

ATMI®

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APR 09 2009
Washington, DC 20549

2008 Annual Report

Dear Shareholder:

I am writing to you as we experience and work through the most challenging economic conditions the global economy has seen in more than a generation. It will be interesting to read this in perspective a year from now.

Looking back at 2008—Optimism turns into pessimism

Like most companies in our industry, we began 2008 with optimism—expecting a year of growth from both our base business and successful new product introductions. Demand for ATMI products and process efficiency solutions was strong in the first quarter.

Moving through the second quarter, we began to see weakening in demand that, rather than rebounding, accelerated significantly throughout the remainder of the year. We were not alone, as the United States economy felt the effects of declining home and investment portfolio values, and the rest of the world felt various ripple effects, notably the tightening of credit across the board. While the situation is still unfolding, many government spending plans have been announced, unemployment continues to increase, and some of the leading U.S. business institutions either disappeared or continue to cling to life through various government support schemes.

When the year was over, rather than breaking the \$400 million revenue barrier, ATMI's revenues contracted by 7%, to \$339 million.

2009—Looking forward to recovery

As I write this in late March, the overall outlook for 2009 is weak, a direct result of the outlook for consumer spending, which drives nearly all of our semiconductor business.

With the decline in demand for consumer electronics, our customers'—and their customers'—chip inventories are high, and the supply chain is still adjusting. Overall semiconductor factory capacity utilization has generally hovered at or below 50%, and many chip producers have announced extended shut-down periods. Industry consolidation has begun.

We expect these conditions to prevail, at least through the first half of 2009 with, perhaps, modest improvement in the second half of the year—but there continues to be very little visibility out there.

Managing through the downturn

Our motto right now is "control what you can." We believe there is much we can do to manage through this downturn and, with continued investments in our core strategic capabilities, emerge stronger and better positioned, much as we did through the period between 2001 and 2003—the last big downturn this management team faced.

To achieve that goal, however, we must remain focused and address key tactical issues.

The first priority: Preserve our financial strength.

We have worked hard over the years to ensure we have a strong balance sheet and a secure financial position, regardless of the economic environment. As our business declined through 2008, we took many actions to scale operating expenses to more closely match ongoing revenues. We continue to remain flexible and responsive to conditions, and to further refine our priorities. We expect that capital expenditures for 2009 will be half of 2008 levels. Salary and related expenses are being closely managed, and we have taken many actions to tighten discretionary spending, which will continue while current economic conditions persist.

The second priority: Introduce products and solutions that will help drive growth when the recovery begins to take hold.

Our belief is that we can use this period of economic weakness to strengthen our overall position, and to this end, make targeted investments. We have three primary growth vectors:

- Higher-margin new semiconductor process efficiency solutions
- High Productivity Development™ activity to address key customers' material and process integration needs
- Expanding our position in the life sciences market, with our very promising single-use mixing, storage, and bioreactor technologies.

New semiconductor products—Process efficiency focus resonates with customers

High volume sales of our advanced RegenSi® and AutoClean® solutions have taken longer than expected, partly resulting from deteriorating end-market conditions. However, with the heightened need for performance improvement, customer interest remains high and we are working closely with key customers who are using the downturn as an opportunity to finish qualification of these solutions. Given current low utilization rates, the short-term potential for revenue growth is diminished, but we anticipate customer volumes will ramp along with wafer starts as the sector recovers.

High productivity development—Faster answers and reduced time-to-market for new products

This key initiative is intended to turbocharge ATMI's product development program, resulting in even stronger relationships with key customers. With our investments in 2008, we now have High Productivity Development capabilities in Danbury and San Jose, as well as in Taiwan and Japan, in close proximity to the development facilities of the world's leading integrated circuit producers. We believe our ability to rapidly screen potential new materials solutions and develop process and integration insights is unequalled, and customer confidence in our High Productivity Development activities and results grows every day. We are expanding our work beyond current and "technology roadmap" issues to include emerging opportunities to replace harmful and hazardous chemistries with more sustainable, "green" solutions. The number of development activities we are engaging in with customers by using these High Productivity Development capabilities continues to grow.

Life sciences—Extending semiconductor expertise into biopharmaceutical applications

We made good progress in 2008 expanding the application of ATMI's advanced chemistry delivery and process efficiency knowledge to the life sciences space. We are bringing these customers more efficient and lower-risk development and manufacturing processes, at a time when they, too, are feeling the pressure to do more with less. We anticipate the shift toward one-time use technologies in our target markets will accelerate over the next few years, and are investing in infrastructure to help ensure we capitalize on the great technology and qualification progress we have made. During 2008, we enhanced our market and product positions with the acquisitions of LevTech and additional technology assets from our development partner, Artelis. In 2009, we are working to complement our Belgian operations by establishing LifeSciences infrastructure in the United States to support our expanding U.S. customer base.

This too shall pass—Expectations for the future

The difficulties we face in our end markets are similar to those faced by our customers—and virtually all businesses today. In the spirit of "controlling what we can," we are focused on, and responding to, market conditions so that we are able to continue to invest for growth. We have an overarching faith in the future for our technology, in the creativity and dedication of our employees, and in the solid partnerships with our industries' leading companies. We believe ATMI will emerge from the present economic difficulties as it has from past downturns: stronger, more focused, and well positioned for growth. I speak for all of ATMI when I tell you we will continue working hard to make this happen!



Douglas Neugold,
Chief Executive Officer

Financial Highlights

(in thousands, except per share data)

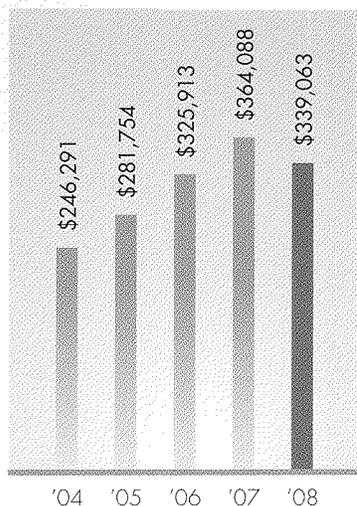
December 31,	2008	2007	2006	2005	2004
Revenues	\$339,063	\$364,088	\$325,913	\$281,754	\$246,291
Operating income	39,922	52,502	47,017	40,409	37,379
Income from continuing operations	33,327	40,539	39,961	30,722	20,106
Income from operations of discontinued operations, net of taxes	—	—	—	—	3,313
Gain on disposal of discontinued operations, net of taxes	—	—	—	—	8,083
Net income	33,327	40,539	39,961	30,722	31,502
Diluted earnings per share from continuing operations	\$1.04	\$1.16	\$1.08	\$0.85	\$0.64
Diluted earnings per share from operations of discontinued operations	\$ —	\$ —	\$ —	\$ —	\$0.10
Diluted earnings per share from gain on disposal of discontinued operations	\$ —	\$ —	\$ —	\$ —	\$0.26
Diluted earnings per common share	\$1.04	\$1.16	\$1.08	\$0.85	\$1.00
Weighted-average shares outstanding—diluted	32,078	35,093	36,859	36,276	31,650

(in thousands)

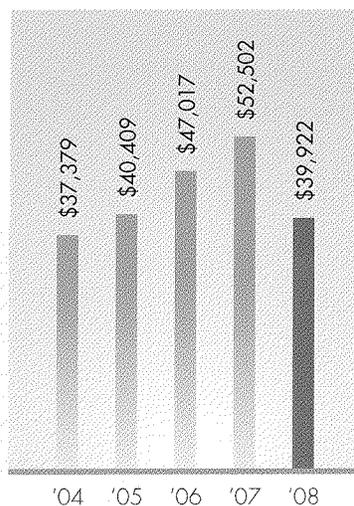
December 31,	2008	2007	2006	2005	2004
Working capital	\$190,095	\$280,221	\$281,362	\$274,323	\$190,874
Total assets	453,064	492,241	488,037	499,836	470,100
Long-term obligations	16,303	10,656	1,669	3,460	118,255
Total stockholders' equity	408,897	434,383	435,496	452,720	298,098

See pages 2-36 for ATM's detailed financial information.

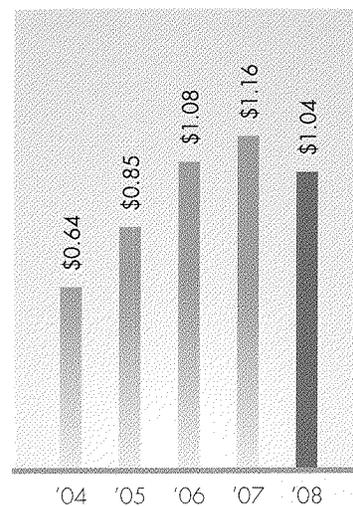
Revenues
(in thousands)



Operating Income
(in thousands)



Diluted Earnings Per Share from
Continuing Operations



"Every investment we make is designed
to get us closer to our customers."

— Doug Neugold, Chief Executive Officer

ATMI provides global leadership in enabling superior performance of the premium materials critical to the advanced process technologies of the semiconductor, flat panel display, and life science industries.

Our customers face increasing challenges: accelerating research and development costs, slower new product development cycles, production integration challenges, quickly changing product markets, greater environmental concerns, heightened competition, decreasing profitability, and diminishing return on investment.

Our mission: accelerate technology and manufacturing efficiency breakthroughs by applying our *High Productivity Development*[™] materials and process ingenuity to unleash new possibilities that can drive down cost and enhance competitive advantages for our customers.

We believe we are the world leader in *High Productivity Development*, able to accelerate breakthrough materials solutions in a fraction of the time that our customers have been used to. Extensive customer collaboration has us applying our in-depth knowledge of materials, delivery processes, and manufacturing steps in partnered development through testing, qualification, and production.

We solve our customers' largest, most challenging problems: rapidly developing and integrating a cascade of new materials and manufacturing process changes that are vital to their prosperity. ATMI's *High Productivity Development* methodology enables faster time-to-market for our customers' new products, with potentially shorter development times, lower risks, greater production values, and lower costs of ownership.

At ATMI we are driving process efficiency

- ◆ By accelerating access to new technology innovation and implementation
- ◆ By developing materials solutions that are superior to existing methods
- ◆ By introducing these solutions more quickly and effectively, with significantly lower costs.

Solving challenges drives us.



ATMI[®]



Selected Financial Data

SEC
Mail Processing
Section

APR 09 2009

Washington, DC

123
2004

(in thousands, except per share data)

Fiscal Year Ended December 31,	2008	2007	2006	2005	2004
Consolidated Statements of Income					
Revenues	\$339,063	\$364,088	\$325,913	\$281,754	\$246,291
Cost of revenues	172,551 ⁽¹⁾	182,480 ⁽⁵⁾	162,530 ⁽⁷⁾	140,251	122,415
Gross profit	166,512 ⁽²⁾	181,608	163,383	141,503	123,876
Operating expenses:					
Research and development	37,809	29,879	26,217	22,284	19,577
Selling, general, and administrative	88,781	99,227 ⁽⁶⁾	90,149	78,810	66,920
Total operating expenses	126,590	129,106	116,366	101,094	86,497
Operating income	39,922	52,502	47,017	40,409	37,379
Interest income	3,126	7,689	8,353	7,269	3,485
Interest expense	(173)	(46)	(29)	(1,862)	(6,927)
Other income (expense), net	(2,729) ⁽³⁾	(742)	515	(432)	(3,473) ⁽¹⁰⁾
Income before income taxes	40,146	59,403	55,856	45,384	30,464
Provision for income taxes	6,819 ⁽⁴⁾	18,864	15,895 ⁽⁸⁾	14,662	10,358
Income from continuing operations	33,327	40,539	39,961	30,722	20,106
Income from operations of discontinued operations, net of taxes	—	—	—	—	3,313
Gain on disposal of discontinued operations, net of taxes	—	—	—	—	8,083
Net income	\$ 33,327	\$ 40,539	\$ 39,961	\$ 30,722	\$ 31,502
Diluted earnings per share:					
Earnings per share from continuing operations	\$1.04	\$1.16	\$1.08	\$0.85	\$0.64
Earnings per share from operations of discontinued operations	—	—	—	—	\$0.10
Earnings per share from gain on disposal of discontinued operations	—	—	—	—	\$0.26
Earnings per common share	\$1.04	\$1.16	\$1.08	\$0.85	\$1.00
Weighted-average shares outstanding—diluted	32,078	35,093	36,859	36,276	31,650
Consolidated Balance Sheet Data					
Cash, cash equivalents, and marketable securities ⁽¹¹⁾	\$ 96,020	\$193,697	\$219,066	\$256,137	\$238,960
Working capital	190,095	280,221	281,362	274,323	190,874
Total assets	453,064	492,241	488,037	499,836	470,100
Long-term obligations	16,303	10,656	1,669	3,460 ⁽⁹⁾	118,255
Total stockholders' equity	408,897	434,383	435,496	452,720 ⁽⁹⁾	298,098

The Company has never declared any cash dividends.

- (1) Includes a \$2.4 million business interruption claim recovery related to a fire at a contract manufacturer in Taiwan.
- (2) Includes a \$3.1 million benefit associated with the settlement of a dispute with a distributor (\$3.7 million recognized in revenues, with \$0.6 million of associated costs recognized in cost of revenues).
- (3) Includes a \$2.0 million gain from the sale of a marketable security, \$3.4 million of impairment charges related to our strategic investment portfolio and a convertible note, and \$1.1 million representing our proportionate share of gains on sales of assets by one of our equity-method investees.
- (4) Includes a \$3.7 million tax benefit (including interest) recognized to reverse previously established reserves for uncertain tax positions as a result of the expiration of the applicable statute of limitations.
- (5) Includes \$1.1 million of increased customs expense on imported goods from the United States to an overseas affiliate.
- (6) Includes \$1.1 million associated with a contingent legal fee arrangement.
- (7) Includes \$1.4 million one-time recovery of value-added taxes in Japan related to 2005.
- (8) Includes a \$1.7 million tax benefit recognized to reverse previously established reserves for uncertain tax positions as a result of the expiration of the applicable statute of limitations.
- (9) Includes effect of conversion of the Company's 5.25 percent convertible subordinated notes due November 15, 2006 into 5,183,095 shares of common stock.
- (10) Includes a \$4.5 million asset impairment charge related to the Company's strategic investment portfolio.
- (11) Includes non-current marketable securities of \$3.7 million, \$0, \$14.4 million, \$46.3 million, and \$105.8 million at December 31, 2008, 2007, 2006, 2005, and 2004, respectively.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Company Overview

We believe we are among the leading suppliers of high performance materials, materials packaging, and materials delivery systems used worldwide in the manufacture of microelectronics devices. Our products consist of "front-end" semiconductor performance materials, sub-atmospheric pressure gas delivery systems for safe handling and delivery of toxic and hazardous gases to semiconductor process equipment, high-purity materials packaging, and dispensing systems that allow for the reliable introduction of low volatility liquids and solids to microelectronics and biopharmaceutical processes. ATMI targets both semiconductor and flat-panel display manufacturers, whose products form the foundation of microelectronics technology rapidly proliferating through the consumer products, information technology, automotive, and communications industries. The market for microelectronics devices has historically grown and is continually changing, which drives demand for new products and technologies at lower cost. ATMI's objective is to meet the demands of microelectronics manufacturers with solutions that maximize the efficiency of their manufacturing processes, reduce capital costs, and minimize the time to ramp new processes and deliver new products. ATMI's customers include many of the leading semiconductor and flat-panel display manufacturers in the world who target leading-edge technologies. ATMI also addresses an increasing number of critical materials handling needs for the life sciences markets. Our proprietary containment, mixing, and bioreactor technologies are sold to the biotechnology and laboratory markets, which we believe offer significant growth potential.

Critical Accounting Policies and Estimates

General

Preparation of our financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. Note 1 to the Consolidated Financial Statements describes the significant accounting policies used in preparation of the consolidated financial statements. Management believes the most complex and sensitive judgments, because of their significance to the Consolidated Financial Statements, result primarily from the need to make estimates about the effects of matters that are inherently uncertain. The most significant areas involving management judgments and estimates are described below. Actual results in these areas could differ from management's estimates. These policies are determined by management and have been reviewed by ATMI's Audit Committee.

Revenue Recognition

We recognize revenue in accordance with SEC Staff Accounting Bulletin No. 104, *Revenue Recognition* ("SAB 104"), which requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured. Revenues from product sales are generally recognized upon delivery to a common carrier when terms are equivalent to free-on-board ("FOB") origin and upon receipt by a customer when terms are equivalent to FOB destination. In instances where

final acceptance of equipment is specified by the purchase agreement, revenue is deferred until all acceptance criteria have been satisfied. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected. We accrue for sales returns, warranty costs, and other allowances based on a current evaluation of our experience based on stated terms of the transactions. Should actual product failure rates or customer return experience differ from our estimates, revisions to the estimated accruals would be required.

The Company uses an exclusive contract manufacturer, which is also an exclusive distribution partner, for the manufacture and distribution of its SDS products (the "Licensed Products"). Under the terms of the manufacturing agreement, ATMI retains the right to manufacture 25 percent of all Licensed Products, while the contract manufacturer has the right to manufacture 75 percent of all Licensed Products. Upon completion of manufacture, ATMI purchases all Licensed Products produced by the contract manufacturer. Under the terms of the distribution agreement, we receive payment from the distributor based upon a formula which is dependent on the sale price obtained by the distributor to its customer. ATMI recognizes revenue from the sale of Licensed Products to this distribution partner when the distributor sells the Licensed Products to its customers, because that is when the sales price becomes fixed and determinable by the Company.

Allowance for Doubtful Accounts

The allowance for doubtful accounts is established to represent our best estimate of the net realizable value of the outstanding accounts receivable balances. We estimate our allowance for doubtful accounts based on past due amounts and historical write-off experience, as well as trends and factors surrounding the credit risk of the markets we operate in and the financial viability of specific customers. In an effort to identify adverse trends, we assess the financial health of the markets we operate in and perform periodic credit evaluations of our customers and ongoing reviews of account balances and agings of receivables. Amounts are considered past due when payment has not been received within the time frame of the credit terms extended. Write-offs are charged directly against the allowance for doubtful accounts and occur only after all collection efforts have been exhausted. Actual write-offs and adjustments could differ from the allowance estimates because of unanticipated changes in the business environment as well as factors and risks surrounding specific customers.

Inventory Valuation Reserves

Inventory valuation reserves are established in order to report inventories at the lower of cost or market value on our Consolidated Balance Sheets. The determination of inventory valuation reserves requires management to make estimates and judgments on the future salability of inventories. Valuation reserves for excess, obsolete, and slow-moving inventory are estimated by comparing the inventory levels of individual parts to both future sales forecasts or production requirements and historical usage rates in order to identify inventory where the resale value or replacement value is less than inventory cost. Other factors that management considers in determining these reserves include whether individual inventory parts or chemicals

meet current specifications and cannot be substituted for or reworked into a part currently being sold or used as a service part, overall market conditions, and other inventory management initiatives.

As of December 31, 2008 and 2007, we had \$2.4 million and \$2.3 million, respectively, of inventory valuation reserves recorded. Although management believes these reserves are adequate, any abrupt adverse changes in market conditions may require us to record additional inventory valuation reserves.

Non-marketable Equity Securities

We selectively invest in non-marketable equity securities of private companies, which range from early-stage companies that are often still defining their strategic direction, to more mature companies whose products or technologies may directly support an ATMI product or initiative. At December 31, 2008, the carrying value of our portfolio of strategic investments in non-marketable equity securities totaled \$22.4 million (\$15.4 million in 2007). Non-marketable equity securities are included in the consolidated balance sheets under the caption "Other long-term assets."

Investments in non-marketable equity securities are inherently risky, and some of these companies are likely to fail. Their success (or lack thereof) is dependent on product development, market acceptance, operational efficiency, attracting and retaining talented professionals, and other key business success factors. In addition, depending on their future prospects, they may not be able to raise additional funds when needed or they may receive lower valuations, with less favorable investment terms than in previous financings, and the investments would likely become impaired.

We review our investments quarterly for indicators of impairment; however, for non-marketable equity securities, the impairment analysis may require significant judgment to identify events or circumstances that would likely have a significant adverse effect on the fair value of the investment. The indicators that we use to identify those events or circumstances include (a) the investee's revenue and earnings trends relative to predefined milestones and overall business prospects; (b) the technological feasibility of the investee's products and technologies; (c) the general market conditions in the investee's industry or geographic area, including adverse regulatory or economic changes; (d) factors related to the investee's ability to remain in business, such as the investee's liquidity, and the rate at which the investee is using its cash; and (e) the investee's receipt of additional funding at a lower valuation.

Investments identified as having an indicator of impairment are subject to further analysis to determine if the investment is other-than-temporarily impaired, in which case we write the investment down to its fair value, using the framework established by Statement of Financial Accounting Standards ("SFAS") No. 157, *Fair Value Measurements*. When an investee is not considered viable from a financial or technological point of view, we write down the entire investment since we consider the estimated fair market value to be nominal. If an investee obtains additional funding at a valuation lower than our carrying amount, or requires a new round of equity funding to stay in operation and the new funding does not appear imminent, we presume that the investment is other-than-temporarily impaired, unless specific facts and circumstances indicate otherwise. We recognized a \$1.6 million impairment in our portfolio of non-marketable equity securities in 2008 (none in 2007 and \$0.3 million in 2006).

Income Taxes

The future tax benefit arising from net deductible temporary differences and net operating loss and tax credit carryforwards is \$3.1 million at

December 31, 2008 and \$4.3 million at December 31, 2007. We believe that our earnings during the periods when the temporary differences become deductible will be sufficient to realize the related future income tax benefits. For those jurisdictions where the expiration date of tax carryforwards or the projected operating results indicate that realization is not likely, a valuation allowance is provided.

In assessing the need for a valuation allowance, we estimate future taxable income, considering the feasibility of ongoing tax planning strategies and the realizability of tax loss carryforwards. Valuation allowances related to deferred tax assets can be affected by changes to tax laws, changes to statutory tax rates, and future taxable income levels. In the event we were to determine that we would not be able to realize all or a portion of our deferred tax assets in the future, we would reduce such amounts through a charge to income in the period in which that determination is made or when tax law changes are enacted. Conversely, if we were to determine that we would be able to realize our deferred tax assets in the future in excess of the net carrying amounts, we would decrease the recorded valuation allowance through an increase to income in the period in which that determination is made. With the January 1, 2009 adoption of SFAS No. 141 (revised 2007), *Business Combinations*, changes in deferred tax asset valuation allowances recorded in a business combination and income tax uncertainties after the acquisition date generally will affect income tax expense.

In the ordinary course of business there is inherent uncertainty in quantifying our income tax positions. We assess our income tax positions and record tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances, and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, we have recorded the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon ultimate settlement with a taxing authority. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. For a discussion of current tax matters, see Note 11 to the Consolidated Financial Statements.

Depreciable Lives of Property, Plant, and Equipment

ATMI's net property, plant, and equipment at December 31, 2008 and 2007 was \$136.4 million and \$106.2 million, respectively, representing 30.1 percent and 21.6 percent, respectively, of the Company's consolidated total assets. Depreciation expense for the years ended December 31, 2008, 2007, and 2006 was \$20.1 million, \$18.6 million, and \$17.4 million, respectively. Management judgment is required in the determination of the estimated depreciable lives that are used to calculate annual depreciation expense and accumulated depreciation.

Property, plant, and equipment are recorded at cost and depreciated over the assets' useful lives on a straight-line basis for financial reporting purposes. The estimated useful life represents the projected period of time that the asset will be productively employed by the Company and is determined by management based on many factors, including historical experience with similar assets and technological life cycles. Circumstances and events relating to these assets are monitored to ensure that changes in asset lives or impairments are identified and prospective depreciation expense or impairment expense is adjusted accordingly. The depreciation periods used are: buildings, 15 to 35 years; machinery and equipment, 3 to 10 years; cylinders and canisters, 7 to 10 years; furniture and fixtures, 5 years; and leasehold improvements, over the lesser of the lease

term or estimated useful life. We use accelerated depreciation methods for tax purposes where appropriate.

Equity-Based Compensation

The Company uses the Black-Scholes-Merton options-pricing model to determine the fair value of stock options under SFAS No. 123(R), *Share Based Payment*. Management is required to make certain assumptions with respect to selected model inputs, including anticipated changes in the underlying stock price (i.e., expected volatility) and option exercise activity (i.e., expected term). For awards granted subsequent to January 1, 2006, expected volatility is based on the historical volatility of ATMI common stock for a period shorter than the expected term of the options. We have excluded the historical volatility prior to the public announcement regarding the sale of our non-core businesses in 2004, because those businesses that were sold represented a significant portion of ATMI's consolidated business and were subject to considerable cyclicity associated with the semiconductor equipment industry, which drove increased volatility in ATMI's stock price. The expected term of options granted represents the period of time that options are expected to be outstanding. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant for a period commensurate with the estimated expected term. We recognize expense only for those awards expected to vest. If factors change and result in different assumptions in the application of SFAS No. 123(R) in future periods, the stock option expense that the Company records for future grants may differ significantly from what the Company has recorded in the current period.

Equity-based compensation expense is generally recognized on a straight-line basis over the estimated service period of the awards.

Fair Value Measurements

We adopted SFAS No. 157, *Fair Value Measurements*, on January 1, 2008, with the exception of the application of the statement to nonrecurring nonfinancial assets and nonfinancial liabilities, the deferral of which was permitted under FSP 157-2. All of our financial assets and liabilities are measured at fair value based upon Level 1 or Level 2 inputs, as defined under SFAS No. 157, with the exception of one auction-rate security, which has been measured using Level 3 inputs, because the security is illiquid. For Level 1 measurements, we use quoted prices in active markets for identical assets and liabilities. For Level 2 measurements, we use observable inputs other than Level 1 prices, such as quoted prices for similar assets and liabilities; quoted prices in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated by observable market data for substantially the full term of the assets or liabilities. For Level 3 measurements, we use unobservable inputs to the valuation methodology that are significant to the measurement of fair value of assets or liabilities. As of December 31, 2008, we have recorded a temporary impairment charge of \$1.3 million within the caption "Accumulated other comprehensive income" on the consolidated balance sheets based upon an independent third-party valuation we received for this auction-rate security. The valuation of this security incorporated assumptions about the anticipated term and the yield that a market participant would require to purchase such a security in the current market environment. While we believe the valuation methodologies are appropriate, the use of valuation methodologies is highly judgmental and changes in methodologies can have a material impact on the values of the related assets, our financial position, and overall liquidity.

Goodwill and Other Intangible Assets

The assets and liabilities of acquired businesses are recorded under the purchase method of accounting at their estimated fair values at the dates of acquisition. Goodwill represents costs in excess of fair values assigned to the underlying net assets of acquired businesses.

Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to annual impairment testing. The identification and measurement of goodwill impairment involves the estimation of the fair value of reporting units. The estimates of fair value of reporting units are based on the best information available as of the date of the assessment, which primarily incorporate management assumptions about expected future cash flows and contemplate other valuation techniques. Future cash flows can be affected by changes in the global economy and local economies, changes in the microelectronics industry, changes in technology, and the execution of management's plans. Although no goodwill impairment has been recorded to date, there can be no assurances that future goodwill impairments will not occur.

Other Long-Lived Amortizable Assets

We evaluate the potential impairment of other long-lived assets when appropriate. If the carrying value of assets exceeds the sum of the undiscounted expected future cash flows, the carrying value of the asset is written down to fair value.

Recent Accounting Pronouncements

See Note 1 to the Consolidated Financial Statements for information concerning recently issued accounting pronouncements.

Related Party Transactions

The Company's related parties are primarily unconsolidated equity affiliates. The Company did not engage in any material transactions involving related parties that included terms or other aspects that differ from those which would be negotiated with independent parties.

Results of Operations

This table shows the effect of compensation cost arising from equity-based payment arrangements on the Consolidated Statements of Income (in thousands):

December 31,	2008	2007	2006
Cost of revenues	\$ 339	\$ 375	\$ 910
Research and development	530	432	773
Selling, general, and administrative	5,831	6,791	7,681
Total equity-based			
compensation expense	6,700	7,598	9,364
Provision for income taxes	2,237	2,556	3,137
Net equity-based			
compensation expense	\$4,463	\$5,042	\$6,227

Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

Overview

During the year ended December 31, 2008, ATMI's revenues declined by 6.9 percent compared to the year ended December 31, 2007, primarily due to the global economic downturn, which began in earnest in the second half of 2008 and drove significant declines in demand across almost all segments of the economy. Future reductions in wafer starts in the microelectronics industry, including foundries, and other logic and memory chip manufacturers, are expected to continue to adversely affect the Company's near-term results. Our gross margin declined by 80 basis points to 49.1 percent in 2008 compared to 49.9 percent in 2007, due to lower revenue volumes, increased costs reflected in cost of revenues as a result of the redirection of certain supply chain and operations activities associated with our 2007 organizational changes, which was effective beginning January 1, 2008 (such costs were previously reflected in selling, general, and administrative expenses ("SG&A")), and higher logistics costs due to fuel surcharges in the first half of the year. The realignment of operations activities caused gross margin and SG&A to decline by approximately 180 basis points in 2008 compared to 2007. These activities include those functions in two of our locations that were previously focused on supporting and administering plant operations, whereas in the current organization those activities have been focused on improving our global supply chain and customer satisfaction. Research and development expenses ("R&D") increased 26.5 percent to \$37.8 million in 2008 from \$29.9 million in 2007. The increase was driven primarily by the continued investment in our global high productivity development activities. SG&A decreased by 10.5 percent in 2008 from 2007. As a percent of revenues, SG&A decreased to 26.2 percent in 2008 compared to 27.3 percent in 2007. The decrease is primarily because of the organizational realignment discussed above, and reductions in discretionary spending as a result of the global economic downturn. Operating income decreased 24.0 percent in 2008 to \$39.9 million, primarily due to the decline in revenues. During 2008, we recognized impairments of \$3.4 million on our strategic investment portfolio and a convertible note, partially offset by a recognized gain of \$2.0 million from the sale of a marketable security, and \$1.1 million of after-tax income representing our proportionate share of gains on sales of assets by one of our equity-method investees. Our effective tax rate was 17.0 percent in 2008, inclusive of a \$3.7 million tax benefit (including interest), compared to 31.8 percent in 2007. Net income decreased 17.8 percent to \$33.3 million (\$1.04 per diluted share, a 10.3 percent decrease) compared to \$40.5 million (\$1.16 per diluted share) in 2007.

During 2008, we repurchased 2.1 million shares of our common stock, for \$58.3 million under our share repurchase program, compared to 2.2 million shares of our common stock, repurchased for \$68.5 million in 2007.

This is a summary of selected consolidated earnings information (in thousands of dollars):

December 31,	2008	2007	% Change
Revenues	\$339,063	\$364,088	(6.9)%
Cost of revenues	172,551	182,480	(5.4)%
Gross profit	166,512	181,608	(8.3)%
Gross margin	49.1%	49.9%	(0.8)%
Research and development	37,809	29,879	26.5%
R&D as a percent of revenues	11.1%	8.2%	2.9%
Selling, general, and administrative	88,781	99,227	(10.5)%
SG&A as a percent of revenues	26.2%	27.3%	(1.1)%
Operating income	39,922	52,502	(24.0)%
Operating margin	11.8%	14.4%	(2.6)%
Effective tax rate	17.0%	31.8%	(14.8)%
Net income	\$ 33,327	\$ 40,539	(17.8)%
Diluted earnings per share	\$1.04	\$1.16	(10.3)%

Revenues. Revenues decreased 6.9 percent to \$339.1 million in 2008 from \$364.1 million in 2007. The decline in revenues occurred in our microelectronics product lines and was primarily the result of the global economic downturn, which resulted in significant reductions in wafer starts and reductions in fab utilization rates as demand for consumer electronics devices has slowed. Revenues in our microelectronics product lines declined 9.7 percent to \$310.1 million in 2008 compared to \$343.3 million in 2007. The primary driver of the reduction in revenues was wafer starts, which began to significantly decline during the last several months of 2008. The decline in our revenues was further magnified by reductions of inventory in the SDS and flat-panel display distribution channels, as well as our customers' aggressive management of their inventories. Consumer electronics spending, the primary driver of wafer start growth, has declined dramatically since the end of the previous year, and it's difficult to predict when this demand trend will improve. The 2008 revenues include a \$3.7 million benefit associated with settlement of a dispute with our manufacturing and distribution partner for SDS products. Reductions in average selling prices of our products accounted for approximately 3.2 percent of the decline in microelectronics revenues. Revenues in our life sciences product lines increased 39.2 percent in 2008 to \$28.9 million compared to \$20.8 million in 2007. More than half of the increase in life sciences revenues came from LevTech, which we acquired in January 2008, with the remaining increase being driven by new products, as disposable mixing solutions gained traction in the biopharmaceutical markets, and limited pricing increases. The effect of foreign currency was not significant in 2008 as declines associated with weakness in the Korean Won were offset by strengthening in the Japanese Yen and the Euro.

Gross Profit. Gross profit decreased 8.3 percent to \$166.5 million in 2008 from \$181.6 million in 2007. Our gross margin percentage decreased during this time period from 49.9 percent in 2007 to 49.1 percent in 2008. Approximately 180 basis points of the gross margin decline is a result of the redirection of certain supply chain and operations activities discussed above. Gross profit in our microelectronics product lines decreased 10 percent to \$155.0 million in 2008 from \$172.8 million in 2007. Gross profit margins in our microelectronics product lines were approximately 50 percent in both 2008 and 2007. The 2008 gross profit margins included benefits from the distributor settlement

(approximately 100 basis points) and the business interruption claim recovery (approximately 80 basis points), both mentioned above. Gross profit margins were unfavorably impacted by the volume and average selling price declines, discussed above, and higher logistics costs due to fuel surcharges in the first half of 2008. The 2007 gross profit margins in our microelectronics product lines were negatively impacted by lower shipment volumes in our materials packaging product lines due to flat-panel display market softness in the first half of 2007, \$1.1 million of increased customs expenses on imported goods from the United States to an overseas subsidiary, and also due to the consequences of a manufacturing defect, which was since remedied. Gross profit in our life sciences product lines increased 31 percent to \$11.5 million in 2008 compared to \$8.8 million in 2007. Gross profit margins in our life sciences product lines declined by over 200 basis points from 42 percent in 2007 to 40 percent in 2008. The primary reasons for the decline in gross profit margins in the life sciences product lines were the realignment of certain supply chain and operations activities discussed above (negative impact of approximately 480 basis points), partially offset by average selling price increases for certain products (favorable impact of approximately 85 basis points) and the benefit from the LevTech acquisition (approximately 200 basis points).

Research and Development Expenses. R&D increased 26.5 percent to \$37.8 million in 2008 from \$29.9 million in 2007. The increase in R&D spending was primarily caused by planned increases in spending associated with high productivity development activities related to cleans chemistries (including \$5.7 million of higher licensing and outsourced development costs, \$3.0 million of higher staffing related expenses, and \$0.7 million of higher equipment depreciation costs). As a percentage of revenues, R&D spending was 11.1 percent in 2008 compared to 8.2 percent in 2007. The spending in 2008 was higher as a percent of revenues than we had planned, primarily because revenues were lower than expected for the reasons noted above. We plan to continue to actively invest in our high productivity development capabilities in the foreseeable future, because we believe this investment will drive significant new opportunities in cleans chemistries and other new products and will be a competitive advantage for ATMI.

Selling, General, and Administrative Expenses. SG&A decreased 10.5 percent (or \$10.4 million) to \$88.8 million in 2008 from \$99.2 million in 2007. SG&A, as a percentage of revenues, decreased to 26.2 percent in 2008 compared to 27.3 percent in 2007. Approximately \$6.0 million of the decline is due to the realignment of activities as a result of the functional organization changes mentioned above. Other cost reductions from 2007 include incentive compensation (\$2.6 million), legal litigation costs (\$2.4 million), and travel (\$1.1 million), partially offset by net increases in salaries (\$1.1 million) and facilities-related costs (\$1.2 million).

Operating Income. Operating income decreased 24.0 percent to \$39.9 million in 2008, or 11.8 percent of revenues, from \$52.5 million in 2007, or 14.4 percent of revenues. These changes are from a variety of factors, as noted above.

Interest Income. Interest income decreased to \$3.1 million in 2008 from \$7.7 million in 2007. The primary reasons for the decrease were lower invested cash and marketable securities balances as a result of the Company's share repurchase program, the acquisition of LevTech, capi-

tal spending and other strategic investments, and lower rates of return given the significant reduction in market interest rates in 2008.

Impairment of Investments. In 2008, Ceradyne, Inc. completed its acquisition of SemEquip, Inc. ("SemEquip"), an entity in which ATMI had previously invested. Prior to the acquisition, ATMI's cost-basis investment in SemEquip was \$2.2 million. ATMI received \$0.6 million representing its share of the closing proceeds. As a result, we wrote off the remaining \$1.6 million balance from our investment in SemEquip due to the uncertainty of collecting amounts in the future related to the earnout provisions of the deal. Also in 2008, due to changes in events and circumstances related to a convertible note due from an early-stage semiconductor materials venture that is in bankruptcy, we recognized an impairment charge of \$1.8 million to fully write down the value of this convertible note.

Other Income (Expense), Net. The 2008 results include \$0.6 million of losses from investments accounted for by the equity method, net of a \$1.1 million gain, representing our after-tax, proportionate share from the sale of assets by an equity-method investee, a \$2.0 million gain from the sale of a marketable security, and \$0.6 million of realized losses on foreign exchange.

Provision for Income Taxes. In 2008, we reduced our income tax provision by \$3.7 million (including interest), by reversing previously established reserves, as a result of the lapse of the applicable statute of limitations. The effective tax rate for 2008 was 17.0 percent compared to an effective tax rate of 31.8 percent in 2007. Excluding the tax benefit, our effective tax rate was 26.3 percent in 2008. The 2008 effective tax rate of 17.0 percent differs from the Federal statutory rate of 35.0 percent primarily due to R&D tax credits, the shift in mix of our pretax income to lower income tax jurisdictions, and the tax benefit described above. As of December 31, 2008, the Company had a net deferred tax asset on the balance sheet of \$3.1 million, primarily because of temporary differences (i.e., accrued liabilities, inventory adjustments, equity-based compensation, and depreciation and amortization), state tax credit carryforwards, federal and state net operating loss carryforwards, and R&D tax credits in Taiwan. The Company has been audited in the United States by the Internal Revenue Service through tax year 2005 and is currently undergoing an audit of its 2006 and 2007 tax years.

Year Ended December 31, 2007 Compared to Year Ended December 31, 2006

Overview

During the year ended December 31, 2007, ATMI's revenues grew by 11.7 percent compared to the year ended December 31, 2006. Gross margin decreased slightly to 49.9 percent in 2007 compared to 50.1 percent in 2006. Research and development expenses ("R&D") increased 14.0 percent in 2007 compared to 2006. As a percent of revenues, R&D increased to 8.2 percent in 2007 from 8.0 percent in 2006. Selling, general, and administrative expenses ("SG&A") increased by 10.1 percent in 2007 compared to 2006. As a percent of revenues, SG&A decreased slightly to 27.3 percent in 2007 compared to 27.7 percent in 2006. A \$1.1 million legal fee (associated with a contingent fee arrangement) recognized in 2007 caused SG&A to increase 0.3 percent of revenues. Net income for the year increased 1.4 percent to \$40.5 million, (\$1.16 per diluted share) compared to \$40.0 million, (\$1.08 per diluted share) in 2006. The 2006 results included recognition of a \$1.7 million tax benefit

(\$0.04 per diluted share).

This is a summary of selected consolidated earnings information (in thousands of dollars):

December 31,	2007	2006	% Change
Revenues	\$364,088	\$325,913	11.7%
Cost of revenues	182,480	162,530	12.3%
Gross profit	181,608	163,383	11.2%
Gross margin percent	49.9%	50.1%	(0.2)%
Research and development	29,879	26,217	14.0%
R&D as a percent of revenues	8.2%	8.0%	0.2%
Selling, general, and administrative	99,227	90,149	10.1%
SG&A as a percent of revenues	27.3%	27.7%	(0.4)%
Operating income	52,502	47,017	11.7%
Operating margin	14.4%	14.4%	—
Effective tax rate	31.8%	28.5%	3.3%
Net income	\$ 40,539	\$ 39,961	1.4%
Diluted earnings per share	\$1.16	\$1.08	7.4%

Revenues. Revenues increased 11.7 percent to \$364.1 million in 2007 from \$325.9 million in 2006. This increase was broad-based across our product portfolio. Revenues from our microelectronics product lines increased 10.2 percent, from \$311.4 million in 2006 to \$343.3 million in 2007. During this period of time, independent market research estimated wafer-start growth at 6-9 percent depending on the source of the research. Our revenues grew faster than the industry average given our focus on copper materials, which are needed for the new advanced technology nodes (which represent smaller chip sizes). Wafer starts in advanced technology nodes grow faster than older technologies because our customers invest in new technologies to meet the increasing performance requirements of new consumer electronic products. The growth in wafer starts was driven primarily by the growth in the global consumer electronics market during the period. Revenues from our life sciences product lines increased 43.4 percent from \$14.5 million to \$20.8 million. Approximately one-half of this growth was driven by new product revenues and one-half was driven by growth in the biopharmaceutical market. Pricing changes did not have a material impact on revenues during the period.

Gross Profit. Gross profit increased 11.2 percent to \$181.6 million in 2007 from \$163.4 million in 2006. Our gross margin percentage decreased slightly during this time period from 50.1 percent in 2006 to 49.9 percent in 2007. Gross profit in our microelectronics product lines increased 10 percent to \$172.8 million in 2007 from \$157.0 million in 2006. Gross profit in our life sciences product lines increased 37 percent to \$8.8 million in 2007 from \$6.4 million in 2006. The gross profit margins in our microelectronics product lines were approximately 50 percent in both 2007 and 2006, respectively. The 2007 gross profit margins in our microelectronics product lines were negatively impacted by lower shipment volumes in our materials packaging product lines because of softness in the flat-panel display market in the first half of 2007, \$1.1 million of increased customs expenses on imported goods from the United States to an overseas affiliate, and also due to the effect of a manufacturing defect in this product line in the first half of 2007. The 2006 gross profit margins in our microelectronics product lines were positively impacted by the effect of a one-time \$1.4 million recovery of value-added-tax ("VAT") by our Japanese subsidiary related to 2005. Gross profit margins in our life sciences product lines decreased by approxi-

mately 200 basis points in 2007 to 42 percent from 44 percent in 2006. The decline in life sciences gross profit margins was primarily due to raw materials price increases that could not be passed on to customers (unfavorable impact of approximately 125 basis points) and unfavorable product mix and manufacturing inefficiencies (unfavorable impact of approximately 75 basis points).

Research and Development Expenses. R&D increased 14.0 percent to \$29.9 million in 2007 from \$26.2 million in 2006. The increase in R&D spending was primarily attributable to collaborative research activities with a strategic investment partner related to cleans chemistries and the development of new products such as RegenSi, AutoClean, and CMPlicity. Although R&D spending increased 14.0 percent in dollar terms, it remained relatively flat as a percentage of revenues at 8.2 percent in 2007 compared to 8.0 percent in 2006.

Selling, General, and Administrative Expenses. SG&A increased 10.1 percent to \$99.2 million in 2007 from \$90.1 million in 2006, which was below the 11.7 percent growth rate of revenues. SG&A, as a percentage of revenues decreased slightly to 27.3 percent in 2007 compared to 27.7 percent in 2006. Despite a \$0.9 million reduction in equity-based compensation expense from true ups associated with forfeitures and resulting changes in the forfeiture rate estimates for future periods, SG&A grew by \$9.1 million in 2007 compared to 2006, primarily because of increased employee-related costs, as salaries increased \$4.6 million and benefits increased \$0.9 million. Other cost increases included consultants and professional services of \$1.2 million, depreciation on facilities of \$1.0 million, and legal fees of \$1.1 million.

Operating Income. Operating income increased 11.7 percent to \$52.5 million in 2007, or 14.4 percent of revenues, from \$47.0 million in 2006, or 14.4 percent of revenues. These changes are from a variety of factors, as noted above.

Interest Income. Interest income decreased to \$7.7 million in 2007 from \$8.4 million in 2006. The decrease is primarily from lower invested cash and marketable securities balances resulting from cash used to repurchase shares of the Company's common stock and a shift to lower-yielding tax-exempt securities.

Provision for Income Taxes. In 2006, we reduced our income tax provision by \$1.7 million, by reversing previously established reserves, as a result of the lapse of the applicable statute of limitations. Aside from the 2006 tax adjustment mentioned above, the primary driver for the increase in the provision for income taxes in 2007 versus 2006 was the increase in income. The effective tax rate for 2007 was 31.8 percent compared to an effective tax rate of 28.5 percent in 2006. The 2007 effective tax rate of 31.8 percent differs from the Federal statutory rate of 35.0 percent primarily due to foreign income taxes and tax-exempt income, partially offset by state income taxes. The 2006 effective tax rate of 28.5 percent differs from the Federal statutory rate of 35.0 percent primarily due to the recognition of \$1.7 million in tax benefits (which represents approximately 300 basis points), foreign income taxes, tax-exempt income, extra-territorial income ("ETI") exclusion benefits, partially offset by state income taxes. As of December 31, 2007, the Company had a net deferred tax asset of \$4.3 million, primarily from temporary differences (book versus tax), state tax credit carryforwards, and state net operating loss carryforwards.

Liquidity and Capital Resources

We assess liquidity in terms of our ability to generate cash to fund our operating and investing activities. Of particular importance to the management of liquidity are cash flows generated by operating activities, cash used for capital expenditures, cash used to repurchase common stock, and cash obtained through lines of credit.

Until required for use in the business, we invest our cash reserves in bank deposits, certificates of deposit, money market securities, government and government-sponsored bond obligations, and other interest-bearing marketable debt instruments in accordance with our investment policy. The value of these securities may be adversely affected, which could impact our financial position and our overall liquidity. In particular, the value of our investments may be adversely affected by increases in interest rates, instability in the global financial markets that reduces the liquidity of securities included in our portfolio, and by other factors which may result in other-than-temporary declines in value of the investments. Each of these events may cause us to record charges to reduce the carrying value of our investment portfolio or sell investments for less than our acquisition cost. We attempt to mitigate these risks with the assistance of our investment advisors by investing in high-quality securities and continuously monitoring the overall risk profile of our portfolio. We also maintain a well-diversified portfolio that limits our credit exposure through concentration limits set within our investment policy.

We have financed our operating needs, capital expenditures, and share buyback through cash flows from our operations, lines of credit, and existing cash. We expect to finance our current and planned operating requirements principally through cash from operations, as well as existing cash resources. We believe that these funds will be sufficient to meet our operating requirements for the foreseeable future. However, we may, from time to time, seek additional funding through a combination of additional equity and debt financings or from other sources. Due to the current state of the credit markets, we are not able to predict with any certainty whether we could obtain debt or equity financing to provide additional sources of liquidity, should the need arise, at favorable rates or at all.

We continue to invest in R&D to provide future sources of revenue through the development of new products, as well as through additional uses for existing products. We consider R&D and the development of new products and technologies an integral part of our growth strategy and a core competency of the Company. Likewise, we continue to make capital expenditures in order to expand and modernize manufacturing facilities around the globe and to drive efficiencies throughout the organization. Additionally, management considers, on a continuing basis, potential acquisitions of strategic technologies and businesses complementary to the Company's current business.

A summary of our cash flows follows (in thousands):

Year Ended December 31,	2008	2007
Cash provided by (used for):		
Operating activities	\$ 60,616	\$ 64,944
Investing activities	(52,656)	20,474
Financing activities	(56,541)	(53,294)
Effects of exchange rate changes on cash	(1,600)	(913)

Net cash provided by operating activities decreased by \$4.3 million primarily from:

- Decrease in net income of \$7.2 million
- Cash provided by changes in deferred income taxes of \$2.0 million compared to cash used related to changes in deferred income taxes of \$1.5 million
- Increase in cash provided by changes in accounts receivable of \$25.0 million, due to the reduction in revenues and also to timing of collections
- Increase in cash used related to changes in inventories of \$8.7 million, due primarily to safety stock builds in 2008 (life sciences and SDS product lines), and revenue declines
- Cash used related to changes in accounts payable of \$8.7 million compared to cash provided by changes in accounts payable of \$2.2 million, due primarily to timing of payments
- Cash used related to changes in income taxes payable of \$5.8 million compared to cash provided by changes in income taxes payable of \$3.9 million.

Net cash used by investing activities increased \$73.1 million primarily from:

- Increase in capital spending of \$15.4 million, primarily because of the purchase of research tools used in our high productivity development activities
- Increase in acquisitions of \$33.1 million, due to the \$27.7 million purchase of LevTech, Inc. and \$5.4 million paid for certain assets acquired from Artelis
- Increase in cash paid for cost-basis and equity-basis investments of \$6.7 million (\$10 million investment in Intermolecular in 2008)
- Decrease in net cash proceeds from purchases and sales of marketable securities of \$17.7 million.

Net cash used for financing activities increased by \$3.2 million primarily from:

- Decrease of \$12.6 million in proceeds from stock option exercises in 2008
- Decrease in treasury stock purchases of \$9.2 million.

Summary of Contractual Obligations

This is a summary of consolidated debt, lease, purchase, and other obligations at December 31, 2008 (see Notes 4, 7, 9, 10, and 15 of the Consolidated Financial Statements (in thousands):

	Total	Payments Due by Period			
		Less than 1 Year	1-3 Years	4-5 Years	Thereafter
Contractual obligations:					
Capital leases	\$ 156	\$ 75	\$ 81	\$ —	\$ —
Operating leases	8,396	3,577	3,970	849	—
Purchase obligations:					
Inventory purchases	1,895	1,895	—	—	—
Capital expenditures (1)	5,464	5,464	—	—	—
Other (2)	12,495	12,495	—	—	—
Total purchase obligations	19,854	19,854	—	—	—
Standby Letters of Credit	4,600	—	4,600	—	—
Line of Credit	1,102	1,102	—	—	—
Other long-term liabilities (3)	3,918	—	3,550	—	368
Total debt, lease, purchase, and other long-term liability obligations	\$38,026	\$24,608	\$12,201	\$849	\$368

(1) Includes \$4.2 million commitment to purchase HPC tool for research and development.

(2) Includes \$7.9 million commitment to purchase services associated with a strategic alliance partner.

(3) Includes \$3.4 million of asset retirement obligations.

Off-Balance Sheet Arrangements

ATMI has entered into a pledge agreement with Anji Microelectronics Co., Ltd. ("Anji") for the issuance of a standby letter of credit up to \$4.6 million in order to assist Anji in securing bank financing, which is to expire no later than June 30, 2010. The standby letter of credit has been secured by Anji's assets and additional equity interests in Anji's operating subsidiaries. As of December 31, 2008, Anji has drawn down \$2.8 million against the line of credit secured by the letter of credit. ATMI would be obligated to perform against this letter of credit in the event of Anji's nonperformance.

Operations Outside the United States

For the years ended December 31, 2008, 2007, and 2006, sales outside the United States, including Asia and Europe, accounted for 77.3 percent, 76.7 percent, and 68.1 percent, respectively, of the Company's revenues. Sales to Taiwan for the years ended December 31, 2008, 2007, and 2006 were 23.5 percent, 24.5 percent, and 20.7 percent, respectively, of the Company's revenues. Sales to Japan for the years ended December 31, 2008, 2007, and 2006 were 12.7 percent, 12.6 percent, and 14.4 percent, respectively, of the Company's revenues. Sales to South Korea for the years ended December 31, 2008, 2007, and 2006 were 13.8 percent, 13.5 percent, and 11.2 percent, respectively, of the Company's revenues. Management anticipates that the Company's sales outside the United States will continue to account for a significant percentage of total revenues.

The Company has wholly-owned subsidiaries in Taiwan, Singapore, China, Japan, and Germany where the Company sells and services several product lines. The Company also has a wholly-owned subsidiary in South Korea that manufactures, sells, and distributes materials packaging, materials delivery equipment, and thin-film materials to the semiconductor and flat-panel display markets in South Korea. In addition, the Company has a wholly-owned subsidiary in Belgium where it manufactures and sells high-purity materials packaging products.

Cautionary Statements Under the Private Securities Litigation Reform Act of 1995

Forward-Looking Statements

Disclosures included in this Annual Report contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements may be identified by words such as "anticipate," "plan," "believe," "seek," "estimate," "expect," "could," and words of similar meanings and include, without limitation, statements about the expected future business and financial performance of ATMI such as financial projections, expectations for demand and sales of new and existing products, customer and supplier relationships, research and development programs, market and technology opportunities, international trends, business strategies, business opportunities, objectives of management for future operations, microelectronics

industry (including wafer start) growth, and trends in the markets in which the Company participates. Forward-looking statements are based on management's current expectations and assumptions, which are inherently subject to uncertainties, risks, and changes in circumstances that are difficult to predict. Investors and others should consider the cautionary statements and risk factors discussed on Form 10-K. Actual outcomes and results may differ materially from these expectations and assumptions because of changes in political, economic, business, competitive, market, regulatory, and other factors. ATMI undertakes no obligation to update publicly or review any forward-looking statements, whether as a result of new information, future developments or otherwise, except as required by law.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

As of December 31, 2008, the Company's cash and cash equivalents and marketable securities included bank deposits, certificates of deposit, money market securities, and government and government-sponsored bond obligations. As of December 31, 2008, an increase of 100 basis points in interest rates on securities with maturities greater than one year would reduce the fair value of the Company's marketable securities portfolio by approximately \$0.4 million. Conversely, a reduction of 100 basis points in interest rates on securities with maturities greater than one year would increase the fair value of the Company's marketable securities portfolio by approximately \$0.4 million.

Foreign Currency Exchange Risk

Most of the Company's sales are denominated in U.S. dollars and as a result, the Company doesn't have any significant exposure to foreign currency exchange risk with respect to sales made. Approximately 28 percent of the Company's revenues for the year ended December 31, 2008 were denominated in Japanese Yen ("JPY"), Korean Won, and Euros, but a majority of the product is sourced in U.S. dollars. Management periodically reviews the Company's exposure to currency fluctuations. This exposure may change over time as business practices evolve and could have a material effect on the Company's financial results in the future. We use forward foreign exchange contracts to hedge specific exposures relating to intercompany payments and anticipated, but not yet committed, intercompany sales (primarily parent company export sales to subsidiaries at pre-established U.S. dollar prices). The terms of the forward foreign exchange contracts are generally matched to the underlying transaction being hedged, and are typically under one year.

Because such contracts are directly associated with identified transactions, they are an effective hedge against fluctuations in the value of the foreign currency underlying the transaction. We recognize in earnings (Other income (expense), net) changes in the fair value of all derivatives designated as fair value hedging instruments that are highly effective and recognize in accumulated other comprehensive income any changes in the fair value of all derivatives designated as cash flow hedging instruments that are highly effective and meet the other related accounting requirements. We generally do not hedge overseas sales denominated in foreign currencies or translation exposures. Further, we do not enter into derivative instruments for trading or speculative purposes and all of our derivatives were highly effective throughout the periods reported.

At December 31, 2008, we held forward foreign currency exchange contracts designated as fair value hedges with notional amounts totaling \$3.9 million, which are being used to hedge recorded foreign denominated liabilities and which will be settled in JPY. Holding other variables constant, if there were a 10 percent decline in foreign exchange rates for the JPY, the fair market value of the JPY contracts outstanding at December 31, 2008 would decrease by approximately \$0.5 million, which would be expected to be fully offset by foreign exchange gains on the amounts being hedged. The effect of an immediate 10 percent change in other foreign exchange rates would not be expected to have a material effect on the Company's future operating results or cash flows.

Changes in Market Risk

Global credit and financial markets have been experiencing extreme disruptions in recent months, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability. There can be no assurance that there will not be further deterioration in credit and financial markets and confidence in economic conditions. These economic uncertainties affect businesses such as ours in a number of ways, making it difficult to accurately forecast and plan our future business activities. The current tightening of credit in financial markets may lead consumers and businesses to postpone spending, which may cause our customers to delay their future orders with us. In addition, financial difficulties experienced by our suppliers or distributors could result in product delays, increased accounts receivable defaults, and inventory challenges. We are unable to predict the likely duration and severity of the current disruptions in the credit and financial markets and adverse global economic conditions, and if the current uncertain economic conditions continue or further deteriorate, our business and results of operations could be materially and adversely affected.

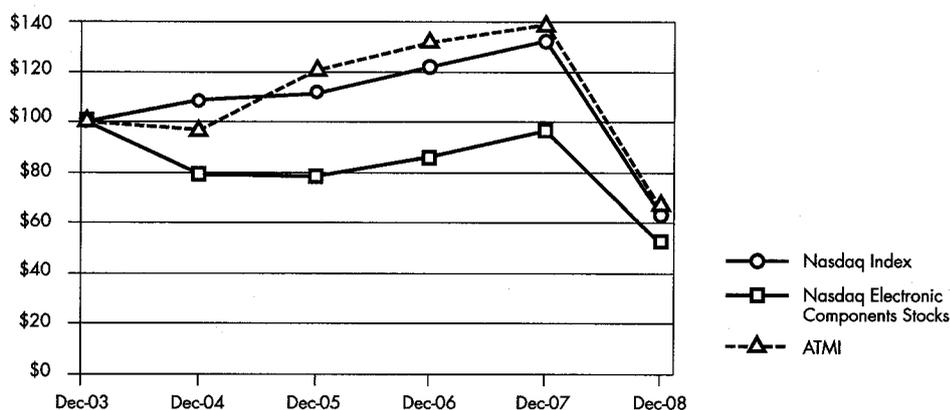
Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based upon this evaluation, our CEO and CFO concluded that, as of the end of the period covered by this Annual Report, our disclosure controls and procedures were effective in that they provided reasonable assurance that the information we are required to disclose in the reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Stock Performance

The following graph compares the cumulative total stockholder return on the Company's Common Stock with the return on the Total Return Index for the Nasdaq Global Select Market (U.S.) and the Nasdaq Electronic Components Stock Index. The measurement assumes a \$100 investment as of December 31, 2003 with all dividends, if any, reinvested. The data presented are on an annual basis for the five years ended December 31, 2008. The performance shown is not necessarily indicative of future performance.



TOTAL RETURN CALCULATION

Date	Relative Stock Performance		
	Nasdaq Index	Nasdaq Electronic Components Stocks	ATMI
12/31/03	100.000	100.000	100.000
12/31/04	108.835	79.089	97.070
12/30/05	111.155	78.361	120.508
12/29/06	122.109	86.145	131.538
12/31/07	132.420	96.582	138.949
12/31/08	63.803	52.093	66.480

PRICE RANGE OF COMMON STOCK

Fiscal Year Ended December 31, 2008

	High	Low
1st Quarter	\$32.53	\$25.40
2nd Quarter	31.11	27.00
3rd Quarter	28.18	15.02
4th Quarter	17.81	8.70

Fiscal Year Ended December 31, 2007

	High	Low
1st Quarter	\$35.00	\$ 29.42
2nd Quarter	32.49	29.17
3rd Quarter	36.05	27.51
4th Quarter	34.57	28.90

As of January 30, 2009, there were approximately 163 holders of record of the common stock.

Consolidated Balance Sheets

(in thousands, except per share data)

December 31,	2008	2007
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 54,626	\$ 104,807
Marketable securities, current portion	37,739	88,890
Accounts receivable, net of allowances of \$958 and \$670, respectively	42,229	61,405
Inventories, net	55,986	48,885
Income taxes receivable	4,847	1,104
Deferred income taxes	6,947	5,199
Prepaid expenses and other current assets	15,585	17,133
Total current assets	217,959	327,423
Property, plant, and equipment, net	136,425	106,171
Goodwill	33,355	13,730
Other intangibles, net	27,202	17,407
Marketable securities, non-current	3,655	—
Deferred income taxes, non-current	1,581	—
Other long-term assets	32,887	27,510
Total assets	\$ 453,064	\$ 492,241
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 12,867	\$ 22,735
Accrued liabilities	5,277	8,380
Accrued salaries and related benefits	6,445	10,961
Income taxes payable	635	2,647
Loans and notes payable, current	1,102	—
Other current liabilities	1,538	2,479
Total current liabilities	27,864	47,202
Deferred income taxes, non-current	5,469	912
Other long-term liabilities	10,834	9,744
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Preferred stock, par value \$.01 per share: 2,000 shares authorized; none issued	—	—
Common stock, par value \$.01 per share: 100,000 shares authorized; 39,199 and 38,981 issued and 31,268 and 33,164 outstanding in 2008 and 2007, respectively	392	390
Additional paid-in capital	421,040	412,423
Treasury stock at cost (7,931 and 5,817 shares in 2008 and 2007, respectively)	(227,101)	(168,844)
Retained earnings	214,300	180,973
Accumulated other comprehensive income	266	9,441
Total stockholders' equity	408,897	434,383
Total liabilities and stockholders' equity	\$ 453,064	\$ 492,241

See accompanying notes.

Consolidated Statements of Income

(in thousands, except per share data)

Year Ended December 31,	2008	2007	2006
Revenues	\$339,063	\$364,088	\$325,913
Cost of revenues	172,551	182,480	162,530
Gross profit	166,512	181,608	163,383
Operating expenses:			
Research and development	37,809	29,879	26,217
Selling, general, and administrative	88,781	99,227	90,149
Total operating expenses	126,590	129,106	116,366
Operating income	39,922	52,502	47,017
Interest income	3,126	7,689	8,353
Impairment of investments	(3,432)	—	(260)
Other income (expense), net	530	(788)	746
Income before income taxes	40,146	59,403	55,856
Provision for income taxes	6,819	18,864	15,895
Net income	\$ 33,327	\$ 40,539	\$ 39,961
Earnings per common share—basic	\$1.06	\$1.19	\$1.11
Weighted-average shares outstanding—basic	31,447	34,169	36,083
Earnings per common share—diluted	\$1.04	\$1.16	\$1.08
Weighted-average shares outstanding—diluted	32,078	35,093	36,859

See accompanying notes.

Consolidated Statements of Stockholders' Equity

(in thousands)	Common Stock	Additional Paid-in Capital	Deferred Equity- Based Compen- sation	Treasury Stock	Retained Earnings	Accumulated Other Compre- hensive Income (Loss)	Total
Balance at December 31, 2005	\$ 379	\$ 367,393	\$(5,506)	\$ (12,118)	\$ 100,473	\$ 2,099	\$ 452,720
Issuance of 663 shares of common stock pursuant to the exercise of employee stock options	6	14,087	—	—	—	—	14,093
Issuance of 85 shares of common stock pursuant to the employee stock purchase plan	1	1,770	—	—	—	—	1,771
Purchase of 3,163 treasury shares	—	—	—	(88,187)	—	—	(88,187)
Reclassification of deferred equity-based compensation	—	(5,506)	5,506	—	—	—	9,364
Equity-based compensation	—	9,364	—	—	—	—	9,364
Income tax benefit from equity-based compensation	—	2,235	—	—	—	—	2,235
Other	(3)	3	—	—	—	—	—
Net income	—	—	—	—	39,961	—	39,961
Reclassification adjustment related to marketable securities sold in unrealized gain position, net of \$321 tax provision	—	—	—	—	—	547	547
Change in fair value on available-for-sale securities, net of deferred income tax of \$800	—	—	—	—	—	178	178
Change in fair value of derivative financial instruments, net of deferred income tax of \$105	—	—	—	—	—	—	—
Cumulative translation adjustment	—	—	—	—	—	2,814	2,814
Comprehensive income	—	—	—	—	—	—	43,500
Balance at December 31, 2006	383	389,346	—	(100,305)	140,434	5,638	435,496
Issuance of 589 shares of common stock pursuant to the exercise of employee stock options	6	13,692	—	—	—	—	13,698
Issuance of 17 shares of common stock pursuant to the employee stock purchase plan	1	498	—	—	—	—	499
Purchase of 2,224 treasury shares	—	—	—	(68,539)	—	—	(68,539)
Equity-based compensation	—	7,598	—	—	—	—	7,598
Income tax benefit from equity-based compensation	—	1,289	—	—	—	—	1,289
Net income	—	—	—	—	40,539	—	40,539
Reclassification adjustment related to marketable securities sold in unrealized loss position, net of \$694 tax provision	—	—	—	—	—	1,182	1,182
Change in fair value on available-for-sale securities, net of deferred income tax of \$800	—	—	—	—	—	186	186
Change in fair value of derivative financial instruments, net of deferred income tax of \$46	—	—	—	—	—	78	78
Cumulative translation adjustment	—	—	—	—	—	2,357	2,357
Comprehensive income	—	—	—	—	—	—	44,342
Balance at December 31, 2007	390	412,423	—	(168,844)	180,973	9,441	434,383
Issuance of 60 shares of common stock pursuant to the exercise of employee stock options	1	1,318	—	—	—	—	1,319
Issuance of 15 shares of common stock pursuant to the employee stock purchase plan	—	324	—	—	—	—	324
Purchase of 2,113 treasury shares	—	—	—	(58,257)	—	—	(58,257)
Equity-based compensation	—	6,700	—	—	—	—	6,700
Income tax benefit from equity-based compensation	—	276	—	—	—	—	276
Other	1	(1)	—	—	—	—	—
Net income	—	—	—	—	33,327	—	33,327
Reclassification adjustment related to marketable securities sold in unrealized gain position, net of \$925 tax provision	—	—	—	—	—	(1,574)	(1,574)
Change in fair value on available-for-sale securities, net of deferred income tax of \$938	—	—	—	—	—	(1,598)	(1,598)
Reclassification adjustment to earnings related to derivative financial instruments, net of deferred income tax of \$46	—	—	—	—	—	(78)	(78)
Cumulative translation adjustment	—	—	—	—	—	(5,925)	(5,925)
Comprehensive income	—	—	—	—	—	—	24,152
Balance at December 31, 2008	\$ 392	\$ 421,040	\$ —	\$(227,101)	\$ 214,300	\$ 266	\$ 408,897

See accompanying notes.

Consolidated Statements of Cash Flows

(in thousands)

Year Ended December 31,	2008	2007	2006
Operating activities			
Net income	\$ 33,327	\$ 40,539	\$ 39,961
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	24,141	21,795	20,764
Provision for bad debts	300	—	—
Provision for inventory obsolescence	1,544	856	1,480
Deferred income taxes	2,039	(1,507)	(2,279)
Income tax benefit from share-based payment arrangements	276	1,289	2,235
Excess tax benefit from share-based payment arrangements	(241)	(974)	(660)
Equity-based compensation expense	6,700	7,598	9,364
Realized gain on sale of marketable securities	(1,967)	—	—
Loss from equity-method investments	649	989	361
Impairment of investments	3,432	—	260
Impairment of property, plant, and equipment	177	815	153
Other	29	98	(375)
Changes in operating assets and liabilities, net of effect of acquisitions:			
Accounts receivable	20,608	(4,386)	(7,980)
Inventories	(9,489)	(760)	(7,749)
Other assets	2,579	(8,563)	2,535
Accounts payable	(8,698)	2,163	8,095
Accrued expenses	(7,821)	(8,412)	(1,703)
Income taxes	(5,755)	3,868	(2,445)
Other liabilities	(1,214)	9,536	15
Net cash provided by operating activities	60,616	64,944	62,032
Investing activities			
Capital expenditures	(50,621)	(35,271)	(27,560)
Proceeds from the sale of property, plant, and equipment	26	347	362
Acquisitions of cost-basis and equity-basis investments	(10,000)	(3,301)	(2,578)
Acquisitions, net of cash acquired	(33,091)	—	—
Proceeds from sale of a cost-basis investment	—	—	298
Purchases of marketable securities	(44,856)	(240,101)	(179,901)
Proceeds from sales or maturities of marketable securities	85,886	298,800	261,790
Net cash (used for) provided by investing activities	(52,656)	20,474	52,411
Financing activities			
Excess tax benefit from share-based payment arrangements	241	974	660
Purchases of treasury stock	(59,234)	(68,400)	(88,191)
Proceeds from exercise of stock options	1,643	14,195	15,863
Credit line borrowings	13,917	—	—
Credit line repayments	(12,815)	—	—
Other	(293)	(63)	(92)
Net cash used for financing activities	(56,541)	(53,294)	(71,760)
Effects of exchange rate changes on cash and cash equivalents	(1,600)	(913)	(38)
Net (decrease) increase in cash and cash equivalents	(50,181)	31,211	42,645
Cash and cash equivalents, beginning of year	104,807	73,596	30,951
Cash and cash equivalents, end of year	\$ 54,626	\$ 104,807	\$ 73,596

SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:

Cash interest paid	\$ 229	\$ 46	\$ 29
Cash income taxes paid	\$ 14,109	\$ 13,993	\$ 18,830

See accompanying notes.

Notes to Consolidated Financial Statements

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

ATMI, Inc. (the "Company," "ATMI," or "we") believes it is among the leading suppliers of high performance materials, materials packaging, and materials delivery systems used worldwide in the manufacture of microelectronics devices. Our products consist of "front-end" semiconductor performance materials, sub-atmospheric pressure gas delivery systems for safe handling and delivery of toxic and hazardous gases to semiconductor process equipment, high-purity materials packaging, and dispensing systems that allow for the reliable introduction of low volatility liquids and solids to microelectronics and biopharmaceutical processes. ATMI targets both semiconductor and flat-panel display manufacturers, whose products form the foundation of microelectronics technology rapidly proliferating through the consumer products, information technology, automotive, and communications industries. The market for microelectronics devices has historically grown and is continually changing, which drives demand for new products and technologies at lower cost. ATMI's objective is to meet the demands of microelectronics manufacturers with solutions that maximize the efficiency of their manufacturing processes, reduce capital costs, and minimize the time to ramp new processes and deliver new products. ATMI's customers include many of the leading semiconductor and flat-panel display manufacturers in the world who target leading-edge technologies. ATMI also addresses an increasing number of critical materials handling needs for the life sciences markets. Our proprietary containment, mixing, and bioreactor technologies are sold to the biotechnology and laboratory markets, which we believe offer significant growth potential.

Consolidation

The consolidated financial statements include the accounts of all subsidiaries where control exists. Equity investments generally consist of 20 percent to 50 percent-owned operations where the Company exercises significant influence. Operations less than 20 percent owned, where the Company does not exercise significant influence, are generally carried at cost. Earnings from equity investments are reported, net of income taxes, within the caption, "Other income (expense), net" on the Consolidated Statements of Income. Intercompany transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. While actual results could differ, management believes such estimates to be reasonable.

Revenue Recognition and Accounts Receivable

We recognize revenue in accordance with SEC Staff Accounting Bulletin No. 104, *Revenue Recognition* ("SAB 104"), which requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured. Revenues from product sales are generally recognized upon delivery to a common carrier when terms are equivalent to free-on-board ("FOB") origin and upon receipt by a customer when terms are equivalent to FOB destination. In instances where final acceptance of equipment is specified by the purchase agreement, revenue is deferred until all acceptance criteria have been satisfied. Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected. We accrue for sales returns, warranty costs, and other allowances based on a current evaluation of our experience based on stated terms of the transactions.

The Company uses an exclusive contract manufacturer (Matheson Tri-Gas), which is also an exclusive distribution partner, for the manufacture and distribution of its SDS products (the "Licensed Products"). Under the terms of the manufacturing agreement, ATMI retains the right to manufacture 25 percent of all Licensed Products, while the contract manufacturer has the right to manufacture 75 percent of all Licensed Products. Upon completion of manufacture, ATMI purchases all Licensed Products produced by the contract manufacturer. Under the terms of the distribution agreement, ATMI receives payment from the distributor based upon a formula which is dependent on the sale price obtained by the distributor to its customer. ATMI recognizes revenue from the sale of Licensed Products to this distribution partner when the distributor sells the Licensed Products to its customers, because that is when the sales price becomes fixed and determinable by the Company. During the years ended December 31, 2008, 2007, and 2006, ATMI recognized \$83.8 million, \$86.4 million, and \$77.5 million of revenues from this distributor, respectively. During the years ended December 31, 2008, 2007, and 2006, ATMI recognized revenues from a Taiwanese foundry of \$36.6 million, \$38.9 million, and \$24.4 million, respectively.

Billings to customers for shipping and handling are included in revenues. Costs incurred for shipping and handling of products are charged to cost of revenues. Credit is extended to customers based on an evaluation of each customer's financial condition; generally, collateral is not required. However, given the current economic environment, several customers have been put on cash terms. Revenues are presented in the consolidated financial statements net of sales allowances and discounts. Accounts receivable are presented in the consolidated financial statements net of the allowance for doubtful accounts. Taxes collected from customers and remitted to governmental authorities are presented on a net basis; that is, they are excluded from revenues.

Allowance for Doubtful Accounts

The allowance for doubtful accounts is established to represent our best estimate of the net realizable value of the outstanding accounts receivable balances. We estimate our allowance for doubtful accounts based on past due amounts and historical write-off experience, as well as trends and factors surrounding the credit risk of the markets we operate in and the financial viability of specific customers. In an effort to identify adverse trends, we assess the financial health of the markets we operate in and perform periodic credit evaluations of our customers and ongoing reviews of account balances and agings of receivables. Amounts are considered past due when payment has not been received within the time frame of the credit terms extended. Write-offs are charged directly against the allowance for doubtful accounts and occur only after all collection efforts have been exhausted.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities, accounts receivable, and currency forward exchange contracts. The Company invests its cash and cash equivalents and marketable securities in U.S. Government and municipal debt obligations and other corporate debt obligations. The Company had amounts due from two customers that accounted for approximately 39 percent and 40 percent of accounts receivable at December 31, 2008 and 2007, respectively.

Research and Development

Costs associated with the development of new products and improvements to existing products are charged to expense as incurred.

Cash and Cash Equivalents and Marketable Securities

Highly liquid investments with maturities of three months or less, when acquired, are classified as cash and cash equivalents. Investments in publicly traded securities with maturities greater than three months, when acquired, are classified as marketable securities.

We account for marketable securities in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, as amended by FASB Staff Position FAS 115-1 and FAS 124-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments*, ("FSP 115-1"). FSP 115-1 provides guidance on determining when investments in certain debt and equity securities are considered impaired, whether that impairment is other-than-temporary, and on measuring such impairment loss. FSP 115-1 also includes accounting considerations subsequent to the recognition of other-than-temporary impairment losses and requires certain disclosures about unrealized losses that have not been recognized as other-than-temporary impairments. All of the Company's marketable securities are classified as available-for-sale as of the balance sheet date and are reported at fair value, with unrealized gains and losses included in stockholders' equity as a component of accumulated other comprehensive income, net of applicable taxes. Marketable securities that are in a temporarily impaired position, where management has the ability and intent to hold until anticipated recovery or maturity, are classified as either current or non-current based on the remaining contractual maturity of the security. Those securities in a temporarily impaired position with contractual maturities greater than one year are classified as non-current.

At December 31, 2008 and 2007, the Company held time deposits of \$9.5 million and \$10.7 million, respectively, in South Korea which were classified as marketable securities.

Non-marketable Equity Securities

We selectively invest in non-marketable equity securities of private companies, which range from early-stage companies that are often still defining their strategic direction to more mature companies whose products or technologies may directly support an ATMI product or initiative. At December 31, 2008, the carrying value of our portfolio of strategic investments in non-marketable equity securities totaled \$22.4 million (\$15.4 million in 2007), of which \$13.2 million are accounted for at cost (\$5.4 million in 2007), and \$9.2 million are accounted for using the equity method of accounting (\$10.0 million in 2007). Non-marketable equity securities are included in the consolidated balance sheets under the caption "Other long-term assets." ATMI's share of the income or losses of all equity-method investees, using the most current financial information available, which is one month behind ATMI's normal closing date, is included in our results of operations from the investment date forward.

We review our investments quarterly for indicators of impairment; however, for non-marketable equity securities, the impairment analysis may require significant judgment to identify events or circumstances that would likely have a significant adverse effect on the fair value of the investment. The indicators that we use to identify those events or circumstances include (a) the investee's revenue and earnings trends relative to predefined milestones and overall business prospects; (b) the technological feasibility of the investee's products and technologies; (c) the general market conditions in the investee's industry or geographic area, including adverse regulatory or economic changes; (d) factors related to the investee's ability to remain in business, such as the investee's liquidity, and the rate at which the investee is using its cash; and (e) the investee's receipt of additional funding at a lower valuation.

Investments identified as having an indicator of impairment are subject to further analysis to determine if the investment is other-than-temporarily impaired, in which case we write the investment down to its fair value, using the framework established by SFAS No. 157, *Fair Value Measurements*. When an investee is not considered viable from a financial or technological point of view, we write down the entire investment since we consider the estimated fair market value to be nominal. If an investee obtains additional funding at a valuation lower than our carrying amount or requires a new round of equity funding to stay in operation and the new funding does not appear imminent, we presume that the investment is other-than-temporarily impaired, unless specific facts and circumstances indicate otherwise. We recognized a \$1.6 million impairment in our portfolio of non-marketable equity securities in 2008 (none in 2007 and \$0.3 million in 2006). Recognized losses associated with investment impairments are included in the consolidated statements of income under the caption "Impairment of investments."

In July 2005, ATMI purchased 30 percent of the outstanding common stock of Anji Microelectronics Co., Ltd. ("Anji"), an entity in the development stage of researching and developing advanced semiconductor materials with primary operations in Shanghai, China. We have determined that Anji is a variable interest entity, in accordance with Financial Accounting Standards Board ("FASB") Interpretation No. 46(R), *Consolidation of Variable Interest Entities*, ("FIN No. 46(R)"). However, we have determined that we are not the primary beneficiary of Anji because we are not expected to absorb the majority of the expected losses, nor would ATMI receive a majority of the expected residual returns. ATMI accounts for this investment using the equity method of accounting. The carrying value of ATMI's investment in Anji exceeds ATMI's share of Anji's net assets by approximately \$5.6 million. The carrying value of our investment in Anji represents the cash paid, less our share of the losses, and pursuant to an independent valuation obtained, the excess purchase price over the underlying net assets is deemed to be goodwill. At December 31, 2008, the fair value of a guarantee ATMI provided on behalf of Anji was \$0.2 million (see Note 15), and our maximum exposure to loss is \$8.8 million, and consists of \$6.0 million of our carrying value in this investment, plus \$2.8 million outstanding under Anji's bank line of credit, which is guaranteed by ATMI.

Inventories

Inventories are stated at the lower of cost or market, using the first-in, first-out ("FIFO") method. Inventory valuation reserves are established in order to report inventories at the lower of cost or market value on our Consolidated Balance Sheets. The determination of inventory valuation reserves requires management to make estimates and judgments on the future salability of inventories. Valuation reserves for excess, obsolete, and slow-moving inventory are estimated by comparing the inventory levels of individual parts to both future sales forecasts or production requirements and historical usage rates in order to identify inventory where the resale value or replacement value is less than inventory cost. Other factors that management considers in determining these reserves include whether individual inventory parts or chemicals meet current specifications and cannot be substituted for, or reworked into, a part currently being sold or used as a service part, overall market conditions, and other inventory management initiatives.

As of December 31, 2008 and 2007, we had \$2.4 million and \$2.3 million, respectively, of inventory valuation reserves recorded.

Property, Plant, and Equipment, Net

Property, plant, and equipment are carried at cost, net of accumulated depreciation. Depreciation is calculated on the straight-line method based on the estimated useful lives of the assets, which range from 3 to 35 years (see Note 7). The estimated useful life represents the projected period of time that the asset will be productively employed by the Company and is determined by management based on many factors, including historical experience with similar assets and technological life cycles. Circumstances and events relating to these assets are monitored to ensure that changes in asset lives or impairments are identified and prospective depreciation expense or impairment expense is adjusted accordingly. The depreciation periods used are: buildings, 15 to 35 years; machinery and equipment, 3 to 10 years; cylinders and canisters, 7 to 10 years; furniture and fixtures, 5 years; and leasehold improvements, over the lesser of the lease term or estimated useful life. We use accelerated depreciation methods for tax purposes where appropriate.

Asset-Retirement Obligations

An asset-retirement obligation ("ARO") is recognized in the period in which sufficient information exists to determine the fair value of the liability with a corresponding increase to the carrying amount of the related property, plant, and equipment which is then depreciated over its useful life. The liability is initially measured at discounted fair value and then accretion expense is recorded in each subsequent period. The Company's AROs are primarily associated with two leased facilities where we have made substantial modifications to the leased property and we are obligated to restore the facilities at the end of the contractual term of each lease.

Income Taxes

We adopted the provisions of FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement No. 109* ("FIN No. 48") on January 1, 2007. FIN No. 48 provides a comprehensive model for the recognition, measurement, and disclosure in financial statements of uncertain income tax positions that a company has taken or expects to take on a tax return. Under FIN No. 48, the Company can recognize the benefit of an income tax position only if it is more likely than not (greater than 50 percent) that the tax position will be sustained upon tax examination, based solely on the technical merits of the tax position. Otherwise, no benefit can be recognized. The tax benefits recognized are measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement. Additionally, the Company accrues interest and related penalties, if applicable, on all tax exposures for which reserves have been established consistent with jurisdictional tax laws, which is included in income tax expense. Adoption of FIN No. 48 did not result in a cumulative effect adjustment to retained earnings. See Note 11 for more information and disclosures on income taxes.

Fair Value

Effective January 1, 2008, we adopted SFAS No. 157, *Fair Value Measurements*. This statement defines fair value, establishes a framework for measuring fair value, and expands the related disclosure requirements. This statement applies under other accounting pronouncements that require or permit fair value measurements. On February 6, 2008, the FASB issued Staff Position ("FSP") SFAS No. 157-2, *Effective Date of FASB Statement No. 157*, which deferred the effective date of SFAS No. 157 to fiscal years beginning after November 15, 2008, and interim periods within those fiscal years, for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis. These nonfinancial items include assets and liabilities such as reporting units measured at fair value in a goodwill impairment test and nonfinancial assets acquired and liabilities assumed in a business combination. On October 10, 2008, the FASB issued Staff Position ("FSP") SFAS No. 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active*. FSP SFAS No. 157-3 does not change the fair value measurement principles of SFAS No. 157, but rather provides guidance for the application of those measurement principles in the extreme inactive markets that currently exist. The effect of adoption of SFAS No. 157 is discussed in more detail in Note 6.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an amendment of FASB Statement No. 115*, which permits entities to elect to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. This election is irrevocable. SFAS No. 159 was effective for ATMI on January 1, 2008. We did not elect to apply the fair value option to any of our financial instruments.

See Note 6 for more information on the methods and assumptions used to estimate the fair value of our other financial instruments.

Foreign Currency Exchange Contracts

We use forward foreign currency exchange contracts to hedge specific or anticipated exposures relating to intercompany payments (primarily U.S. export sales to subsidiaries at pre-established U.S. dollar prices), intercompany loans, and other specific and identified exposures. The terms of the forward foreign currency exchange contracts are matched to the underlying transaction being hedged, and are typically under one year. Because such contracts are directly associated with identified transactions, they are an effective hedge against fluctuations in the value of the foreign currency underlying the transaction.

Changes in the fair value of derivatives designated as fair-value hedges are recognized in earnings as an offset to the change in the fair values of the underlying exposures being hedged. The changes in fair value of derivatives that are designated as cash-flow hedges are deferred in Accumulated other comprehensive income (loss) and are recognized in earnings as the underlying hedged transaction occurs. Any ineffectiveness is recognized in earnings immediately. We do not enter into derivative instruments for trading or speculative purposes and all of our derivatives were highly effective throughout the periods reported. At December 31, 2008, we did not have any cash flow hedges outstanding.

Counterparties to forward foreign currency exchange contracts are primarily major banking institutions with credit ratings of investment grade or better and no collateral is required. There are no significant risk concentrations. Management believes the risk of incurring losses on derivative contracts related to credit risk is remote.

Goodwill and Other Intangible Assets

The assets and liabilities of acquired businesses are recorded under the purchase method of accounting at their estimated fair values at the dates of acquisition. Goodwill represents costs in excess of fair values assigned to the underlying net assets of acquired businesses.

Goodwill and intangible assets deemed to have indefinite lives are not amortized, but are subject to annual impairment testing. The identification and measurement of goodwill impairment involves the estimation of the fair value of reporting units. The estimates of fair value of reporting units are based on the best information available as of the date of the assessment, which primarily incorporate management assumptions about expected future cash flows and contemplate other valuation techniques. No goodwill impairment has been recorded to date.

Other Long-Lived Assets

We evaluate the potential impairment of other long-lived assets when appropriate. If the carrying value of assets exceeds the sum of the undiscounted expected future cash flows, the carrying value of the asset is written down to fair value. We amortize acquired patents and other amortizable intangible assets over their estimated useful lives. All amortizable intangible assets are amortized using the straight-line method over the estimated useful lives of the assets, ranging from 3 to 14 years.

Translation of Foreign Currencies

We conduct business in many different currencies and, accordingly, are subject to the inherent risks associated with foreign exchange rate movements. The financial position and results of operations of many of our foreign subsidiaries are measured using the local currency as the functional currency. Foreign currency denominated assets and liabilities are translated into U.S. dollars at the exchange rates existing at the respective balance sheet dates, and income and expense items are translated at the average exchange rates during the respective periods. The aggregate effects of translating the balance sheets of these subsidiaries are deferred as a separate component of Stockholders' Equity.

Equity-Based Compensation

Awards under the Company's equity-based compensation plans are accounted for under the fair value recognition provisions of SFAS No. 123 (Revised 2004), *Share-Based Payment* (SFAS No. 123(R)). Equity-based compensation expense is recorded for all unvested stock options as of January 1, 2006 and those subsequently granted and is recognized on a straight-line basis over the stated vesting period.

Recently Issued Accounting Pronouncements

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations* (SFAS No. 141(R)), which replaces SFAS No. 141, *Business Combinations*. SFAS No. 141(R) retains the underlying concepts of SFAS No. 141 in that all business combinations are still required to be accounted for at fair value under the acquisition method of accounting but SFAS No. 141(R) changed the method of applying the acquisition method in a number of significant aspects. Acquisition costs will generally be expensed as incurred; noncontrolling interests will be valued at fair value at the acquisition date; in-process research and development will be recorded at fair value as an indefinite-lived intangible asset at the acquisition date; restructuring costs associated with a business combination will generally be expensed subsequent to the acquisition date; and changes in deferred tax asset valuation allowances and income tax uncertainties after the acquisition date generally will affect income tax expense. SFAS No. 141(R) is effective on a prospective basis for all business combinations for which the acquisition date is on or after the beginning of the first annual period subsequent to December 15, 2008, with the exception of the accounting for valuation allowances on deferred taxes and acquired tax contingencies. SFAS No. 141(R) amends SFAS No. 109, *Accounting for Income Taxes*, such that adjustments made to valuation allowances on deferred taxes and acquired tax contingencies associated with acquisitions that closed prior to the effective date of SFAS No. 141(R) would also apply the provisions of SFAS No. 141(R). The Company is required to apply SFAS No. 141(R), prospectively, to business combinations occurring on or after January 1, 2009. We do not expect the changes associated with the determination of income taxes of this new statement will have a material effect on the determination or reporting of our financial results.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51*. This statement is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, with earlier adoption prohibited. This statement requires the recognition of a noncontrolling interest (minority interest) as equity in the consolidated financial statements and separate from the parent's equity. The amount of net income attributable to the noncontrolling interest will be included in consolidated net income on the face of the income statement. It also amends certain of ARB No. 51's consolidation procedures for consistency with the requirements of SFAS No. 141(R). We do not expect that the statement will have a material effect on the reporting of our results of operations.

In March 2008, the FASB issued SFAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities, an amendment of FASB Statement No. 133* ("SFAS No. 161"). This new standard requires enhanced disclosures for derivative instruments, including those used in hedging activities. It is effective for fiscal years and interim periods beginning after November 15, 2008, and will be applicable to the Company beginning on January 1, 2009. We have concluded that it will not have a material effect on the determination or reporting of our financial results.

In April 2008, the FASB issued FSP SFAS No. 142-3, *Determination of the Useful Life of Intangible Assets*. FSP SFAS No. 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under SFAS No. 142, *Goodwill and Other Intangible Assets*. Previously, under the provisions of SFAS No. 142, an entity was precluded from using its own assumptions about renewal or extension of an arrangement where there was likely to be substantial cost or material modifications. FSP SFAS No. 142-3 removes the requirement of SFAS No. 142 for an entity to consider whether an intangible asset can be renewed without substantial cost or material modification to the existing terms and conditions and requires an entity to consider its own experience in renewing similar arrangements. FSP SFAS No. 142-3 also increases the disclosure requirements for a recognized intangible asset to enable a user of financial statements to assess the extent to which the expected future cash flows associated with the asset are affected by the entity's intent or ability to renew or extend the arrangement. FSP SFAS No. 142-3 is effective for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. Early adoption is prohibited. The guidance for determining the useful life of a recognized intangible asset is applied prospectively to intangible assets acquired after the effective date. Accordingly, we do not anticipate that the initial application of FSP SFAS No. 142-3 will have a material impact on the Company. The disclosure requirements must be applied prospectively to all intangible assets recognized as of, and subsequent to, the effective date.

In December 2007, the Emerging Issues Task Force (EITF) issued Issue No. 07-1, *Accounting for Collaborative Arrangements*. This Issue is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years, and shall be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. This Issue requires that transactions with third parties (i.e., revenue generated and costs incurred by the partners) should be reported in the appropriate line item in each company's financial statement pursuant to the guidance in EITF Issue No. 99-19, *Reporting Revenue Gross as a Principal versus Net as an Agent*. This Issue also includes enhanced disclosure requirements regarding the nature and purpose of the arrangement, rights and obligations under the arrangement, accounting policy, amount, and income statement classification of collaboration transactions between the parties. We have concluded that it will not have a material effect on the determination or reporting of our financial results.

Certain 2007 and 2006 amounts in the accompanying Consolidated Financial Statements have been reclassified to conform to the 2008 presentation. In the Consolidated Statements of Cash Flows, we have disclosed separately the change in Accrued expenses, which was previously included as a component of "Other liabilities." In the Consolidated Balance Sheets, at December 31, 2007, \$4.4 million has been reclassified from "Deferred income taxes" to "Prepaid expenses and other current assets" because the amount relates to prepaid income taxes. The effect of this reclassification in the Consolidated Balance Sheets appears as a reclassification in the Consolidated Statements of Cash Flows under the headings, "Deferred income taxes" and "Other assets," both within operating activities. The effect of these reclassifications was not material to our financial position or results of operations.

Other

As a result of the redirection of certain supply chain and operations activities associated with the 2007 organizational changes (which we announced in September 2007, but which didn't become effective until January 1, 2008), certain associated expenses have been realigned from selling, general, and administrative expense ("SG&A") to cost of revenues in 2008. These activities include those functions in two of our locations that were previously focused on supporting and administering plant operations, whereas in the current organization, those activities have been focused on improving our global supply chain capabilities and overall customer satisfaction. This change reduced gross margin and SG&A as a percentage of revenues by approximately 180 basis points, respectively.

2. INSURANCE CLAIM RECOVERIES

During 2007, a fire at a contract manufacturer in Taiwan destroyed approximately \$1.8 million of ATMI's assets, all of which has been recovered from our insurers. As a result of the fire, we filed a business interruption claim with our insurance carrier during the second quarter of 2008, and recovered \$2.4 million related to this claim, which has been recorded as an offset to cost of revenues in our Consolidated Statements of Income, and has been included as a component of operating cash flows in our Consolidated Statements of Cash Flows. We have supplied our customers in this region from our U.S. manufacturing operations, and expect to continue to supply our customers in this region from our U.S. manufacturing operations.

3. MARKETABLE SECURITIES

Marketable securities include at December 31, (in thousands):

	2008			2007		
	Cost	Gross Unrealized Gain (Loss)	Estimated Fair Value	Cost	Gross Unrealized Gain (Loss)	Estimated Fair Value
Securities in unrealized gain position:						
Common stock	\$ 251	\$ 296	\$ 547	\$ 971	\$3,871	\$ 4,842
Government debt obligations (1)	22,325	205	22,530	49,666	199	49,865
GS (2) debt obligations	3,000	10	3,010	—	—	—
Subtotal	25,576	511	26,087	50,637	4,070	54,707
Securities in unrealized loss position:						
Common stock	192	(117)	75	—	—	—
Auction-rate security (3)	5,000	(1,345)	3,655	—	—	—
Subtotal	5,192	(1,462)	3,730	—	—	—
Securities at amortized cost:						
Corporate debt obligations	9,502	—	9,502	10,683	—	10,683
Government debt obligations (1)	2,075	—	2,075	23,500	—	23,500
Subtotal	11,577	—	11,577	34,183	—	34,183
Total marketable securities	\$42,345	\$ (951)	\$41,394	\$84,820	\$4,070	\$88,890

(1) State and municipal government debt obligations

(2) Government Sponsored

(3) Massachusetts Educational Financing Authority security (student loan portfolio)—see Note 6 for more information

In 2008 we realized a \$2.0 million gain on sale of an available-for-sale marketable equity security.

The amortized cost and estimated fair value of available-for-sale securities, by contractual maturity, as of December 31, 2008 are shown below (in thousands); expected maturities may differ from contractual maturities because the issuers of the securities may exercise the right to prepay obligations without prepayment penalties.

	Cost	Estimated Fair Value
Due in one year or less	\$30,943	\$31,138
Due between one and three years	5,959	5,978
Auction-rate security (due in 2038)	5,000	3,655
	41,902	40,771
Common stock	443	623
	\$42,345	\$41,394

At December 31, 2007, Company did not have any marketable securities in an unrealized loss position.

This table shows the Company's marketable securities that were in an unrealized loss position at December 31, 2008, and also shows the duration of time the security had been in an unrealized loss position (in thousands):

	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Common stock	\$ 75	\$ (117)	\$—	\$—	\$ 75	\$ (117)
Auction-rate security	3,655	(1,345)	—	—	3,655	(1,345)
Total	\$ 3,730	\$(1,462)	\$—	\$—	\$3,730	\$(1,462)

The unrealized loss for the investment in common stock is not characterized as *other than temporary* because we have the current intent and ability to hold this security until a recovery in the market. We have not characterized the unrealized loss for the auction-rate security as *other than temporary* because we have the ability and current intent to hold this security until a future auction for this security is successful, the security has been called by the issuer, until market conditions improve, or until maturity, if necessary (see Note 6 for more information).

4. INVENTORIES

Inventories include at December 31, (in thousands):

	2008	2007
Raw materials	\$15,588	\$16,005
Work in process (1)	1,209	1,382
Finished goods (2)	41,558	33,815
	58,355	51,202
Excess and obsolescence reserve	(2,369)	(2,317)
Inventories, net	\$55,986	\$48,885

(1) The 2007 work in process balance has been increased by \$0.3 million, with a corresponding decrease in 2007 finished goods inventory, which represents a reclassification of unamortized standard cost adjustments at December 31, 2007 in order to conform to the 2008 presentation.

(2) \$5.1 million and \$6.0 million of finished goods inventory resides at non-ATMI consignment locations at December 31, 2008 and 2007, respectively.

As of December 31, 2008, the Company had commitments for inventory purchases of \$1.9 million.

5. FOREIGN CURRENCY EXCHANGE CONTRACTS

At December 31, 2008, we held forward foreign currency exchange contracts designated as fair value hedges with notional amounts totaling \$3.9 million, all of which will be settled in Japanese Yen. The fair market value (gain or loss) on these contracts was not significant as of December 31, 2008.

At December 31, 2007, we held forward foreign currency exchange contracts designated as fair value hedges with notional amounts totaling \$10.7 million and forward foreign currency exchange contracts designated as cash flow hedges with notional amounts totaling \$9.0 million, all of which were settled in Japanese Yen. The fair market value (gain or loss) on these contracts was not significant as of December 31, 2007.

6. FAIR VALUE MEASUREMENTS

We adopted SFAS No. 157 effective January 1, 2008 for financial assets and liabilities measured on a recurring basis. SFAS No. 157 applies to all financial assets and financial liabilities that are being measured and reported on a fair value basis. There was no impact upon adoption of SFAS No. 157 to the consolidated financial statements. The statement requires fair value measurements be classified and disclosed in one of the following three categories:

Level 1—Quoted prices in active markets for identical assets and liabilities. Level 1 assets and liabilities consist of cash, certificates of deposit, money market fund deposits, certain of our marketable equity instruments, and forward foreign currency exchange contracts that are traded in an active market with sufficient volume and frequency of transactions.

Level 2—Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets include certain of our marketable debt instruments with quoted market prices that are traded in less active markets or priced using a quoted market price for similar instruments.

Level 3—Unobservable inputs to the valuation methodology that are significant to the measurement of fair value of assets or liabilities. Level 3 assets consisted of one Massachusetts Educational Financing Authority ("MEFA") auction-rate security, comprising part of a student loan portfolio, with a par value of \$5.0 million, a stated maturity date in 2038, and a reset date of March 12, 2009. In March 2008, the annual auction for this security failed, and as a result, the tax-exempt coupon rate of interest was reset to the default interest rate of 6.55 percent from its previous rate of 3.75 percent. This rate will reset to LIBOR plus 300 basis points upon any future auction failure. We will not have access to these funds until a future auction for this auction-rate security is successful, the security has been called by the issuer, or until we sell the security in a secondary market. Currently, despite a AA credit rating and a premium coupon rate, no

secondary market is active given the current turmoil in the credit markets. MEFA has begun to call some of their securities, at par value, and refinance them at lower interest rates due to formulaic and required contractual increases in interest rates necessitated by failed auctions. During 2008, \$270 million of MEFA securities have been refinanced by that agency, including some of the same series we hold, most with interest rates in excess of the coupon rate on our security. We believe MEFA will be able to meet their obligations with regard to this security. Additionally, the investment manager ATMI used to purchase this security has entered into a settlement agreement with the New York Attorney General and representatives from other states to pay a penalty and to repurchase auction-rate securities, at par value, from certain groups of clients.

As of December 31, 2008, we have recorded a temporary impairment charge of \$1.3 million within the caption "Accumulated other comprehensive income" on the Consolidated Balance Sheets based upon an independent third-party valuation we received for this auction-rate security. The valuation of this security incorporated assumptions about the anticipated term and the yield that a market participant would require to purchase such a security in the current market environment. We have the ability and current intent to hold this security until a future auction for this security is successful, the security has been called by the issuer, until market conditions improve, or until maturity, if necessary. At December 31, 2008, we have included this security under the caption "Marketable securities, non-current" on the Consolidated Balance Sheets.

Assets/Liabilities Measured at Fair Value on a Recurring Basis

This table summarizes the Company's assets (liabilities) measured at fair value on a recurring basis at December 31, 2008 (in thousands):

	Total	Fair Value Measured Using		
		Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Cash, cash equivalents, and available-for-sale marketable securities	\$96,020	\$66,346	\$26,019	\$3,655
Derivative liabilities	\$ (261)	\$ (261)	\$ —	\$ —

The Company recorded a gain of \$0.1 million for the year ended December 31, 2008, and losses of \$0.5 million and \$0.2 million for the years ended December 31, 2007 and 2006, respectively, under the caption "Other income (expense), net" in the Consolidated Statements of Income, related to changes in the fair value of its financial instruments for forward foreign currency exchange contracts accounted for as fair value hedges.

This table presents a reconciliation for all assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the year ended December 31, 2008 (in thousands):

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)	
	Available-For- Sale Marketable Securities	Total
Balance at December 31, 2007	\$ —	\$ —
Total gains (losses), realized and unrealized:		
Included in net income	—	—
Included in other comprehensive income	(1,345)	(1,345)
Purchases, issuances, and settlements, net	—	—
Transfers into (out of) Level 3	5,000	5,000
Balance at December 31, 2008	\$3,655	\$3,655

Assets/Liabilities Measured at Fair Value on a Nonrecurring Basis

In 2008, Ceradyne, Inc. ("Ceradyne") completed its acquisition of SemEquip, Inc., an entity in which ATMI had previously invested. Ceradyne paid \$25 million in cash at the closing and is committed to contingent consideration up to \$100 million over the next 15 years, based on SemEquip revenues achieved during that period. Prior to the acquisition, ATMI's cost-basis investment in SemEquip was \$2.2 million. ATMI received \$0.6 million representing its share of the closing proceeds and wrote off the remaining balance from our investment in SemEquip of \$1.6 million, due to the uncertainty of collecting any amounts in the future related to the earnout. The write off is included in the caption, "Impairment of Investments," in the Consolidated Statements of Income.

Also in 2008, due to changes in events and circumstances related to a convertible note due from an early-stage semiconductor materials venture, the fair value of this investment was significantly impacted, resulting in a \$1.8 million impairment charge, representing the full value of the note. ATMI's interest in this note, in the event of default, is secured by certain technology owned by the venture, but recoverability of amounts due became unlikely. The fair value measurement was calculated using unobservable inputs, classified as Level 3, requiring significant management judgment due to the absence of quoted market prices, inherent lack of liquidity, and the long-term nature of this investment. The impairment charge is included in the caption, "Impairment of Investments," in the Consolidated Statements of Income. If amounts due, including interest, are collected in the future, we will recognize a gain for those amounts.

Due to their nature, the carrying value of cash, receivables, and payables approximates fair value.

7. PROPERTY, PLANT AND EQUIPMENT, NET

Property, plant, and equipment, net, consists of the following (in thousands):

December 31,	2008	2007
Land	\$ 1,063	\$ 1,234
Buildings	24,910	24,402
Machinery and equipment	141,874	113,958
Cylinders and canisters	34,744	22,656
Furniture and fixtures	2,713	3,145
Leasehold improvements	21,668	17,240
Construction in progress	15,353	14,126
	242,325	196,761
Accumulated depreciation and amortization	(105,900)	(90,590)
	\$ 136,425	\$106,171

Depreciation and amortization expense for property, plant, and equipment for the years ended December 31, 2008, 2007, and 2006 was \$20.1 million, \$18.6 million, and \$17.4 million, respectively.

Fully depreciated assets, which were no longer in use, of approximately \$3.0 million and \$1.2 million were written off in the years ended December 31, 2008 and 2007, respectively.

We recognized impairment losses from property, plant, and equipment of \$0.2 million, \$0.8 million, and \$0.2 million in the years ended December 31, 2008, 2007, and 2006, respectively.

As of December 31, 2008, the Company had commitments for capital expenditures of \$5.5 million; including a \$4.2 million commitment to purchase a high-productivity combinatorial science-based research ("HPC") tool for use in research and development (see Note 9 for more information).

This table shows amounts recorded in the Consolidated Statements of Income related to depreciation and amortization expense for property, plant, and equipment (in thousands):

Year Ended December 31,	2008	2007	2006
Cost of revenues	\$ 9,207	\$ 7,499	\$ 7,695
Research and development	3,681	2,984	2,550
Selling, general, and administrative	7,178	8,080	7,141
Total depreciation and amortization	\$20,066	\$18,563	\$17,386

8. GOODWILL AND OTHER INTANGIBLES

On January 4, 2008, ATMI acquired all of the outstanding capital stock of LevTech, Inc. ("LevTech"), a market-leading provider of disposable mixing technologies to the biotechnology and pharmaceutical industries based in Lexington, Kentucky, for a cash payment of \$27.7 million, including direct acquisition costs. Of this amount, \$5.0 million remains in escrow and is expected to be disbursed in March of 2009. The acquisition was recorded under the purchase method of accounting and, accordingly, LevTech's results of operations are included in the Company's financial statements from the date of acquisition (January 4, 2008). The purchase price was allocated to assets acquired and liabilities assumed based on an evaluation of their respective fair values at the date of acquisition as summarized below (in thousands):

Identified intangible assets	\$ 8,900
Net deferred taxes	(1,139)
Net assets acquired	148
Goodwill	19,764
Purchase price, net of cash acquired	\$27,673

The excess of the purchase price over the estimated fair value of identifiable net assets acquired has been recorded as goodwill. Net assets acquired are presented net of cash acquired of \$0.3 million. \$7.6 million of the identified intangible assets is included in patents and trademarks and is being amortized over periods ranging from 7 to 10 years. \$1.3 million of identified intangible assets, related to customer relationships, is included in other intangibles and is being amortized over 13 years. Goodwill acquired is not deductible for income tax purposes.

In 2008, ATMI, through its wholly-owned subsidiary in Belgium, entered into an asset purchase agreement with Artelis SA, a Belgian entity of which ATMI's Belgian subsidiary owns 40 percent, to purchase certain disposable bioreactor and mixing assets for use in the biotechnology and pharmaceutical industries for approximately \$5.4 million, including direct acquisition costs. ATMI recognized \$5.1 million of identified intangible assets in the acquisition, which will be amortized over periods between 3 and 10 years. As a result of these asset purchases, we recognized a \$1.1 million gain representing our after-tax proportionate share of Artelis's gains on the sale of assets. This gain is included in our Consolidated Statements of Income under the caption, "Other income (expense), net."

Changes in carrying amounts of goodwill and other intangibles for the years ended December 31, 2008 and 2007, respectively, were (in thousands):

	Goodwill	Patents & Trademarks	Other	Total Other Intangibles
Balance at December 31, 2006	\$ 13,734	\$ 18,687	\$ 1,982	\$ 20,669
Amortization	—	(2,484)	(759)	(3,243)
Other, including foreign currency translation	(4)	(37)	18	(19)
Balance at December 31, 2007	\$ 13,730	\$ 16,166	\$ 1,241	\$ 17,407
Acquisitions	19,764	12,742	1,300	14,042
Amortization	—	(3,410)	(665)	(4,075)
Other, including foreign currency translation	(139)	(272)	100	(172)
Balance at December 31, 2008	\$33,355	\$25,226	\$1,976	\$27,202

Goodwill and other intangibles balances at December 31, 2008 and 2007 were (in thousands):

	Goodwill	Patents & Trademarks	Other	Total Other Intangibles
Gross amount as of December 31, 2007	\$ 13,730	\$ 27,533	\$ 5,969	\$ 33,502
Accumulated amortization	—	(11,367)	(4,728)	(16,095)
Balance as of December 31, 2007	\$ 13,730	\$ 16,166	\$ 1,241	\$ 17,407
Gross amount as of December 31, 2008	\$33,355	\$ 40,003	\$ 7,001	\$ 47,004
Accumulated amortization	—	(14,777)	(5,025)	(19,802)
Balance as of December 31, 2008	\$33,355	\$ 25,226	\$ 1,976	\$ 27,202

This table shows amounts recorded in the Consolidated Statements of Income related to amortization expense for intangibles (in thousands):

Year Ended December 31,	2008	2007	2006
Cost of revenues	\$ 133	\$ 58	\$ 100
Research and development	—	21	—
Selling, general, and administrative	3,942	3,164	3,329
Total amortization	\$4,075	\$3,243	\$3,429

The approximate amortization expense expected to be recognized related to intangible assets is (in thousands):

Year	Amount
2009	\$ 4,459
2010	3,851
2011	2,955
2012	2,933
2013	2,933
Thereafter	10,071
Total	\$27,202

9. OTHER LONG-TERM ASSETS

In 2007, ATMI entered into a purchase agreement with Intermolecular, Inc. ("Intermolecular"), an entity in which ATMI owns a minority equity stake (accounted for at cost). As a result of the agreement, ATMI purchased an HPC tool set from Intermolecular, which expanded upon an existing alliance agreement. We have since committed to purchase additional HPC tools, as well as services related to the use of these tools, including the use of dedicated research personnel. In December 2007, ATMI made a \$10.0 million royalty prepayment to Intermolecular, which is expected to be applied to guaranteed royalties associated with products developed using the HPC tools in the years 2009 to 2012. The portion of prepaid royalties expected to be applied to 2009 activity is \$0.5 million, which amount is included in the Consolidated Balance Sheets under the caption, "Prepaid expenses and other current assets." The remaining portion of the prepaid royalties is included in the Consolidated Balance Sheets under the caption, "Other long-term assets." ATMI's ownership stake in Intermolecular is \$13.2 million, including \$10.0 million invested in 2008.

10. LEASES

The Company leases office and manufacturing facilities, and certain manufacturing equipment, under several operating leases expiring between 2009 and 2013. Rental expense was \$3.6 million, \$4.5 million, and \$4.2 million for the years ended December 31, 2008, 2007, and 2006, respectively.

Below is a schedule of future minimum lease payments for operating leases as of December 31, 2008 (in thousands):

	Operating Leases
2009	\$3,577
2010	2,262
2011	1,708
2012	578
2013	271
Thereafter	—
Total minimum lease payments	\$8,396

ATMI currently has approximately \$0.1 million total future minimum rental income to be received under noncancellable subleases.

We lease two facilities in Danbury, CT. One facility houses our research and development activities and certain of our microelectronics manufacturing capabilities, and contains approximately 73,000 square feet of space. We entered into an amendment of this lease on October 30, 2008, which extended the lease term to December 31, 2011. For the period November 1, 2008 to December 31, 2009, the monthly base rent is \$40,475. For the period January 1, 2010 to December 31, 2011, the monthly base rent is \$42,097. There are two successive five-year renewal periods available to ATMI under this lease. As a condition of the fourth amendment, we agreed to certain restoration obligations associated with this facility, which we are accounting for as an ARO, associated with the leasehold improvements made to this facility. The discounted fair value of the ARO is \$3.1 million.

The other facility in Danbury, CT is our corporate headquarters, and contains approximately 31,000 square feet of space. We entered into the third amendment of this lease on October 30, 2008, which extended the lease term to December 31, 2011. For the period November 1, 2008 to December 31, 2011, the monthly base rent is \$17,606. There are two successive five-year renewal periods available to ATMI under this lease.

We lease a facility in Bloomington, MN where we manufacture high-purity materials packaging and dispensing systems, within our microelectronics product line. This facility contains approximately 68,000 square feet of space. We entered into the first amendment of this lease on September 23, 2008, which extended the lease term to August 31, 2013. For the period September 1, 2008 to August 31, 2010, the monthly base rent is \$26,479. For the period September 1, 2010 to August 31, 2013, the monthly base rent is \$26,706. There are two successive three-year renewal periods available to ATMI under this lease. As a condition of the first amendment, we agreed to certain restoration obligations associated with this facility, which we are accounting for as an ARO, associated with the leasehold improvements made to this facility. The discounted fair value of the ARO is \$0.2 million.

Changes in the carrying amounts of the Company's AROs at December 31, 2008 are shown below (in thousands):

Balance as of December 31, 2007	\$ —
Liabilities incurred	3,341
Liabilities settled	—
Accretion expense	9
Balance as of December 31, 2008	\$3,350

The ARO liability is included in the Consolidated Balance Sheets under the caption, "Other long-term liabilities."

11. INCOME TAXES

Pretax income from continuing operations was taxed in these jurisdictions (in thousands):

Year Ended December 31,	2008	2007	2006
Domestic	\$28,830	\$48,174	\$48,763
Foreign	11,316	11,229	7,093
Total pretax income	\$40,146	\$59,403	\$55,856

Significant components of the provision (benefit) for income taxes for the periods presented are (in thousands):

December 31,	2008	2007	2006
Current:			
Federal	\$2,369	\$16,090	\$15,040
State	809	1,152	1,407
Foreign	1,602	3,129	1,727
Total current	4,780	20,371	18,174
Deferred:			
Federal	3,293	(1,134)	(1,856)
State	(134)	(96)	(379)
Foreign	(1,120)	(277)	(44)
Total deferred	2,039	(1,507)	(2,279)
	\$6,819	\$18,864	\$15,895

Significant components of the Company's deferred tax assets and liabilities are (in thousands):

December 31,	2008	2007
Deferred tax assets:		
Accrued liabilities	\$ 4,767	\$ 5,176
Inventory adjustments	2,372	2,240
Net operating loss and tax credit carryforwards	6,167	2,000
Equity-based compensation	6,132	5,013
Other, net	332	20
	19,770	14,449
Valuation allowance	(446)	(278)
	19,324	14,171
Deferred tax liabilities:		
Depreciation and amortization	(16,265)	(8,328)
Unrealized gain on marketable securities	—	(1,507)
Other, net	—	(49)
	(16,265)	(9,884)
Net deferred tax assets	\$ 3,059	\$ 4,287

As of December 31, 2007, the Company changed the categorization of \$4.4 million of income taxes paid on the deferred profit resulting from inter-company sales of inventory from deferred tax assets to prepaid taxes—both within Current Assets on the Consolidated Balance Sheets.

The valuation allowance relates to realizability of certain U.S. state and foreign net operating losses and certain U.S. state and foreign tax credits. In 2008, the valuation allowance increased by \$0.2 million mainly due to purchase accounting.

As of December 31, 2008, the Company had the following deferred tax assets related to loss and tax credit carryforwards (in thousands):

		Expiration
Federal		
NOLs	\$1,036	2021-2026
Credits	83	2019-2026
	\$1,119	
State		
NOLs	\$ 438	2010-2027
Credits	1,926	2009-2023
	\$2,364	
Foreign		
NOLs	\$ 996	None
Credits	1,688	2012
	\$2,684	
Total	\$6,167	

The reconciliation of income tax expense (benefit) from operations computed at the U.S. federal statutory tax rate to the Company's tax expense (benefit) is (in thousands):

For the Year Ended December 31,	2008	2007	2006
U.S. statutory rate	\$14,052	\$20,791	\$19,550
State income taxes	439	686	668
Foreign income taxes	(2,039)	(1,062)	(722)
Tax exempt income	(705)	(1,894)	(949)
ETI benefit	—	—	(1,040)
Change in valuation allowance			
of deferred tax assets	(24)	(105)	(20)
Adjustment to tax liabilities	(2,371)	677	(1,716)
Research and development credits	(2,442)	(491)	(279)
Other, net	(91)	262	403
	\$ 6,819	\$18,864	\$15,895

ATMI has not provided for U.S. federal income and foreign withholding taxes on approximately \$43.4 million of undistributed earnings from non-U.S. operations as of December 31, 2008, because such earnings are intended to be reinvested indefinitely outside of the United States. These earnings could become subject to additional tax if they are remitted as dividends, loaned to ATMI, or upon sale of subsidiary stock. It is not practicable to estimate the amount or timing of the additional tax, if any, that eventually might be paid on the foreign earnings.

South Korea has granted the Company an income tax exemption that expires in 2014, including the last two years at 50 percent of the exemption. The exemption applies only to income related to one of the Company's product lines. The effect of the tax exemption was to reduce income tax expense by \$1.2 million for the year ended December 31, 2008.

At December 31, 2008, ATMI had \$6.0 million of unrecognized tax benefits, which, if recognized, would favorably affect the effective income tax rate in future periods. This amount is included in the caption "Other long-term liabilities," on the Consolidated Balance Sheets, together with \$0.9 million of accrued interest (net) on tax reserves and \$0 accrued for penalties.

The reconciliation of the unrecognized tax benefits (exclusive of interest) at the beginning and end of the year is (in thousands):

Beginning Balance—January 1, 2008 (1)	\$ 8,152
Increases from prior period positions	271
Decreases from prior period positions	(66)
Increases from current period positions	1,075
Decreases from current period positions	—
Decreases related to settlements	—
with taxing authorities	(330)
Decreases from lapse of statute of limitations	(3,121)
Ending Balance—December 31, 2008	\$ 5,981

(1) The balance at January 1, 2008 excludes \$1.1 of accrued interest related to the unrecognized tax benefits.

It is reasonably possible that in the next 12 months, because of changes in facts and circumstances, the unrecognized tax benefits for tax positions taken related to previously filed tax returns may decrease. The range of possible decrease is zero to \$1.1 million. The Company is currently undergoing an IRS audit for its 2006 and 2007 tax years in the United States.

12. DEFINED CONTRIBUTION PLAN

The Company maintains a defined contribution plan (401(k) Plan), covering substantially all of its U.S. employees, that is subject to the provisions of the Employee Retirement Income Security Act of 1974. The Company's matching contributions are discretionary by plan year and were approximately \$1.8 million, \$1.7 million, and \$0.8 million for the years ended December 31, 2008, 2007, and 2006, respectively. For the 2006 plan year, the Company matched 50 percent of each participant's contributions up to 4 percent of eligible compensation. The Plan was amended on January 1, 2007 to provide for matching contributions of 100 percent of the first 3 percent of each participant's eligible compensation plus 50 percent on the next 2 percent of each participant's eligible compensation. There is no matching contribution above 5 percent of each participant's eligible compensation.

13. STOCKHOLDERS' EQUITY

This table shows the effect of compensation cost arising from equity-based payment arrangements recognized in the consolidated statements of income (in thousands):

	2008	2007	2006
Cost of revenues	\$ 339	\$ 375	\$ 910
Research and development	530	432	773
Selling, general, and administrative	5,831	6,791	7,681
Total equity-based compensation expense	6,700	7,598	9,364
Provision for income taxes	2,237	2,556	3,137
Net equity-based compensation expense	\$4,463	\$5,042	\$6,227

No equity-based compensation cost was capitalized.

Summary of Plans

We currently have three equity-based compensation plans which provide for the granting of up to 6,000,000 nonqualified stock options, incentive stock options ("ISOs"), stock appreciation rights, and restricted stock awards to employees, directors, and consultants of the Company. Stock options typically vest over periods ranging from one to four years with a maximum term of ten years. Restricted stock awards typically vest over periods ranging from three to five years. Shares issued as a result of stock option exercises are primarily funded with issuance of new shares.

This table shows the number of shares approved by shareholders for each plan and the number of shares that remain available for equity awards at December 31, 2008 (in thousands):

Stock Plan	Number of Shares Approved	Number of Shares Available
2000 Stock Plan (1)	2,000	318
2003 Stock Plan (1)	3,000	1,158
Employee Stock Purchase Plan (2)	1,000	284
Totals	6,000	1,760

(1) Exercise prices for ISOs and non-qualified stock options granted under this plan may not be less than 100 percent of the fair market value for the Company's common stock on the date of grant.

(2) Effective January 1, 2007, this plan was amended such that employees may purchase shares at 95 percent of the closing price on the day previous to the last day of each six-month offering period. Beginning January 1, 2007, this plan is no longer considered to be compensatory, as defined by SFAS No. 123(R).

Fair Value

The Company uses the Black-Scholes-Merton options-pricing model to determine the fair value of stock options under SFAS No. 123(R). Management is required to make certain assumptions with respect to selected model inputs, including anticipated changes in the underlying stock price (i.e., expected volatility) and option exercise activity (i.e., expected term). For awards granted subsequent to January 1, 2006, expected volatility is based on the historical volatility of ATMI common stock for a period shorter than the expected term of the options. We have excluded the historical volatility prior to the public announcement regarding the sale of our non-core businesses in 2004, because those businesses that were sold represented a significant portion of ATMI's consolidated business and were subject to considerable cyclicity associated with the semiconductor equipment industry, which drove increased volatility in ATMI's stock price. The expected term of options granted is derived using historical exercise patterns which represents the period of time that options granted are expected to be outstanding. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant for a period commensurate with the estimated expected term. In accordance with SFAS No. 123(R), in the determination of equity-based compensation cost, the Company estimates the total number of instruments that will be forfeited as a result of a failure to provide the requisite service to earn the award.

The weighted-average fair value of options granted during the years ended December 31, 2008, 2007, and 2006 was \$13.48, \$12.75, and \$12.07, respectively, based on the Black-Scholes-Merton options-pricing model. These weighted-average assumptions were used for grants in these periods indicated:

	2008	2007	2006
Stock option grants:			
Risk-free interest rate	3.61%	4.53%	4.70%
Expected term, in years	6.70	6.25	6.25
Expected volatility	36.0%	32.7%	32.4%
Dividend yield	0%	0%	0%

The Company uses historical data to estimate forfeitures of awards from employee terminations in order to estimate compensation cost for awards expected to vest. In addition, we separate employees into groups that have similar characteristics for purposes of making forfeiture estimates.

Stock Option and Restricted Stock Activity

This table shows the option activity under the plans as of December 31, 2008 and changes during the year then ended (options are expressed in thousands; averages are calculated on a weighted basis; life in years; intrinsic value expressed in thousands):

	Number of Options	Average Exercise Price	Average Remaining Life	Aggregate Intrinsic Value
Outstanding at December 31, 2007	2,172	\$ 25.71		
Granted	136	\$30.84		
Exercised	(60)	\$21.83		
Forfeited	(35)	\$26.50		
Outstanding at December 31, 2008	2,213	\$26.08	4.0	\$—
Exercisable at December 31, 2008	1,882	\$25.61	3.3	\$—

The aggregate intrinsic value of options outstanding and exercisable at December 31, 2008 is \$0 because there were no options in the money at December 31, 2008, due to recent significant declines in the market price of our common stock. The total intrinsic value of stock options exercised during the years ended December 31, 2008, 2007, and 2006 was \$0.4 million, \$5.1 million, and \$7.0 million, respectively. The total fair value of options which vested during the years ended December 31, 2008, 2007, and 2006 was \$4.4 million (338,000 shares), \$5.7 million (437,000 shares), and \$6.5 million (505,000 shares), respectively.

The tax benefits recognized in additional paid-in capital from equity-based compensation totaled \$0.3 million, \$1.3 million, and \$2.2 million for the years ended December 31, 2008, 2007, and 2006, respectively.

This table shows restricted stock activity under the 2003 Stock Plan as of December 31, 2008 and changes during the year then ended (shares are expressed in thousands; averages are calculated on a weighted basis):

	Number of Shares	Average Grant Date Fair Value
Nonvested at December 31, 2007	730	\$ 28.31
Granted	414	\$28.63
Vested	(141)	\$23.19
Forfeited	(136)	\$30.28
Nonvested at December 31, 2008	867	\$28.81

The total fair value of restricted stock which vested during the years ended December 31, 2008 and 2007 was \$3.3 million and \$1.7 million, respectively (\$0.7 million in the year ended December 31, 2006).

As of December 31, 2008, \$2.0 million of unrecognized compensation cost related to non-vested stock options is expected to be recognized over a weighted-average period of approximately 1.5 years. As of December 31, 2008, \$9.2 million of unrecognized compensation cost related to restricted stock is expected to be recognized over a weighted-average period of approximately 2.2 years.

Earnings Per Share

This table shows the computation of basic and diluted earnings per share (in thousands, except per share data):

	2008	2007	2006
Numerator:			
Net income	\$33,327	\$40,539	\$39,961
Denominator:			
Denominator for basic earnings per share—weighted-average shares	31,447	34,169	36,083
Dilutive effect of employee stock options	279	550	559
Dilutive effect of restricted stock	352	374	217
Denominator for diluted earnings per share	32,078	35,093	36,859
Earnings per share—basic	\$1.06	\$1.19	\$1.11
Earnings per share—assuming dilution	\$1.04	\$1.16	\$1.08

This table shows the potential common shares excluded from the calculation of weighted-average shares outstanding because their effect was considered to be antidilutive (in thousands):

	2008	2007	2006
Antidilutive Shares	1,484	340	404

The Company has never declared or paid cash dividends on its capital stock.

In October 2005, the Company's Board of Directors approved a share repurchase program for up to \$75.0 million of ATMI common stock and in August 2006, the Company's Board of Directors approved a second share repurchase program for an additional \$150.0 million (collectively, the "Repurchase Programs"). The Repurchase Programs were completed on March 7, 2008. Share repurchases were made from time to time in open market transactions at prevailing market prices or in privately negotiated transactions. Management determined the timing and amount of purchases under the Repurchase Programs based upon market conditions or other factors. Under the Repurchase Programs, the Company purchased a total of 7,931,000 shares of its common stock at an average price of \$28.63 per share.

14. ACCUMULATED OTHER COMPREHENSIVE INCOME

The components of accumulated other comprehensive income are (in thousands):

	Currency Translation Adjustments	Unrealized Gain (Loss) on Available-for-Sale Securities	Unrealized Gain (Loss) on Derivative Instruments	Total
Balance at December 31, 2005	\$ 1,619	\$ 480	\$ —	\$ 2,099
Reclassification adjustment related to marketable securities in unrealized loss position at prior period end, net of \$321 tax benefit (1)	—	547	—	547
Change in fair value of available-for-sale securities, net of deferred income tax of \$105	—	178	—	178
Cumulative translation adjustment	2,814	—	—	2,814
Balance at December 31, 2006	\$ 4,433	\$ 1,205	\$ —	\$ 5,638
Reclassification adjustment related to marketable securities in unrealized loss position at prior period end, net of \$694 tax benefit (1)	—	1,182	—	1,182
Change in fair value of available-for-sale securities, net of deferred income tax of \$109	—	186	—	186
Change in fair value of derivative financial instruments, net of deferred income tax of \$46	—	—	78	78
Cumulative translation adjustment	2,357	—	—	2,357
Balance at December 31, 2007	\$ 6,790	\$ 2,573	\$ 78	\$ 9,441
Reclassification adjustment related to marketable securities in unrealized loss position at prior period end, net of \$925 tax provision (1)	—	(1,574)	—	(1,574)
Change in fair value of available-for-sale securities, net of deferred income tax of \$938	—	(1,598)	—	(1,598)
Reclassification adjustment to earnings related to derivative financial instruments at prior period end, net of deferred income tax of \$46	—	—	(78)	(78)
Cumulative translation adjustment	(5,925)	—	—	(5,925)
Balance at December 31, 2008	\$ 865	\$ (599)	\$ —	\$ 266

(1) Determined based on the specific identification method.

15. COMMITMENTS, CONTINGENCIES, AND OTHER

On July 11, 2008, ATMI entered into a global settlement agreement with Praxair, Inc. that resolved all legal actions between the two parties. The parties are now free to market and sell worldwide their respective mechanical, sub-atmospheric delivery container products that were the subject of the disputes.

ATMI is, from time to time, subject to legal actions, governmental audits, and proceedings relating to various matters incidental to its business including contract disputes, product liability claims, employment matters, export and trade matters, and environmental claims. While the outcome of such matters cannot be predicted with certainty, in the opinion of management, after reviewing such matters and consulting with ATMI's counsel and considering any applicable insurance or indemnifications, any liability which may ultimately be incurred is not expected to materially affect ATMI's consolidated financial position, cash flows, or results of operations.

ATMI has entered into a pledge agreement with Anji Microelectronics Co., Ltd. ("Anji") for the issuance of a standby letter of credit up to \$4.6 million in order to assist Anji in securing bank financing, which is to expire no later than June 30, 2010. The standby letter of credit has been secured by Anji's assets and additional equity interests in Anji's operating subsidiaries. As of December 31, 2008, Anji has drawn down \$2.8 million against the line of credit secured by the letter of credit. Included in "Other long-term liabilities" at December 31, 2008 is \$0.2 million representing the fair value of the guarantee. At December 31, 2008, an independent credit rating agency has determined, based on their research, that Anji is an acceptable credit risk.

At December 31, 2008, our wholly-owned Japanese subsidiary had a revolving line of credit agreement with a major Japanese bank for approximately \$2.8 million for the primary purpose of cost-effectively funding capital purchases and local working capital needs in a favorable interest rate environment. The line of credit is guaranteed by ATMI, Inc. The balance outstanding on this line of credit was \$1.1 million at December 31, 2008. \$1.7 million remains available for future use.

ATMI currently has self-insurance limits for U.S. employee medical claims. The medical plan for U.S. employees has a stop-loss of \$0.1 million per individual occurrence and an annual aggregate stop-loss of \$5.4 million.

Other

Approximately 7 percent of the Company's employees are covered by collective bargaining agreements that will expire in 2009. All of the employees covered by these agreements are based in Belgium. The net assets of the Company's Belgian subsidiary represent approximately 6 percent of the Company's consolidated net assets.

16. SEGMENTS

ATMI is organized along functional lines of responsibility, whereby each member of the Company's executive team has global responsibility for each respective functional area, such as supply chain operations, sales, marketing, and research and development. The executive team is the chief operating decision maker of ATMI. Discrete financial information is only prepared at the product-line level for revenues and certain direct costs. Functional results are reviewed at the consolidated level. ATMI's operations comprise one operating segment.

ATMI derives virtually all its revenues from providing materials and packaging products and related integrated process solutions to microelectronics and life sciences manufacturers. All of ATMI's products are consumed or used in the front-end manufacturing process. They span many different technology applications at various stages of maturity and in many cases are inter-related in their application to a customer's process.

Revenues from external customers, by product type, were as follows (in thousands):

For the Year Ended December 31,	2008	2007	2006
Microelectronics	\$310,141	\$343,307	\$311,383
Life sciences	28,922	20,781	14,530
Total	\$339,063	\$364,088	\$325,913

17. GEOGRAPHIC DATA

The Company's geographic data for the years ended December 31, 2008, 2007, and 2006 are (in thousands):

	United States	Taiwan	Japan	South Korea	Other Pacific Rim	Belgium	Europe and Other	Total
December 31, 2008								
Revenues	\$ 76,949	\$79,547	\$43,068	\$46,909	\$48,388	\$ 2,900	\$41,302	\$339,063
Long-lived assets	185,022	9,386	7,644	3,476	239	23,696	407	229,870
December 31, 2007								
Revenues	\$ 84,938	\$ 89,162	\$ 45,961	\$48,995	\$ 51,249	\$ 2,929	\$ 40,854	\$ 364,088
Long-lived assets	144,259	4,436	1,404	2,764	322	11,175	458	164,818
December 31, 2006								
Revenues	\$103,921	\$ 67,451	\$ 46,924	\$36,427	\$ 37,794	\$ 518	\$ 32,878	\$ 325,913
Long-lived assets	127,657	4,436	1,167	2,774	99	4,929	362	141,424

Revenues are attributed to countries based on the location of the customer. Long-lived assets are located in the respective geographic regions, as shown above. Other than Taiwan, Japan, Belgium, and South Korea, no one specific country within the Pacific Rim, Europe, South America, and other regions accounted for greater than 10 percent of consolidated revenues and long-lived assets in 2008, 2007, and 2006.

Quarterly Results of Operations (Unaudited)

Summarized quarterly results of operations data is as follows (in thousands, except per share amounts):

2008	Quarter			
	First	Second	Third	Fourth
Revenues	\$92,797	\$89,487	\$86,684	\$70,095
Gross profit	46,366	46,288	41,426	32,432 ^(d)
Operating income	15,169	13,375	9,954	1,424
Net income	\$10,385	\$ 9,679 ^(a)	\$10,063 ^(b)	\$ 3,200
Basic income per common share:				
Net income per common share	\$0.32	\$0.31	\$0.32	\$0.10
Diluted income per common share:				
Net income per common share	\$0.32	\$0.30	\$0.32 ^(c)	\$0.10
2007				
Revenues	\$82,154	\$92,432	\$91,131	\$98,371
Gross profit	39,274	45,185	45,973 ^(f)	51,176 ^(g)
Operating income	7,476	11,649 ^(e)	15,131	18,246
Net income	\$ 6,323	\$ 9,271	\$11,327	\$13,618
Basic income per common share:				
Net income per common share	\$0.18	\$0.27	\$0.33	\$0.41
Diluted income per common share:				
Net income per common share	\$0.18	\$0.26	\$0.32	\$0.40

(a) Includes a \$2.0 million gain from the sale of a marketable security, offset by a \$1.8 million impairment charge related to an uncollectible convertible note receivable due from an early-stage semiconductor materials venture.

(b) Includes a \$1.6 million impairment charge related to our strategic investment portfolio, and \$0.7 million representing our after-tax proportionate share of a gain on sale of assets by one of our equity-method investees.

(c) We reported diluted income per common share of \$0.31 in our September 30, 2008 Form 10-Q—the amount has been revised due to the correction of common stock equivalents for that quarter.

(d) Includes a \$3.1 million net benefit associated with the settlement of a dispute with a distributor (\$3.7 million recognized in revenues, with \$0.6 million of associated costs recognized in cost of revenues), and \$2.4 million of benefit recognized from a business interruption claim recovery.

(e) Includes \$1.1 million associated with a contingent legal fee arrangement.

(f) Includes \$0.7 million of increased customs expense on imported goods from the United States to an overseas affiliate.

(g) Includes \$0.4 million of increased customs expense on imported goods from the United States to an overseas affiliate.

Management's Report on Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2008. In making its assessment, management has used the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in *Internal Control—Integrated Framework*. Our management concluded that based on its assessment, our internal control over financial reporting was effective as of December 31, 2008. The Company's internal control over financial reporting as of December 31, 2008 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their attestation report on the Company's internal control over financial reporting, which is included in this annual report.

There has been no change in our internal control over financial reporting during the quarter ended December 31, 2008 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of ATMI, Inc.

We have audited the accompanying consolidated balance sheets of ATMI, Inc. as of December 31, 2008 and 2007, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of ATMI, Inc. at December 31, 2008 and 2007, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), ATMI, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 18, 2009 expressed an unqualified opinion thereon.

Ernst + Young LLP

Stamford, Connecticut
February 18, 2009

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of ATMI, Inc.

We have audited ATMI, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). ATMI, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, ATMI, Inc. maintained in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of ATMI, Inc. as of December 31, 2008 and 2007, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008 and our report dated February 18, 2009 expressed an unqualified opinion thereon.

Ernst + Young LLP

Stamford, Connecticut
February 18, 2009

Company Information

DIRECTORS

Eugene G. Banucci, Ph.D.⁴
Chairman of the Board, ATMI, Inc.

Mark A. Adley^{2,3*}
Managing Director, Banc of America Securities LLC

Frederick C. Flynn, Jr.^{1*}
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Robert S. Hillas^{1,2*}
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Harding, Loevner LLC

Stephen H. Mahle^{1,3,4}
Executive Vice President, Health Care Policy
and Regulatory, Medtronic, Inc.

C. Douglas Marsh^{2,3}
Formerly Vice President, Business Integration,
US Investor Relations
ASML Holding, NV

Douglas A. Neugold
Chief Executive Officer and President, ATMI, Inc.

Cheryl L. Shavers, Ph.D.^{2,4*}
Chief Executive Officer, Global Smarts, Inc.

¹ Audit Committee

² Compensation Committee

³ Corporate Governance and Nominating Committee

⁴ Technology Committee

* Committee Chairman

EXECUTIVE OFFICERS

Douglas A. Neugold
Chief Executive Officer and President

Timothy C. Carlson
Executive Vice President, Chief Financial Officer,
and Treasurer

Ellen T. Harmon
Executive Vice President, Chief Legal Officer,
and Secretary

Tod A. Higinbotham
Executive Vice President, Process Solutions

Daniel P. Sharkey
Executive Vice President, Business Development

Steven M. Curtis
Senior Vice President, Sales

Lawrence H. Dubois, Ph.D.
Senior Vice President and Chief Technology Officer

Paul J. Hohlstein
Senior Vice President, Supply Chain and Operations

Kevin M. Laing
Senior Vice President and Chief Information Officer

Patrick J. Shima
Deputy Chief Legal Officer and Assistant Secretary

CORPORATE HEADQUARTERS

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COMMON STOCK LISTING

ATMI's Common Stock trades as "ATMI"
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AUDITORS

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Stamford, Connecticut

FORM 10-K

Free copies of ATMI's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, as filed with the Securities and Exchange Commission, are available

- from the SEC's web site—
<http://www.sec.gov/cgi-bin/browse-edgar?company=atmi&action=getcompany>
- through the investor pages at ATMI's web site—atmi.com
- by e-mail request—ir@atmi.com
- by mail—Attn: Investor Relations,
at ATMI Corporate Headquarters

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Back cover periodic elements adapted from Edward G. Mazurs' 1958/1973 figure, in his *Graphic Representations of the Periodic System During One Hundred Years*, © 1974, The University of Alabama Press.

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ATMI®

		Groups															
		I	II	III	IV	V	VI	VII	VIII								
		Electrons															
New periods		1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Shells and Subshells																	
		1	1 s	1 H	2 He												
2	2 s	3 Li	4 Be														
3	2 p			5 B	6 C	7 N	8 O	9 F	10 Ne								
	3 s	11 Na	12 Mg														
4	3 p			13 Al	14 Si	15 P	16 S	17 Cl	18 Ar								
	4 s	19 K	20 Ca														
5	3 d			21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn				
	4 p			31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr								
	5 s	37 Rb	38 Sr														
6	4 d			39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd				
	5 p			49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe								
	6 s	55 Cs	56 Ba														
7	4 f			57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb
	5 d			71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg				
	6 p			81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn								
	7 s	87 Fr	88 Ra														
8	5 f			89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No
	6 d			103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Uub				
	7 p			113 Uut	114 Uuq	115 Uup	116 Uuh	117 Uus	118 Uuo								
	8 s	119 Uue	120 Ubn														



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