on the open market for approximately $17 million and $221 million, respectively, as part of its 2019 Repurchase Program.

For the three and nine months ended September 30, 2021, the Company repurchased 1 million and 36 million shares of common stock, respectively, for approximately $24 million and $1.5 billion, respectively, as part of the 2018 and 2019 Repurchase Programs. Most of these shares were repurchased immediately following the conversion of the preferred shares, as discussed above.

Accumulated Other Comprehensive (Loss)

In the three and nine months ended September 30, 2022 and 2021, the change in accumulated other comprehensive (loss) was primarily related to the foreign currency translation adjustment.

The following table summarizes the changes in the foreign currency translation adjustment component of accumulated other comprehensive (loss) (in millions) (1):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Beginning balance	$ (1,783)	$ (652)	$ (933)	$ (329)
Loss on foreign currency translation (2)	(664)	(185)	(1,497)	(501)
Equity method affiliates (3)	(21)	(7)	(38)	(14)
Net current-period other comprehensive loss	(685)	(192)	(1,535)	(515)
Ending balance	$ (2,468)	$ (844)	$ (2,468)	$ (844)

(1) All amounts are after tax. Amounts in parentheses indicate debits to accumulated other comprehensive loss.
(2) For the three and nine months ended September 30, 2022, amounts are net of tax benefit of $49 million and $87 million, respectively. For the three and nine months ended September 30, 2021, amounts are net of tax benefit of $31 million and $42 million, respectively.
(3) Tax effects are not significant.

14. Share-Based Compensation

Corning maintains long-term incentive plans (the "Plans") for key employees and non-employee members of its Board of Directors. The Plans allow Corning to grant equity-based compensation awards, including stock options, stock appreciation rights, performance share units, restricted stock units, restricted stock awards or a combination of awards (collectively, "share-based awards"). At September 30, 2022, there were approximately 33 million unissued common shares available for future grants authorized under the Plans.

Share-based compensation cost is allocated to the cost of sales, selling, general and administrative, and research, development and engineering expense lines in the consolidated statements of income.

The Company measures and recognizes compensation cost for all share-based awards made to employees and directors based on estimated fair values.

Total share-based compensation cost was $52 million and $145 million for the three and nine months ended September 30, 2022, respectively, and $39 million and $117 million for the three and nine months ended September 30, 2021, respectively. The income tax benefit realized from share-based compensation for the nine months ended September 30, 2022 and 2021 was $15 million and $31 million, respectively.

Stock Options

Corning's stock option plans provide non-qualified and incentive stock options to purchase authorized but unissued common shares, or treasury shares, at the market price on the grant date and generally become exercisable in installments from one year to five years from the grant date. The maximum term of non-qualified and incentive stock options is 10 years from the grant date. An award is considered vested when the employee's retention of the award is no longer contingent on providing subsequent service (the "non-substantive vesting period approach").

The following table summarizes information regarding stock options outstanding, including the related transactions under the stock option plans, for the nine months ended September 30, 2022:

	Number of shares (in thousands)	Weighted-average exercise price	Weighted-average remaining contractual term (in years)	Aggregate intrinsic value (in thousands)
Options outstanding as of December 31, 2021	11,904	$ 22.31		
Exercised	(1,765)	19.91		
Forfeited and expired	(193)	18.47		
Options outstanding as of September 30, 2022	9,946	22.81	6.03	$ 68,676
Options expected to vest as of September 30, 2022	9,921	22.82	6.03	68,440
Options exercisable as of September 30, 2022	8,139	23.51	5.68	51,740

Corning uses a multiple-point Black-Scholes valuation model to estimate the fair value of stock option grants. Corning utilizes a blended approach for calculating the volatility assumption used in the multiple-point Black-Scholes valuation model defined as the weighted average of the short-term implied volatility, the most recent volatility for the period equal to the expected term, and the most recent 15-year historical volatility. The expected term is the period the options are expected to be outstanding and is calculated using a combination of historical exercise experience adjusted to reflect the current vesting period of options being valued, and partial life cycles of outstanding options. The risk-free rate used in the multiple-point Black-Scholes valuation model is the implied rate for a zero-coupon U.S. Treasury bond with a term equal to the option's expected term. Ranges used reflect results from separate groups of employees exhibiting different exercise behavior.

There have been no stock options granted for the nine months ended September 30, 2022 or September 30, 2021.

Incentive Stock Plans

The Corning Incentive Stock Plans permit restricted stock and restricted stock unit grants, either determined by specific performance goals or issued directly, in most instances, subject to the possibility of forfeiture and without cash consideration. Restricted stock and restricted stock units under the Incentive Stock Plans are granted at the closing market price on the grant date, contingently vest over a period of generally one year to ten years and is aligned to the contractual terms. The fair value is based on the grant date closing price of the Company's stock.

Time-Based Restricted Stock and Restricted Stock Units

Time-based restricted stock and restricted stock units are issued by the Company on a discretionary basis and are payable in shares of the Company's common stock upon vesting. The fair value for awards that receive dividends on the underlying shares while unvested or dividends accumulated and paid upon vesting is based on the closing market price of the Company's stock on the grant date. Awards that do not receive dividends on the underlying shares while unvested or dividends accumulated and paid upon vesting fair value is calculated by reducing the closing market price of the Company's stock on the grant date by the present value of the dividends expected to be paid on the underlying shares during the requisite service period, discounted at the appropriate risk-free interest rate. Compensation cost is recognized over the requisite vesting period and adjusted for actual forfeitures before vesting.

The following table summarizes the Company's non-vested time-based restricted stock and restricted stock units and changes which occurred during the nine months ended September 30, 2022:

	Number of shares (in thousands)	Weighted average grant-date fair value
Non-vested shares and share units at December 31, 2021	10,594	$ 25.83
Granted	4,288	34.01
Vested	(3,238)	24.77
Forfeited	(275)	28.08
Non-vested shares and share units at September 30, 2022	11,369	$ 29.16

Performance-Based Restricted Stock Units

Performance-based restricted stock units are earned upon the achievement of certain targets and are payable in shares of the Company's common stock upon vesting, typically over a three-year period. The fair value is based on the closing market price of the Company's stock on the grant date and assumes that the target payout level will be achieved. Compensation cost is recognized over the requisite vesting period and adjusted for actual forfeitures before vesting. During the performance period, compensation cost may be adjusted based on changes in the expected outcome of the performance-related target.

The following table summarizes the Company's non-vested performance-based restricted stock units and changes which occurred during the nine months ended September 30, 2022:

	Number of shares (in thousands)	Weighted average grant-date fair value
Non-vested share units at December 31, 2021	3,684	$ 34.17
Granted	1,761	40.76
Vested	(139)	32.18
Performance adjustments	366	34.46
Forfeited	(76)	32.39
Non-vested share units at September 30, 2022	5,596	$ 36.28

15. Reportable Segments

The Company's reportable segments are as follows:

- Optical Communications – manufactures carrier network and enterprise network components for the telecommunications industry.
- Display Technologies – manufactures glass substrates for flat panel liquid crystal displays and other high-performance display panels.
- Specialty Materials – manufactures products that provide more than 150 material formulations for glass, glass ceramics and fluoride crystals to meet demand for unique customer needs.
- Environmental Technologies – manufactures ceramic substrates and filters for automotive and diesel applications.
- Life Sciences – manufactures glass and plastic labware, equipment, media, serum and reagents enabling workflow solutions for drug discovery and bioproduction.

All other businesses that do not meet the quantitative threshold for separate reporting have been grouped as "Hemlock and Emerging Growth Businesses". The net sales for this group are primarily attributable to Hemlock, which is an operating segment that produces solar and semiconductor products. The emerging growth businesses primarily consist of Pharmaceutical Technologies ("CPT"), Auto Glass Solutions ("AGS") and the Emerging Innovations Group ("EIG"), which are also operating segments.

Financial results for the reportable segments are prepared on a basis consistent with the internal disaggregation of financial information to assist the chief operating decision maker ("CODM") in making internal operating decisions. A significant portion of segment revenues and expenses are denominated in currencies other than the U.S. dollar. Management believes it is important to understand the impact on core net income of translating these currencies into U.S. dollars. For segment sales and net income, the Company utilizes constant-currency reporting for Display Technologies, Specialty Materials, Environmental Technologies and Life Sciences segments for the Japanese yen, South Korean won, Chinese yuan, new Taiwan dollar and the euro. Certain income and expenses are included in the unallocated amounts in the reconciliation of reportable segment net income (loss) to consolidated net income. These include items that are not used by the CODM in evaluating the results of, or in allocating resources to, the segments and include the following: the impact of translated earnings contracts; acquisition-related costs; discrete tax items and other tax-related adjustments; certain litigation, regulatory and other legal matters; restructuring, impairment losses and other charges and credits; and other non-recurring non-operational items. Although these amounts are excluded from segment results, they are included in reported consolidated results.

Reportable Segments and Hemlock and Emerging Growth Businesses (in millions):

	Optical Communications	Display Technologies	Specialty Materials	Environmental Technologies	Life Sciences	Hemlock and Emerging Growth Businesses	Total
Three months ended September 30, 2022							
Segment net sales	$ 1,317	$ 686	$ 519	$ 425	$ 312	$ 407	$ 3,666
Depreciation (1)	$ 96	$ 151	$ 56	$ 44	$ 23	$ 38	$ 408
Research, development and engineering expenses (2)	$ 60	$ 31	$ 66	$ 25	$ 10	$ 43	$ 235
Income tax provision (3)	$ (50)	$ (35)	$ (26)	$ (23)	$ (11)	$ (8)	$ (153)
Segment net income (4)	$ 183	$ 134	$ 96	$ 87	$ 43	$ 18	$ 561

	Optical Communications	Display Technologies	Specialty Materials	Environmental Technologies	Life Sciences	Hemlock and Emerging Growth Businesses	Total
Three months ended September 30, 2021							
Segment net sales	$ 1,131	$ 956	$ 556	$ 385	$ 305	$ 306	$ 3,639
Depreciation (1)	$ 58	$ 153	$ 42	$ 34	$ 14	$ 38	$ 339
Research, development and engineering expenses (2)	$ 57	$ 31	$ 49	$ 28	$ 9	$ 44	$ 218
Income tax provision (3)	$ (38)	$ (64)	$ (28)	$ (16)	$ (12)	$ (1)	$ (159)
Segment net income (loss) (4)	$ 139	$ 247	$ 107	$ 60	$ 45	$ (5)	$ 593

	Optical Communications	Display Technologies	Specialty Materials	Environmental Technologies	Life Sciences	Hemlock and Emerging Growth Businesses	Total
Nine months ended September 30, 2022							
Segment net sales	$ 3,828	$ 2,523	$ 1,497	$ 1,190	$ 934	$ 1,200	$ 11,172
Depreciation (1)	$ 223	$ 453	$ 138	$ 111	$ 53	$ 111	$ 1,089
Research, development and engineering expenses (2)	$ 173	$ 92	$ 163	$ 74	$ 28	$ 121	$ 651
Income tax provision (3)	$ (146)	$ (157)	$ (70)	$ (59)	$ (32)	$ (19)	$ (483)
Segment net income (4)	$ 531	$ 598	$ 262	$ 223	$ 122	$ 35	$ 1,771

	Optical Communications	Display Technologies	Specialty Materials	Environmental Technologies	Life Sciences	Hemlock and Emerging Growth Businesses	Total
Nine months ended September 30, 2021							
Segment net sales	$ 3,143	$ 2,758	$ 1,490	$ 1,233	$ 917	$ 865	$ 10,406
Depreciation (1)	$ 174	$ 450	$ 125	$ 105	$ 40	$ 104	$ 998
Research, development and engineering expenses (2)	$ 160	$ 79	$ 143	$ 84	$ 25	$ 114	$ 605
Income tax (provision) benefit (3)	$ (109)	$ (184)	$ (74)	$ (57)	$ (39)	$ 10	$ (453)
Segment net income (loss) (4)	$ 398	$ 708	$ 279	$ 215	$ 145	$ (44)	$ 1,701

(1) Depreciation expense for Corning's reportable segments includes an allocation of depreciation of corporate property not specifically identifiable to a segment.
(2) Research, development and engineering expenses include direct project spending that is identifiable to a segment.
(3) Income tax (provision) benefit reflects a tax rate of 21%.
(4) Many of Corning's administrative and staff functions are performed on a centralized basis. Where practicable, Corning charges these expenses to segments based upon the extent to which each business uses a centralized function. Other staff functions, such as corporate finance, human resources and legal, are allocated to segments, primarily as a percentage of sales. Expenses that are not allocated to the segments are included in the reconciliation of reportable segment net income (loss) to consolidated net income.

The following table is a reconciliation of net sales of reportable segments to consolidated net sales (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Net sales of reportable segments	$ 3,259	$ 3,333	$ 9,972	$ 9,541
Net sales of Hemlock and Emerging Growth Businesses	407	306	1,200	865
Impact of constant currency reporting (1)	(178)	(24)	(389)	
Consolidated net sales	$ 3,488	$ 3,615	$ 10,783	$ 10,406

(1) This amount represents the impact of foreign currency adjustments primarily in the Display Technologies segment.

The following table is a reconciliation of net income of reportable segments to net income attributable to Corning Incorporated (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Net income of reportable segments	$ 543	$ 598	$ 1,736	$ 1,745
Net income (loss) of Hemlock and Emerging Growth Businesses	18	(5)	35	(44)
Unallocated amounts:				
Impact of constant currency reporting not included in segment net income (loss) (1)	(136)	(33)	(319)	(47)
(Loss) gain on foreign currency hedges related to translated earnings	(68)	(13)	257	262
Translation gain on Japanese yen-denominated debt	84	4	321	127
Litigation, regulatory and other legal matters	(23)	(3)	(65)	(11)
Research, development, and engineering expenses (2)	(43)	(34)	(115)	(107)
Amortization of intangibles	(31)	(32)	(92)	(97)
Interest expense, net	(59)	(64)	(180)	(205)
Income tax benefit	119	50	103	51
Restructuring, impairment and other charges and credits (3)	(138)	(40)	(217)	(42)
Gain on sale of a business			53	54
Other corporate items	(58)	(57)	(165)	(267)
Net income attributable to Corning Incorporated	$ 208	$ 371	$ 1,352	$ 1,419

(1) This amount represents the impact of foreign currency adjustments primarily in the Display Technologies segment.
(2) Amount does not include research, development, and engineering expense related to restructuring, impairment and other charges and credits.
(3) Refer to Note 2 (Restructuring, Impairment and Other Charges and Credits) to the consolidated financial statements for additional information on activities.

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

ORGANIZATION OF INFORMATION

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") provides a historical and prospective narrative on the Company's financial condition and results of operations. This interim MD&A should be read in conjunction with the MD&A in Corning's 2021 Form 10-K. The various sections of this MD&A contain forward-looking statements that involve risks and uncertainties. Words such as "anticipates," "expects," "intends," "plans," "goals," "believes," "seeks," "estimates," "continues," "may," "will," "should," and variations of such words and similar expressions are intended to identify such forward-looking statements. In addition, any statements that refer to projections of the Company's future financial performance, anticipated growth and trends in the businesses, uncertain events or assumptions, and other characterizations of future events or circumstances are forward-looking statements. Such statements are based on current expectations and could be affected by the uncertainties and risk factors described throughout this filing and particularly in "Risk Factors" in Part I, Item 1A of Corning's 2021 Form 10-K, and as may be updated in the Forms 10-Q. Actual results may differ materially, and these forward-looking statements do not reflect the potential impact of any divestitures, mergers, acquisitions, or other business combinations that had not been completed as of September 30, 2022.

MD&A includes the following sections:

- Overview
- Results of Operations
- Core Performance Measures
- Reportable Segments
- Capital Resources and Liquidity
- Critical Accounting Estimates
- Environment
- Forward-Looking Statements

OVERVIEW

The Company has and will continue to focus on three core priorities: preserving the financial health of the Company; protecting employees and communities; and delivering on customer commitments. We are continuing to build a stronger, more resilient company that is committed to rewarding shareholders and supporting all global stakeholders.

Corning continues to act rapidly and remain resilient in the face of global uncertainty. We have preserved our financial strength by executing well and advancing major innovations with industry leaders. We have continued to effectively leverage our focused and cohesive portfolio to create value and outperform our underlying markets, contributing to sales growth and healthy cash flow generation in 2022.

Corning announced the Strategy & Growth Framework in 2019, highlighting significant opportunities to sell more Corning content through each of our Market-Access Platforms. The Company is focused on our cohesive portfolio and the utilization of our financial strength, supported by strong operating cash flow generation, which we expect to continue. Corning has and will continue to use its cash to grow, extend its leadership and reward shareholders. Our key growth drivers remain intact, and some are accelerating as key secular trends converge around Corning's capabilities.

Corning will continue to advance the objectives of the Strategy & Growth Framework, which sets its leadership priorities and articulates opportunities across its businesses. Our probability of success increases as we invest in our world-class capabilities. Corning is concentrating approximately 80% of its research, development and engineering investment along with capital spending on a cohesive set of three core technologies, four manufacturing and engineering platforms, and five market-access platforms. This strategy allows us to quickly apply our talents and repurpose our assets across the Company, as needed, to capture high-return opportunities.

Summary of results for the three and nine months ended September 30, 2022

In the third quarter of 2022, net sales were $3,488 million, compared to $3,615 million during the same period in 2021, a net decrease of $127 million, or 4%, primarily driven by decreased sales in Display Technologies partially offset by increased sales in Optical Communications and Hemlock and Emerging Growth Businesses. Net sales for the nine months ended September 30, 2022 were $10,783 million, compared to $10,406 million during the same period in 2021, a net increase of $377 million, or 4%, primarily driven by increased sales in Optical Communications and Hemlock and Emerging Growth Businesses.

In the third quarter of 2022, Corning generated net income attributable to Corning Incorporated of $208 million, or $0.24 per diluted share, compared to $371 million, or $0.43 per diluted share, for the same period in 2021. The decrease of $163 million was primarily driven by the following items (amounts presented after-tax):

- Higher segment net income in Optical Communications, Environmental Technologies and Hemlock and Emerging Growth Businesses, of $44 million, $27 million, and $23 million, respectively; and
- Higher translation gains of $60 million on Japanese yen-denominated debt.

The increases outlined above were more than offset by:

- Declines in segment net income in Display Technologies of $113 million;
- Higher asset write-offs and other related charges of $75 million; and
- Higher translated earnings contract losses of $42 million, primarily driven by South Korean won-denominated hedges.

In the nine months ended September 30, 2022, Corning generated net income attributable to Corning Incorporated of $1,352 million, or $1.58 per diluted share, compared to $1,419 million, or $0.71 per diluted share, for the same period in 2021. The decrease of $67 million and increase in diluted earnings per share of $0.87, was primarily driven by the following items (amounts presented after-tax):

- Higher segment net income in Optical Communications and Hemlock and Emerging Growth Businesses, of $133 million and $79 million, respectively; and
- Higher translation gains of $148 million on Japanese yen-denominated debt.

The increases outlined above were more than offset by:

- Lower unrealized gains from translated earnings contracts of $162 million;
- Declines in segment net income in Display Technologies of $110 million; and
- Higher asset write-offs and other related charges of $133 million.

The increase in diluted earnings per share for the nine months ended September 30, 2022, was primarily driven by the changes in net income attributable to Corning Incorporated, outlined above, as well as the impact of the immediate repurchase and retirement of 35 million common shares, which resulted in an $803 million one-time reduction to net income available to common shareholders during the second quarter of 2021. Refer to Note 5 (Earnings per Common Share) and Note 13 (Shareholders' Equity) to the consolidated financial statements for additional information.

The translation impact of fluctuations in foreign currency exchange rates, including the impact of hedges realized during the respective periods, adversely impacted Corning’s consolidated net income in the three and nine months ended September 30, 2022 by $20 million and $71 million, respectively, when compared to the same periods in 2021. During the three and nine months ended September 30, 2022, the impact of hedges realized during the periods were $76 million and $166 million, respectively, compared to $9 million and $9 million, respectively, for the same periods in 2021.

2022 Corporate Outlook

We expect core net sales of approximately $3.45 billion to $3.65 billion for the fourth quarter of 2022.

RESULTS OF OPERATIONS

Selected highlights from operations were as follows (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Net sales	$ 3,488	$ 3,615	(4%)	$ 10,783	$ 10,406	4%
Gross margin	$ 1,062	$ 1,321	(20%)	$ 3,591	$ 3,792	(5%)
(gross margin %)	30%	37%		33%	36%	
Selling, general and administrative expenses	$ 461	$ 486	(5%)	$ 1,381	$ 1,351	2%
(as a % of net sales)	13%	13%		13%	13%	
Research, development and engineering expenses	$ 278	$ 251	11%	$ 766	$ 715	7%
(as a % of net sales)	8%	7%		7%	7%	
Translated earnings contract (loss) gain, net	$ (68)	$ (13)	*	$ 257	$ 262	(2%)
(as a % of net sales)	(2%)	—		2%	3%	
Provision for income taxes	$ (34)	$ (109)	(69%)	$ (380)	$ (402)	(5%)
(as a % of net sales)	(1%)	(3%)		(4%)	(4%)	
Net income attributable to Corning Incorporated	$ 208	$ 371	(44%)	$ 1,352	$ 1,419	(5%)
(as a % of net sales)	6%	10%		13%	14%	

* *Not Meaningful*

Segment Net Sales

The following table presents segment net sales by reportable segment and Hemlock and Emerging Growth Businesses (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Optical Communications	$ 1,317	$ 1,131	16%	$ 3,828	$ 3,143	22%
Display Technologies	686	956	(28%)	2,523	2,758	(9%)
Specialty Materials	519	556	(7%)	1,497	1,490	—
Environmental Technologies	425	385	10%	1,190	1,233	(3%)
Life Sciences	312	305	2%	934	917	2%
Net sales of reportable segments	3,259	3,333	(2%)	9,972	9,541	5%
Hemlock and Emerging Growth Businesses	407	306	33%	1,200	865	39%
Impact of constant currency reporting [1]	(178)	(24)	*	(389)	—	*
Consolidated net sales	$ 3,488	$ 3,615	(4%)	$ 10,783	$ 10,406	4%

* *Not Meaningful*

(1) This amount represents the impact of foreign currency adjustments primarily in the Display Technologies segment.

In the third quarter of 2022, net sales of reportable segments and Hemlock and Emerging Growth Businesses were $3,666 million, compared to $3,639 million during the same period in 2021, a net increase of $27 million, or 1%. Changes in net sales were as follows:

- Optical Communications' net sales increased by $186 million, or 16%, primarily driven by higher sales of carrier and enterprise products for 5G, broadband, and the cloud;
- Display Technologies' net sales decreased by $270 million or 28%, driven by lower volumes attributable to decreased panel maker utilization;
- Specialty Materials' net sales decreased by $37 million, driven by softening demand in the smartphone, tablet and notebook markets;
- Net sales for Environmental Technologies increased by $40 million, or 10%, primarily driven by improvements in the China market; and
- Net sales for Hemlock and Emerging Growth Businesses increased by $101 million, primarily driven by increases in Hemlock's net sales as demand for solar products remained strong, and year-over-year growth from CPT and AGS.

In the nine months ended September 30, 2022, net sales of reportable segments and Hemlock and Emerging Growth Businesses were $11,172 million, compared to $10,406 million during the same period in 2021, a net increase of $766 million, or 7%. Changes in net sales were as follows:

- Optical Communications' net sales increased by $685 million, or 22%, primarily driven by higher sales of carrier and enterprise products for 5G, broadband, and the cloud;
- Display Technologies' net sales decreased by $235 million, or 9%, driven by lower volumes attributable to decreased panel maker utilization;
- Net sales for Environmental Technologies decreased by $43 million, or 3%, primarily driven by sales declines of automotive products as automotive producers experienced constraints in the market, including prolonged component shortage, partially offset by improvements in the China market during the third quarter of 2022; and
- Net sales for Hemlock and Emerging Growth Businesses increased by $335 million, primarily driven by increases in Hemlock's net sales as demand for solar products remained strong, and year-over-year growth from CPT and AGS.

Movements in foreign exchange rates adversely impacted Corning's consolidated net sales by $166 million and $418 million in the three and nine months ended September 30, 2022, respectively, when compared to the same periods in 2021.

Cost of Sales

The types of expenses included in the cost of sales line item are: raw materials consumption, including direct and indirect materials; salaries, wages and benefits; depreciation and amortization; production utilities; production-related purchasing; warehousing (including receiving and inspection); repairs and maintenance; inter-location inventory transfer costs; production and warehousing facility property insurance; rent for production facilities; freight and logistics costs; and other production overhead.

Gross Margin

In the three and nine months ended September 30, 2022, gross margin decreased by $259 million, or 20%, and decreased by $201 million, or 5%, respectively, and declined as a percentage of sales by 7 percentage points and 3 percentage points, respectively. The decline in gross margin was primarily driven by higher production, material and freight costs as well as accelerated depreciation, asset write-offs and other related charges mostly due to capacity optimization of an emerging growth business in the third quarter of 2022.

The translation impact of fluctuations in foreign currency exchange rates adversely impacted Corning's consolidated gross margin by $112 million and $294 million in the three and nine months ended September 30, 2022, respectively, when compared to the same periods in 2021.

Selling, General and Administrative Expenses

In the three and nine months ended September 30, 2022, selling, general and administrative expenses decreased by $25 million, or 5%, and increased $30 million, or 2%, respectively, and was consistent as a percentage of sales, when compared to the same periods in 2021.

The types of expenses included in the selling, general and administrative expenses line item are salaries, wages and benefits; share-based compensation expense; travel; sales commissions; professional fees; and depreciation and amortization, utilities and rent for administrative facilities.

Research, Development and Engineering Expenses

In the three and nine months ended September 30, 2022, research, development and engineering expenses increased by $27 million, or 11%, and increased by $51 million, or 7%, respectively, and were fairly consistent as a percentage of sales when compared to the same periods in 2021.

Translated earnings contract (loss) gain, net

Included in the line item translated earnings contract (loss) gain, net, is the impact of foreign currency contracts which hedge our translation exposure arising from movements in the Japanese yen, South Korean won, new Taiwan dollar, euro, Chinese yuan and British pound and those impacts on net income.

The following tables provide detailed information on the impact of translated earnings contract (loss) gain, net (in millions):

	Three months ended September 30, 2022		Three months ended September 30, 2021		Change 2022 vs. 2021	
	Income before taxes	Net income	Income before taxes	Net income	Income before taxes	Net income
Hedges related to translated earnings:						
Realized gain, net (1)	$ 100	$ 76	$ 12	$ 9	$ 88	$ 67
Unrealized loss, net (2)	(168)	(128)	(25)	(19)	(143)	(109)
Total translated earnings contract loss, net	$ (68)	$ (52)	$ (13)	$ (10)	$ (55)	$ (42)

	Nine months ended September 30, 2022		Nine months ended September 30, 2021		Change 2022 vs. 2021	
	Income before taxes	Net income	Income before taxes	Net income	Income before taxes	Net income
Hedges related to translated earnings:						
Realized gain, net (1)	$ 218	$ 166	$ 11	$ 9	$ 207	$ 157
Unrealized gain, net (2)	39	31	251	193	(212)	(162)
Total translated earnings contract gain, net	$ 257	$ 197	$ 262	$ 202	$ (5)	$ (5)

(1) Includes before tax realized gains related to the expiration of option contracts for the three and nine months ended September 30, 2022 of $23 million and $9 million, respectively, and before tax realized losses for the three and nine months ended September 30, 2021 of $5 million and $19 million, respectively. Activity has been reflected in operating activities in the consolidated statements of cash flows.

(2) The impact to income for the three months ended September 30, 2022 was primarily driven by losses on South Korean won-denominated hedges. The impact to income for the nine months ended September 30, 2022 was primarily driven by gains on Japanese yen-denominated hedges partially offset by losses on South Korean won-denominated hedges.

Income Before Income Taxes

The translation impact of fluctuations in foreign currency exchange rates, including the impact of hedges realized in the current quarter, adversely impacted Corning's consolidated income before income taxes by $21 million and $80 million for the three and nine months ended September 30, 2022, respectively, when compared to the same periods in 2021.

Provision for Income Taxes

The provision for income taxes and the related effective income tax rates were as follows (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Provision for income taxes	$ (34)	$ (109)	$ (380)	$ (402)
Effective tax rate	13.1%	22.1%	21.2%	21.8%

For the three months ended September 30, 2022, the effective income tax rate differed from the U.S. statutory rate of 21%, primarily due to the net impact of changes in tax legislation and changes in estimates based on the final 2021 U.S. Federal Income Tax Return, partially offset by changes in tax reserves. For the nine months ended September 30, 2022, the effective income tax rate differed from the U.S. statutory rate of 21%, primarily due to differences arising from foreign earnings and changes in tax reserves, partially offset by the net impact of changes in tax legislation, changes in estimates based on the final 2021 U.S. Federal Income Tax Return and adjustments related to share-based compensation.

For the three months ended September 30, 2021, the effective income tax rate differed from the U.S. statutory rate of 21%, primarily due to non-deductible expenses for tax purposes, foreign rate differential, and tax reform items. For the nine months ended September 30, 2021, the effective income tax rate differed from the U.S. statutory rate of 21% primarily due to an adjustment to the permanently reinvested foreign income position, excess tax benefit related to share-based compensation payments, foreign rate differential, and tax reform items related to The Tax Cuts and Jobs Act of 2017.

Refer to Note 4 (Income Taxes) to the consolidated financial statements for additional information.

Net Income Attributable to Corning Incorporated

Net income attributable to Corning Incorporated and per share data were as follows (in millions, except per share amounts):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Net income attributable to Corning Incorporated	$ 208	$ 371	$ 1,352	$ 1,419
Less: Series A convertible preferred stock dividend				(24)
Less: Excess consideration paid for redemption of preferred shares (1)				(803)
Net income available to common shareholders used in basic earnings per common share calculation	$ 208	$ 371	$ 1,352	$ 592
Net income available to common shareholders used in diluted earnings per common share calculation	$ 208	$ 371	$ 1,352	$ 592
Basic earnings per common share	$ 0.25	$ 0.44	$ 1.60	$ 0.72
Diluted earnings per common share	$ 0.24	$ 0.43	$ 1.58	$ 0.71
Weighted-average common shares outstanding - basic	843	852	843	821
Weighted-average common shares outstanding - diluted	855	866	857	837

(1) Refer to Note 5 (Earnings per Common Share) to the consolidated financial statements for additional information.

Comprehensive (Loss) Income attributable to Corning Incorporated

Comprehensive loss attributable to Corning Incorporated for the three and nine months ended September 30, 2022 was $489 million and $264 million, respectively, compared to comprehensive income attributable to Corning Incorporated for the three and nine months ended September 30, 2021 of $164 million and $900 million, respectively. This movement in the three and nine month periods is primarily due to an increase in net losses on foreign currency translation adjustments of $493 million and $1,020 million, respectively, driven by the Japanese yen, Chinese yuan and South Korean won.

Refer to Note 13 (Shareholders' Equity) to the consolidated financial statements for additional information.

CORE PERFORMANCE MEASURES

In managing the Company and assessing our financial performance, certain measures provided by our consolidated financial statements are adjusted to exclude specific items to arrive at core performance measures. These items include gains and losses on translated earnings contracts, acquisition-related costs, certain discrete tax items and other tax-related adjustments, restructuring, impairment losses, and other charges and credits, certain litigation-related expenses, pension mark-to-market adjustments and other items which do not reflect on-going operating results of the Company or our equity affiliates. Corning utilizes constant-currency reporting for Display Technologies, Specialty Materials, Environmental Technologies and Life Sciences segments for the Japanese yen, South Korean won, Chinese yuan, new Taiwan dollar and the euro. The Company believes that the use of constant-currency reporting allows investors to understand our results without the volatility of currency fluctuations and reflects the underlying economics of the translated earnings contracts used to mitigate the impact of changes in currency exchange rates on earnings and cash flows. Corning also believes that reporting core performance measures provides investors greater transparency to the information used by the management team to make financial and operational decisions.

Core performance measures are not prepared in accordance with GAAP. We believe investors should consider these non-GAAP measures in evaluating results as they are more indicative of our core operating performance and how management evaluates operational results and trends. These measures are not, and should not, be viewed as a substitute for GAAP reporting measures. With respect to the Company's outlook for future periods, it is not possible to provide reconciliations for these non-GAAP measures because the Company does not forecast the movement of foreign currencies against the U.S. dollar, or other items that do not reflect ongoing operations, nor does it forecast items that have not yet occurred or are out of the Company's control. As a result, the Company is unable to provide outlook information on a GAAP basis.

For a reconciliation of non-GAAP performance measures to their most directly comparable GAAP financial measure, refer to "Reconciliation of Non-GAAP Measures."

RESULTS OF OPERATIONS – CORE PERFORMANCE MEASURES

Selected highlights from continuing operations, excluding certain items, were as follows (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Core net sales	$ 3,666	$ 3,639	1%	$ 11,172	$ 10,406	7%
Core net income	$ 438	$ 485	(10)%	$ 1,392	$ 1,346	3%

Core Net Sales

Core net sales are consistent with net sales by reportable segment and Hemlock and Emerging Growth Businesses. Core net sales were as follows (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Optical Communications	$ 1,317	$ 1,131	16%	$ 3,828	$ 3,143	22%
Display Technologies	686	956	(28%)	2,523	2,758	(9%)
Specialty Materials	519	556	(7%)	1,497	1,490	—
Environmental Technologies	425	385	10%	1,190	1,233	(3%)
Life Sciences	312	305	2%	934	917	2%
Net sales of reportable segments	$ 3,259	$ 3,333	(2%)	$ 9,972	$ 9,541	5%
Net sales of Hemlock and Emerging Growth Businesses	407	306	33%	1,200	865	39%
Total core net sales	$ 3,666	$ 3,639	1%	$ 11,172	$ 10,406	7%

Core Net Income

In the three months ended September 30, 2022, we generated core net income of $438 million, or $0.51 per core diluted share, compared to core net income generated in the three months ended September 30, 2021 of $485 million, or $0.56 per core diluted share. The decrease of $47 million, or $0.05 per core diluted share, was primarily due to lower core net income of $113 million for Display Technologies driven by lower volumes attributable to decreased panel maker utilization. This was partially offset by higher core net income for Optical Communications of $44 million driven by strong volume and price increases.

In the nine months ended September 30, 2022, we generated core net income of $1,392 million, or $1.62 per core diluted share, compared to core net income generated in the nine months ended September 30, 2021 of $1,346 million, or $1.53 per core diluted share. The increase of $46 million, or $0.09 per core diluted share, was primarily due to higher core net income of $133 million for Optical Communications, largely driven by strong volume and price increases, and higher core net income of $79 million for Hemlock and Emerging Growth Businesses, driven by higher demand for solar products. This was partially offset by lower core net income of $110 million for Display Technologies driven by lower volumes attributable to decreased panel maker utilization.

The change in core diluted earnings per share was primarily driven by changes in core net income, outlined above.

Core Earnings per Common Share

The following table sets forth the computation of core basic and core diluted earnings per common share (in millions, except per share amounts):

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Core net income	$ 438	$ 485	$ 1,392	$ 1,346
Less: Series A convertible preferred stock dividend				24
Core net income available to common shareholders - basic	438	485	1,392	1,322
Plus: Series A convertible preferred stock dividend				24
Core net income available to common shareholders - diluted	$ 438	$ 485	$ 1,392	$ 1,346
Weighted-average common shares outstanding - basic	843	852	843	821
Effect of dilutive securities:				
Stock options and other dilutive securities	12	14	14	16
Series A convertible preferred stock				41
Weighted-average common shares outstanding - diluted	855	866	857	878
Core basic earnings per common share	$ 0.52	$ 0.57	$ 1.65	$ 1.61
Core diluted earnings per common share	$ 0.51	$ 0.56	$ 1.62	$ 1.53

Reconciliation of Non-GAAP Measures

Corning utilizes certain financial measures and key performance indicators that are not calculated in accordance with GAAP to assess financial and operating performance. A non-GAAP financial measure is defined as a numerical measure of a company's financial performance that (i) excludes amounts, or is subject to adjustments that have the effect of excluding amounts, that are included in the comparable measure calculated and presented in accordance with GAAP in the consolidated statements of income or statements of cash flows, or (ii) includes amounts, or is subject to adjustments that have the effect of including amounts, that are excluded from the comparable measure as calculated and presented in accordance with GAAP in the consolidated statements of income or statements of cash flows.

Core net sales and core net income are non-GAAP financial measures utilized by management to analyze financial performance without the impact of items that are driven by general economic conditions and events that do not reflect the underlying fundamentals and trends in the Company's operations.

The following tables reconcile the non-GAAP financial measures to their most directly comparable GAAP financial measure (amounts in millions, except per share amounts):

	Three months ended September 30, 2022				
	Net sales	Income before income taxes	Net income attributable to Corning Incorporated	Effective tax rate (a)(b)	Per share
As reported – GAAP	**$ 3,488**	**$ 260**	**$ 208**	**13.1%**	**$ 0.24**
Constant-currency adjustment (1)	178	136	79		0.09
Translation gain on Japanese yen-denominated debt (2)		(84)	(64)		(0.07)
Translated earnings contract loss (3)		68	52		0.06
Acquisition-related costs (4)		33	25		0.03
Discrete tax items and other tax-related adjustments (5)			22		0.03
Restructuring, impairment and other charges and credits (6)		138	106		0.12
Litigation, regulatory and other legal matters (7)		23	17		0.02
Pension mark-to-market adjustment (8)		(9)	(7)		(0.01)
Core performance measures	$ 3,666	$ 565	$ 438	19.3%	$ 0.51

(a) Based upon statutory tax rates in the specific jurisdiction for each event.
(b) The calculation of the effective tax rate ("ETR") excludes net income attributable to non-controlling interests ("NCI") of $18 million.

	Three months ended September 30, 2021				
	Net sales	Income before income taxes	Net income attributable to Corning Incorporated	Effective tax rate (a)(b)	Per share
As reported - GAAP	**$ 3,615**	**$ 493**	**$ 371**	**22.1%**	**$ 0.43**
Constant-currency adjustment (1)	24	33	23		0.03
Translation gain on Japanese yen-denominated debt (2)		(4)	(4)		(0.00)
Translated earnings contract loss (3)		13	10		0.01
Acquisition-related costs (4)		38	30		0.03
Discrete tax items and other tax-related adjustments (5)			(1)		(0.00)
Restructuring, impairment and other charges and credits (6)		40	31		0.04
Litigation, regulatory and other legal matters (7)		3	15		0.02
Pension mark-to-market adjustment (8)		(1)	(1)		(0.00)
Preferred stock conversion (12)		(4)	(4)		(0.00)
Bond redemption loss (13)		20	15		0.02
Core performance measures	$ 3,639	$ 631	$ 485	21.1%	$ 0.56

(a) Based upon statutory tax rates in the specific jurisdiction for each event.
(b) The calculation of the ETR excludes NCI of $13 million.

Refer to Part 1, Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, Results of Operations – Core Performance Measures, Reconciliation of Non-GAAP Measures, "Items which we exclude from GAAP measures to report core performance measures" for the descriptions of the footnoted reconciling items.

	Nine months ended September 30, 2022				
	Net sales	Income before income taxes	Net income attributable to Corning Incorporated	Effective tax rate (a)(b)	Per share
As reported – GAAP	**$ 10,783**	**$ 1,793**	**$ 1,352**	**21.2%**	**$ 1.58**
Constant-currency adjustment (1)	389	319	221		0.26
Translation gain on Japanese yen-denominated debt (2)		(321)	(246)		(0.29)
Translated earnings contract gain (3)		(257)	(197)		(0.23)
Acquisition-related costs (4)		107	84		0.10
Discrete tax items and other tax-related adjustments (5)			38		0.04
Restructuring, impairment and other charges and credits (6)		217	166		0.19
Litigation, regulatory and other legal matters (7)		65	49		0.06
Pension mark-to-market adjustment (8)		(19)	(15)		(0.02)
Contingent consideration (9)		(32)	(25)		(0.03)
Loss on investments (10)		8	6		0.01
Gain on sale of business (11)		(53)	(41)		(0.05)
Core performance measures	$ 11,172	$ 1,827	$ 1,392	20.5%	$ 1.62

(a) Based upon statutory tax rates in the specific jurisdiction for each event.
(b) The calculation of the ETR excludes NCI of $61 million.

	Nine months ended September 30, 2021				
	Net sales	Income before income taxes	Net income attributable to Corning Incorporated	Effective tax rate (a)(b)	Per share
As reported - GAAP	**$ 10,406**	**$ 1,841**	**$ 1,419**	**21.8%**	**$ 0.71**
Preferred stock redemption (c)					0.91
Subtotal	**10,406**	**1,841**	**1,419**	**21.8%**	**1.62**
Constant-currency adjustment (1)		47	29		0.03
Translation gain on Japanese yen-denominated debt (2)		(127)	(98)		(0.12)
Translated earnings contract gain (3)		(262)	(202)		(0.24)
Acquisition-related costs (4)		123	95		0.11
Discrete tax items and other tax-related adjustments (5)			5		0.01
Restructuring, impairment and other charges and credits (6)		42	33		0.04
Litigation, regulatory and other legal matters (7)		11	23		0.03
Pension mark-to-market adjustment (8)		23	18		0.02
Loss on investments (10)		39	30		0.04
Gain on sale of business (11)		(54)	(46)		(0.05)
Preferred stock conversion (12)		17	17		0.02
Bond redemption loss (13)		31	23		0.03
Core performance measures	$ 10,406	$ 1,731	$ 1,346	21.1%	$ 1.53

(a) Based upon statutory tax rates in the specific jurisdiction for each event.
(b) The calculation of the ETR excludes NCI of $20 million.
(c) Pursuant to the SRA, the Preferred Stock was converted into 115 million Common Shares. Corning immediately repurchased 35 million of the converted Common Shares and excluded them from the weighted-average common shares outstanding for the calculation of the Company's basic and diluted earnings per share. The redemption of these Common Shares resulted in an $803 million reduction of retained earnings which reduced the net income available to common shareholders.

Refer to Part 1, Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, Results of Operations – Core Performance Measures, Reconciliation of Non-GAAP Measures, "Items which we exclude from GAAP measures to report core performance measures" for the descriptions of the footnoted reconciling items.

Items which we exclude from GAAP measures to arrive at core performance measures were as follows:

(1) Constant-currency: Because a significant portion of segment revenues and expenses are denominated in currencies other than the U.S. dollar, management believes it is important to understand the impact on core net income of translating these currencies into U.S. dollars. Our Display Technologies' segment sales and net income are primarily denominated in Japanese yen, but also impacted by the South Korean won, Chinese yuan, and new Taiwan dollar. Environmental Technologies and Life Science segments sales and net income are primarily impacted by the euro. Presenting results on a constant-currency basis mitigates the translation impact and allows management to evaluate performance period over period, analyze underlying trends in the businesses, and establish operational goals and forecasts. We establish constant-currency rates based on internally derived management estimates which are closely aligned with the currencies we have hedged.

Currency	Japanese yen	Korean won	Chinese yuan	New Taiwan dollar	Euro
Rate	¥107	₩1,175	¥6.7	NT$31	€.81

(2) Translation gain on Japanese yen-denominated debt: We have excluded the impact of the translation gain of the yen-denominated debt to U.S. dollars.
(3) Translated earnings contract (loss) gain: We have excluded the impact of the realized and unrealized gains and losses of the Japanese yen, South Korean won, Chinese yuan, euro and new Taiwan dollar-denominated foreign currency hedges related to translated earnings, as well as the unrealized gains and losses of the British pound-denominated foreign currency hedges related to translated earnings.
(4) Acquisition-related costs: These expenses include intangible amortization, inventory valuation adjustments, external acquisition-related deal costs, and other transaction related costs.
(5) Discrete tax items and other tax-related adjustments: These include discrete period tax items such as changes of tax reserves and changes in our permanently reinvested foreign income position.
(6) Restructuring, impairment and other charges and credits: These include accelerated depreciation and asset write-offs, impairments and other related charges, which are not related to on-going operations and are not classified as restructuring expense. The activity during the third quarter of 2022 primarily relates to capacity optimization of an emerging growth business. The activity during the third quarter of 2021 relates to asset write-offs and charges related to facility repairs resulting from the impact of power outages.
(7) Litigation, regulatory and other legal matters: Includes amounts that reflect developments in commercial litigation, intellectual property disputes, adjustments to the estimated liability for environmental-related items and other legal matters.
(8) Pension mark-to-market adjustment: Defined benefit pension mark-to-market gains and losses, which arise from changes in actuarial assumptions and the difference between actual and expected returns on plan assets and discount rates.
(9) Contingent consideration: This amount represents the fair value mark-to-market cost adjustment of contingent consideration resulting from the Hemlock transaction on September 9, 2020.
(10) Loss on investments: Amount represents the loss recognized due to mark-to-mark adjustments capturing the change in fair value based on the closing stock market price.
(11) Gain on sale of business: Amount represents the gain recognized for the sale of a certain business.
(12) Preferred stock conversion: This amount includes the fair value of the put option from the Share Repurchase Agreement with Samsung Display Co., Ltd.
(13) Bond redemption loss: Amount represents premiums on redemption of debentures.

REPORTABLE SEGMENTS

Reportable segments are as follows:

- Optical Communications – manufactures carrier network and enterprise network components for the telecommunications industry.
- Display Technologies – manufactures glass substrates for flat panel liquid crystal displays and other high-performance display panels.
- Specialty Materials – manufactures products that provide more than 150 material formulations for glass, glass ceramics and fluoride crystals to meet demand for unique customer needs.
- Environmental Technologies – manufactures ceramic substrates and filters for automotive and diesel applications.
- Life Sciences – manufactures glass and plastic labware, equipment, media, serum and reagents enabling workflow solutions for drug discovery and bioproduction.

All other businesses that do not meet the quantitative threshold for separate reporting have been grouped as "Hemlock and Emerging Growth Businesses". The net sales for this group are primarily attributable to Hemlock, which is an operating segment that produces solar and semiconductor products. The emerging growth businesses primarily consist of CPT, AGS and the EIG, which are also operating segments.

Financial results for the reportable segments are prepared on a basis consistent with the internal disaggregation of financial information to assist the CODM in making internal operating decisions. A significant portion of segment revenues and expenses are denominated in currencies other than the U.S. dollar. Management believes it is important to understand the impact on core net income of translating these currencies into U.S. dollars. For segment sales and net income, the Company utilizes constant-currency reporting for Display Technologies, Specialty Materials, Environmental Technologies and Life Sciences segments for the Japanese yen, South Korean won, Chinese yuan, new Taiwan dollar and the euro. Certain income and expenses are included in the unallocated amounts in the reconciliation of reportable segment net income (loss) to consolidated net income. These include items that are not used by the CODM in evaluating the results of, or in allocating resources to, the segments and include the following: the impact of translated earnings contracts; acquisition-related costs; discrete tax items and other tax-related adjustments; certain litigation, regulatory and other legal matters; restructuring, impairment losses and other charges and credits; and other non-recurring non-operational items. Although these amounts are excluded from segment results, they are included in reported consolidated results.

Optical Communications

The following table provides net sales and net income for the Optical Communications segment (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Segment net sales	$ 1,317	$ 1,131	16%	$ 3,828	$ 3,143	22%
Segment net income	$ 183	$ 139	32%	$ 531	$ 398	33%

Optical Communications' net sales increased by $186 million and $685 million in the three and nine months ended September 30, 2022, respectively, primarily driven by higher sales volumes of carrier and enterprise products for 5G, broadband, and the cloud.

Net income increased by $44 million and $133 million for the three and nine months ended September 30, 2022, respectively, primarily driven by the changes in sales, outlined above, partially offset by higher costs and operating expenses.

Movements in foreign currency exchange rates did not materially impact net income in this segment in the three and nine months ended September 30, 2022, when compared to the same periods in 2021.

Display Technologies

The following table provides net sales and net income for the Display Technologies segment (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Segment net sales	$ 686	$ 956	(28%)	$ 2,523	$ 2,758	(9%)
Segment net income	$ 134	$ 247	(46%)	$ 598	$ 708	(16%)

Net sales in the Display Technologies segment decreased by $270 million and $235 million for the three and nine months ended September 30, 2022, respectively, due to lower volumes, primarily attributable to decreased panel maker utilization, while price remained consistent with the comparative periods.

Net income in the Display Technologies segment decreased by $113 million and $110 million in the three and nine months ended September 30, 2022, respectively, primarily driven by the changes in sales, outlined above.

Specialty Materials

The following table provides net sales and net income for the Specialty Materials segment (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Segment net sales	$ 519	$ 556	(7%)	$ 1,497	$ 1,490	—
Segment net income	$ 96	$ 107	(10%)	$ 262	$ 279	(6%)

Net sales in the Specialty Materials segment decreased by $37 million for the three months ended September 30, 2022, primarily driven by softening demand in the smartphone, tablet and notebook markets. Net sales for the nine months ended September 30, 2022 remained relatively flat compared to the prior year, as a result of strong demand for premium cover materials and advanced optics products offset by softening demand in the smartphone, tablet and notebook markets.

Net income decreased by $11 million and $17 million for the three and nine months ended September 30, 2022, respectively, primarily driven by the changes in sales, outlined above, and impacted by continued development spending related to next-generation products.

Environmental Technologies

The following table provides net sales and net income for the Environmental Technologies segment (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Segment net sales	$ 425	$ 385	10%	$ 1,190	$ 1,233	(3%)
Segment net income	$ 87	$ 60	45%	$ 223	$ 215	4%

Net sales in the Environmental Technologies segment increased by $40 million for the three months ended September 30, 2022, primarily driven by an increase in automotive sales of $38 million, or 17%, as the China market improved. For the nine months ended September 30, 2022, net sales decreased by $43 million, primarily driven by a decline in automotive sales of $27 million, or 4% as automotive producers experienced constraints in the market, including prolonged component shortage, partially offset by improvements in the China market during the third quarter of 2022.

Net income increased by $27 million and $8 million for the three and nine months ended September 30, 2022, respectively, primarily driven by the changes in sales, outlined above.

Life Sciences

The following table provides net sales and net income for the Life Sciences segment (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Segment net sales	$ 312	$ 305	2%	$ 934	$ 917	2%
Segment net income	$ 43	$ 45	(4%)	$ 122	$ 145	(16%)

Net sales in the Life Sciences segment increased by $7 million and $17 million in the three and nine months ended September 30, 2022, respectively, and net income decreased by $2 million and $23 million for the three and nine months ended September 30, 2022, respectively. The changes in sales and net income were due to growth in research and bioproduction products, offset by lower demand for COVID-related products. Supply chain disruptions and higher manufacturing costs also impacted sales and profitability.

Hemlock and Emerging Growth Businesses

The following table provides net sales and net income (loss) for Hemlock and Emerging Growth Businesses (in millions):

	Three months ended September 30,		% change	Nine months ended September 30,		% change
	2022	2021	22 vs. 21	2022	2021	22 vs. 21
Net sales	$ 407	$ 306	33%	$ 1,200	$ 865	39%
Net income (loss)	$ 18	$ (5)	*	$ 35	$ (44)	*

** Not meaningful*

Net sales of this group increased by $101 million and $335 million in the three and nine months ended September 30, 2022, respectively, when compared to the same periods in 2021. Net income for the three and nine months ended September 30, 2022 were $18 million and $35 million, respectively, compared to net loss for the three and nine months ended September 30, 2021 of $5 million and $44 million, respectively. The growth in sales and net income was primarily driven by Hemlock as demand for solar products remained strong, and year-over-year growth from CPT and AGS.

CAPITAL RESOURCES AND LIQUIDITY

Financing and Capital Resources

In the second quarter of 2022, Corning amended and restated its existing revolving credit agreement, which provides a committed $1.5 billion unsecured multi-currency line of credit, primarily to extend the term to 2027. Additionally, Corning amended and restated its 25 billion Japanese yen liquidity facility, equivalent to approximately $173 million, primarily to extend the term to 2025. As of September 30, 2022 and December 31, 2021, there were no outstanding amounts under either the amended and restated or the existing facilities.

Corning had no outstanding commercial paper as of September 30, 2022 and December 31, 2021.

Share Repurchase Program

On April 26, 2018, Corning's Board of Directors approved a $2 billion share repurchase program with no expiration date (the "2018 Repurchase Program"). On July 17, 2019, Corning's Board of Directors authorized $5 billion in share repurchases with no expiration date (the "2019 Repurchase Program").

For the three and nine months ended September 30, 2022, the Company repurchased 0.5 million shares and 6.0 million shares, respectively, of common stock on the open market for approximately $17 million and $221 million, respectively, as part of its 2019 Repurchase Program.

For the three and nine months ended September 30, 2021, the Company repurchased 1 million and 36 million shares of common stock, respectively, for approximately $24 million and $1.5 billion, respectively, as part of the 2018 and 2019 Repurchase Programs. Most of these shares were repurchased immediately following the conversion of the preferred shares.

Refer to Note 13 (Shareholders' Equity) to the consolidated financial statements for additional information.

Capital Spending

Capital spending totaled $1.2 billion for the nine months ended September 30, 2022. We expect our 2022 capital expenditures to be slightly lower than 2021.

Cash Flow

Summary of cash flow data (in millions):

	Nine months ended September 30,	
	2022	2021
Net cash provided by operating activities	$ 1,998	$ 2,389
Net cash used in investing activities	$ (969)	$ (803)
Net cash used in financing activities	$ (1,430)	$ (1,990)

Net cash provided by operating activities decreased by $391 million in the nine months ended September 30, 2022, when compared to the same period in the prior year primarily driven by increased inventory levels.

Net cash used in investing activities increased by $166 million in the nine months ended September 30, 2022, when compared to the same period last year. Increased outflows for capital expenditures of $187 million and lower proceeds from unconsolidated entities of $97 million, were partially offset by higher realized gains on translated earnings contracts of $179 million.

Net cash used in financing activities decreased by $560 million in the nine months ended September 30, 2022, when compared to the same period last year, primarily driven by lower repayments of long-term debt of $716 million, partially offset by increased purchases of treasury stock of $199 million.

Defined Benefit Pension Plans

Corning has defined benefit pension plans covering certain domestic and international employees. The Company's funding policy is to contribute, over time, an amount exceeding the minimum requirements to achieve the Company's long-term funding targets. During the nine months ended September 30, 2022, contributions to our international pension plans were not material. The Company does not expect to make additional contributions in the fourth quarter of 2022.

Key Balance Sheet Data

Balance sheet and working capital measures were as follows (in millions):

	September 30, 2022	December 31, 2021
Working capital	$ 2,637	$ 2,853
Current ratio	1.5:1	1.6:1
Trade accounts receivable, net of doubtful accounts	$ 1,620	$ 2,004
Days sales outstanding	42	49
Inventories, net	$ 2,951	$ 2,481
Inventory turns	3.5	3.7
Days payable outstanding (1)	54	50
Long-term debt	$ 6,525	$ 6,989
Total debt	$ 6,733	$ 7,044
Total debt to total capital	37%	36%

(1) Includes trade payables only.

Management Assessment of Liquidity

Corning is committed to strong financial stewardship and expects to maintain a strong cash balance and generate positive free cash flow for the year. We believe we have sufficient liquidity to fund operations, acquisitions, capital expenditures, scheduled debt repayments and dividend payments.

We ended the third quarter of 2022 with approximately $1.6 billion of cash and cash equivalents. Our cash and cash equivalents are held in various locations throughout the world and are generally unrestricted. We utilize a variety of strategies to ensure that our worldwide cash is available in the locations in which it is needed. At September 30, 2022, approximately 59% of the consolidated amount was held outside the U.S.

Corning also has a commercial paper program pursuant to which we may issue short-term, unsecured commercial paper notes up to a maximum aggregate principal amount outstanding at any one time of $1.5 billion. Under this program, the Company may issue the paper from time to time and will use the proceeds for general corporate purposes. As of September 30, 2022, Corning had no outstanding commercial paper.

The Company's $1.5 billion Revolving Credit Agreement is available to support obligations under the commercial paper program and for general corporate purposes, if needed. At September 30, 2022, Corning did not have any amounts outstanding under the Revolving Credit Agreement.

Other

Comprehensive reviews of significant customers and their creditworthiness are completed by analyzing their financial strength, at least annually or more frequently, for customers where Corning has identified an increased measure of risk. The Company closely monitors payments and developments which may signal possible customer credit issues. There are no customer credit issues that could have a material impact on our liquidity.

From time to time, the Company factors or sells its accounts receivable. During the three months ended September 30, 2022, the Company sold $417 million of accounts receivable and accelerated collections for the period. Sales of accounts receivable during the first and second quarter of 2022 were $381 million and $350 million, respectively, which the Company believes would have been collected during the normal course of business in the quarter following the respective sales.

The Revolving Credit Agreement includes affirmative and negative covenants with which we must comply, including a leverage (debt to capital ratio) financial covenant. The required leverage ratio is a maximum of 60%. At September 30, 2022, the leverage using this measure was approximately 37%. As of September 30, 2022, we were in compliance and no amounts were outstanding under the Company's Revolving Credit Agreement.

The Company's debt instruments contain customary event of default provisions, which allow the lenders the option of accelerating all obligations upon the occurrence of certain events. In addition, some of the debt instruments contain a cross default provision, whereby an uncured default of a specified amount on one debt obligation of the Company, would be considered a default under the terms of another debt instrument. As of September 30, 2022, we were in compliance with all such provisions.

Management is not aware of any known trends or any known demands, commitments, events or uncertainties that will result in or that are reasonably likely to result in insufficient liquidity. In addition, other than items discussed, there are no known material trends, favorable or unfavorable, in our capital resources and no expected material changes in the mix and relative cost of such resources.

Off Balance Sheet Arrangements

There have been no material changes outside the ordinary course of business in off balance sheet arrangements as disclosed in the 2021 Form 10-K under the caption "Off Balance Sheet Arrangements."

Contractual Obligations

There have been no material changes outside the ordinary course of business in the contractual obligations disclosed in the 2021 Form 10-K under the caption "Contractual Obligations."

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements requires management to make estimates and assumptions that affect amounts reported therein. The estimates that require management's most difficult, subjective or complex judgments are discussed within Part II, Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2021.

NEW ACCOUNTING STANDARDS

Refer to Note 1 (Significant Accounting Policies) to the consolidated financial statements.

ENVIRONMENT

Corning has been designated by federal or state governments under environmental laws, including Superfund, as a potentially responsible party that may be liable for cleanup costs associated with 19 hazardous waste sites. It is Corning's policy to accrue for its estimated liability related to such hazardous waste sites and other environmental liabilities related to property owned by Corning based on expert analysis and continual monitoring by both internal and external consultants. As of September 30, 2022 and December 31, 2021, Corning had accrued approximately $111 million and $55 million, respectively, for the estimated undiscounted liability for environmental cleanup and related litigation. Based upon the information developed to date, management believes that the accrued reserve is a reasonable estimate of the Company's liability and that the risk of an additional loss in an amount materially higher than that accrued is remote.

FORWARD-LOOKING STATEMENTS

The statements in this Quarterly Report on Form 10-Q, in reports subsequently filed by Corning with the SEC on Forms 8-K, and related comments by management that are not historical facts or information and contain words such as “will,” “believe,” “anticipate,” “expect,” “intend,” “plan,” “seek,” “see,” “would,” and “target” and similar expressions are forward-looking statements. Such statements relate to future events that by their nature address matters that are, to different degrees, uncertain. These forward-looking statements relate to, among other things, the Company’s future operating performance, the Company’s share of new and existing markets, the Company's revenue and earnings growth rates, the Company’s ability to innovate and commercialize new products, and the Company’s implementation of cost-reduction initiatives and measures to improve pricing, including the optimization of the Company’s manufacturing capacity.

Although the Company believes that these forward-looking statements are based upon reasonable assumptions regarding, among other things, current estimates and forecasts, general economic conditions, its knowledge of its business, and key performance indicators that impact the Company, actual results could differ materially. The Company does not undertake to update forward-looking statements. Some of the risks, uncertainties and other factors that could cause actual results to differ materially from those expressed in or implied by the forward-looking statements include, but are not limited to:

- the duration and severity of the COVID-19 pandemic, and its impact across our businesses on demand, personnel, operations, our global supply chains and stock price;
- global economic trends, competition and geopolitical risks, or an escalation of sanctions, tariffs or other trade tensions, and related impacts on our businesses’ global supply chains and strategies;
- changes in macroeconomic and market conditions, market volatility, interest rates, capital markets, the value of securities and other financial assets, precious metals, oil, natural gas and other commodities and exchange rates (particularly between the U.S. dollar and the Japanese yen, new Taiwan dollar, euro, Chinese yuan and South Korean won), consumer demand, and the impact of such changes and volatility on our financial position and businesses;
- product demand and industry capacity;
- competitive products and pricing;
- availability and costs of critical components, materials, equipment, natural resources and utilities;
- new product development and commercialization;
- order activity and demand from major customers;
- the amount and timing of our cash flows and earnings and other conditions, which may affect our ability to pay our quarterly dividend at the planned level or to repurchase shares at planned levels;
- disruption to Corning’s, our suppliers’ and manufacturers’ supply chain, logistics, equipment, facilities, IT systems, operations or commercial activities due to terrorist activity, cyber-attack, armed conflict, political or financial instability, natural disasters, international trade disputes or major health concerns;
- loss of intellectual property due to theft, cyber-attack, or disruption to our information technology infrastructure;
- effects of acquisitions, dispositions and other similar transactions;
- effect of regulatory and legal developments;
- ability to pace capital spending to anticipated levels of customer demand;
- our ability to increase margins through implementation of operational changes, pricing actions and cost reduction measures without negatively impacting revenues;
- rate of technology change;
- ability to enforce patents and protect intellectual property and trade secrets;
- adverse litigation;
- product and components performance issues;
- attraction and retention of key personnel;
- customer ability to maintain profitable operations and obtain financing to fund ongoing operations and manufacturing expansions and pay receivables when due;
- loss of significant customers;
- changes in tax laws, regulations and international tax standards;
- the impacts of audits by taxing authorities; and
- the potential impact of legislation, government regulations, and other government action and investigations.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk Disclosures

As noted in the 2021 Form 10-K, we operate and conduct business in many foreign countries and as a result are exposed to fluctuations between the U.S. dollar and other currencies. Volatility in the global financial markets could increase the volatility of foreign currency exchange rates which would, in turn, impact sales and net income. For a discussion of the Company's exposure to market risk and how we mitigate that risk, refer to Part II, Item 1A, Risk Factors in this Quarterly Report on Form 10-Q and Part II, Item 7A, Quantitative and Qualitative Disclosures About Market Risks, contained in the 2021 Form 10-K.

ITEM 4. CONTROLS AND PROCEDURES

Under the supervision of and with the participation of Corning's management, including the chief executive officer and chief financial officer, we evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended), as of September 30, 2022, the end of the period covered by this report. Based on that evaluation, we have concluded that the Company's disclosure controls and procedures were effective as of that date. Corning's disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by Corning in the reports that it files or submits under the Exchange Act is accumulated and communicated to Corning's management, including Corning's principal executive and principal financial officers, or other persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

An evaluation of internal controls over financial reporting was performed to determine whether any changes have occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the internal control over financial reporting. The chief executive officer and chief financial officer concluded that there was no change in Corning's internal control over financial reporting that materially affected, or is reasonably likely to materially affect, internal control over financial reporting.

Part II – Other Information

ITEM 1. LEGAL PROCEEDINGS

Environmental Litigation. See the 2021 Form 10-K, Part I, Item 3. For additional information and updates to estimated liabilities as of September 30, 2022, see Part I, Item 1, Financial Statements, Note 10 (Commitments and Contingencies) of the notes to the consolidated financial statements included under Item 1 of this Quarterly Report, which is incorporated herein by reference.

ITEM 1A. RISK FACTORS

In addition to other information set forth in this report, you should carefully consider the factors discussed in Part I, Item 1A. Risk Factors in Corning's 2021 Form 10-K, which could materially impact the Company's business, financial condition or future results. Risks disclosed in the 2021 Form 10-K are not the only risks facing the Company. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may materially adversely impact Corning's business, financial condition or operating results. There have been no material changes to Part I, Item 1A. Risk Factors in the 2021 Form 10-K.

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

This table provides information about purchases of common stock during the third quarter of 2022:

Issuer Purchases of Equity Securities

Period	Total number of shares purchased (1)	Average price paid per share (2)	Number of shares purchased as part of publicly announced programs	Approximate dollar value of shares that may yet be purchased under the programs
July 1 - 31, 2022	601,587	$ 32.43	543,186	
August 1 - 31, 2022	2,566	35.83		
September 1 - 30, 2022	3,057	30.79		
Total	607,210	$ 32.43	543,186	$ 3,301,085,426

(1) This column reflects: (i) 53,042 shares of common stock related to the vesting of employee restricted stock; (ii) 9,184 shares of common stock related to the vesting of employee restricted stock units; (iii) 1,484 shares of common stock related to the vesting of employee performance stock units; (iv) 314 shares of common stock related to the exercise of employee stock options and payment of the exercise price; and (v) the purchase of 543,186 shares of common stock in open market repurchases under the 2019 Repurchase Program.

(2) Represents the stock price at the time of surrender.

ITEM 6. EXHIBITS

(a) Exhibits

Exhibit Number	Exhibit Name
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) under the Exchange Act
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) under the Exchange Act
32	Certification Pursuant to 18 U.S.C. Section 1350
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document
101.LAB	Inline XBRL Taxonomy Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document
101.DEF	Inline XBRL Taxonomy Definition Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURES

Pursuant to the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Corning Incorporated
(Registrant)

October 27, 2022	/s/ Stefan Becker
Date	Stefan Becker Senior Vice President, Finance & Corporate Controller

Exhibit 31.1

CHIEF EXECUTIVE OFFICER CERTIFICATION

I, Wendell P. Weeks, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Corning Incorporated (the registrant);

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.

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 controls over financial reporting.

October 27, 2022

/s/ Wendell P. Weeks

Wendell P. Weeks
Chairman and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CHIEF FINANCIAL OFFICER CERTIFICATION

I, Edward A. Schlesinger, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Corning Incorporated (the registrant);

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.

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 controls over financial reporting.

October 27, 2022

/s/ Edward A. Schlesinger

Edward A. Schlesinger
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32

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

In connection with the Quarterly Report of Corning Incorporated (the Company) on Form 10-Q for the period ended September 30, 2022, as filed with the Securities and Exchange Commission on the date hereof (the Report), we, Wendell P. Weeks, Chairman and Chief Executive Officer and Edward A. Schlesinger, Executive Vice President and Chief Financial Officer, of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: October 27, 2022

/s/ Wendell P. Weeks
Wendell P. Weeks
Chairman and Chief Executive Officer

/s/ Edward A. Schlesinger
Edward A. Schlesinger
Executive Vice President and Chief Financial Officer