

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

FORM 20-F

- Registration Statement pursuant to Section 12(b) or (g) of the Securities Exchange Act of 1934.
 Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
For the fiscal year ended December 31, 2008
 Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
 Shell company report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
Date of event requiring this shell company report
For the transition period from to

Commission File Number: 0-13355

ASM INTERNATIONAL N.V.

(Exact name of Registrant as specified in its charter)

The Netherlands

(jurisdiction of incorporation or organization)

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(Address of principal executive offices)

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(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

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

Title of each class

Name of each exchange on which registered

Common Shares, par value € 0.04

The NASDAQ Stock Market LLC

Securities registered or to be registered pursuant to

Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to

Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 54,275,131 common shares; 21,985 preferred shares.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this annual report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued by the International

Accounting Standards Board Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): Yes No

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As used in this report, the terms “we,” “us,” “our,” “ASMI,” and “ASM International” mean ASM International N.V. and its subsidiaries, unless the context indicates another meaning, and the term “common shares” means our common shares, par value € 0.04 per share. Since we are a Netherlands company, the par value of our common shares is expressed in euros (“€”). The terms “United States” and “U.S.” refer to the United States of America.

Forward Looking and Safe Harbor Statement

Some of the information in this report constitutes forward-looking statements within the meaning of the United States federal securities laws, including the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements include, among others, statements regarding future revenue, sales, income, expenditures, sufficiency of cash generated from operations, maintenance of majority interest in ASM Pacific Technology Ltd. (“ASM Pacific Technology”), business strategy, product development, product acceptance, market penetration, market demand, return on investment in new products, product shipment dates and outlooks. These statements may be found under Item 4, “Information on the Company,” Item 5, “Operating and Financial Review and Prospects” and elsewhere in this report. Forward-looking statements typically are identified by use of terms such as “may,” “could,” “should,” “project,” “believe,” “anticipate,” “expect,” “plan,” “estimate,” “forecast,” “potential,” “intend,” “continue” and similar words, although some forward-looking statements are expressed differently. You should be aware that these statements involve risks and uncertainties and our actual results could differ materially from those contained in the forward-looking statements due to a number of factors, including the matters discussed in Item 4, “Information on the Company” and the risks discussed in Item 3.D., “Risk factors.” The risks described are not the only ones facing ASMI. Some risks are not yet known and some that we do not currently believe to be material could later become material. Each of these risks could materially affect our business, revenues, income, assets, liquidity and capital resources. All statements are made as of the date of this report, and we assume no obligation and do not intend to update or revise any forward-looking statements to reflect future developments or circumstances.

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

A. Selected consolidated financial data.

You should read the following selected financial data in conjunction with Item 5, “Operating and Financial Review and Prospects” and Item 18, “Financial Statements.”

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The selected consolidated financial data presented below as of and for the years ended December 31, 2007 and 2008 have been derived from our audited Consolidated Financial Statements included in Item 18. The selected Consolidated Statements of Operations data presented below for the year ended December 31, 2006 have been derived from our audited Consolidated Statements of Operations as included in Item 18. The selected Consolidated Balance Sheet data presented below as of December 31, 2004, 2005 and 2006, and the selected Consolidated Statements of Operations data presented below for the years ended December 31, 2004 and 2005, have been derived from our audited Consolidated Financial Statements which are not included in this report.

	2004	2005	2006	2007	2008
	(€ in thousands, except per share data)				
Consolidated Statements of Operations data:					
Net sales	€ 754,245	€ 724,698	€ 877,491	€ 955,239	€ 747,362
Cost of sales	(472,155)	(469,321)	(538,674)	(594,163)	(477,100)
Gross profit	282,090	255,377	338,817	361,076	270,262
Operating expenses:					
Selling, general and administrative	(105,682)	(98,073)	(120,654)	(129,676)	(126,591)
Research and development, net	(80,751)	(89,829)	(88,130)	(83,468)	(75,011)
Amortization of other intangible assets	(303)	(599)	(553)	(553)	(475)
Impairment of goodwill	—	—	—	—	(1,395)
Restructuring expenses	—	—	—	—	(7,068)
Total operating expenses	(186,736)	(188,501)	(209,337)	(213,697)	(210,540)
Earnings from operations	95,354	66,876	129,480	147,379	59,722
Interest income	2,223	5,746	5,902	6,113	4,047
Interest expense	(11,364)	(15,844)	(11,726)	(9,866)	(7,745)
Gain (expense) resulting from early extinguishment of debt	(1,206)	(319)	—	(10,049)	7,956
Foreign currency exchange gains (losses), net	(111)	(128)	(1,250)	(1,020)	785
Earnings from continuing operations before income taxes and minority interest	84,896	56,331	122,406	132,557	64,765
Income tax expense	(10,575)	(6,666)	(14,095)	(19,245)	(12,144)
Earnings from continuing operations before minority interest	74,321	49,665	108,311	113,312	52,621
Minority interest	(45,608)	(43,558)	(54,882)	(55,345)	(38,298)
Gain on dilution of investment in subsidiary	2,656	2,781	1,255	3,010	4,088
Net earnings from continuing operations	31,369	8,888	54,684	60,977	18,411
Loss from discontinued operations before income taxes ¹	(7,330)	(48,464)	(20,350)	—	—
Income tax expense	—	(641)	—	—	—
Net loss from discontinued operations	(7,330)	(49,105)	(20,350)	—	—
Net earnings (loss)	24,039	(40,217)	34,334	60,977	18,411
Dividend preferred shares	—	—	—	—	(10)
Net earnings to common shareholders	€ 24,039	€ (40,217)	€ 34,334	€ 60,977	€ 18,401
Earnings per Share data:					
Basic net earnings from continuing operations per share:	€ 0.61	€ 0.17	€ 1.02	€ 1.13	€ 0.35
Basic net loss from discontinued operations per share:	€ (0.14)	€ (0.93)	€ (0.38)	€ —	€ —
Basic net earnings (loss) per share	€ 0.47	€ (0.76)	€ 0.64	€ 1.13	€ 0.35
Diluted net earnings from continuing operations per share:	€ 0.60	€ 0.17	€ 1.02	€ 1.07	€ 0.35
Diluted net loss from discontinued operations per share:	€ (0.14)	€ (0.93)	€ (0.38)	€ —	€ —
Diluted net earnings (loss) per share:	€ 0.46	€ (0.76)	€ 0.64	€ 1.07	€ 0.35
Basic weighted average number of shares (thousands)	51,540	52,638	53,403	53,968	52,259
Diluted weighted average number of shares (thousands)	51,858	52,638	53,575	65,076	52,389
Other data:					
Number of common shares outstanding at year end (in thousands)	52,618	52,679	53,829	54,005	54,275
Dividends declared on common shares	—	—	—	€ 0.10	—
Number of preferred shares outstanding at year end	—	—	—	—	21,985

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	December 31,				
	2004	2005	2006	2007	2008
	(€ in thousands)				
Consolidated Balance Sheet data:					
Cash and cash equivalents	€ 218,619	€ 135,000	€ 193,872	€ 167,923	€ 157,277
Total assets	823,834	812,308	832,297	840,333	767,798
Total debt	297,253	257,400	228,500	186,936	153,682
Total shareholders' equity	256,716	238,594	276,458	318,878	317,902

- (1) The restructuring of ASM NuTool in 2005 followed by the sale of substantially all of the ASM NuTool patent portfolio to a third party in December 2006 required ASM NuTool to be accounted for retroactively as discontinued operations under US GAAP in our Consolidated Financial Statements.

Exchange Rate Information

The following table sets forth, for each period indicated, specified information regarding the U.S. dollar per euro exchange rates based on the noon buying rate in New York City for cable transfers payable in euros as certified for customs purposes by the Federal Reserve Bank of New York, which is often referred to as the "noon buying rate." Effective January 1, 2009 the Federal Reserve Bank has discontinued publication of Foreign Exchange Rates. The information regarding the U.S. dollar per euro exchange rates will now be based on the rates of the European Central Bank, referred to as the "reference rate." On March 6, 2009, the reference rate was 1.2658 U.S. dollars per euro.

U.S. Dollar per Euro Exchange Rate

	September 2008	October 2008	November 2008	December 2008	January 2009	February 2009	March 2009 ¹
High	1.4737	1.4058	1.3039	1.4358	1.3866	1.3008	1.2658
Low	1.3939	1.2446	1.2525	1.2634	1.2795	1.2591	1.2555

	Years Ended December 31,				
	2004	2005	2006	2007	2008
Average exchange rate ²	1.2464	1.2400	1.2661	1.3797	1.4695

(1) Through March 6, 2009.

(2) Average of the exchange rates on the last day of each month during the period presented.

B. Capitalization and indebtedness.

Not applicable.

C. Reasons for the offer and use of proceeds.

Not applicable.

D. Risk factors.

You should carefully consider each of the risks and uncertainties described below and all other information contained in this Annual Report on Form 20-F. In order to help assess the major risks in our business, we have identified many, but not all, of these risks, which may not be in order of likelihood or materiality. Due to the scope of our operations, a wide range of factors could materially affect future developments and performance.

If any of the following risks are realized, our business, financial condition, cash flow or results of operations could be materially and adversely affected, and as a result, the trading price of our common stock could be materially and adversely impacted. These risk factors should be read in conjunction with other information set forth in this Report, including Item 5, *Operating and Financial Review and Prospects*, and our Consolidated Financial Statements and related notes.

RISKS RELATED TO OUR INDUSTRY

The industry in which we operate is highly cyclical and is currently experiencing an unprecedented downturn which has negatively impacted our business.

We sell our products to the semiconductor manufacturing industry, which is subject to sudden, extreme, cyclical variations in product supply and demand. Currently, this industry is experiencing a dramatic and unprecedented decline in demand for semiconductor devices due to the worldwide economic downturn, which has led to the announcement of significant layoffs, plant closings, reduced capital expenditures and other cost reduction measures by semiconductor manufacturers. These conditions have caused a substantial diminution in the demand for our products, which represent capital expenditures for our customers. In addition, these conditions may lead to the consolidation in the semiconductor manufacturing industry, which could further reduce demand for our products in the future. As with all such cycles, the timing, length and severity of this cycle cannot be predicted. The unprecedented nature of the current global financial crisis and economic downturn may result in changes in the semiconductor manufacturing industry and the manner in which we must conduct our business, in ways that cannot now be predicted.

Semiconductor manufacturers may contribute to the severity of these cycles by misinterpreting the conditions in the industry and over-investing or under-investing in semiconductor manufacturing capacity and equipment. In any event, the lag between changes in demand for semiconductor devices and changes

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in demand for our products by semiconductor manufacturers accentuates the intensity of these cycles in both expansion and contraction phases. We may not be able to respond timely and effectively to these industry cycles.

Industry downturns historically have been characterized by reduced demand for semiconductor devices and equipment, production over-capacity and a decline in average selling prices. During a period of declining demand, such as the present, we must quickly and effectively reduce expenses. However, our ability to reduce expenses is limited by our need for continued investment in engineering and research and development and extensive ongoing customer service and support requirements. In addition, in a downturn, our ability to reduce inventories quickly is limited by the long lead time for production and delivery of some of our products, reduced sales, order cancellations and delays, and delays associated with reducing deliveries from our supplier pipeline. During an extended downturn a portion of our inventory may have to be written down as excess or obsolete if it is not sold in a timely manner.

Industry upturns have been characterized by fairly abrupt increases in demand for semiconductor devices and equipment and insufficient production capacity. During a period of increasing demand and rapid growth, we must be able to quickly increase manufacturing capacity to meet customer demand and hire and assimilate a sufficient number of additional qualified personnel, and fund such increase of manufacturing capacity. Our inability to quickly respond in times of increased demand, because of the effect, for example, of our current programs to reduce expenses and the rate of purchases from our suppliers, could harm our reputation and cause some of our existing or potential customers to place orders with our competitors rather than us.

Our industry is subject to rapid technological change and we may not be able to forecast or respond to commercial and technological trends in time to avoid competitive harm.

Our future success depends upon commercial acceptance of products incorporating new technologies we are developing, such as new plasma enhanced and atomic layer deposition processes, new epitaxy processes and new materials and chemistries. The semiconductor industry and the semiconductor equipment industry are subject to rapid technological change and frequent introductions of enhancements to existing products which can result in significant write-downs and impairment charges and costs. Technological changes have had and will continue to have a significant impact on our business. Our operating results and our ability to remain competitive are affected by our ability to accurately anticipate customer and market requirements and develop technologies and products to meet these requirements. Our success in developing, introducing and selling new and enhanced products depends upon a variety of factors, including, without limitation:

- successful innovation of processes and equipment;
- accurate technology and product selection;
- timely and efficient completion of product design, development and qualification;
- timely and efficient implementation of manufacturing and assembly processes;
- successful product performance in the field;
- effective and timely product support and service; and
- effective product sales and marketing.

We may not be able to accurately forecast or respond to commercial and technical trends in the semiconductor industry or to the development of new technologies and products by our competitors. Our competitors may develop technologies and products that are more effective than ours or that may be more widely accepted. We may also experience delays and technical and manufacturing difficulties in future introductions or volume production of new systems or enhancements. Significant delays can occur between a product's introduction and the commencement of volume production of that product. Any of these events could negatively impact our ability to generate the return we intend to achieve on our investments in new products.

If we fail to adequately invest in research and development, we may be unable to compete effectively.

We have limited resources to allocate to research and development, and must allocate our resources among a wide variety of projects in our front-end and back-end businesses. In 2008, we invested € 75.0 million in research and development, or 10.0% of our net sales, of which € 43.8 million was invested in our front-end business. If we have insufficient cash flow from our front-end businesses to support the necessary level of research and development, we will have to fund such expenditures by diminishing our cash balances, or utilizing our credit facilities or reduce our level of research and development expenses.

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Because of intense competition in our industry, the cost of failing to invest in strategic developments is high. In order to enhance the benefits obtained from our research and development expenditures, we have contractual and other relationships with independent research institutes. If we fail to adequately invest in research and development or lose our ability to collaborate with these independent research entities, we may be unable to compete effectively in the front-end and back-end markets in which we operate.

We face intense competition from companies which have greater resources than we do, and potential competition from new companies entering the market in which we compete. If we are unable to compete effectively with these companies, our market share may decline and our business could be harmed.

We face intense competition in both the front-end and back-end segments of the semiconductor equipment industry from other established companies. Our primary competitors in the front-end business include amongst others Applied Materials, Novellus Systems, Tokyo Electron, Kokusai, and Jusung. Our primary competitors in the back-end business include amongst others Kulicke & Soffa, ESEC, Shinkawa, Apic Yamada, BE Semiconductor Industries, Towa, Shinko and Mitsui. A number of our competitors have significantly greater financial, technological, engineering, manufacturing, marketing and distribution resources than we do. Their greater capabilities in these areas may enable them to:

- better withstand periodic downturns in the semiconductor industry, such as the present downturn;
- compete more effectively on the basis of price, technology, service and support;
- more quickly develop enhancements to and new generations of products; and
- more effectively retain existing customers and attract new customers.

In addition, new companies may enter the markets in which we compete, further increasing competition in the semiconductor equipment industry.

We believe that our ability to compete successfully depends on a number of factors, including, without limitation:

- our success in developing new products and enhancements;
- performance of our products;
- quality of our products;
- ease of use of our products;
- reliability of our products;
- cost of ownership of our products;
- our ability to ship products in a timely manner;
- quality of the technical service we provide;
- timeliness of the services we provide;
- responses to changing market and economic conditions; and
- price of our products and our competitors' products.

Some of these factors are outside our control. We may not be able to compete successfully in the future, and increased competition may result in price reductions, reduced profit margins, loss of market share, and inability to generate cash flows that are sufficient to maintain or expand our development of new products.

Industry Alliances May Not Select our Equipment

Increasingly, our customers are entering into alliances or other forms of cooperation with one another to expedite the development of processes and other manufacturing technologies. One of the results of this cooperation may be the definition of a system or particular tool set for a certain function or a series of process steps that uses a specific set of manufacturing equipment. These decisions could work to our disadvantage if a competitor's equipment becomes the standard equipment for such function or process. Even if our equipment was previously used by a customer, that equipment may be displaced in current and future applications by the equipment standardized through such cooperation. These forms of cooperation may have a material adverse effect on our business, financial condition and results of operations.

RISKS RELATED TO OUR BUSINESS

Our customers are facing challenges in the current economic downturn and if they cannot perform their obligations to us our financial results will suffer.

We face increased payment and performance risk in the current economic downturn from our customers. If any of our customers become insolvent or commence bankruptcy or similar proceedings, our receivables from such customers may become uncollectible. In order to promote sales, we may be required to provide extended payment terms, financing arrangements or other modified sale terms for some customers, which will increase our sales expenses and further increase our exposure to customer credit risk, all in an environment of downward pressure on average selling prices. Even though we may be a secured creditor or lessor in these arrangements with rights in the underlying equipment, the equipment may have only limited value upon a customer default, especially if activity in our markets remains at the current low levels, which may result in substantial write-downs upon any such default.

If we do not accurately evaluate our customers' creditworthiness in connection with sales financing arrangements involving increased exposure to customer payment risk, our bad debt expense will increase. If we are too cautious in our sales practices because of this, we may lose sales. In either case, our results of operations and financial condition would be negatively affected.

We derive a significant percentage of our revenue from sales to a small number of large customers, and if we are not able to retain these customers, or if they reschedule, reduce or cancel orders, or fail to make payments, our revenues would be reduced and our financial results would suffer.

Our largest customers account for a significant percentage of our revenues. Our largest customer accounted for 13.8% and our ten largest customers accounted for 32.0% of our net sales in 2008. Sales to and the relative importance of these large customers have varied significantly from year to year and will continue to fluctuate in the future. These sales also may fluctuate significantly from quarter to quarter. We may not be able to retain our key customers or they may cancel purchase orders or reschedule or decrease their level of purchases from us, which would reduce our revenues and negatively affect our financial results. In addition, any difficulty in collecting amounts due from one or more key customers could harm our financial results.

We may need additional funds to finance our future growth and ongoing research and development activities. If we are unable to obtain such funds, we may not be able to expand our business as planned.

In the past, we have experienced capital constraints that adversely affected our operations and ability to compete, particularly in our front-end business. We may require additional capital to finance our future growth and fund our ongoing research and development activities particularly with regard to our front-end business. We have only limited ability to reallocate funds from our back-end business to our front-end business and some limitations on our ability to reallocate funds among our front-end businesses.

If we raise additional funds through the issuance of equity securities, the percentage ownership of our existing shareholders would be diluted. If we finance our capital requirements with debt, we may incur significant interest costs. Additional financing may not be available to us when needed or, if available, may not be available on terms acceptable to us, particularly in light of the current global financial crisis that has dramatically affected the availability of bank and other sources of debt financing.

If we are unable to raise needed additional funds, we may have to reduce the amount we spend on research and development, slow down our introduction of new products, reduce capital expenditures necessary to support future growth and/or take other measures to reduce expenses which could limit our growth and ability to compete.

Our products generally have long sales cycles and implementation periods, which increase our costs in obtaining orders and reduce the predictability of our earnings.

Our products are technologically complex. Prospective customers generally must commit significant resources to test and evaluate our products and to install and integrate them into larger systems. In addition, customers often require a significant number of product presentations and demonstrations, in some instances evaluating equipment on site, before reaching a sufficient level of confidence in the product's performance and compatibility with the customer's requirements to place an order. As a result, our sales process is often subject to delays associated with lengthy approval processes that typically accompany the design and testing of new products. Accordingly, the sales cycles of our products often last for many months or even years, thereby requiring us to invest significant resources in attempting to complete sales.

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Long sales cycles also subject us to other risks, including customers' budgetary constraints, internal acceptance reviews and cancellations. In addition, orders expected in one quarter could shift to another because of the timing of customers' purchase decisions. The time required for our customers to incorporate our products into their systems can vary significantly with the needs of our customers and generally exceeds several months, which further complicates our planning processes and reduces the predictability of our earnings from operations.

Our ability to compete could be jeopardized if we are unable to protect our intellectual property rights from challenges by third parties; claims or litigation regarding intellectual property rights could require us to incur significant costs.

Our success and ability to compete depend in large part upon protecting our proprietary technology. We rely on a combination of patent, trade secret, copyright and trademark laws, nondisclosure and other contractual agreements and technical measures to protect our proprietary rights. These agreements and measures may not be sufficient to protect our technology from third party infringements or to protect us from the claims of others. In addition, patents issued to us may be challenged, invalidated or circumvented, rights granted to us under patents may not provide competitive advantages to us, and third parties may assert that our products infringe their patents, copyrights or trade secrets. Third parties could also independently develop similar products or duplicate our products.

In addition, monitoring unauthorized use of our products is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology. The laws of some countries in which our products are or may be developed, manufactured or sold, including various countries in Asia, may not protect our products or intellectual property rights to the same extent as do the laws of the Netherlands and the United States and thus make the possibility of piracy of our technology and products more likely in these countries. If competitors are able to use our technology as their own, our ability to compete effectively could be harmed.

In recent years, there has been substantial litigation regarding patent and other intellectual property rights in semiconductor-related industries. In the future, litigation may be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us or to defend us against claimed infringement of the rights of others and to determine the scope and validity of the proprietary rights of others.

Claims that our products infringe the proprietary rights of others would force us to defend ourselves and possibly our customers or suppliers against the alleged infringement. Such claims, if successful, could subject us to significant liability for damages and potentially invalidate our proprietary rights. Regardless of the outcome, patent infringement litigation is time-consuming and expensive to resolve and diverts management time and attention.

Intellectual property litigation could force us to do one or more of the following, any one of which could severely harm our business with adverse financial consequences:

- forfeit our proprietary rights;
- stop manufacturing or selling our products that incorporate the challenged intellectual property;
- obtain from the owner of the infringed intellectual property right a license to sell, produce, use, have sold, have produced or have used the relevant technology, which license may not be available on reasonable terms or at all or may involve significant royalty payments;
- pay damages, including treble damages and attorney's fees in some circumstances; or
- redesign those products that use the challenged intellectual property.

We license the use of some patents from a competitor pursuant to a settlement agreement; if the agreement is terminated, our business could be adversely affected.

In October 1997, we entered into an agreement to settle mutual patent infringement litigation with Applied Materials, which was amended and restated in 1998, pursuant to which Applied Materials agreed to grant us a worldwide, non-exclusive and royalty-bearing license to use all of the litigated patents and certain additional patents that were not part of the litigation. In return we agreed to pay Applied Materials a settlement fee and to grant it a worldwide, non-exclusive and royalty-free license to use a number of our patents including but not limited to those patents which we were enforcing in the litigation. All licenses granted by Applied Materials to us expire at the end of the life of the underlying patents which expire at various times through 2014. Our obligation to pay certain royalties to Applied Materials continues until the expiration of the corresponding underlying patent. In addition, the settlement agreement included covenants for limited periods during which the parties would not litigate the issue of whether certain of our products

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infringe any of Applied Materials' patents that were not licensed to us under the settlement agreement. These covenants, which lasted for different periods of time for different products, have expired. Upon the occurrence of an event of default or other specified events, including, among other things, our failure to pay royalties, a change of control of ASM International, and improper use of the licenses, Applied Materials may terminate the settlement agreement, including the licenses included in the agreement.

As of December 18, 2007, we ceased paying royalties under certain Applied Materials patent licenses in respect of patents that we no longer practice. If it is determined that we still practice these patents, we will owe royalty payments to Applied Materials on our sales of covered products since that time.

Under our license agreement with Applied Materials, we pay royalties based upon our sales of equipment that employs technology covered by the licensed patents. We believe that we no longer practice patents applicable to certain equipment and ceased paying royalties on the sale of such equipment as of December 18, 2007. Applied Materials is verifying our position through the review by an independent expert. If this review is not conclusive, Applied Materials may proceed with arbitration regarding our obligation to pay these royalties. Although we believe our position is correct, the outcome of any such arbitration is uncertain and, if we are not successful, we could be required to pay up to approximately € 2.5 million for royalties as of December 31, 2008.

Additional litigation with Applied Materials regarding other matters or the operation of the settlement agreement itself could occur. Litigation with Applied Materials, which has greater financial resources than we do, could negatively impact our earnings and financial position.

Our net earnings could be negatively impacted by currency fluctuations.

Our assets, liabilities and operating expenses and those of our subsidiaries are to a large extent denominated in the currency of the country where each entity is established. Our financial statements, including our Consolidated Financial Statements, are expressed in euros. The translation exposures that result from the inclusion of financial statements of our subsidiaries that are expressed in the currencies of the countries where the subsidiaries are located are not hedged. As a result, our assets, liabilities and operating expenses are exposed to fluctuations of various foreign currency exchange rates.

In addition, foreign currency fluctuations may affect the prices of our products. Prices for our products for sales to our customers throughout the world are currently denominated in various foreign currencies including, but not limited to, U.S. dollar, euro, Japanese yen and Chinese yuan. If there is a significant devaluation of the currency in a specific country, the prices of our products will increase relative to that country's currency, and could increase relative to prices of our competitors, and our products may be less competitive in that country. Also, we cannot be sure that our international customers will continue to be willing to place orders denominated in these currencies. If they do not, our revenue and earnings from operations could be subject to additional foreign exchange rate fluctuations.

Although we monitor our exposure to currency fluctuations, these fluctuations could negatively impact our financial position, net earnings and cash flow.

Substantially all of our equipment orders are subject to operating, performance, safety, economic specifications and other contractual obligations. We occasionally experience unforeseen difficulties in compliance with these criteria, which can result in increased design, installation and other costs and expenses.

Substantially all of our equipment sales have specific commercial terms and are conditioned on our demonstration, and our customer's acceptance, that the equipment meets specified operating and performance criteria, either before shipment or after installation in a customer's facility. We occasionally experience difficulties in adhering to and demonstrating compliance with such terms and other contractual obligations, which can lead to unanticipated expenses for the performance of the contract or the redesign, modification and testing of the equipment and related software. To the extent this occurs in the future, our cost of goods sold and earnings from operations will be adversely affected. If we are not able to demonstrate compliance with the particular contract or the performance and operating specifications in respect of specific equipment, we may have to pay penalties to the customer, issue credit notes to the customer and/or take other remedial action, including payment of damages or adjusted pricing, any one of which could negatively affect our earnings from operations.

We could be harmed by the loss of key management.

The success of our operations depends in significant part upon the experience of our management team. We do not maintain "key person" life insurance policies. The unexpected loss of services from our key

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executives and the transition process with new management could harm or cause difficulties in our business, prospects, financial position and net earnings.

We are subject to various legal proceedings and claims, the outcomes of which are uncertain. If we fail to accurately evaluate the probability of loss or the amount of possible losses, an adverse outcome may materially and adversely affect our financial condition and results of operations.

We are party to various legal proceedings and claims generally incidental to our business, as disclosed in Note 18 of Notes to Consolidated Financial Statements included elsewhere in this report. For each of these proceedings and claims, our management evaluates, based on the relevant facts and legal principles, the likelihood of an unfavorable outcome and whether the amount of the loss can be reasonably estimated, in connection with our determination of whether or not to record a charge to earnings. Significant subjective judgments are required in these evaluations, including judgments regarding the validity of asserted claims and the likely outcome of legal, arbitration and administrative proceedings. The outcome of these proceedings is subject to a number of factors beyond our control. In addition, estimates of the potential costs associated with legal, arbitration and administrative proceedings frequently cannot be subjected to any sensitivity analysis, as damage estimates or settlement offers by claimants may bear little or no relation to the eventual outcome. Finally, in any particular proceeding, even where we believe that we would ultimately prevail, we may agree to settle or to terminate a claim or proceeding where we believe that doing so, when taken together with other relevant commercial considerations, is more cost-effective than engaging in an expensive and protracted contest. If we do not accurately assess the probability of an unfavorable outcome or the range of possible loss, an unfavorable outcome could have a material adverse impact on our financial condition and results of operations.

If our products are found to be defective, we may be required to recall and/or replace them, which could be costly and result in a material adverse effect on our business, financial position and net earnings.

One or more of our products may be found to be defective after we have already shipped the products in volume, requiring a product replacement or recall. We may also be subject to product returns and product liability claims that could impose substantial costs and have a material and adverse effect on our business, financial position and net earnings.

Although we currently are a majority shareholder of ASM Pacific Technology, we may not be able to maintain our majority interest, which, if other circumstances are such that we do not control ASM Pacific Technology, would prevent us from consolidating its results of operations with ours. This event would have a significant negative effect on our consolidated earnings from operations.

We derive a significant portion of our net sales, earnings from operations and net earnings from the consolidation of the results of operations of ASM Pacific Technology in our results. ASM Pacific Technology is a Cayman Islands limited liability company that is based in Hong Kong and listed on the Hong Kong Stock Exchange. As of December 31, 2008, we owned 52.87% of ASM Pacific Technology through our wholly-owned subsidiary, ASM Pacific Holding B.V. and the remaining 47.13% was owned by the public. If we do not maintain our majority interest in ASM Pacific Technology, and if other circumstances are such that we do not control it through other means, we would no longer be able to consolidate its results of operations in ours. Any such determination of whether we could continue to consolidate would be based on whether we still have a "controlling financial interest" within the meaning of United States generally accepted accounting principles. If we were to become unable to consolidate the results of operations of ASM Pacific Technology with our results, the results of operations of ASM Pacific Technology would no longer be included in our earnings from operations. Instead, our proportionate share of ASM Pacific Technology's earnings would be reflected as a separate line-item called "share of results from investments" in our Consolidated Statements of Operations. We would no longer be able to consolidate the assets and liabilities of ASM Pacific Technology and would have to reflect the net investment in ASM Pacific Technology in the line-item "investments" in our Consolidated Balance Sheet. This event would have a significant negative effect on our consolidated earnings from operations, although our net earnings would be reduced only to the extent of the reduction of our ownership interest in ASM Pacific Technology.

ASM Pacific Technology has an employee share incentive program pursuant to which it can issue up to an aggregate of 5.0% of its total issued shares, excluding shares subscribed for or purchased under the program, to directors and employees. When ASM Pacific Technology issues shares pursuant to this program, our ownership interest is diluted. If the current maximum amount of shares is issued under this program, our ownership interest would continue to be above 50.0%, although we expect that ASM Pacific Technology will increase the maximum number of shares issuable under the program at its 2009 annual general meeting. Our interest could further be diluted if ASM Pacific Technology issues equity for other purposes. Any such decision by ASM Pacific Technology to issue additional shares requires the approval of

shareholders in general meeting in accordance with the listing rules of the Hong Kong Stock Exchange, which in effect makes such decision subject to our approval. We may need to purchase shares of ASM Pacific Technology or take other measures to maintain our majority interest in the future. There is no assurance that we will have sufficient financial resources to do so at that time.

Although we are a majority shareholder, ASM Pacific Technology is not obligated to pay dividends to us and may take actions or enter into transactions that are detrimental to us.

Three of the ten directors of ASM Pacific Technology are affiliates of ASM International. However, they are under no obligation to take any actions that are beneficial to us. Issues and conflicts of interest therefore may arise which might not be resolved in our best interest.

In addition, the directors of ASM Pacific Technology are under no obligation to declare a payment of dividends to shareholders. As a shareholder of ASM Pacific Technology, we cannot compel the payment or amount of dividends. With respect to the payment of dividends, the directors must consider the financial position of ASM Pacific Technology after the dividend. Cash dividends received from ASM Pacific Technology totaled € 59.0 million, € 49.1 million and € 49.1 million, in 2006, 2007 and 2008, respectively. In the past, we have used these dividends in our front-end business. In November 2006, we announced our commitment that for at least the years 2007, 2008 and 2009 we would not use these cash dividends to support our front-end business, but instead would use such dividends to retire outstanding convertible debt, repurchase our common shares, pay dividends on our common shares, or purchase shares of ASM Pacific Technology. See Item 5, "Operating and Financial Review and Prospects—Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

The directors of ASM Pacific Technology owe their fiduciary duties to ASM Pacific Technology, and may approve transactions to which we are a party only if the transactions are commercially beneficial to ASM Pacific Technology. Further, under the listing rules of the Hong Kong Stock Exchange, directors who are on the boards of both ASM Pacific Technology and ASM International are not permitted to vote on a transaction involving both entities. This would disqualify all of the three affiliates of ASM International who currently serve on the board of ASM Pacific Technology from voting on any such transaction.

As a shareholder of ASM Pacific Technology, we can vote our shares in accordance with our own interests. However, we may not be entitled to vote on transactions involving both us and ASM Pacific Technology under the listing rules of the Hong Kong Stock Exchange and the Hong Kong Takeovers Code. In particular, under the Hong Kong Takeovers Code we would be excluded from voting on a takeover transaction requiring shareholder's approval if we are interested in such transaction.

We may not be able to recruit or retain qualified personnel or integrate qualified personnel into our organization. Consequently, we could experience reduced sales, delayed product development and diversion of management resources.

Our business and future operating results depend in part upon our ability to attract and retain qualified management, technical, sales and support personnel for our operations on a worldwide basis. Competition for qualified personnel is intense, and we cannot guarantee that we will be able to continue to attract and retain qualified personnel particularly during sustained economic upturns in the industry. Availability of qualified technical personnel varies from country to country, and may affect the operations of our subsidiaries in some parts of the world. Our operations could be negatively affected if we lose key executives or employees or are unable to attract and retain skilled executives and employees as needed. In particular, if our growth strategies are successful, we may not have sufficient personnel to manage that growth and may not be able to attract the personnel needed. Although we have agreements with some, but not all, employees restricting their ability to compete with us after their employment terminates, we do not maintain insurance to protect against the loss of key executives or employees. Our future growth and operating results will depend on:

- our ability to continue to broaden our senior management group;
- our ability to attract, hire and retain skilled employees; and
- the ability of our officers and key employees to continue to expand, train and manage our employee base.

We have in the past experienced intense competition for skilled personnel during market expansions and believe competition will be intense if the semiconductor market experiences a sustained expansion. Consequently, we generally attempt to minimize reductions in skilled personnel in reaction to industry downturns, which reduces our ability to lower costs by payroll reduction.

Because the costs to semiconductor manufacturers of switching from one semiconductor equipment supplier to another can be high, it may be more difficult to sell our products to customers having a competing installed base, which could limit our growth in sales and market share.

We believe that once a semiconductor manufacturer has selected a supplier's equipment for a particular product line, that manufacturer generally continues to rely on that supplier for future equipment requirements, including new generations of similar products. Changing from one equipment supplier to another is expensive and requires a substantial investment of resources by the customer. Accordingly, it is difficult to achieve significant sales to a customer using another supplier's equipment. Our inability to sell our products to potential customers who use another supplier's equipment could adversely affect our ability to increase revenue and market share.

Our reliance on a limited number of suppliers and a single manufacturing facility could result in disruption of our operations.

We outsource a portion of the manufacturing of our front-end business to a limited number of suppliers. If our suppliers were unable or unwilling to deliver products in a timely manner to us in the quantities we require for any reason, including without limitation, capital constraints, natural disaster, labor unrest, capacity constraints, supply chain management problems or contractual disputes, we may be unable to fill customer orders on a timely basis, which could negatively affect our customer relationships and financial performance. Many of our suppliers are facing economic challenges in the current depressed global economy, which increases our risk of disruption from a supplier's failure to perform its obligations to us in a timely manner.

We have shifted an increasing portion of our front-end manufacturing to our Front-End Manufacturing Singapore (FEMS) facility, and expect to increase the concentration of front-end manufacturing there in the future. If this facility experiences a manufacturing disruption for any reason, including without limitation, natural disaster, labor unrest, capacity constraints, supply chain management problems or contractual disputes, our ability to timely meet our customers' needs may be impaired, which would negatively affect our customer relationships and financial performance.

We operate worldwide; economic, political, military or other events in a country where we make significant sales or have significant operations could interfere with our success or operations there and harm our business.

We market and sell our products and services throughout the world. A substantial portion of our manufacturing employees and operations are in the People's Republic of China and the success of our business depends substantially on those operations. In addition, we have manufacturing facilities in the Netherlands, the United States, Japan, Hong Kong, Singapore, Malaysia and South Korea. Our operations are subject to risks inherent in doing business internationally, including, without limitation:

- unexpected changes in regulatory or legal requirements or changes in one country in which we do business which are inconsistent with regulations in another country in which we do business;
- potentially adverse tax consequences;
- fluctuations in foreign currency exchange rates and foreign currency controls;
- political conditions and instability, particularly in the countries in which our manufacturing facilities are located;
- economic conditions and instability;
- terrorist activities;
- human health emergencies, such as the outbreak of infectious diseases or viruses, particularly in the countries in which our manufacturing facilities are located;
- tariffs and other trade barriers, including current and future import and export restrictions, and freight rates;
- difficulty in staffing, coordinating and managing international operations;
- burden of complying with a wide variety of foreign laws and licensing requirements;
- difficulty in protecting intellectual property rights in some foreign countries;
- limited ability to enforce agreements and other rights in some foreign countries;
- longer accounts receivable payment terms and practices in some countries; and
- business interruption and damage from natural disasters.

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To the extent that such disruptions slow the global economy or, more particularly, result in delays or cancellations of purchase orders, our business and operating results could be materially and adversely affected.

Environmental laws and regulations may expose us to liability and increase our costs.

Our operations are subject to many environmental laws and regulations wherever we operate governing, among other things, air emissions, wastewater discharges, the use and handling of hazardous substances, waste disposal and the investigation and remediation of soil and groundwater contamination. As with other companies engaged in similar activities, we face inherent risks of environmental liability in our current and historical manufacturing activities. Costs associated with future environmental compliance or remediation obligations could adversely affect our business.

In February 2003, the European Commission published a directive on waste electrical and electronic equipment (“WEEE”), which has been implemented in the Netherlands. In principle, the rules result in “take-back” obligations of manufacturers and/or the responsibility of manufacturers for the financing of the collection, recovery and disposal of electrical and electronic equipment by requiring that European Union Member States adopt appropriate measures to minimize WEEE disposal and achieve high levels of collection and separation of WEEE. Producers of WEEE must provide for the financing of the collection, treatment, recovery and environmentally sound disposal of WEEE. Another directive of the European Commission (Directive 2002/95/EC) provides for a ban on the use of lead and some flame retardants in manufacturing electronic components. To the extent these and other similar regulations in other countries apply to our business in Europe and elsewhere throughout the world, these measures could adversely affect our manufacturing costs or product sales by forcing us or our suppliers to change production processes or use more costly materials.

Any acquisitions or investments we may make in the future could disrupt our business and harm our financial condition.

We may consider from time to time additional investments in complementary businesses, products or technologies. We may not be able to successfully integrate these businesses, products, technologies or personnel that we might acquire in the future, and accordingly we may not realize the anticipated benefits from such acquisitions. In particular, our operation of acquired businesses involves numerous risks, including without limitation:

- problems integrating the purchased operations, technologies or products;
- unanticipated costs and liabilities for which we are not able to obtain indemnification from the sellers;
- diversion of management’s attention from our core business;
- adverse effects on existing business relationships with customers;
- risks associated with entering markets in which we have no, or limited, prior experience;
- risks associated with installation, service and maintenance of equipment of which we have limited or no prior experience;
- limited technical documentation of the equipment developed in the acquired company; and
- potential loss of key employees, particularly those of the acquired organizations.

In addition, in the event of any future acquisitions of such businesses, products or technologies, we could:

- issue shares that would dilute our current shareholders’ percentage ownership;
- incur debt;
- assume liabilities;
- incur impairment expenses related to goodwill and other intangible assets; or
- incur large and immediate accounting write-offs.

RISKS RELATED TO AN INVESTMENT IN OUR SHARES

Our founder and members of our Supervisory Board and Management Board control approximately 23.1% of our voting power (without regard to the 21,985,000 votes the holder of our preferred shares is entitled to cast) which gives them significant influence over matters voted on by our shareholders, including the election of members of our Supervisory Board and Management Board and makes it substantially more difficult for a shareholder group to remove or elect such members without the support of our founder and members of the Supervisory Board and Management Board.

Our founder controlled approximately 22.2% of the voting power of our outstanding common shares as of December 31, 2008, and the members of our Supervisory Board and Management Board as a group controlled approximately 0.9% of the voting power of our outstanding common shares as of that date (without regard to the 21,985,000 votes the holder of our preferred shares is entitled to cast). Accordingly, these persons have significant influence on the outcome of matters submitted to a shareholder vote, such as the election of the members of our Supervisory Board and Management Board. Persons nominated by the Supervisory Board for appointment by the shareholders to the Supervisory Board or Management Board at a general meeting of shareholders will be elected if they receive a majority of the votes cast at the meeting. Nominees to the Supervisory Board or Management Board who are not proposed by the Supervisory Board are appointed if they receive the affirmative vote of a majority of the votes cast at the meeting, provided such affirmative votes represent more than half our issued capital. Members of the Supervisory and Management Boards may be removed only by the affirmative vote of a majority of the votes cast at a meeting, and, unless such removal is recommended by the Supervisory Board, the affirmative votes must represent more than half our issued capital. This makes it difficult for a group of shareholders to remove or elect members of our Supervisory Board or Management Board without the support of our founder and the Supervisory Board and Management Board.

Our anti-takeover provisions may prevent a beneficial change of control.

The Company has granted to Stichting Continuïteit ASM International ("Stichting"), a non-membership organization with a board composed of three members independent of ASMI, the right to acquire and vote our preferred shares. The objective of Stichting is to serve the interests of the Company. To that objective Stichting may, among other things, acquire, own and vote our preferred shares in order to maintain our independence and/or continuity and/or identity. This may prevent a change of control from occurring that shareholders may otherwise support. On May 14, 2008, Stichting exercised this right in response to a perceived threat to our continuity and acquired 21,985 shares of our preferred stock representing 21,985,000 votes or 29.9% of the total voting power of our outstanding capital shares at that time. For additional information regarding Stichting and the issuance of these preferred shares in 2008, see Item 7, "Major Shareholders and Related Party Transactions."

The voting power of Stichting may make it more difficult for a shareholder or a group of shareholders to cause us to enter into a change of control transaction not supported by Stichting, even if such transaction offers our shareholders an opportunity to sell their shares at a premium over the market price.

We must offer a possible change of control transaction to Applied Materials first.

Pursuant to our 1997 settlement agreement with Applied Materials, as amended and restated in 1998, if we desire to effect a change of control transaction, as defined in the settlement agreement, with a competitor of Applied Materials, we must first offer the change of control transaction to Applied Materials on the same terms as we would be willing to accept from that competitor pursuant to a bona fide arm's-length offer made by that competitor.

Our failure to maintain effective internal controls over financial reporting may prevent our auditor from attesting to our evaluation of our controls.

We are subject to United States securities laws, including the Sarbanes-Oxley Act of 2002 and the rules and regulations adopted by the U.S. Securities and Exchange Commission pursuant to the Act. Under Section 404 of the Sarbanes-Oxley Act and the related regulations, we are required to perform an annual evaluation of our internal controls over financial reporting and submit a management report on such controls. In addition, we are required to have our independent auditor publicly attest to our evaluation of internal controls over financial reporting, beginning with the year ended December 31, 2007.

If we fail to maintain effective internal controls over financial reporting, if we do not timely evaluate the effectiveness of internal controls over financial reporting, or if our independent auditor cannot timely attest to our evaluation, we could be subject to regulatory scrutiny and decreased public confidence in our internal controls, which may adversely affect the market price of our common shares.

Our stock price has fluctuated and may continue to fluctuate widely.

The market price of our common shares has fluctuated substantially in the past. Between January 1, 2008 and December 31, 2008, the sales price of our common shares, as reported on the NASDAQ Global Select Market, ranged from a low of US\$ 6.35 to a high of US\$ 33.60. The market price of our common shares will continue to be subject to significant fluctuations in the future in response to a variety of factors, including the risk factors discussed in this report and the following, without limitation:

- future announcements concerning our business or that of our competitors or customers;
- the introduction of new products or changes in product pricing policies by us or our competitors;
- litigation regarding proprietary rights or other matters;
- changes in analysts' earnings estimates and recommendations;
- developments in the financial markets;
- quarterly fluctuations in operating results;
- hedge fund and shareholder activist activities;
- general economic, political and market conditions, such as recessions or foreign currency fluctuations; or
- general conditions in the semiconductor and semiconductor equipment industries.

In addition, public stock markets frequently experience substantial price and trading volume volatility, particularly in the high technology sectors of the market. This volatility has significantly affected the market prices of securities of many technology companies for reasons frequently unrelated to or disproportionately impacted by the operating performance of these companies. These broad market fluctuations may adversely affect the market price of our common shares.

Our quarterly revenues and earnings from operations have varied significantly in the past and may vary in the future due to a number of factors, including, without limitation:

- cyclical and other economic conditions in the semiconductor industry;
- production capacity constraints;
- the timing of customer orders, cancellations and shipments;
- the length and variability of the sales cycle for our products;
- the introduction of new products and enhancements by us and our competitors;
- the emergence of new industry standards;
- product obsolescence;
- disruptions in sources of supply;
- our ability to time our expenditures in anticipation of future orders;
- our ability to fund our capital requirements;
- changes in our pricing and pricing by our suppliers and competitors;
- our product and revenue mix;
- seasonal fluctuations in demand for our products;
- foreign currency exchange rate fluctuations; e.g. appreciation of the euro versus the Japanese yen and U.S. dollar, which would negatively affect the competitiveness of those manufacturing activities that are domiciled in countries whose currency is the euro; and
- economic conditions generally or in various geographic areas where we or our customers do business.

In addition, we derive a substantial portion of our net sales from products that have a high average selling price and significant lead times between the initial order and delivery of the product. The timing and recognition of net sales from customer orders can cause significant fluctuations in our earnings from operations from quarter to quarter. Gross margins realized on product sales vary depending upon a variety of factors, including the mix of products sold during a particular period, negotiated selling prices, the timing of new product introductions and enhancements and manufacturing costs. A delay in a shipment near the end of a fiscal quarter or year, due, for example, to rescheduling or cancellations by customers or to unexpected manufacturing difficulties experienced by us, may cause sales in a particular period to fall significantly below our expectations and may materially adversely affect our earnings from operations for that period. Further, our need to continue expenditures for research and development and engineering make it difficult for us to reduce expenses in a particular quarter even if our sales goals for that quarter are not met. Our inability to adjust spending quickly enough to compensate for any sales shortfall would magnify

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the adverse impact of a sales shortfall on our earnings from operations. In addition, announcements by us or our competitors of new products and technologies could cause customers to defer purchases of our existing systems, which could negatively impact our financial position and net earnings.

As a result of these factors, our revenues or earnings from operations may vary significantly from quarter to quarter. Any shortfall in revenues or earnings from operations from levels expected by securities analysts and investors could cause a decrease in the trading price of our common shares.

Item 4. Information on the Company

The information in this Item 4 should be read in conjunction with the risks discussed under Item 3.D., “Risk Factors.”

A. History and development of the Company.

ASM International N.V. was incorporated on March 4, 1968 as a Netherlands *naamloze vennootschap*, or public limited liability company, and was previously known as Advanced Semiconductor Materials International N.V. Our principal executive offices are located at Versterkerstraat 8, 1322 AP, Almere, the Netherlands. Our telephone number at that location is +31 8810 08810. Our authorized agent in the United States is our subsidiary, ASM America Inc., a Delaware corporation, located at 3440 East University Drive, Phoenix, Arizona 85034.

B. Business overview.

Introduction

Our Business

As a semiconductor capital equipment supplier, we design, manufacture and sell production systems and services to our customers for the production of semiconductor devices, or integrated circuits. The semiconductor capital equipment market is composed of three major market segments: wafer processing equipment, assembly and packaging equipment, and test equipment. ASMI is mainly active in the wafer processing and assembly and packaging market segments. The wafer processing segment is referred to as “front-end.” Assembly and packaging is referred to as “back-end.”

Front-end production systems perform processes on round slices of silicon, called a wafer. During these processes, thin films, or layers, of various materials are grown or deposited onto the wafer, or an existing thin film on a wafer undergoes modification, such as a temperature treatment, or local etching. These films form numerous individual and separable circuits on the wafer, called “dies” or “chips.” After probing and selecting these individual circuits for correct performance, the dies on the processed wafer are separated, with each die of the same wafer containing the same circuitry. Back-end production systems then assemble and connect one or more of these known good dies, or sometimes several different known good dies in a single package, to form a complex semiconductor device that will perform calculations, store data and interface with its environment.

Our front-end operations are conducted through wholly-owned subsidiaries, the most significant being ASM Europe B.V. (“ASM Europe”), located in the Netherlands, ASM America, Inc. (“ASM America”), located in the United States, ASM Japan K.K. (“ASM Japan”), located in Japan, and ASM Front-End Manufacturing Singapore Pte Ltd. (“FEMS”), located in Singapore.

Our back-end operations are conducted through our majority-owned subsidiary, ASM Pacific Technology Ltd. (“ASM Pacific Technology”), with principal operations in Hong Kong, the People’s Republic of China, Singapore, and Malaysia. At December 31, 2008, we owned 52.87% of the outstanding equity of ASM Pacific Technology.

The location of our front-end facilities allows us to interact closely with customers in the world’s major front-end geographic market segments: Europe, North America, and Asia. We mainly address a part of the “Deposition and Related Tools” market segment, defined by VLSI Research¹. Our front-end segment accounted for 47.2% of our net sales in 2007 and 39.7% of our net sales in 2008.

Our back-end facilities are in close proximity to where most customer assembly and packaging operations are located. We mainly address parts of the “IC Bonding Equipment,” “Packaging Equipment” and “IC Integrated Assembly Systems” segments as defined by VLSI Research². We also manufacture and sell lead-frames. Our back-end segment accounted for 52.8% of our net sales in 2007 and 60.3% of our net sales in 2008.

1 www.vlsiresearch.com, VIC code 1460.00000, accessed February 4, 2009.

2 www.vlsiresearch.com, VIC codes 1540.00000, 1550.00000 and 1560.00000, accessed February 4, 2009.

Recent Developments

Front-end Manufacturing—Singapore

In late 2004, we established FEMS as a low-cost manufacturing hub for front-end production in Singapore. We established FEMS to manufacture generic subsystems and parts for our front-end products that we previously outsourced, in order to improve cost-effectiveness and strengthen our gross profit margin in our front-end segment. We initially manufactured generic subassemblies for vertical furnaces and, as of the end of 2008, now manufacture generic parts and subassemblies for three of our core front-end product groups: vertical furnaces, epitaxy and PECVD, and we are beginning to transition such manufacturing for a fourth core front-end product group, ALD.

Almere Headquarters

In December 2008, we relocated our headquarters from Bilthoven to our existing manufacturing facility in Almere, the Netherlands. We are marketing our Bilthoven facility for sale.

ASM Europe Restructuring

In January 2009, we announced our plans to restructure our ASM Europe (ASME) operations. This plan involves the transfer from our Almere facility in the Netherlands of the remaining manufacturing and operational procurement activities for our vertical furnace product line to our FEMS operation in Singapore, and a reduction of our workforce in Almere. The implementation is expected to take place over calendar 2009.

Disposal of RTP

In April 2008, we announced our plan to dispose of our rapid thermal processing line. We expect this disposition to be completed in 2009.

Other Front-end Cost Initiatives

In the second half of 2008, our front-end regional operations started to develop and implement various cost reduction initiatives. These steps include, among others, workforce reductions, hiring and salary freezes, factory shutdowns, mandatory vacations and unpaid leave; we expect to continue these measures throughout 2009 until demand for our products recovers. The timing and scope of these initiatives vary in each of our regions.

ASM Pacific Technology Business Developments

The global downturn negatively impacted our back-end operations in the second half of 2008. Accordingly, in the fourth quarter of 2008, we commenced implementing significant cost reduction measures in our back-end segment, including a hiring freeze, elimination of overtime and plant shutdowns. These and other measures are being furthered in 2009.

Industry Background and Major Business Trends

Semiconductor devices are the key enablers of the electronic age. Each semiconductor device can hold many individual components, most of which are transistors. For over 30 years now, the average number of components per integrated semiconductor device, at the optimum cost-per-component, has been increased by a factor of two, every 18 to 24 months. This trend is generally referred to as Moore's law, after Gordon Moore. Increases in complexity, along with simultaneous reductions in the cost-per-component, have mainly been achieved by reducing the size of individual transistors, so that a larger number of transistors fit within a given size die. Today, transistors less than 100nm (1 nm is equal to one billionth of a meter) long are manufactured in high volume, and several billion transistors can be manufactured on a single die with an area of a few square centimeters.

A second development decreases the cost per device by increasing the size of the wafer (the silicon substrate upon which semiconductors are built), so that more devices can be produced within one production cycle. Today, most of the newly installed semiconductor device fabrication capacity employs 300mm wafers, with each wafer typically holding between a few dozen to several thousand individual circuits. The simultaneous increase in the complexity of devices, and the substantial decrease in cost-per-component has supported an over US\$ 1.6 trillion global electronics industry (VLSI Research, Inc. December 2008 ³), and behind that, a semiconductor industry of approximately US\$ 249 billion (VLSI Research, Inc., January 2009 ⁴). The semiconductor industry in turn, is supported by the US\$ 41 billion (VLSI Research, Inc., January 2009 ⁵) semiconductor capital equipment industry which supplies the needed production systems and services.

3 www.vlsiresearch.com, accessed February 4, 2009.

4 www.vlsiresearch.com, accessed February 4, 2009.

5 www.vlsiresearch.com, accessed February 4, 2009.

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The yield, or the fraction of chips (known good dies) on a wafer that operate according to specifications, is usually one of the most important variables that influences the financial performance of the integrated device manufacturers. Large initial investments are needed to build an automated production line in an ultra-clean environment in order to achieve high yield. The capital equipment in this production line is increasingly becoming an important determinant for the yield of the factory.

Parallel to the above-mentioned trends of transistor scaling and larger wafer size, another trend is beginning to emerge on the die level: heterogeneous integration. While the components on a chip that perform calculation and storage can undergo scaling, other components, such as inductors, capacitors, sensors, micromechanical, photonic, or micro-fluidic devices, do not scale as easily as do transistors and some capacitors. Yet, in order to make devices with these components small and cost-effective enough, they will eventually also have to be integrated into the same semiconductor device. Although several functions can be integrated on a single die, as in a system on a chip (“SoC”), for economical reasons this is usually limited to the components that scale with Moore’s law (“more Moore”), and use the same base material (silicon). For components that do not scale, or components that use a different base material it is not always practical or economically feasible to place them on the same die. In that case, integration of several dies, sometimes coming from different supply lines, in a single package to form a system in a package (“SiP”) is the alternative solution that provides the desired functionality. This trend is sometimes referred to as “more than Moore.”

The trends outlined above are the drivers of the broad semiconductor roadmap which semiconductor equipment companies track in developing new production systems and process technologies. These new systems and technologies must be developed well ahead of volume demand for the semiconductor devices they make. As a result, there is a large lead time between the investment in a new technology, and its commercial success. With the combination of a long lead time and the short product life-cycles comes the inherent difficulty of matching supply and demand, which results in the high volatility associated with the semiconductor industry. In this highly cyclical industry, the front-end and back-end market segments have historically reacted differently to market forces. We believe, therefore, that operating in both segments works in our favor to reduce the impact of business cycles on our operations.

Our Strategy

Our strategic objective is to realize profitable, sustainable growth by capitalizing on our technological innovations, manufacturing infrastructure and sales and support offices located close to our global customers. The key elements of our strategy include:

- Expanding returns on front-end operations by focusing on product commercialization and operating efficiencies, while maintaining solid profitability for our back-end segment.
- Streamlining our front-end manufacturing processes to follow the highly successful vertical manufacturing model of our back-end segment, by systematically reducing manufacturing costs through global sourcing, product platform consolidation, and locating significant parts of our manufacturing capability in more cost efficient countries.
- Maintaining our global reach through our operating, sales and customer service facilities in key parts of the world in order to establish and maintain long-term customer relationships.
- Leveraging our combined strong front-end and back-end technology leadership and manufacturing capabilities through advancements in our products and processes early in the technology lifecycle.
- Expanding the scope and depth of our research and development capabilities through strategic alliances with independent research institutes, universities, customers and suppliers, and expanding our intellectual property portfolio by filing patent applications for key developments in equipment, processes, materials and software, and by licensing programs for our technologies.

Background of Semiconductor Manufacturing Processes

Overview

The process of manufacturing an integrated semiconductor, from raw material to finished device, includes amongst others the segments in which we participate: front-end and back-end.

Front-end Manufacturing Process

The front-end manufacturing process, or wafer processing, can be divided in three distinct parts: wafer manufacturing, transistor formation, known as front-end of the line (“FEOL”) processing, and interconnect formation, known as back-end of the line (“BEOL”). We develop and sell technology, develop and manufacture equipment, and provide services used by semiconductor device manufacturers in each of these sections of front-end manufacturing.

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In the wafer manufacturing process a large single crystal of very pure silicon is grown from molten silicon. The crystal is then sliced into a large number of thin slices, or wafers, of single crystalline silicon. These slices are polished to an atomic level flatness before the next steps are executed. For advanced applications, some layers are deposited on the wafer for later use, by either epitaxy or diffusion/oxidation (described below). Epitaxial wafers are even flatter and contain fewer defects at the surface than polished wafers. Some wafers are made with an embedded electrically insulating layer, such as silicon oxide, just below a very thin top layer of pure silicon. These special wafers are called Silicon-on Insulator or SOI wafers and are used for some of the most advanced microprocessors. The finished wafers, still without pattern on them, are shipped to the integrated device manufacturers and foundries for further processing.

During FEOL and BEOL wafer processing, multiple thin films of either electrically insulating material, also called dielectrics, or conductive material are modified, grown, or deposited on a silicon wafer. First, several material processing cycles are used in the FEOL to build the basic transistor and other components such as capacitors and resistors. Second, several processing cycles are used in the BEOL to build additional components such as capacitors, inductors and resistors, and to electrically connect the large amount of transistors and components. Patterning of deposited layers with lithography and etching (described below) creates the transistors, other components and connecting wires, which together make up the integrated circuit. Each integrated circuit is on a single “chip” or a “die” on the wafer. A finished wafer may contain a few dozen to several thousand individual dies. Front-end processes are performed either one wafer at a time in single wafer processing systems or many wafers at a time in batch processing systems. Multiple processes are repeated on each layer as the wafer is processed.

The number and precise order of the process steps vary depending upon the complexity and design of the integrated circuit. The performance of the circuit is determined in part by the various electrical characteristics of the materials used in the layers of the circuit and the wafer. Simple circuits may have as few as ten layers, while complex circuits may have more than one hundred layers. The front-end manufacturing process is capital intensive, requiring multiple units of several different production systems. Many different but complementary methods are used to modify, grow, or deposit materials on the wafers. ASML is predominantly active in developing and manufacturing the equipment used by semiconductor device manufacturers in the deposition processes, i.e., those steps that involve the creation of insulating, conducting and semi-conducting layers on the wafer surface.

The front-end manufacturing process is complete when all of the layers have been deposited and patterned on the wafer. As a last step, the correct electrical functioning of the integrated circuits on each die is confirmed by probing. Non-functioning circuits are marked so they can be eliminated before the back-end processing. The introduction of even trace levels of foreign particles or material can make a circuit, or even an entire wafer, unusable. To reduce the level of foreign particles or material, front-end processing is performed in clean rooms with ultra low particle and contamination levels. Once the front-end processing is complete, the entire wafer with multiple, functioning, integrated circuits is shipped to the back-end facility where it is separated into dies, which are then bonded to a suitable substrate or leadframe, packaged, and tested before final shipment of the semiconductor device to the end customer. Back-end processes do not require the same level of contaminant control. These processes are performed in facilities that differ from facilities in which front-end processes are performed.

The following is an alphabetical list of the principal front-end process technologies used by semiconductor device manufacturers:

- *Atomic Layer Deposition (“ALD”)* is an advanced technology that deposits single atomic layers on wafers one at a time, and at low temperatures. This process is used to create ultra-thin films of exceptional quality and flatness. Plasma is sometimes used to enhance the process further (*Plasma Enhanced ALD, PEALD*).
- *Chemical Mechanical Polishing (“CMP”)* is a technology that planarizes, or levels, layers deposited on wafers by polishing them with a chemical solution called slurry. Planarization reduces the vertical height differences of the various layers. This increases the number of layers that can be processed without introducing reliability problems. *Electrochemical Mechanical Polishing (“ECMP”)* is comparable to CMP aided with an electric current.
- *Chemical Vapor Deposition (“CVD”)* is a technique in which one or more gaseous reactants are used to form a solid insulating or conducting layer on the surface of a wafer. Low pressure (*Low Pressure CVD, LPCVD*) or plasma is sometimes used to enhance the process further (*Plasma Enhanced CVD, PECVD*).
- *Clean* removes undesirable contaminants from the wafer’s surface.
- *Diffusion and Oxidation* are high-temperature processes that change the electrical characteristics of layers. *Diffusion* is used to move dopants, or impurities, and make dopants introduced by ion implantation electrically active. *Anneal* is used as a synonym to diffusion. *Oxidation* forms a silicon oxide layer on the wafer’s surface, which acts as an insulating or protective layer over the wafers surface.

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- *Electroplating or Electrochemical Deposition ("ECD")* deposits a layer of metal from a complex liquid solution, containing metal salts, and certain additives, by passing an electrical current through that solution and towards the surface of the wafer. *Electrochemical Mechanical Deposition ("ECMD")* is ECD with concurrent mechanical planarization.
- *Epitaxy* involves the deposition of silicon or silicon compounds on the wafer, continuing and perfecting the crystal structure of the bare wafer underneath. Epitaxy improves the electrical characteristics of the wafer surface, making it suitable for highly complex microprocessors and memory devices. *Selective epitaxy* is an epitaxy process that only deposits silicon or a silicon compound on certain predetermined areas of the wafer.
- *Etch* reproduces the pattern imprinted by lithography by removing excess material from the uppermost layer(s) of the wafer.
- *Ion Implantation* is a process in which wafers are bombarded with ions to introduce dopant atoms, or impurities, into the wafer to improve its electrical characteristics. Silicon conducts little or no electricity. In order to have electrical current within a layer, it is necessary to place small amounts of impurities into the layer.
- *Lithography* is used to print the various layer patterns of the semiconductor device on the uppermost layer of the wafer. These patterns determine the functions of the semiconductor device. The lithography process determines the smallest pitch with which components can be placed in the circuit.
- *Metrology* is used to measure the width of lines on semiconductor devices, the thickness of layers, the surface profiles of layers, and certain electrical properties of layers.
- *Probing* is a process in which electrical and functional tests are performed on each die and defective ones are marked on the wafer so that they can be discarded prior to the back-end processing.
- *Rapid Thermal Processing ("RTP")* is similar to diffusion/oxidation, except that it exposes a single wafer to heat over a short period of time. *Rapid Thermal Anneal ("RTA")* is a subset of RTP that is restricted to heat treatments in a non-reactive ambient.

Back-end Manufacturing Process

When the wafer with confirmed working integrated circuits is received in the back-end facility, wafers are first cut ("diced") into individual dies or chips by a dicing saw or sometimes a laser. The dies are then separated and a single die is (or for an advanced device several different dies are) picked and attached to a leadframe or other substrate by a bonding process. The leadframe or substrate provides the interface between the electrical circuit on the die and the system in which the die is incorporated. Leadframes are produced by stamping or etching out a pattern on a strip of copper or iron-nickel alloy. For high precision (and fast turnaround purposes) leadframes are produced by an etching process to achieve a shorter time to market. Stamped frames are typically used for very high volumes on mature designs. In order to allow a wire to be easily attached to its surface, the leadframes are plated with a thin layer of silver or a stacked layer of nickel, palladium, and gold on appropriate places. The electrical connection of the electrical circuit to the leadframe is made by wire bonding. As few as one or as many a thousand or more separate wires are each connected between a terminal connection point called "pad" on the die and a lead on the leadframe, through which the device is able to communicate with the printed circuit board. Leadframes and wire bonding are by far the most common technology in use today.

After this assembly and wire bonding interconnection process, the dies are encapsulated to protect them from environmental influences. The encapsulation process employs high-grade epoxy molding compounds ("EMC"), automated molding systems, and tooling to enclose the die and wires. The molding compound forms a hard casing around the die and wires after it is cured. For production efficiency during assembly most leadframes consist of many parts arranged in rows and columns. Each individual part is moved through the multiple assembly process steps connected to other identical parts. After the molding process is completed, the parts are separated from this array in a series of processes referred to as trim, form, and singulation. Here too, high precision tooling and automation are employed to precisely cut away portions of the substrate or leadframe so that the packaged unit is freed from the rest. These singulated units will then move through inspection, electrical test, marking and packing to prepare the tested and finished devices for shipment to the customer.

Another method used for chips with high pin count and speed is flip chip. The flip chip process eliminates the need for die and wire bonding. Instead, it involves populating the electrical interconnect points on a chip with small solder balls made of low melting point materials, a process called bumping. The substrate is designed such that it has an identical pattern to that of the device. The device is then flipped onto the substrate with precise alignment and the bonding process is completed by the application of heat, force, ultrasonic vibration, or a combination of the three. Wafer level packaging ("WLP") is another emerging

technique that places all the protective layers, interconnections and interconnection points directly on the surface of the wafer, such that completely packaged devices are made at wafer level. After probing and dicing, the die can be separated and may be directly attached to printed circuit boards.

The following is an alphabetical list of the principal back-end processes used by semiconductor manufacturers:

- *Binning* assigns tested, packaged devices to defined performance categories.
- *Die Bonding* mounts the die onto carriers such as lead-frames using a die bonder.
- *Die Separation* separates the dies on the wafer into individual units using dicing saws.
- *Die Sorting* segregates tested dies into different performance levels.
- *Encapsulation or Molding* encases the die in a protective housing, often epoxy, using dispensing systems or transfer molds.
- *Marking* puts product identification information on the semiconductor package using stencil printing or laser inscription techniques.
- *Product Testing* tests the performance of the completed, encapsulated, and singulated semiconductor device.
- *Singulation* is the separation of the many individual devices attached to a leadframe.
- *Trim and Form* cuts away the excess portion of the leadframe and bends the leads into the desired shape, resulting in the completed semiconductor device.
- *Wire Bonding* attaches extremely thin gold, copper, or aluminum wires between the input/output terminals (“I/O terminals”) known as “pads” on the die and the leadframe leads creating electrical connections using a wire bonder. Wedge bonding employs only ultrasonic energy, while thermosonic wire bonding employs both heat and ultrasonic energy.

Important Technology Trends for our Business

Technology Trends

The continuous demand for smaller, faster and cheaper semiconductor components drives the technology advances in the semiconductor manufacturing process. As the transistors in an integrated circuit become smaller, the cost-per-component decreases. Fortuitously, at the same time the operating speed of the transistor increases. Thus the minimum size of a single transistor in an integrated circuit is an extremely important parameter. This minimum size can be characterized by the so-called half-pitch, which is about equal to the smallest line width in the device. Today, our high volume production systems for leading-edge semiconductor devices support a half-pitch as small as 90 to 45 nanometers (one nanometer is one billionth of a meter). At ASMI, and in close cooperation with our customers, we are qualifying and testing new critical process equipment for line widths at or below 45 to 32nm. Simultaneously, we are developing new 22 to 16nm technologies in our laboratories. Today, most of the newly installed semiconductor device fabrication capacity employ 300mm wafers. Accordingly, our system and process development and sales effort is concentrated in 300mm equipment.

In developing faster and smaller devices, our front-end customers’ major technology requirements are:

- lithography of ever smaller feature sizes, now much smaller than the wavelength of light;
- new thin film materials and device designs that can reduce the amount of power consumed in the device, increase the speed and reliability of the circuit, and increase the amount of charge that can be stored;
- new manufacturing processes that reduce device variability and increase yield; and
- reliable manufacturing of taller three-dimensional structures in devices.

Technological developments in the front-end process have resulted in new requirements for the back-end manufacturing process. The ability to place millions of transistors onto a thumbnail-size device with vastly increased functionality has created the first major trend: the need for more input/output terminals in the same or smaller space. The challenge for back-end equipment suppliers is to connect this increasing number of terminals in a package that sometimes is barely larger than the chip. Wire bonding has been at the forefront of this transition, but for integrated circuits with very high terminal count, the industry has developed ball grid array (“BGA”) and flip chip packaging that use the entire surface of a die, and not just the perimeter.

A second major trend in the back-end market segment is driven by the strong growth in demand for hand held devices. There is an ongoing need to build ever smaller and more complex packages at lower

cost for this market. Individual dies must be packaged in areas that are just slightly larger than the individual dies they contain. These chip scale packages minimize the amount of space occupied by the end product on the circuit board.

A third major trend relates to the industry demand for a much higher level of integration, but still at lower cost and optimized yield. This has resulted in a requirement to place multiple dies into the same package. The assembly of a combination of “known good dies” in a package can lead to higher yield than the combination of the same functionality blocks on a single chip. Such a System-in-Package (“SiP”) is more than a simple collection of multiple dies: SiP products are fully functional systems or sub-systems. Moreover, devices from different supply chains, with sometimes entirely different feature sizes or technologies can be integrated this way. Dies can be placed next to and/or on top of each other, using stacked die bonding techniques and sometimes mixing flip chip and wire bonding techniques in the same package. It appears that in the near future an increasing fraction of the value of the device will be in the package, at the cost of the fraction that is on the wafer.

ASMI’s Response to Technology Trends

ASMI develops and manufactures wafer processing systems and new thin film materials that enable our customers to produce devices that consume less power, are faster, show less variability, are more reliable and are able to store more electrical charge. In order to meet our customers’ needs, we have developed, and are still developing many new materials. For example, in the FEOL, high-k dielectrics and novel metal electrodes can reduce the power consumption of a device, thereby enhancing battery life. This same class of materials can also lead to larger charge storage in a smaller capacitor, critical for memories and RF circuits. Another example of new materials in the FEOL is our silicon germanium (“SiGe”) and Siliconcarbon (“SiC”) epitaxial materials that can increase the switching speed of the transistors and the circuit in which they are embedded by engineering the strain, and resulting amplification of the transistor. This can be done without negatively affecting the power these transistors consume. This same class of epitaxial material is also used in wafer manufacturing, where low defect density silicon on insulator (“SOI”), and strained SOI substrates are being developed for use in very advanced microprocessors. SOI decreases power consumption, and strained SOI, like strained silicon, enhances the switching speed of transistors.

In the BEOL or interconnect process, a continued demand to improve the speed at which signals travel through thin copper wires has led to the development of a full suite of low-k materials. These low-k materials can decrease the amount of delay in signal propagation, resulting in, for example, faster microprocessors. ASMI has been one of the leaders in successfully introducing all these low-k materials in the market.

We have also developed and sold new processes and wafer processing equipment to reduce the variability of the devices our customers make. In order to aid repeatable lithography and etch of very narrow lines and small, but tall capacitors, we have developed plasma-polymerization processes and thin film materials that can both reduce line roughness and increase the yield of dynamic random access memories (DRAM).

For our back-end customers, leadframe and wire bond technology continues to offer the most flexible method of connecting the die to the printed circuit board. Increasing pressure on the number of I/O terminals per unit area of silicon continues to drive down the distance between two adjacent interconnect points or pads, reducing the bond pad pitch and allowable wire diameter. The increasing I/O requirement has also resulted in the use of several rows of these pads on a single die. Production is now ongoing with a bond pad pitch of 37 microns. Wire bonding must not only address decreasing wire diameters and pitch, but also address the throughput to reduce the overall cost of the device. Future wire bonding platforms will be able to operate in an environment that requires the bond pad pitch to be at 25 microns. The increasing row count will require better control of the wire shapes and looping profiles to maintain signal integrity at high communication speeds. All of this must be achieved with the highest possible speed and reliability. In addition, semiconductor manufacturers are looking to automation and integration of back-end equipment as ways to reduce costs and increase productivity.

Increasing pressure on the level of integration and reduction in size of handheld or mobile devices has given rise to several alternative assembly and bonding techniques and materials, such as flip chips and several chip-scale packaging methods. Stacked die packages, in which more than one die is stacked on top of another, to form a single device, play a major role in the handheld appliance market. We are responding to the need of stacked die packages by developing better wire bonding techniques, for example, by controlling the shape of the wire loop. We are currently developing methods of working with insulated wires, which will allow for more crossed connections in a device.

Products

Market Coverage

The table below indicates the major market segments of the semiconductor equipment industry. The principal market segments in which we participate are underlined.

Market Segment ¹

Major Market Segment ¹		
Test and related Systems	IC Fabrication Equipment or Front-end	IC Assembly Equipment or Back-end
Automated Test Systems	Lithography Equipment	Inspection
Material Handling Systems	CMP Equipment	Dicing
Process Diagnostic Equipment	Ion Implanters	<u>Bonding</u>
Production Management Systems	<u>Deposition and Related Tools ²</u>	<u>Packaging</u>
	Etching and Clean	<u>Integrated Assembly Systems</u>
		<u>Leadframes ³</u>

(1) Based on VLSI Research Industry Segmentation (www.vlsiresearch.com, accessed February 4, 2009).

(2) This segment also includes diffusion and oxidation furnaces and RTP tools.

(3) While the materials segment is not included by VLSI Research in the back-end segment, leadframes are a significant component of our revenues.

Front-end Segment Products

ASMI's front-end segment products come from a number of product platforms, with each platform designed to host and enable specified process technologies. The products in each product platform are linked through common technology elements of the platform, for example a common in-system software framework, common critical components, similar logistics (batch or single wafer processing), or a similar wafer processing environment (wet or dry). The following table lists our principal product platforms for the front-end market, the main process technology that they enable, and the semiconductor device manufacturing solution for which the products from that platform are used.

Product Platform ¹	ASMI Process Technology ¹	Products ¹	Currently participates in the Manufacturing Solution for ² :					
			Si Starting Material	FEOL-Logic ³	FEOL-Memory ⁴	FEOL-RF/AMS ⁵	BEOL-Interconnect	BEOL-SoC ⁶
Advance 400 Series	ALD, CVD, diffusion/oxidation, LPCVD	A400 and A412 Vertical Furnace Systems	✓	✓	✓	✓	✓	✓
Levitor ⁸	RTA	Single Wafer Rapid Thermal Processing Systems		✓	✓			
Epsilon ⁹	Epitaxy, LPCVD	Single Wafer Epitaxy Systems	✓	✓	✓	✓		
Polygon ⁹	ALD, PEALD	Single Wafer Atomic Layer Deposition Systems		✓	✓			
Eagle	PECVD, ALD, PEALD	Eagle, Dragon and Stellar ⁷ Single Wafer Processing Systems			✓		✓	✓

(1) Advance, Levitor, Epsilon, Polygon, PEALD, Eagle, Dragon, A400, A412, and Stellar are used, registered or pending ASMI trademarks.

(2) A checkmark in the boxes under the manufacturing solution indicates one or more systems sold to a customer.

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- (3) This includes CMOS transistor formation.
- (4) Includes the formation of the capacitor structure in a DRAM or Flash memory cell.
- (5) Radio Frequency/Analog Mixed Signal, including bipolar transistor formations in a BiCMOS chip.
- (6) Includes integrated passives, such as capacitors on a chip, used in, for example, single chip radio devices (“radio on a chip”).
- (7) Despite different configurations and capabilities, the Eagle, Dragon and Stellar are considered one product platform because they share the same software framework, many critical components, and product structure.
- (8) The Levitor product platform will be divested.
- (9) It is our plan that manufacturing solutions served today by products based on our Polygon and Epsilon product platforms will merge to the Eagle product platform in 2009 and 2010, respectively

Description of our Front-end Segment’s Product Platforms

Advance 400

The Advance 400 is ASMI’s Vertical Furnace, batch processing platform. Products built on this product platform are used for diffusion, oxidation, (LP)CVD and ALD. The product platform is used in many manufacturing steps, from the production of silicon wafers to the final anneal in interconnect. The A400 is a system for 150 and 200mm wafers, while the A412 is a 300mm Vertical Furnace. The A412 systems feature two reactors above a rotating carousel, a dual-boat concept, and a wide range of process applications with load sizes up to 150 wafers in a single run. In this series, ASMI also offers the A412 SmartBatch, featuring a flexible load size of 1 to 50 wafers, and the A4ALD, for atomic layer deposition of dielectrics, targeted mainly for DRAM capacitor applications and other high volume, low variability and operating cost applications.

Epsilon

The Epsilon is our platform for single wafer epitaxy. The Epsilon product platform offers a wide range of epitaxy products and materials for many applications, ranging from high temperature silicon used in silicon starting material manufacturing, to low temperature, selective or non-selective silicon germanium (“SiGe”) and silicon germanium carbon (“SiGeC”) used in bipolar devices. More recently, low temperature selective SiGe, silicon carbon (“SiC”) and pure silicon processes for recessed and raised source-drain applications have been developed on this platform. The Epsilon 2000 is a single wafer, single reactor system for 150mm and 200mm wafers. The Epsilon 3000 was the first epitaxy system that was used for 300mm production of recessed source/drains with selective silicon-germanium. Our newest system, the Epsilon 3220, features several productivity enhancements. We expect that the continued demands from our customers to increase device speed and reduce power consumption will drive an increased use of advanced epitaxial layers in the device, particularly when deviations from planar CMOS occur.

Polygon

The Polygon is a single wafer atomic layer deposition platform. It features a six-sided central vacuum handler, capable of hosting up to four reactors. One or more Pulsar 3000 modules, the latest generation of the industry’s first ALD reactor, or EmerALD modules with PEALD technology, can also be integrated into the system platform. Products built on this product platform are currently being used in ALD high-k gate dielectrics for FEOL logic, (embedded) DRAM capacitor dielectrics for SoC, blocking layers for non-volatile memories, magnetic head gap fill, and MIM capacitor applications for SoC. Products can be configured for either 200mm or 300mm wafer processing. Processes for the SoC related applications will in the future be offered on the Eagle product platform.

Eagle

The Eagle is our single-wafer plasma processing platform. The basic Eagle 10 systems for 200mm, and the Eagle 12 systems for 300mm systems each have two reactors, and are utilized in high volume manufacturing for PECVD of insulators (such as silicon oxide, silicon nitride, silicon oxi-nitride) mainly for interconnect applications. Plasma polymerization processes released on the Eagle and Dragon product platform include a full series of Aurora low-k dielectrics for interconnect applications, and Nano Carbon Polymer (“NCP”), a hard mask layer for deep UV lithography to improve formation of deep and small structures for FEOL memory. The Eagle 10 TRIDENT (200mm) and Eagle 12 Rapidfire (300mm) systems feature three reactors for larger productivity. From this same product platform also the Dragon and the Stellar product lines have been launched in 2003 and 2006, respectively. The Dragon 2300 is a dual reactor PECVD system that is configured for high wafer throughput. The Dragon has what we consider to be the smallest footprint of any high volume, 300mm PECVD production tool. The Stellar 2300 is a dual reactor ALD or PEALD system, intended mainly for the SoC capacitor market.

Description of our Front-end Segment's Process Technology Platforms

Depending on application, a process technology can be used in more than one product platform. Process technologies that are intended for use across multiple product platforms are called a process technology platform. The technologies in a process technology platform share a common knowledge base and patent portfolio. ALCVD, for example, is enabled on both ASMI's single wafer and batch product platforms. This gives us the ability to provide a single wafer tool for a certain application when short development cycle times are needed initially, then switch to a batch tool for efficiencies in high volume production, sometimes using the same chemistry.

ALCVD: Atomic Layer Deposition and Plasma Enhanced Atomic Layer Deposition

ALCVD is one of the newest technologies to deposit ultra-thin films of exceptional flatness and uniformity. This technology was brought into ASMI in 1999 with the acquisition of ASM Microchemistry, who first developed the thermal ALD technology. PEALD is an extension of this original ALD technology that uses plasma, which was brought into ASMI in 2001 through a partnership with Genitech and a subsequent acquisition in 2004. Collectively ASMI refers to it these two technologies as its ALCVD process technology platform. The current process development effort is focused mainly on providing new, higher quality, dielectric materials with higher throughput. Several dielectric processes are released on our Polygon, Eagle and Advance 400 product platforms. A relatively smaller but steadily increasing effort is directed towards the process development for conductors. A TiN (a special high temperature resistant conductor) process is released on our Advance 400 product platform. We have hundreds of issued patents that relate to this process technology platform. In addition, ALCVD, Atomic Layer CVD, and PEALD are our trademarks. We expect that the trends of continued scaling, and evolution towards three dimensional device structures plays into the strength of our ALCVD process technology.

CVD and LPCVD: novel chemistries and New Technology

On our CVD process technology platform we have developed processes with new chemistries (under the trademark Silcore) that enable the deposition of silicon and silicon containing materials at low temperatures. Collectively the necessary system hardware and software is called New Technology ("NT"). Processes are released on our Epsilon product platform for non-selective epitaxy and single wafer LPCVD, and on our Advance 400 product platform for silicon nitride spacer applications. Our strategy for the CVD process technology platform as a whole is to continue to qualify new chemistries developed by, and with, our chemical suppliers for all of our product platforms, in advance of the development of our customers' needs. We have about 10 issued patents related to special LPCVD process chemistries.

Back-end Segment Products

The following table lists our principal products for back-end market, the main technologies that they enable, and the semiconductor device manufacturing solution for which the products are used.

Product Platform ¹	ASMI Process Technology	Products ¹	Currently participates in the Manufacturing Solution for ² :									
			High Speed Logic	Memory	Discretes (LED, Power)	LED	SIP	Image Sensors	COB	Smart Card	RFID Tags	RF/AMS
Die Bonding Products	Die Bonding	AD898/8912 epoxy/eutectic, AD830, SD890 soft solder, IS898 glass attach Systems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Die Sorting Products	Die Sorting	WP808A WLP sorting Systems, WS896, AS896A, MS899 die sorting Systems			✓	✓				✓		
AD9xxx Series	Flip Chip Bonding	AD900, AD900TS AD9012, AD9012TS flip chip bonding Systems	✓		✓	✓	✓			✓	✓	✓
Eagle60 Series	Thermosonic Wire Bonding	Eagle Extreme, Eagle60AP TS and TwinEagle and Harrier dual head Wirebonders Hummingbird stud bumping Systems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AB5xx Series	Ultrasonic Wedge Bonding	AB520, AB530, AB559A			✓	✓				✓		
Encapsulation Products	Encapsulation	IDEALmold and Osprey transfer molding Systems, DS898, DS500 dam-and-fill Systems	✓	✓	✓	✓	✓				✓	✓
Post Encapsulation Products	Ball Placement, Testing and Marking, Trim and Form, Singulation, Binning	MP209, BG289, FT2030, CS8000, BP2000	✓	✓	✓	✓	✓	✓			✓	✓

(1) Eagle60, Harrier, Hummingbird, IDEALmold, Osprey, and TwinEagle are used, registered, or pending ASM Pacific Technology trademarks.

(2) A checkmark in the boxes under the manufacturing solution indicates one or more systems sold to a customer.

Die and Flip Chip Bonding, and Die Sorting Products

We manufacture several die bonding models as well as die sorting equipment to address various markets including semiconductors and light emitting diodes (LED). The latest epoxy die bonder platform for 300mm wafers continues the path undertaken by ASMI to provide customers with the highest quality and best cost/performance systems on the market. With its capability of handling up to 300mm wafers, fully automatic operation, epoxy

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writer, pre and post bond inspection and wafer mapping, this platform is able to provide customers with exceptional operational results. Variations on this platform have been developed to address the requirements of the growing stacked die market. The ability to handle silicon devices down to 25 microns in thickness is a key feature for the future.

Packaged device performance is continually pushed to higher levels. In critical applications, devices are increasingly utilizing flip chip interconnect methods to provide higher levels of electrical performance. Our flip chip platform provides high speed flip chip die bonding for IC applications. Variations of this platform have evolved to provide for the use of ultrasonics, heat force or the combination of these to affect the process. There continues to be a very large market in which the die and wafer sizes are relatively small, under 30 mils square. A mil is 1/1000 of an inch. Many of these devices are attached directly to printed circuit boards (Chip on Board, "COB") or very large arrays. Therefore, many different handling methods are required. We have several systems addressing the various form factors represented in the market.

LEDs represent a separate but very large category of the small die business. This segment requires both high speed and high precision manipulation of very small devices. Many of these devices are assembled in arrays with a die attach process. In these arrays brightness and color must match. We have developed several platforms for sorting these devices and segregating them according to the customers' requirements. The high power LED market for general purpose illumination continues to grow. These devices have unique thermal and electrical requirements that must be met by the die attach process. We have a new platform that addresses the use of soft solder in a special atmosphere that facilitates this special process. Machines may be configured to operate stand-alone or connected to epoxy curing ovens and wire bonders.

Wire Bonding Products

The Eagle Extreme gold wire bonder has successfully completed field trials begun in late 2007 and revenue shipments began during the second half of 2008. This is the successor to our award-winning Eagle60AP generation bonder. The Eagle Extreme and Eagle60 AP gold wire bonders continue to extend the productivity of the process as well as exceed the industry roadmaps for required bond pad pitch. Additional features on the Eagle Extreme allow it to deal with the complex wire geometries and extreme height variations that are prevalent in the stacked die packages being built today at higher productivity rates. The productivity envelope was enlarged with the introduction in 2005 of our latest dual head platform, the TwinEagle. This tool provides all the capabilities of our standard Eagle60AP but with higher output per floor space required. We also extended our product portfolio in the wedge bonder area with newer, faster, more flexible systems to address the consumer products market that focuses on cost effective solutions. The expansion of the flip chip process has also provided us with opportunities to take advantage of our wire bonder technology to provide platforms capable of applying gold or copper stud bumps on wafers up to 300mm in diameter.

Encapsulation Products

Our auto molding product line continues to build on the success of our earlier automated multi-plunger molding systems. The IDEALmold serves the industry segment that requires very high throughput with production flexibility. The recent shift in lot sizes and package variability also required a new platform. We have met this requirement with our Osprey single strip molding system. With this platform, the emphasis is on quick material and package conversions for low volume, high mix situations. As with all ASMI products, it can be configured for stand alone or integrated in line operations with our other back-end platforms.

Post Encapsulation Products

Ball placement systems have seen strong growth as the ball grid array ("BGA") package types continue to expand. These are the mainstream packages for microprocessors and other high performance chips found in computer systems today. Our early work in this area has allowed us to be the exclusive supplier of ball placement systems to the major provider of such components. As the number of package variants continues to increase along with the leadframe unit density, our post encapsulation products ("PEP") have also evolved. The variation requires systems that are more flexible and faster to convert. The increased density has reduced the need for press speed but increased the emphasis on precision. The decrease in package thickness has dictated a change in the tooling methodology to provide more support throughout the trim, form, and singulation processes. Significant changes have been made in design to migrate to turret handling and offloading for small packages. These changes allow the incorporation of faster handling across more processes in a smaller footprint than the conventional linear approach. Significant inroads have been made in the incorporation of test heads into these lines so that units emerge ready to ship.

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Automated Systems

The IDEALine integrates back-end assembly, packaging, and test handling equipment. Such lines can be fully controlled by computers minimizing operator intervention and providing better quality through more stringent process recipe control. We believe we are the only manufacturer of back-end equipment capable of offering such an extensive integrated line using our own equipment. These lines integrate serial process steps with mechanical and software linkages. Offered in a modular format, customers may integrate some or all of the following processes that we supply: die bonding and inspection, epoxy curing, wire bonding and inspection, encapsulation, post mold curing, package singulation, test handling, inspection, laser marking, packing, and finishing.

Intellectual Property and Trademarks

Intellectual Property

Because of the rapid technological advances in the microelectronics field, we believe that our products will be subject to continuing change and enhancement. Accordingly, we believe that our success will depend upon the technical competence and creative ability of our personnel as well as the ownership of and the ability to enforce our intellectual property rights.

We own and license patents that cover some of the key technologies, features and operations of our major front-end products and are registered in the principal countries where semiconductor devices or equipment are manufactured or sold. The acquisitions of NuTool and Genitech in 2004 resulted in an expansion of our patent portfolio in the areas of ECD, ECMD, ECMP, ALD, PEALD and metal organic CVD. In December 2006, we sold substantially all of the ASM NuTool patent portfolio to a third party, with granting of a license to ASMI in the field of packaging technology. The following table shows the number of patents for which we made an initial filing during the indicated year and the number of patents in force by us at the end of the indicated year.

<u>Segment</u>	<u>For year:</u>	<u>2004</u>	<u>2005</u>	<u>2006</u> ¹	<u>2007</u>	<u>2008</u>
Front-end	Initial patent filings	112	107	94	93	79
	Issued patents at year end	638	768	722	793	872
Back-end	Initial patent filings	25	18	25	26	18
	Issued patents at year end	77	112	186	256	332

(1) The numbers from 2006 on exclude the ASM NuTool patents that were sold in December 2006. Included in this sale were 6 initial patent filings and 133 issued patents.

We have entered into worldwide, non-exclusive, non-transferable and non-assignable licenses with Applied Materials for patents related to epitaxy and some chemicals used to deposit insulating layers for PECVD. We pay Applied Materials a royalty on sales of equipment that use the patented technology. A number of the licensed patents have already expired. The remaining royalty bearing patents expire at various times through 2012. Upon expiration of the patents, the technology may be used royalty-free by the public, including us.

In 2005, we started to actively license out intellectual property in our ALCVD process technology platform. Initially, we entered into non-exclusive, restricted field of use license agreements with Veeco Instruments and Oxford Instrument Plasma Technology. At the end of 2007 we entered into a non-exclusive, restricted field of use license agreement with Hitachi Kokusai Electric Inc. Effective January 1, 2009, we entered into a non-exclusive, restricted field of use license agreement with Tokyo Electron. In addition to generating revenue, licensing is expected to accelerate market acceptance of our ALCVD technology. We expect licensing revenue to increase once the market addressed by these licensees comes to further development and maturity. We will continue to seek other licensees for this important process technology platform in complementary markets.

In the back-end market, companies generally compete based on their cumulative expertise in applying well known technologies to improve productivity and cost-efficiency. As a result, we have historically filed fewer patents related to our back-end operations. Due to increasing pressure on new technology development in the back-end market, and the increasing fractional value of the package in the device, we expect the back-end patent intensity to increase over the following years. Wherever deemed necessary, ASM Pacific Technology will file for protection of its innovations.

Trademarks

ASM, the ASM International logo, Advance, Aurora, Carbonspeed, Coppermine, Dragon, Eagle, EmerALD, Epsilon, Levitor, Polygon, Pulsar, Rapidfire, SiGePLUS, and Silcore are our registered

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trademarks. A400, A412, A4ALD, ALCVD, Atomic Layer CVD, CarbonPLUS, Eagle TRIDENT, NCP, New Technology, PEALD, Pore Builder, SmartBatch, Stellar and Superfill CVD are our trademarks. "The Process of Innovation" and "The Switch Is On" are our service marks.

AB500B, DreamPAK, DRYLUB, EQUIPMANAGER, EQUIPMGR, IDEALine, IDEALsystem, IDEALab, IDEALNet, PGS, SMARTWALK, SOFTEC, SmartSurf, and Ultravac are registered trademarks of ASM Pacific Technology Ltd. Cheetah, Eagle60, Harrier, Hummingbird, IDEALCompress, IDEALmold, Osprey, TwinEagle and FAB Farming are trademarks of ASM Pacific Technology.

Litigation

There has been substantial litigation regarding patent and other intellectual property rights in semiconductor-related industries. Although we have been involved in significant litigation in the past, we are at present not involved in any litigation which we believe is likely to have a material adverse effect on our financial position. In the future, additional litigation may be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us or to defend ASMI against claimed infringement of the rights of others and to determine the scope and validity of the proprietary rights of others. Any such litigation could result in substantial cost and diversion of effort by us, which could have a material adverse effect on our business, financial condition, and earnings from operations. Adverse determinations in such litigation could result in our loss of proprietary rights, subject us to significant liabilities to third parties, require us to seek licenses from third parties or prevent us from manufacturing or selling our products, any of which could have a material adverse effect on our business, financial condition and earnings from operations.

Research and Development

We believe that our future success depends to a large extent upon our ability to develop new products and add improved features to existing products. Accordingly, our global product development policies and local activities are for the most part directed toward expanding and improving present product lines to incorporate technology advances and reduce product cost, while simultaneously developing new products that can penetrate new markets. These activities require the application of physics, chemistry, materials science, electrical engineering, precision mechanical engineering, software engineering, and system engineering.

Our net research and development expenses were € 88.1 million, € 83.5 million and € 75.0 million in 2006, 2007 and 2008, respectively. We expect to continue investing significant resources in research and development in order to enhance our product offerings. Our research and development activities are chiefly conducted in the principal semiconductor markets of the world, which enables us to draw on innovative and technical capabilities on an international basis. Each geographic center provides expertise for specific products and/or technologies. This approach, combined with the interactions between the individual centers, permits efficient allocation of technical resources and customer interaction during development.

Segment	Location	Number of R&D employees as of December 31, 2008, exclusive of temporary workers
Front-end	Almere, the Netherlands	59
	Leuven, Belgium	26
	Helsinki, Finland	7
	Phoenix, Arizona, United States	94
	Cheonan, South Korea	21
	Tama, Japan	81
Back-end	Hong Kong, the People's Republic of China	407
	Singapore	271
	Chengdu, the People's Republic of China	28
Total		994

As part of our research and development activities, we are engaged in various formal and informal arrangements with customers and institutes. At December 31, 2008, our front-end segment was engaged in formal joint development programs with customers for 300mm applications of our Eagle, Polygon, Epsilon, Stellar and Advance A412 products. As part of these efforts, we may sell new products to customers at a significantly reduced margin, and invest significant resources in the joint development and subsequent

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product qualification. We sometimes also cooperate with other semiconductor capital equipment suppliers in complementary fields, in order to gain knowledge on the performance of our own processes, in cooperation with other processes. In addition to cooperating with customers and other capital equipment suppliers, we also enter into research projects with technical universities.

We participate also in publicly funded programs, mainly in Europe, to develop the production technology for semiconductor devices with line widths of 45, 32, 22nm and below. Among our current cooperative efforts are projects awarded under the Information Society Technologies (IST) sixth and seventh framework program. We are also a partner in several development programs in the Eureka initiative by MEDEA+ (Micro Electronics Development for European Applications) and CATRENE (Cluster for Application and Technology Research in Europe on Nano-Electronics). In one of the MEDEA+/CATRENE projects, MAXCAPS, we are the project leader. In addition, we are a member of AENEAS (Association for European Nano-Electronics Activities) and Point-one (Pole of Innovation in Advanced Technologies) and participate in discussions and programs in ENIAC (European Nano-electronics Initiative Advisory Council) and Point-one. We also participate in Dutch national programs such as those funded by STW (Stichting Technologie en Wetenschap: Foundation for Technology and Science) and in the SOM program (Samenwerking Opkomende Markten: International Cooperation Emerging Markets).

As part of these projects, we may sell our equipment to customers who will use grants or research loans to acquire these products or we may receive research and development grants or credits directly. We have received such credits in the past from the government of the Netherlands, of which € 3.1 million was outstanding at December 31, 2008, including accrued interest. This credit has to be repaid only from the sales proceeds, during an agreed upon time period, of the products developed with this assistance at repayment rates of up to 100% of the amounts of the credit. This amount has not been recognized as a liability in the Consolidated Balance Sheet since we have not recognized sales of products to which the credit is related.

In October 2004, we commenced a strategic partnership with the Interuniversity MicroElectronics Center (IMEC) in Belgium for their 300nm, 45nm and 32nm FEOL technology development program. ASMI's Epsilon, Advance 400 Series, Levitor and Polygon based products are involved in this partnership. In September 2005 we complemented this FEOL partnership with a partnership in BEOL for advanced on-chip interconnect which will utilize ASMI's Eagle based products. This gives ASMI the opportunity to investigate, both jointly and independently, the integration of individual process steps in process modules and electrically active devices. The partnerships are now extended to include 22nm, to the end of 2009 for FEOL and to the middle of 2010 for BEOL. These partnerships may be further extended, and their scope may be changed, continuously adjusting the project portfolio to emerging market needs. ASMI has been partnering with IMEC since 1990.

In December 2003, we commenced a five-year partnership with University of Helsinki that aims at further development of atomic layer deposition processes and chemistries. This partnership was extended for a second quinquennial in December 2008.

Manufacturing and Suppliers

Our manufacturing operations consist of the fabrication and assembly of various critical components, product assembly, quality control and testing.

In the second half of 2004, in order to reduce manufacturing costs in our front-end operations we established FEMS, a manufacturing facility in Singapore, to manufacture certain generic subsystems and subassemblies for our Vertical Furnaces that we previously outsourced. At the end of 2008, generic subassemblies for Vertical Furnaces, Epitaxy and Eagle systems are manufactured in this facility. We also work closely with our suppliers to achieve mutual cost reduction through joint design efforts.

Our back-end operations are vertically integrated. The manufacturing activities in Hong Kong and Singapore consist primarily of assembling and testing components and subassemblies manufactured at our main manufacturing facilities in the People's Republic of China and Malaysia.

Marketing and Sales

We market and sell our products with the objective of developing and maintaining an ongoing, highly interactive service and support relationship with our customers. Our marketing strategy includes advertising and participating in various industry trade shows. We provide prospective customers with extensive process and product data, provide opportunities for tests on demonstration equipment and, if required, install evaluation equipment at the customer's site. Once equipment has been installed, we support our customers

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with, among other things, extensive training, on-site service, spare parts and process support. All of this is further supported by in-house development to enhance the productive life of existing equipment. We make hardware improvements available in the form of retrofit kits as well as joint development of new applications with our customers. We encourage our engineers to submit technical papers to relevant magazines and to give lectures in symposia.

Because of the significant investment required to purchase our systems and their highly technical nature, the sales process is complex, requiring interaction with several levels of a customer's organization and extensive technical exchanges, product demonstrations and commercial negotiations. As a result, the full sales cycle can be as long as 12 to 18 months for sales of front-end equipment and 2 to 4 months for sales of back-end equipment. Purchase decisions are generally made at a high level within a customer's organization, and the sales process involves broad participation across our organization, from senior executive management to the engineers who designed the product.

Our sales process usually starts with high-level introduction meetings. Early in the process we also meet with operational personnel to discuss the intended uses of our equipment, technical requirements, solutions, and the overall production process of the customer. Demonstrations and evaluation of test results take time. Once we agree upon the technology elements of the sale, the process continues with price and delivery negotiations and, when completed successfully, with the issuance by the customer of a letter of intent to secure a slot in the manufacturing and assembly planning schedule, followed by a purchase order.

To market our products, we operate demonstration and training centers where customers can examine our equipment in operation and can, if desired, process their wafers or individual dies for further in-house evaluation. Customers are also trained to properly use purchased equipment.

Each of our major product lines has a dedicated product manager, responsible for positioning the product in the market, developing it over time and evaluating its relative performance compared to the competition. Each product manager sets priorities in terms of technical development and sales support.

To execute the sales and service functions, we have established a direct, integrated sales force for front-end products reporting on a geographical basis to the managers in charge of Europe, North America, South Korea, Taiwan, People's Republic of China, Southeast Asia and Japan. Dedicated support and sales forces are maintained for our various geographic units, enabling us to serve our global customers with an equally global organization. Each of our geographic front-end units is responsible for sales of all of our front-end products in its region. We believe the integration of our sales force promotes cross selling of front-end products. In addition to the sales activities undertaken at the principal offices of our various manufacturing units, we have sales offices located in Europe (in the United Kingdom, France, Ireland, Italy and Germany), in the United States (in California), in Israel, and in Japan (in Tokyo and Osaka). We use an independent sales agent in Taiwan for front-end products. At the end of 2008, 141 employees were employed in sales and marketing of front-end products, representing 8% of total front-end segment staff.

Sales of back-end equipment and materials are provided by our principal offices in Hong Kong and Singapore, through direct sales offices in the People's Republic of China, Taiwan, the Philippines, Malaysia, Thailand, Japan, Europe and North America, and through sales representatives in South Korea and some parts of the United States. At the end of 2008, 336 employees were employed in sales and marketing of back-end products, representing 3% of total back-end staff.

Customers

We sell our products predominantly to manufacturers of semiconductor devices and manufacturers of silicon wafers. Our customers include most of the leading semiconductor and wafer manufacturers. Our customers vary from independent semiconductor manufacturers that design, manufacture, and sell their products on the open market, to large electronic systems companies that design and manufacture semiconductor devices for their own use, to semiconductor manufacturers, known as foundries, that manufacture devices on assignment of other companies, including "fabless" companies that design chips but do not have wafer processing factories.

Our largest customer accounted for approximately 11.4%, 9.6% and 13.8% of our net sales in 2006, 2007 and 2008, respectively. Our ten largest customers accounted for approximately 33.9%, 32.4% and 32.0% of our net sales in 2006, 2007 and 2008, respectively. Historically, a significant percentage of our net sales in each year has been attributable to a limited number of customers; however, the largest customers for our products may vary from year to year depending upon, among other things, a customer's budget for capital expenditures, timing of new fabrication facilities and new product introductions.

The following table shows the distribution of net sales, by segment and geographic destination of the product:

	SEGMENT		GEOGRAPHIC DESTINATION		
		PERCENTAGE OF NET SALES		PERCENTAGE OF NET SALES	
2008	Front-end	39.7%	S.E. Asia	9.7%	55.3%
	Back-end	60.3%	Europe	9.8%	0.9%
			United States	13.0%	1.8%
			Japan	7.2%	2.3%
2007	Front-end	47.2%	S.E. Asia	18.7%	49.5%
	Back-end	52.8%	Europe	8.5%	0.8%
			United States	11.8%	1.6%
			Japan	8.2%	0.9%
2006	Front-end	46.7%	S.E. Asia	13.8%	48.3%
	Back-end	53.3%	Europe	10.3%	1.4%
			United States	16.0%	2.3%
			Japan	6.6%	1.3%

Customer Service

We provide responsive customer technical assistance to support our marketing and sales. Technical assistance is becoming an increasingly important factor in our business as most of our equipment is used in critical phases of semiconductor manufacturing. Field engineers install the systems, perform preventive maintenance and repair services, and are available for assistance in solving customer problems. Our global presence permits us to provide these functions in proximity to our customers. We also maintain local spare part supply centers to facilitate quick support.

We provide maintenance during the product warranty period, usually one to two years, and thereafter perform maintenance pursuant to individual orders issued by the customer. In addition to providing ongoing service, our customer service operations are responsible for customer training programs, spare parts sales and technical publications. In appropriate circumstances, we will send technical personnel to customer locations to support the customer for extended periods of time in order to optimize the use of the equipment for the customer's specific processes. For our front-end operations, where the availability of field support is particularly important for a sale, 573 employees were employed in customer service at the end of 2008, representing 34% of total front-end segment staff.

Competition

The semiconductor equipment industry is intensely competitive, and is fragmented among companies of varying size, each with a limited number of products serving particular segments of the semiconductor process. Technical specifications of the individual products are an important competitive factor, especially concerning capabilities for manufacturing of new generations of semiconductor devices. As each product category encompasses a specific blend of different technologies, our competitive position from a technology standpoint may vary within each category. Customers are evaluating manufacturing equipment based on a mixture of technical performance and cost of ownership over the life of the product. Main competitive factors include overall product performance, yield, reliability, maintainability, service, support and price. We believe that we are competitive with respect to each of these factors, and that our products are cost effective.

As the variety and complexity of available machinery increases, some semiconductor manufacturers are attempting to limit their suppliers. In addition, semiconductor manufacturers are located throughout the world, and expect their equipment suppliers to have offices worldwide to meet their supply and service needs. Semiconductor equipment manufacturers with a more limited local presence are finding it increasingly difficult to compete in an increasingly global industry.

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Our primary competitors in the front-end market are from the United States and Japan. Our primary competitors in the back-end market are from the United States, Europe and Japan. In each of our product lines, we compete primarily with two or three companies which vary from small to large firms in terms of the size of their net sales and range of products. Our primary competitors in the front-end market include amongst others Applied Materials, Novellus Systems, Tokyo Electron, Kokusai, and Jusung. Our primary competitors in the back-end market include amongst others Kulicke & Soffa, ESEC, Shinkawa, Apic Yamada, BE Semiconductor Industries, Towa, Shinko and Mitsui.

C. Organizational structure.

The following chart presents the jurisdiction of incorporation of our significant subsidiaries and our percentage of ownership interest in those subsidiaries as of March 6, 2009:

Subsidiary Name and Location	Country of Incorporation	Percentage Owned by ASM International N.V.
ASM Europe B.V. Almere, the Netherlands	The Netherlands	100%
ASM America, Inc. Phoenix, Arizona, United States	United States	100%
ASM Japan K.K. Tama, Japan	Japan	100%
ASM Front-End Manufacturing Singapore Pte. Ltd., Singapore	Singapore	100%
ASM Pacific Technology Ltd. Hong Kong, the People's Republic of China	Cayman Islands	52.87%

D. Property, plant and equipment.

To develop and manufacture products to local specifications and to market and service products more effectively in the worldwide semiconductor market, our front-end facilities are located in the Netherlands, the United States, Japan and Singapore and our back-end facilities are located in Hong Kong, the People's Republic of China, Singapore and Malaysia. Our principal facilities are summarized below:

SEGMENT	LOCATION	PRIMARY USES	APPROXIMATE AGGREGATE SQUARE FOOTAGE
Front-end	Almere, the Netherlands	Executive offices of ASMI Wafer processing equipment manufacturing, marketing, research and offices	160,000
	Tama and Nagaoka, Japan	Wafer processing equipment manufacturing, marketing, research and offices	425,000
	Phoenix, Arizona, United States	Wafer processing equipment manufacturing, marketing, research and offices	176,000
	Singapore	Wafer processing equipment manufacturing and offices	169,000
	Cheonan, South Korea	Wafer processing equipment manufacturing, marketing, research and offices	32,000
	Helsinki, Finland	Wafer processing equipment research and offices	5,000
Back-end	Hong Kong, People's Republic of China	Semiconductor assembly and encapsulation equipment manufacturing, marketing, research and offices	250,000
	Shenzhen, People's Republic of China	Semiconductor assembly equipment parts and modules manufacturing, leadframe manufacturing and offices	1,231,000
	Chengdu, People's Republic of China	Semiconductor assembly equipment research and offices	20,000
	Singapore	Semiconductor assembly equipment and etched leadframe manufacturing, marketing, research and offices	333,000
	Johor Bahru, Malaysia	Semiconductor assembly equipment parts and modules manufacturing, etched leadframe manufacturing and offices	312,000

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Our principal facilities in the Netherlands, the United States, Korea, Finland, Hong Kong, the People's Republic of China, Singapore and Malaysia are subject to leases expiring at various times from 2008 to 2026. Some facilities we own are subject to mortgages. We believe that our facilities are maintained in good operating condition and are adequate for our present level of operations.

Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

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

Overview

We design, manufacture and sell equipment and systems used to produce semiconductor devices, or integrated circuits. Our production equipment and systems are used by both the front-end and back-end segments of the semiconductor market. Front-end equipment performs various fabrication processes in which multiple thin films of electrically insulating or conductive material are grown or deposited onto a round slice of silicon, called a wafer. Back-end equipment separates these processed wafers into numerous individual dies, each containing the circuitry of a single semiconductor device, and assembles packages and tests the dies in order to create semiconductor devices. We conduct our front-end business, which accounted for 39.7% of our net sales in 2008, through our principal facilities in the Netherlands, the United States, Japan and Singapore. We conduct our back-end business, which accounted for 60.3% of our net sales in 2008, through our principal facilities in Hong Kong, the People's Republic of China, Singapore and Malaysia. Our back-end operations are conducted through our 52.87% majority-owned subsidiary, ASM Pacific Technology.

We sell our products worldwide to the semiconductor industry, which is subject to sudden and extreme cyclical variations in product supply and demand. Currently, the industry is experiencing a dramatic and unprecedented decline in demand for semiconductor devices due to the worldwide economic downturn, which has led to the announcement of significant layoffs, plant closings, reduced capital expenditures and other cost reduction measures by semiconductor manufacturers. These conditions have caused a substantial diminution in the demand for our products, which represent capital expenditures for our customers. In addition, these conditions may lead to the consolidation in the semiconductor manufacturing industry, which could further reduce demand for our products in the future. Our backlog at December 31, 2008 was down more than 50%, year over year, in both our front-end and back-end businesses. As with all such cycles, the timing, length and severity of this cycle cannot be predicted. The unprecedented nature of the current global financial crisis and economic downturn may result in changes in the semiconductor manufacturing industry and the manner in which we must conduct our business, in ways that we cannot now predict.

In response to this downturn, we are implementing a number of cost control measures. In our front-end operations, we have announced the restructuring of our ASM Europe (ASME) operations and accelerated the transfer of front-end manufacturing operations to FEMS, our low-cost manufacturing hub in Singapore. FEMS was established to manufacture certain generic subsystems and subassemblies for our vertical furnaces that we previously outsourced. This facility was launched in the third quarter of 2004 and is expected to further improve cost-effectiveness and strengthen our gross profit margin. As of the end of 2008, generic subassemblies for vertical furnaces, epitaxy and Eagle systems were manufactured in this facility. We intend eventually to manufacture generic systems and parts for substantially all of our front-end products in our manufacturing base in Singapore. We initiated other front-end cost control measures in the second half of 2008 and we intend to pursue further measures in 2009 in various formats throughout our global operations. These steps include, among others, workforce reductions, hiring freezes, factory shutdowns, mandatory vacations, unpaid leave and salary freezes. The timing and scope of these initiatives varies in each of our regions. For a discussion of our ASME restructuring and the related current and expected impairment charges, see Note 27 of the Notes to our Consolidated Financial Statements included elsewhere in this report.

In 2008, we announced our plan to dispose of our rapid thermal processing line. We expect this disposition to be completed in 2009.

In our back-end operations, we have implemented significant cost-reduction measures, including a hiring freeze, elimination of overtime, plant shutdowns during Christmas, New Year and the Chinese New Year and implementation of a short work week for some areas. We are focused on driving down the costs of our products, streamlining business and manufacturing processes, reducing time to market, and expanding automation in our manufacturing.

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We face increased payment and performance risk in the current economic downturn from our customers, which may result in write-downs in the value of customer receivables and, in some cases, may cause receivables from some customers to become uncollectible. In order to promote sales, we may be required to provide extended payment terms, lease financing or other modified sale terms for some customers, which will increase our sales expenses and further increase our exposure to customer credit risk, all in an environment of downward pressure on average selling prices. Even though we may be a secured creditor or lessor in these arrangements with rights in the underlying equipment, the equipment may have only limited value upon a customer default, especially if activity in our markets remains at the current low levels, which may result in substantial write-downs upon a customer default. To manage these challenges, we are monitoring our sales activities closely and taking a disciplined approach to evaluating and addressing customer credit risks. Where we deem it appropriate, we are bearing increased customer credit risk.

In this difficult economic environment, we also are subject to increased risk of performance failures of our suppliers, which could disrupt our manufacturing and/or increase our costs.

Our inventories, particularly in our front-end business, have decreased but are still high relative to our sharply reduced sales due to the long manufacturing lead time for some of our products and the time lag in reducing deliveries from our suppliers. If the downturn persists, we may have to write-off portions of our inventory as excess or because technological changes have rendered the inventory obsolete.

Despite the difficult industry market, we must maintain our research and development at a high level to remain competitive in the future.

During 2009, € 52.6 million of outstanding long-term debt and available credit facilities for our front-end business, substantially all of which is for our operations in Japan, matures and will need to be renewed. The current conditions in the worldwide credit markets are unpredictable and very challenging and there is no guarantee that we will be able to renew or replace these credit facilities or renew or replace them on terms acceptable to us. If we cannot effect a renewal or replacement, we will need to reallocate internal resources to repay the outstanding portions of these facilities which may negatively affect our ability to meet customer demand and invest in R&D for the future.

In the past, industry downturns have been followed by robust market upturns. It is important for us to retain sufficient production capacity to be able effectively to respond to such a market upturn, which limits our ability to reduce costs by reducing our manufacturing capacity and our commitments to our suppliers. If we are unable to retain adequate production capacity and supplier production capacity, whether due to cost reduction measures or otherwise, we may be unable to respond timely to a subsequent increase in demand, which would negatively affect our customer relationships and financial performance.

During 2008 we began the preparation for worldwide implementation in our front-end segment of a new integrated enterprise resource planning information technology platform, which we expect to implement in 2009. We expect to realize efficiencies and other advantages from this integrated system. However, the implementation is a complex process and will require us to devote substantial time and resources. If we experience any disruptions in our information management or operations during the implementation of this system, our operating results, cash flow and financial condition could be materially adversely affected.

In April 2008 we announced our Roadmap to Peer Group Profitability that included various milestones in our plan to improve the profitability of our front-end operations. The present downturn has allowed us to accelerate certain elements of the Roadmap, but also makes our achievement of the Roadmap milestones more challenging and the specific milestones less relevant. We do not envision a change in the fundamentals of the Roadmap as the underlying strategies still hold.

At this time, we have two primary focuses: first, to implement and refine our comprehensive cost reduction program; and second, to position and prepare our innovative product portfolios in front-end and back-end for the eventual order cycle recovery.

Sales

Our front-end sales are concentrated in the United States, Europe, Japan and Southeast Asia and our back-end sales are concentrated in Southeast Asia.

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The following table shows the geographic distribution of our front-end and back-end sales for the years 2006, 2007 and 2008:

(amounts in millions)	Year ended December 31,					
	2006		2007		2008	
Front-end:						
Taiwan	€ 84.7	20.8%	€ 122.3	27.1%	€ 54.4	18.3%
United States	139.7	34.1	113.1	25.1	96.7	32.6
Europe	90.0	22.0	81.2	18.0	73.4	24.7
Japan	58.0	14.2	78.2	17.3	54.0	18.2
Other	37.0	8.9	56.1	12.5	18.3	6.2
	€ 409.4	100.0%	€ 450.9	100.0%	€ 296.8	100%
Back-end:						
People's Republic of China	€ 116.9	25.0%	€ 161.9	32.1%	€ 159.4	35.4%
Taiwan	96.2	20.6	112.9	22.4	76.2	16.9
Malaysia	72.0	15.4	65.8	13.0	60.6	13.4
South Korea	24.0	5.1	37.3	7.4	26.4	5.9
Hong Kong	39.7	8.5	34.7	6.9	30.5	6.8
Thailand	31.4	6.7	24.4	4.8	23.7	5.3
Philippines	25.6	5.5	21.1	4.2	20.5	4.5
United States	20.0	4.3	14.9	3.0	13.6	3.0
Singapore	13.1	2.8	11.0	2.2	12.4	2.8
Other	29.2	6.1	20.3	4.0	27.3	6.0
	€ 468.1	100.0%	€ 504.3	100.0%	€ 450.6	100%

The sales cycle from quotation to shipment for our front-end equipment generally takes several months, depending on capacity utilization and the urgency of the order. The acceptance period after installation may be as short as four to five weeks. However, if customers are unfamiliar with our equipment or are receiving new product models, the acceptance period may take as long as several months. The sales cycle is longer for equipment which is installed at the customer's site for evaluation prior to sale. The typical trial period ranges from six months to one year after installation.

The sales cycle for back-end products is typically shorter than for front-end products. Generally, the majority of our back-end equipment is built in standard configurations. We build back-end products that are approximately 85% complete in anticipation of customer orders. Upon receipt of a customer's order and specifications, the remaining 15% of the manufacturing is completed. This allows us to complete the assembly of our equipment in a short period of time. We therefore require between two to six weeks for final manufacturing, testing, crating, and shipment of our back-end equipment. Our back-end customers' acceptance periods generally are shorter than those for front-end equipment. We provide installation, training and technical support to our customers with local staff in all of our major markets.

A substantial portion of our front-end sales is for equipping new or upgraded fabrication plants where device manufacturers are installing complete fabrication equipment. As a result our front-end sales tend to be uneven across customers and financial periods. Sales to our ten largest front-end customers accounted for 60.5%, 59.7% and 60.4% of front-end net sales in 2006, 2007 and 2008, respectively. The composition of our ten largest front-end customers changes from year to year. The largest front-end customer accounted for 22.7%, 19.7% and 31.7% of front-end net sales in 2006, 2007 and 2008, respectively.

Back-end sales per customer tend to be more level over time than front-end sales, because back-end operations can be scaled up in smaller increments at existing facilities. Sales to our ten largest back-end customers accounted for 28.2%, 29.4% and 26.3% of back-end net sales in 2006, 2007 and 2008, respectively. Because our back-end customers' needs are more level over time, the composition of our ten largest customers is more stable from year to year than in the front-end. Our largest back-end customer accounted for 4.4%, 5.3% and 4.4% of back-end net sales in 2006, 2007 and 2008, respectively.

Research and Development

We continue to invest in research and development at a high level. As part of our research and development activities, we are engaged in various development programs with customers and research institutes that allow us to develop products that meet customer requirements and to obtain access to new technology and expertise. Research and development costs are expensed as incurred. We charge to cost of sales the costs relating to prototype and experimental models, which we may subsequently sell to customers.

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For a further discussion of research and development expenses see Item 4.B., “Business Overview—Research and Development” and “Results of Operations,” below.

Our research and development operations in the Netherlands and the United States receive research and development grants and credits from various sources. The research and development grants and credits received from governmental sources in the Netherlands include a credit which is contingently repayable to the extent we recognize sales of products to which the credit is related within an agreed upon time period. We do not recognize a liability on our Consolidated Balance Sheet in respect of this credit until we recognize sales of products to which the credit is related, within the agreed upon time period and is then charged to cost of sales when such sales are recorded. The repayment amounts to 4.0% of the realized sales of these products. In 2006, 2007 and 2008 we accounted for repayments with respect to these credits of € 0.2 million, € 0.1 million and € 0.1 million respectively. Interest on the contingent repayments is accrued at an interest rate of 6.05% per annum. The contingent repayment, including accrued interest, was € 3.0 million at December 31, 2007 and € 3.1 million at December 31, 2008. This amount has not been recognized as a liability in the Consolidated Balance Sheet.

Discontinued Operations

Due to continued negative cash flows and the expected future returns on the invested capital employed, we decided in 2005 to reduce our 100% subsidiary ASM NuTool to a small operation, focusing on process and intellectual property development with the intention of licensing these technologies in the future. In December 2006, we sold substantially all of the ASM NuTool patent portfolio to a third party. At December 31, 2006, this caused ASM NuTool to be accounted for retroactively as discontinued operations in our Consolidated Financial Statements, in accordance with SFAS No. 144 “Accounting for the Impairment or Disposal of Long-Lived Assets.” See Note 2 to our Consolidated Financial Statements, which is incorporated herein by reference. In 2008, we ceased all ASM NuTool operations.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”). We apply the going concern basis in preparing our Consolidated Financial Statements. Historical cost is used as the measurement basis unless otherwise indicated. The preparation of these Consolidated Financial Statements requires us to make estimates, judgments and assumptions that we believe are reasonable based upon the information available. These estimates, judgments and assumptions affect the reported amounts of assets and liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the periods presented. The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

Revenue Recognition. We recognize revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; seller’s price to buyer is fixed or determinable; and collectibility is reasonably assured.

Our revenue includes revenue from contractual arrangements consisting of multiple deliverables, such as equipment and installation. The revenue from the undelivered element of the arrangement is deferred at fair value until delivery of the element.

In general, we recognize revenue from sales of equipment upon shipment of equipment, only if testing at the factory has proven that the equipment has met substantially all of the customer’s criteria and specifications. The outcome of the test is signed-off by the customer (“factory acceptance”). Instead of signing-off, the customer may choose to provide a waiver, e.g. with respect to repeat orders.

We recognize revenue from installation of equipment upon completion of installation at the customer’s site. At the time of shipment, we defer that portion of the sales price related to the fair value of installation. The fair value of the installation process is measured based upon the per-hour amounts charged by third parties for similar installation services. Installation is completed when testing at the customer’s site has proven that the equipment has met all of the customer’s criteria and specifications. The completion of installation is signed-off by the customer (“final acceptance”). At December 31, 2007 and December 31, 2008 we have deferred revenues from fair value of installations in the amount of € 12.4 million and € 5.0 million respectively.

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Our sales frequently involve complex equipment, which may include customer-specific criteria, sales to new customers or equipment with new technology. For each sale, the decision whether to recognize revenue is, in addition to shipment and factory acceptance, based on the contractual agreement with a customer, the experience with a particular customer, the technology and the number of similarly configured equipment previously delivered. Instead of recognizing revenue, we could decide to defer revenue recognition until completion of installation at the customer's site and obtaining final acceptance from the customer. At December 31, 2007 we had no deferred revenues from sales of equipment. At December 31, 2008 we had no deferred revenue from sales of equipment.

We provide training and technical support service to customers. Revenue related to such services is recognized when the service is rendered. Revenue from the sale of spare parts and materials is recognized when the goods are shipped.

Valuation of Goodwill. We perform an annual impairment test at December 31 of each year or if events or changes in circumstances indicate that the carrying amount of goodwill exceeds its fair value. Our impairment test and the determination of the fair value is based on a discounted future cash flow approach that uses our estimates of future revenues, driven by assumed market growth and estimated costs as well as appropriate discount rates. These estimates are consistent with the plans and estimated costs we use to manage the underlying business. For the year ended December 31, 2006 we recorded impairment charges of € 11.4 million with respect to goodwill resulting from the acquisition of ASM NuTool. For the year ended December 31, 2007, we did not record an impairment charge to goodwill as a result of our tests performed. For the year ended December 31, 2008 we recorded impairment charges of € 1.4 million with respect to goodwill resulting from the acquisition of NanoPhotonics. The calculation of the fair value involves certain management judgments and was based on our best estimates and projections at the time of our review, and the value may be different if other assumptions are used. In future periods we may be required to record an impairment loss based on the impairment test performed, which may significantly affect our results of operations at that time. At December 31, 2008, a decrease in estimated cash flows of 10% and an increase of 10% of the discount rate used in calculating the fair value would not result in an impairment of the carrying value of goodwill.

Valuation of Long-Lived Assets. Long-lived assets and certain recognized intangible assets (except those not being amortized) are reviewed by us for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In performing the review for recoverability, we estimate the future undiscounted cash flows expected to result from the use of the asset and its eventual disposition. In 2006 we recorded an impairment charge of € 0.3 million related to the discontinuation of ASM NuTool. In 2007 we did not record an impairment charge to long-lived assets. In 2008 we recorded an impairment charge of € 7.1 million related to the restructuring of ASM Europe. Our cash flow estimates used include certain management judgments and were based on our best estimates and projections at the time of our review, and may be different if other assumptions are used. In future periods, however, we may be required to record impairment losses, which may significantly affect our results of operations at that time. At December 31, 2008, a decrease in estimated cash flows of 10% would not result in an impairment of the carrying value of long-lived assets.

Valuation of Inventory. Inventories are valued at the lower of cost or market value. We regularly evaluate the value of our inventory of components and raw materials, work in progress and finished goods, based on a combination of factors including the following: forecasted sales, historical usage, product end of life cycle, estimated current and future market values, service inventory requirements and new product introductions, as well as other factors. Purchasing requirements and alternative uses for the inventory are explored within these processes to mitigate inventory exposure. We record write downs for inventory based on the above factors and take into account worldwide quantities and demand into our analysis. In the year ended December 31, 2008 we have charged € 11.7 million to cost of sales as a result of our analysis of the value of inventory. At December 31, 2008 our allowance for inventory obsolescence amounted to € 32.6 million, which is 14.2% of our total inventory. If circumstances related to our inventories change, our estimate of the values of inventories could materially change. At December 31, 2008, an increase of our overall estimate for obsolescence and lower market value by 10% of our total inventory balance would result in an additional charge to cost of sales of € 23.0 million.

Warranty. We provide maintenance on our systems during the warranty period, usually one to two years. Costs of warranty include the cost of labor, material and related overhead necessary to repair a product during the warranty period. We accrue for the estimated cost of the warranty on products shipped in a provision for warranty, upon recognition of the sale of the product. The costs are estimated based on actual historical expenses incurred and on estimated future expenses related to current sales, and are updated periodically. Actual warranty costs are charged against the provision for warranty. The actual warranty costs may differ from estimated warranty costs, as a result of which we adjust our provision for warranty accordingly. Future warranty costs may exceed our estimates, which could result in an increase of our cost of sales.

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Income Taxes. We currently have significant deferred tax assets, which resulted primarily from operating losses incurred in prior years as well as other temporary differences. We have established a valuation allowance to reflect the likelihood of the realization of deferred tax assets. Based on available evidence, we regularly evaluate whether it is more likely than not that the deferred tax assets will not be realized. This evaluation includes our judgment on the future profitability and our ability to generate taxable income, changes in market conditions and other factors. At December 31, 2008, we believe that there is insufficient evidence to substantiate recognition of substantially all net deferred tax assets with respect to net operating loss carry forwards, and we have established a valuation allowance in the amount of € 109.5 million. Future changes in facts and circumstances, if any, may result in a change of the valuation allowance to these deferred tax asset balances which may significantly influence our results of operations at that time. If our evaluation of the realization of deferred tax assets would indicate that an additional 10% of the net deferred tax assets as of December 31, 2008 is not realizable, this would result in an additional valuation allowance and an income tax expense of € 0.7 million.

Until December 31, 2006, we accounted for income tax contingencies in accordance with Statement of Financial Accounting Standard (“SFAS”) No. 5, “Accounting for Contingencies.” We provided for these tax contingencies for the duration of the statute of limitation which differs per tax jurisdiction.

On January 1, 2007, we adopted Interpretation 48, “Accounting for Uncertainty in Income Taxes” (“FIN 48”). FIN 48 clarifies the accounting for income taxes, by prescribing a minimum recognition threshold a tax position is required to meet, before being recognized in the financial statements. FIN 48 also provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods and disclosure regarding income taxes. Our net operating losses for tax purposes decreased by € 5.4 million as a result of the adoption of FIN 48. Since a valuation allowance was recorded against the net deferred tax assets with respect to these net operating losses, the adoption of FIN 48 did not impact our financial position and results of operations.

A reconciliation of the beginning balance at January 1, 2008 and the ending balance at December 31, 2008 of the liability for unrecognized tax benefits is as follows:

<u>(euro millions)</u>	
Balance January 1, 2008	12.9
Gross increases—tax positions in current year	1.0
Foreign currency translation effect	<u>0.9</u>
Balance December 31, 2008	<u>14.8</u>

Unrecognized tax benefits mainly relate to transfer pricing positions, operational activities in countries where we are not tax registered and tax deductible costs.

We estimate that no interest and penalties are related to these unrecognized tax benefits.

Unrecognized tax benefits of € 14.8 million would, if recognized, impact the Company's effective tax rate. We estimate that the liability for unrecognized tax benefits will change with € 14.8 million within the next 12 months, following the expected outcome of investigations by local tax authorities.

The calculation of our tax positions involves dealing with uncertainties in the application of complex tax laws. Our estimate for the potential outcome of any uncertain tax position is highly judgmental. Settlement of uncertain tax positions in a manner inconsistent with our estimates could have a material impact on the Company's earnings, financial position and cash flows.

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Results of Operations

The following table shows certain Consolidated Statement of Operations data as a percentage of net sales for our front-end and back-end segments for the years 2006, 2007 and 2008:

	Year ended December 31,								
	Front-end			Back-end			Total		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
Net sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales	(68.8)	(67.8)	(68.4)	(54.9)	(57.2)	(60.9)	(61.4)	(62.2)	(63.8)
Gross profit	31.2	32.2	31.6	45.1	42.8	39.1	38.6	37.8	36.2
Selling, general and administrative expenses	(16.4)	(16.8)	(24.1)	(11.4)	(10.8)	(12.2)	(13.8)	(13.5)	(16.9)
Research and development expenses	(14.3)	(11.9)	(14.8)	(6.3)	(5.9)	(6.9)	(10.0)	(8.7)	(10.0)
Amortization of other intangible assets	(0.2)	(0.1)	(0.1)	—	—	—	(0.1)	(0.1)	(0.1)
Impairment of goodwill	—	—	(0.5)	—	—	—	—	—	(0.2)
Restructuring expenses	—	—	(2.4)	—	—	—	—	—	(1.0)
Earnings (loss) from continuing operations	0.3	3.4	(10.3)	27.4	26.1	20.0	14.7	15.5	8.0
Net interest income (expense)	(2.2)	(1.4)	(1.6)	0.7	0.5	0.2	(0.7)	(0.4)	(0.6)
Gain (expense) resulting from early extinguishment of debt	—	(2.2)	2.7	—	—	—	—	(1.1)	1.1
Foreign currency exchange gains (losses)	(0.3)	(0.4)	(0.2)	—	0.2	0.3	(0.1)	(0.1)	0.1
Earnings (loss) from continuing operations before income taxes and minority interest	(2.2)	(0.6)	(9.4)	28.1	26.8	20.5	13.9	13.9	8.6
Income tax expense	(0.2)	(0.6)	(0.5)	(2.8)	(3.3)	(2.3)	(1.6)	(2.0)	(1.6)
Earnings (loss) from continuing operations before minority interest	(2.4)	(1.2)	(9.9)	25.3	23.5	18.2	12.3	11.9	7.0
Minority interest	—	—	—	(11.7)	(11.0)	(8.5)	(6.2)	(5.8)	(5.1)
Gain on dilution of investment in subsidiary	—	—	—	—	—	—	0.1	0.3	0.6
Net earnings (loss) from continuing operations	(2.4)	(1.2)	(9.9)	13.6	12.5	9.7	6.2	6.4	2.5
Loss from discontinued operations before income taxes	(5.0)	—	—	—	—	—	(2.3)	—	—
Income tax benefit (expense)	—	—	—	—	—	—	—	—	—
Net loss from discontinued operations	(5.0)	—	—	—	—	—	(2.3)	—	—
Net earnings (loss)	<u>(7.4)%</u>	<u>(1.2)%</u>	<u>(9.9)%</u>	<u>13.6%</u>	<u>12.5%</u>	<u>9.7%</u>	<u>3.9%</u>	<u>6.4%</u>	<u>2.5%</u>

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

Net Sales. The following table shows net sales for the Front-end and Back-end segments and the percentage change for 2008 and 2007:

(EUR millions)	2007	2008	% Change
Front-end	450.9	296.8	(34)%
Back-end	504.3	450.6	(11)%
Total net sales	<u>955.2</u>	<u>747.4</u>	<u>(22)%</u>

In 2008, net sales of wafer processing equipment (Front-end segment) represented 40% of total net sales. Net sales of assembly and packaging equipment and materials (Back-end segment) represented 60% of total net sales.

The decline in Front-end and Back-end sales in 2008 compared to 2007 reflects the general decline in market demand in 2008.

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The movements of the yen, U.S. dollar and U.S. dollar related currencies against the euro in 2008 as compared to 2007 impacted net sales negatively by 6%. The impact on Front-end and Back-end net sales were respectively 2% and 9%.

Gross Profit Margin. The following table shows the gross profit margin for Front-end and Back-end segments and the percentage point change for 2008 compared to 2007:

<u>(EUR millions)</u>	<u>Gross profit</u> <u>2007</u>	<u>Gross profit</u> <u>2008</u>	<u>Gross profit margin</u> <u>2007</u>	<u>Gross profit margin</u> <u>2008</u>	<u>Decrease percentage points</u>
Front-end	145.0	93.9	32.2%	31.6%	(0.6)
Back-end	216.1	176.4	42.8%	39.1%	(3.7)
Total gross profit	<u>361.1</u>	<u>270.3</u>	<u>37.8%</u>	<u>36.2%</u>	<u>(1.6)</u>

The gross profit margin of our Front-end segment decreased due to the write-off in 2008 of € 3.9 million on RTP inventory. Without the write-off the gross margin would have increased by 0.7% percentage points to 32.9%, even though the sales in 2008 decreased by 34% compared to 2007. The gross profit margin was positively impacted by the sales mix and higher gross profit margins in three of our four established Front-end product lines.

The gross profit margin of our Back-end segment decreased mainly as a result of the lower utilization.

Selling, General and Administrative Expenses. The following table shows selling, general and administrative expenses for Front-end and Back-end segments and the percentage change for 2008 and 2007:

<u>(EUR millions)</u>	<u>2007</u>	<u>2008</u>	<u>% Change</u>
Front-end	75.4	71.6	(5)%
Back-end	54.3	55.0	1%
Total selling, general and administrative expenses	<u>129.7</u>	<u>126.6</u>	<u>(2)%</u>

As a percentage of net sales, selling, general and administrative expenses were 17% in 2008 and 14% in 2007.

The decrease in the Front-end segment would have been higher without the write-off on accounts receivable of € 2.9 million in 2008.

Research and Development Expenses. The following table shows research and development expenses for Front-end and Back-end segments and the percentage change for 2008 and 2007:

<u>(EUR millions)</u>	<u>2007</u>	<u>2008</u>	<u>% Change</u>
Front-end	53.6	43.8	(18)%
Back-end	29.8	31.2	5%
Total research and development expenses	<u>83.4</u>	<u>75.0</u>	<u>(10)%</u>

As a percentage of net sales, research and development expenses increased from 9% in 2007 to 10% in 2008.

The decrease in the Front-end segment was the result of increased focus on efficiency and prioritization of research and development projects.

Earnings (Loss) from Operations. The following table shows earnings from operations for the Front-end and Back-end segments and the percentage change between the year 2007 and 2008:

<u>(EUR millions)</u>	<u>2007</u>	<u>2008</u>	<u>% Change</u>
Front-end	15.5	(30.5)	nm
Back-end	131.9	90.2	(32)%
Consolidated earnings from operations	<u>147.4</u>	<u>59.7</u>	<u>(59)%</u>

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Net Interest Expense. Net interest expense amounted to € 3.7 million in 2008 compared to the net interest expense of € 3.8 million in 2007.

Gain (expense) resulting from early extinguishment of debt. In 2008, we repurchased US\$ 48.3 million in convertible debt at a lower market value than the nominal value of the outstanding convertible debt. The difference between the market value and the nominal value and the write off of unamortized issuance costs amounted to a gain of € 8.0 million. In 2007, we repurchased US\$ 35.4 million in convertible debt at a market value higher than the nominal value of the outstanding convertible debt. The difference between the market value and the nominal value and the write off of unamortized issuance costs amounted to an expense of € 10.0 million.

Income Tax Expense. Income tax expense declined from € 19.2 million in 2007 to € 12.1 million in 2008, principally due to the reduction in operating income in 2008.

Net Earnings. The following table shows net earnings for the Front-end and Back-end segments and the percentage change for 2008 and 2007:

(EUR millions)	2007	2008	% Change
Front-end	(5.3)	(29.2)	nm
Back-end	63.3	43.5	(31)%
Gain on dilution of investment in ASM Pacific Technology / Back-end	3.0	4.1	37%
Consolidated net earnings	<u>61.0</u>	<u>18.4</u>	<u>(70)%</u>

Net earnings of our Front-end segment for 2008 include impairment charges of € 1.4 million related to goodwill of our investment in NanoPhotonics, charges of € 7.1 million relating to impairment on fixed assets of ASM Europe in the Netherlands related to our restructuring; a € 3.9 million write-off on RTP inventory; and a € 8.0 million gain on the early extinguishment of debt. Excluding these charges and gain, the net loss of our Front-end segment was € 24.8 million.

The gain on dilution of investment in ASM Pacific Technology / Back-end is shown as a separate line item.

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

Net sales. The following table shows net sales of our front-end and back-end segments and the percentage change between the years 2006 and 2007:

(EUR millions)	2006	2007	% Change
Front-end	409.4	450.9	10%
Back-end	468.1	504.3	8%
Total net sales	<u>877.5</u>	<u>955.2</u>	<u>9%</u>

In 2007, net sales of wafer processing equipment (front-end segment) represented 47% of total net sales. Net sales of assembly and packaging equipment and materials (back-end segment) represented 53% of total net sales in 2007.

The weakening of foreign currencies (amongst others the yen, U.S. dollar and U.S. dollar related currencies) against the euro in 2007 as compared to 2006 impacted total sales negatively by 7%. The impact on front-end sales was 5%, the impact on back-end sales was 9%.

Gross Profit Margin. The following table shows our gross profit and gross profit margin for front-end and back-end segments and the percentage point increase or decrease in gross profit as a percentage of net sales between the years 2006 and 2007:

(EUR millions)	Gross profit	Gross profit	Gross profit margin	Gross profit margin	Increase or (Decrease) percentage points
	2006	2007	2006	2007	
Front-end	127.8	145.0	31.2%	32.2%	1.0
Back-end	211.0	216.1	45.1%	42.8%	(2.3)
Total gross profit	<u>338.8</u>	<u>361.1</u>	<u>38.6%</u>	<u>37.8%</u>	<u>(0.8)</u>

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The gross profit margin of our front-end segment for 2007 is positively impacted by increased margins of our product lines in developments, by changes in the product mix, and by cost reduction programs. In addition, revenue from a licensing agreement which commenced in the fourth quarter of 2007 contributed to the higher gross profit margin in 2007. Increased manufacturing of generic subassemblies and components by ASM Front-End Manufacturing Singapore ("FEMS") also contributed to the higher gross profit margin in 2007. At the end of 2007, generic subassemblies for Vertical Furnaces and Epitaxy systems are manufactured in this facility. These positive factors more than compensated pressure on sales prices mainly resulting from foreign currency developments.

The gross profit margin of our back-end segment decreased due to the cost of increasing manufacturing capacity.

Selling, General and Administrative Expenses. The following table shows selling, general and administrative expenses for our front-end and back-end segments and the percentage change between the years 2006 and 2007:

<u>(EUR millions)</u>	<u>2006</u>	<u>2007</u>	<u>% Change</u>
Front-end	67.3	75.4	12%
Back-end	53.3	54.3	2%
Total selling, general and administrative expenses	120.6	129.7	7%

Selling, general and administrative expenses of our front-end segment increased as a result of increased effort to achieve the sales recorded in 2007 and to position our front-end segment product lines in the market for future sales.

Selling, general and administrative expenses were 14% of net sales, in 2006 and 2007.

Research and Development Expenses. The following table shows research and development expenses for our front-end and back-end segments and the percentage change between the years 2006 and 2007:

<u>(EUR millions)</u>	<u>2006</u>	<u>2007</u>	<u>% Change</u>
Front-end	58.6	53.6	(9)%
Back-end	29.5	29.8	1%
Total research and development expenses	88.1	83.4	(5)%

The decrease in the front-end segment was the result of increased focus in the research and development project portfolio.

As a percentage of net sales, research and development expenses decreased from 10% for the year 2006 to 9% in 2007.

Earnings from Operations. The following table shows net earnings from operations for our front-end and back-end segments and the percentage change between the years 2006 and 2007:

<u>(EUR millions)</u>	<u>2006</u>	<u>2007</u>	<u>% Change</u>
Front-end	1.4	15.5	1,007%
Back-end	128.1	131.9	3%
Consolidated earnings from operations	129.5	147.4	14%

Net Interest Expense amounted to € 3.8 million in 2007 compared to € 5.8 million in 2006. The decrease is due to less debt, the repurchase of US\$ 35.4 million in convertible subordinated notes in 2007 and increased interest income resulting from increased interest rates.

Income Tax Expense amounted to € 19.3 million in 2007 compared to € 14.1 million in 2006. The increase is caused by increased earnings from operations and an increase of the liability for unrecognized tax benefits.

Net Loss from Discontinued Operations. In 2006, ASM NuTool's operations were accounted for as discontinued operations.

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Net Earnings. The following table shows net earnings for our front-end and back-end segments and the percentage change between the years 2006 and 2007:

<u>(EUR millions)</u>	<u>2006</u>	<u>2007</u>	<u>% Change</u>
Front-end	(29.0)	(2.3)	(92)%
Back-end	63.3	63.3	—
Consolidated net earnings	<u>34.3</u>	<u>61.0</u>	<u>78%</u>

Net earnings for the front-end segment for 2007 and 2006 include a gain on dilution of our investment in ASM Pacific Technology of € 3.0 million, respectively € 1.3 million.

Net earnings for the front-end segment for 2007 includes the expense resulting from early extinguishment of convertible debt of € 10.0 million.

Net earnings for the front-end segment for 2006 includes a net loss of discontinued operations of € 20.4 million.

Net earnings for the back-end segment reflects our 53.10% ownership of ASM Pacific Technology.

Backlog

Our backlog includes orders for which purchase orders or letters of intent have been accepted, typically for up to one year. Historically, orders have been subject to cancellation or rescheduling by customers. In addition, orders have been subject to price negotiations and changes in specifications as a result of changes in customers' requirements. Due to possible customer changes in delivery schedules and requirements and to cancellation of orders, our backlog at any particular date is not necessarily indicative of actual sales for any succeeding period.

The following table shows the level of new orders during 2007 and 2008 and the backlog at December 31, 2007 and December 31, 2008 and the percentage change:

<u>(EUR millions)</u>	<u>2007</u>	<u>2008</u>	<u>% Change</u>
Front-end:			
New orders for the year	394.6	250.6	(36)%
Backlog at the end of the year	99.2	53.0	(47)%
Book-to-bill ratio (new orders divided by net sales)	0.88	0.84	
Back-end:			
New orders for the year	526.7	387.1	(27)%
Backlog at the end of the year	101.2	37.7	(63)%
Book-to-bill ratio (new orders divided by net sales)	1.04	0.86	
Total			
New orders for the year	921.3	637.7	(31)%
Backlog at the end of the year	200.4	90.7	(55)%
Book-to-bill ratio (new orders divided by net sales)	0.96	0.85	

Liquidity and Capital Resources

Our liquidity is affected by many factors, some of which are related to our ongoing operations and others of which are related to the semiconductor and semiconductor equipment industries and to the economies of the countries in which we operate. Although our cash requirements fluctuate based on the timing and extent of these factors, we believe that cash generated by operations, together with the liquidity provided by our existing cash resources and our financing arrangements, will be sufficient to fund working capital, capital expenditures and other ongoing business requirements for at least the next twelve months. If demand for our products continues to fall during this current downturn, cash generated by operations may be lower than forecasted. In such a situation we might need to further utilize our short-term credit facilities or investigate additional financing.

Net cash provided by operations in 2008 was € 137.4 million, compared to € 105.6 million for 2007. This increase is primarily the result of decreased working capital. Both our Front-end and Back-end segments achieved positive cash flow from operating activities in 2008.

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Net cash used in investing activities in 2008 was € 33.0 million, compared to € 44.5 million for 2007. This decrease is a result of our decision to decrease investments in light of the deteriorating market circumstances.

Net cash used in financing activities for 2008 was € 121.5 million, compared to € 81.3 million in 2007. In 2008, we repaid € 5.2 million of short-term bank facilities, spent € 29.6 million to buy back nominal € 38/US\$ 48 million of convertible subordinated debt, repaid € 16.2 million of long-term debt, received € 8.0 million in new long-term debt and purchased treasury shares of € 36.5 million. In 2008, ASM Pacific Technology paid € 43.4 million in dividends to its minority shareholders. With our purchase of treasury shares and our buy-back of convertible debt—in total an amount of € 66.1 million—we have in 2008 spent more than the distribution of € 49.1 million cash dividend received from ASM Pacific Technology in 2008.

Net working capital, consisting of accounts receivable, inventories, other current assets, accounts payable, accrued expenses, advance payments from customers and deferred revenue, decreased from € 271.9 million at December 31, 2007 to € 260.5 million at December 31, 2008. The decrease is primarily the result of decreased sales and manufacturing levels, partly offset by the effect of the strengthening of yen, U.S. dollar and U.S. dollar related currencies to the euro. The number of outstanding days of working capital, measured based on annual sales, increased from 104 days at December 31, 2007 to 127 days at December 31, 2008. For the same period, our Front-end segment increased from 125 days to 176 days and our Back-end segment increased from 85 days to 95 days.

At December 31, 2008, our principal sources of liquidity consisted of € 157.3 million in cash and cash equivalents and € 87.8 million in useable undrawn bank lines. Approximately € 78.4 million of the cash and cash equivalents and € 27.8 million of the undrawn bank lines are restricted to use in the Company's Back-end operations and € 11.7 million of the cash and cash equivalents and € 29.0 million in undrawn bank lines are restricted to use in the Company's Front-end operations in Japan.

For the most part, our cash and cash equivalents are not guaranteed by any governmental agency. We place our cash and cash equivalents with high quality financial institutions to limit our credit risk exposure.

The net debt of ASMI, excluding Back-end, at December 31, 2008 was € 74.7 million. This net debt is the balance of € 79.0 million cash and € 153.7 million debt. The debt of € 153.7 million consists of € 106.8 million convertible debt and € 46.9 million other debt. Furthermore, ASMI, excluding Back-end, has useable undrawn credit lines of € 60.0 million.

Front-end Segment

The following table shows the financing position of ASMI excluding Back-end at December 31, 2008:

EUR millions	ASMI/Front-end	Front-end Excl. Japan	Japan
Cash	79.0	67.3	11.7
Debt			
Convertible ¹	106.8	106.8	
Other ²	46.9	2.9	44.0
Total debt	153.7	109.7	44.0
Net debt (debt-cash)	(74.7)	(42.4)	(32.3)
Additional credit lines			
Nominal	79.0	50.0	29.0
Of which useable	60.0	31.0	29.0

(1) The maturity dates for the convertible bonds are May 2010, for € 15.0 million, and December 2011, for € 91.8 million. There are no financial covenants in the convertible bonds.

(2) € 23.6 million of the € 46.9 million other debt and € 29.0 million of the nominal and useable credit lines are up for renewal in 2009.

A large part of the local bank financing for our Front-end operations in Japan— € 44.0 million debt and undrawn credit lines of € 29.0 million—include financial covenants. The most important covenants, measured at December 31 of each year, include:

- no two loss making years in a row (ASM Japan was profitable in the year 2008);
- no annual loss in excess of a certain percentage of the equity of ASM Japan;
- pledge of accounts receivable if the total debt of ASM Japan exceeds 60% of sales.

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We are in compliance with these financial covenants as of December 31, 2008 and we believe that the financial position of ASM Japan is such that we can expect to be in compliance in the next twelve months. Therefore we believe that these financial covenants will not have an impact on the availability of the debt financing of ASM Japan and the undrawn credit lines of ASM Japan in 2009, with the proviso that part of the debt and credit lines are up for renewal in 2009. ASMI is guarantor with respect to € 8.9 million debt of ASM Japan and with respect to € 11.9 million credit lines of ASM Japan of which € 7.1 million is outstanding as of December 31, 2008.

We have a bank credit facility with Rabobank of € 50.0 million, of which € 31.0 million was useable as of December 31, 2008. The facility, available through February 28, 2010, is secured by a portion of our shareholding in ASM Pacific Technology. The available part of this credit facility can be increased to the original € 50.0 million by increasing the portion of our shareholding in ASM Pacific Technology by which this facility is secured. The bank credit facilities include two financial covenants: a solvency ratio and a total net debt/equity ratio. These financial covenants are measured twice each year, at June 30 and December 31. We are in compliance with these financial covenants as of December 31, 2008 and we believe that the financial position of ASMI is such that we can expect to be in compliance in the next twelve months.

During 2009, € 52.6 million of outstanding long-term debt and available credit facilities for our front-end business, substantially all of which is for our operations in Japan, matures and will need to be renewed. The current conditions in the worldwide credit markets are unpredictable and very challenging and there is no guarantee that we will be able to renew or replace these credit facilities or renew or replace them on terms acceptable to us. If we cannot effect a renewal or replacement, we will need to reallocate internal resources to repay the outstanding portions of these facilities which may negatively affect our ability to meet customer demand and invest in R&D for the future.

We are obligated to fund defined benefit pension plans for our employees in Japan. We expect that the amount of this funding in 2009 will be approximately € 748,000. Our employees in the Netherlands participate in a multi-employer plan. The plan monitors the risks of the entire investment portfolio, not by individual company or employee, and is subject to regulation by Dutch governmental authorities. By Dutch law, a multi-employer union plan must be monitored against specific criteria, including the coverage ratio of its assets to its obligations. This ratio includes a minimum coverage ratio of 105%. At December 31, 2008 the coverage ratio of the multi-employer plan was 90% (December 31, 2007: 135%) as a result of the economic crisis in 2008. Consequently, the Board of the multi-employer plan decided that existing pension obligations will not be indexed and pension premiums will increase with 1% for the year 2009. For a discussion of our pension obligations, see Note 16 of the Notes to our Consolidated Financial Statements included elsewhere in this report.

Back-end Segment

Our back-end segment, which is conducted through ASM Pacific Technology, our 52.87%-owned subsidiary, is entirely self-financed and at December 31, 2008 had no long-term debt. The cash resources and borrowing capacity of ASM Pacific Technology are not available to our front-end segment due to restrictions imposed by the Hong Kong Stock Exchange, on which the ASM Pacific Technology common shares are listed.

We historically relied on dividends from ASM Pacific Technology for a portion of our cash flow for use in our front-end operations. Cash dividends received from ASM Pacific Technology during 2006, 2007 and 2008 were € 59.0 million, € 49.1 million and € 49.1 million, respectively. In November 2006, we announced our commitment that for at least the next three years we would not use these cash dividends to support our front-end business, but instead would use such dividends to retire outstanding convertible debt, purchase our common shares, pay cash dividends on our common shares or, in the event of dilution resulting from the exercise of employee stock options in ASM Pacific Technology, purchase shares of ASM Pacific Technology to maintain our percentage ownership at its current level. We will determine the most appropriate use or combination of uses, of these funds, from time to time. During 2008, we expended approximately € 66.1 million for the foregoing purposes, which was € 17.0 million in excess of the aggregate amount of dividends received during 2008 from ASM Pacific Technology. Accordingly, we intend to retain for use in our front-end business the next € 17.0 million of dividends received from ASM Pacific Technology. We expect the aggregate amount of ASM Pacific Technology dividends in 2009 will be substantially lower than in 2008.

Although three of the ten directors of ASM Pacific Technology are affiliates of ASM International, ASM Pacific Technology is under no obligation to declare dividends to shareholders or enter into transactions that are beneficial to us. As a majority shareholder, we can approve the payment of dividends, but cannot compel their payment or size.

The market value of our investment in ASM Pacific Technology at the end of 2008 was approximately € 488.5 million, which is lower than the market value of approximately € 1,036.2 million at the end of 2007.

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Outlook

We have developed forecasts and projections of cash flows and liquidity needs for the upcoming year taking into account the current market conditions, reasonably possible changes in trading performance based on such conditions, and our ability to modify our cost structure as a result of changing economic conditions and sales levels and the fact that we have already started with the implementation of the restructuring program. We have also considered in the forecasts the total cash balances amounting to € 157.3 million as of December 31, 2008, available borrowings, the ability to renew debt arrangements and to access additional indebtedness and whether or not we will maintain compliance with our financial covenants. Based on this, we believe that our cash on hand at the end of 2008 is adequate to fund our operations, our investments in capital expenditures and to fulfill our existing contractual obligations for the next twelve months.

Contractual Obligations, Contingent Liabilities and Commitments

The following table summarizes our contractual obligations as of December 31, 2008 aggregated by type of contractual obligation:

<u>Contractual obligations (euro millions)</u>	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Notes payable to banks ¹	17.2	17.2	—	—	—
Long-term debt ^{1, 2}	31.4	7.3	20.6	3.5	—
Convertible subordinated debt ¹	120.1	4.7	115.4	—	—
Operating leases	25.5	8.5	9.8	4.5	2.7
Purchase obligations:					
Purchase commitments to suppliers	35.0	34.5	0.5	—	—
Capital expenditure commitments	1.7	1.7	—	—	—
Unrecognized tax benefits (FIN 48)	14.8	14.8	—	—	—
Total contractual obligations	245.7	88.7	146.3	8.0	2.7

(1) Including interest expense based on the percentages at the reporting date.

(2) Capital lease obligations of € 1.9 million are included in long-term debt.

For a further discussion of our contractual obligations see Notes 10, 13, 14, 17, 19 and 21 to our Consolidated Financial Statements, which are incorporated herein by reference.

We outsource a substantial portion of the manufacturing of our front-end operations to certain suppliers. As our products are technologically complex, the leadtimes for purchases from our suppliers can vary and can be as long as nine months. Generally contractual commitments are made for multiple modules or systems in order to reduce our purchase prices per module or system. For the majority of our purchase commitments, we have flexible delivery schedules depending on the market conditions, which allow us, to a certain extent, to delay delivery beyond originally planned delivery schedules.

At December 31, 2008 we had contingent payables of € 3.1 million, including accrued interest, related to a research and development credit received. The credit received is repayable only to the extent we recognize sales of products to which the credit is related within an agreed upon time period.

New Accounting Pronouncements

For information regarding new accounting pronouncements, see Note 1 to our Consolidated Financial Statements, which is incorporated herein by reference.

Safe Harbor

Please refer to "Forward Looking and Safe Harbor Statement" on page 3 which is incorporated herein.

Item 6. Directors, Senior Management and Employees

A. Directors and senior management.

The names of the current members of our Supervisory Board and Management Board and the years of their birth are as follows:

<u>Name</u>	<u>Year of Birth</u>	<u>Position</u>
Paul C. van den Hoek ²	1939	Chairman of the Supervisory Board (Expiring 2009)
Eric A. van Amerongen ^{1, 2}	1953	Member of the Supervisory Board (Expiring 2010)
Johan M.R. Danneels ²	1949	Member of the Supervisory Board (Expiring 2012)
Heinrich W. Kreutzer ¹	1949	Member of the Supervisory Board (Expiring 2010)
Ulrich H.R. Schumacher	1958	Member of the Supervisory Board (Expiring 2012)
Charles D. (Chuck) del Prado	1961	Chairman of the Management Board, President and Chief Executive Officer
W.K. Lee	1954	Member of the Management Board of the Company and Chief Executive Officer of ASM Pacific Technology Ltd.
A. (Naud) J.M. van der Ven	1959	Member of the Management Board and Chief Financial Officer
J. (Han) F.M. Westendorp	1956	Member of the Management Board and Vice President Front-end Products

(1) Member of Audit Committee

(2) Member of Nomination, Selection and Remuneration Committee

Paul C. van den Hoek became a member of the Supervisory Board in March 1981 and is currently Chairman of the Supervisory Board. Until March 2009, Mr. van den Hoek was a partner in the European law firm of Stibbe, which is our general legal counsel. He has been with Stibbe since 1965 and now is Of Counsel to Stibbe. Mr. van den Hoek also serves on the board of directors of various European companies. At December 31, 2008, Mr. van den Hoek owned 300,000 of our common shares. Mr. van den Hoek holds a Master's Degree in law from the University of Amsterdam, the Netherlands.

Eric A. van Amerongen was elected a member of the Supervisory Board in May 2002 and is currently Vice-Chairman of the Supervisory Board. Mr. van Amerongen served as Chief Executive Officer of Koninklijke Swets & Zeitlinger and later as member of its Supervisory Board. Prior to that, he was active for over 10 years in the position of Group Director of Thomson-CSF (France), Chief Executive Officer of Hollandse Signaal Apparaten B.V. and President and Chief Executive Officer Europe, Middle East and Africa for Lucent Technologies. Mr. van Amerongen also serves on the boards of directors of various European companies.

Johan M.R. Danneels was elected a member of the Supervisory Board in May 2000. Currently Mr. Danneels serves as Chief Executive Officer at Essensium. In January 2005 Mr. Danneels founded Essensium N.V., a spin-off from the research institute IMEC of which he was chairman since 2000. Mr. Danneels served recently as Groups Vice President of STMicroelectronics. Prior to that, he was Corporate Executive Vice President of Alcatel NV and Chief Executive Officer of Alcatel Microelectronics. He spent 25 years in Alcatel in different management functions of all major productlines. Mr. Danneels holds a Ph.D. degree in engineering from the KULeuven, Belgium and a MBA degree from Boston University.

Heinrich W. Kreutzer was elected a member of the Supervisory Board in November 2006. Mr. Kreutzer is currently a member of the Board of Directors of Micronas Semiconductor AG in Zurich, Switzerland, chairman of the Supervisory Board of Micronas Semiconductor GmbH in Freiburg, Germany and chairman of the Supervisory Board of Bktel communications GmbH, Germany. He worked at several companies, including General Telephone & Electronics in Waltham, USA, and Alcatel in Stuttgart, Germany. From 2004 to April 2006, he was Managing Director of Kabel Deutschland GmbH in Munich, Germany. From 1999 to 2003, Mr. Kreutzer was a member of the Management Board, and was the Chief Operating Officer and Chief Technology Officer of Alcatel SEL AG. Mr. Kreutzer is 'Diplom-Ingenieur' and 'Diplom-Ökonom'. He studied at the Technical University of Berlin and the University of Hagen.

Ulrich H.R. Schumacher was elected a member of the Supervisory Board in May 2008. Dr. Schumacher currently is the CEO and President of Grace Semiconductor Manufacturing Corporation in Shanghai. From 2004 until September 2007, Dr. Schumacher was a partner of Francisco Partners, a private equity investment company based in the U.S. From 1986 through 1999, Dr. Schumacher served in various engineering and management roles at Siemens AG and was CEO and President of Siemens Semiconductor Group from 1996 until it was spun off in 1999 by Siemens as Infineon Technologies AG. He served as President and CEO of Infineon Technologies AG until 2004. Mr. Schumacher studied Electrical Engineering and Business Administration at the University of Aachen, Germany, and was awarded a Doctorate of Engineering.

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Charles D. (Chuck) del Prado became a member of the Management Board in May 2006 and the President and Chief Executive Officer on March 1, 2008. From January 1, 2008 until February 29, 2008, he was the Executive Vice President Front-end Operations. He was President and General Manager of ASM America from February 2003 until August 2007. In March 2001, he was appointed Director Marketing, Sales & Service of ASM Europe. From February 1996 to 2001, he held various management positions at ASM Lithography in manufacturing and sales in Taiwan and in the Netherlands. Mr. del Prado worked at IBM Nederland N.V. from 1989 to 1996 in several marketing and sales positions. Mr. del Prado received a Master of Science degree in Industrial Engineering and Technology Management from the University of Twente, the Netherlands.

W.K. Lee became a member of the Management Board of the Company and Chief Executive Officer of ASM Pacific Technology Ltd. effective January 1, 2007 and has been General Manager Southern Region of ASM Pacific Technology since 1990. He has been employed by ASM Pacific Technology for over 25 years. Prior to becoming in 1990 General Manager of ASM Pacific Technology's activities in Singapore, Mr. W.K. Lee was involved in product development. Mr. W.K. Lee studied at the Chinese University of Hong Kong (Bachelor of Science and Master of Philosophy in Electronics) and has a Master Degree in Business Administration from the National University of Singapore.

A. (Naud) J.M. van der Ven became Chief Financial Officer and a member of the Management Board in June 2005. Prior to his joining ASM International, Mr. van der Ven was Chief Financial Officer and Member of the Executive Board of Novamedia Holding B.V. from 2001 to 2004 and of Vedior N.V. from 1997 to 2000. He was Chief Financial Officer of Axxicon Group N.V. from 1991 to 1997 and started his career at McKinsey & Company in 1985. Mr. van der Ven holds a MBA degree from the University of Chicago, United States, and a law degree from the University of Leiden, the Netherlands.

J. (Han) F.M. Westendorp became a member of the Management Board in May 2006 and Vice President Front-end Products since January 1, 2008. He was Chief Operating Officer front-end operations of ASM International since February 2003 until January 1, 2008. He was appointed General Manager of ASM Europe in July 1999. Mr. Westendorp held various management positions at Tokyo Electron Massachusetts from 1991 to mid-1999, most recently as General Manager. Prior to that, he worked on developing ion implant technology at ASM International. Mr. Westendorp has a doctorate in physics and mathematics from the University of Utrecht, the Netherlands.

B. Compensation.

For information regarding remuneration of members of our Management Board and Supervisory Board, see Note 25 to our Consolidated Financial Statements, which is incorporated herein by reference.

For further information regarding remuneration of members of our Management Board, see our Remuneration Policy and Remuneration Report 2007, which are posted on our website (www.asm.com). Our Remuneration Report 2008 will be posted on our website in accordance with applicable requirements under local law.

We have granted stock options to certain key employees. For information regarding such options see Note 16 to our Consolidated Financial Statements, which is incorporated herein by reference.

C. Board practices.

Under Netherlands law, Supervisory Board members have the duty to supervise and advise the Management Board members. Persons nominated by the Supervisory Board to be appointed by the shareholders to the Supervisory Board are elected if they receive a majority of the votes cast at a meeting of shareholders. Nominees to the Supervisory Board who are not proposed by the Supervisory Board are appointed if they receive the affirmative vote of a majority of the votes cast at a meeting, which affirmative votes represent more than half our issued capital. A resolution to remove a member of the Supervisory Board, other than in accordance with a proposal of the Supervisory Board, shall require the affirmative vote of a majority of the votes cast, which affirmative votes represent more than half our issued capital. The Supervisory Board members serve a four year term. The Supervisory Board members may be re-elected twice.

The Management Board is entrusted with our management under the supervision of the Supervisory Board and has the general authority to enter into binding agreements with third parties. Persons nominated by the Supervisory Board to be appointed by the shareholders to the Management Board are elected if they receive a majority of the votes cast at a meeting of shareholders. Nominees to the Management Board who are not proposed by the Supervisory Board are appointed if they receive the affirmative vote of a majority of the votes cast at a meeting, if such affirmative votes represent more than half our issued capital. A

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Management Board member may at any time be suspended by the Supervisory Board. A Management Board member may, in accordance with a proposal of the Supervisory Board, be dismissed by the General Meeting of Shareholders with a majority of the votes cast. A resolution to suspend or to dismiss a member of the Management Board, other than in accordance with a proposal of the Supervisory Board, shall require the affirmative vote of a majority of the votes cast at a meeting, which affirmative votes represent more than half our issued capital. There is no statutory term of office for Management Board members.

The Audit Committee of the Supervisory Board has a supervisory task with regard to monitoring the integrity of our financial reports and risk management. The Audit Committee consists of Mr. Kreutzer (acting Chairman) and Mr. van Amerongen. The Audit Committee supervises the activities of the Management Board with respect to:

- the operation of the internal risk management and control systems, including supervision of the enforcement of the relevant legislation and regulations, and supervising the operation of codes of conduct;
- our release of financial information;
- compliance with recommendations and observations of external auditors;
- our policy on tax planning;
- relations with the external auditor, including, in particular, its independence, remuneration and any non-audit services performed for us;
- our financing and financial position; and
- the applications of information and communication technology (ICT).

The Audit Committee meets periodically to nominate a firm to be appointed as independent auditors to audit the financial statements and to perform services related to the audit, review the scope and results of the audit with the independent auditors, review with management and the independent auditors our annual operating results and consider the adequacy of the internal accounting procedures and the effect of the procedures relating to the auditor's independence.

The Nomination, Selection and Remuneration committee of the Supervisory Board advises the Supervisory Board on matters relating to the selection and nomination of the members of the Management Board and Supervisory Board. The committee further monitors and evaluates the remuneration policy for the Management Board. This committee consists of Mr. van Amerongen (Chairman), Mr. Danneels and Mr. van den Hoek.

We have entered into indemnity agreements with each of our Supervisory Board and Management Board members in which we agree to hold each of them harmless, to the extent permitted by law, from damage resulting from a failure to perform or a breach of duties by our board members, and to indemnify each of them for serving in any capacity for the benefit of the Company, except in the case of willful misconduct or gross negligence in certain circumstances.

D. Employees.

As of December 31, 2008, we had 11,714 employees, including 994 employees primarily involved in research and development activities, 478 in marketing and sales, 1,141 in customer service, 614 in finance and administration, and 8,487 in manufacturing.

The following table lists the total number of our employees and the number of our employees in our front-end and back-end business at the dates indicated, exclusive of temporary workers:

<u>Geographic Location</u>	<u>December 31, 2006</u>			<u>December 31, 2007</u>			<u>December 31, 2008</u>		
	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>
Europe									
The Netherlands	326	10	336	338	10	348	341	8	349
EMEA	179	11	190	204	11	215	168	10	178
United States	641	11	652	515	10	525	455	14	469
Japan	284	19	303	294	24	318	289	23	312
Southeast Asia	430	8,957	9,387	492	9,934	10,426	414	9,992	10,406
Total	<u>1,860</u>	<u>9,008</u>	<u>10,868</u>	<u>1,843</u>	<u>9,989</u>	<u>11,832</u>	<u>1,667</u>	<u>10,047</u>	<u>11,714</u>

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Our Netherlands operations, which employed 344 persons as of March 6, 2009, is subject to standardized industry bargaining under Netherlands law, and is required to pay wages and meet conditions established as a result of negotiations between all Netherlands employers in their industry and unions representing employees of those employers. Additionally, management personnel in the Netherlands facilities meet as required by Netherlands law with a works council consisting of elected representatives of the employees to discuss working conditions and personnel policies as well as to explain major corporate decisions and to solicit their advice on major issues.

Many of our employees are highly skilled, and our continued success will depend in part upon our ability to continue to attract and retain these employees, who are in great demand. We believe that our employee relations are good.

E. Share ownership.

Information with respect to shares and options held by members of our Supervisory Board and Management Board is included in Item 7, "Major Shareholders and Related Party Transactions" and Notes 25 and 26 to our Consolidated Financial Statements, which are incorporated herein by reference. With the exception of Chuck del Prado, as of March 1, 2009, none of the members of our Supervisory Board or Management Board owned beneficially more than 1% of our outstanding common shares.

We maintain various stock option plans for the benefit of our employees. For information about our stock option plans, see Note 16 to our Consolidated Financial Statements, which is incorporated herein by reference.

Item 7. Major Shareholders and Related Party Transactions

A. Major shareholders.

The following table sets forth information with respect to the ownership of our common shares as of March 6, 2009 by each beneficial owner known to us of more than 5% of our common shares:

	Number of Shares	Percent ¹
Arthur H. del Prado ²	11,476,878	21.1
Hermes Focus Asset Management Ltd ³	8,220,941	15.1
Centaurus Capital Ltd ⁴	3,900,124	7.2

- (1) Calculated on the basis of 54,275,131 Common Shares outstanding as of March 6, 2009, and without regard to options. The indicated ownership percentages do not correspond to voting power, because of the 21,985,000 votes the holders of preferred stock are entitled to cast, as discussed below.
- (2) Includes 3,039 common shares owned by Stichting Administratiekantoor ASMI, a trust controlled by Arthur H. del Prado, and 713,000 common shares beneficially owned by Chuck D. del Prado, Arthur H. del Prado's son.
- (3) Derived from the register of notifications on substantial holdings in issuing institutions filed May 14, 2008 with the Netherlands Authority for the Financial Markets. Hermes Focus Asset Management Ltd. owned 5.29% of our common shares on January 27, 2006, 9.91% on November 1, 2006, and 15.04% on April 18, 2008, based on its reports filed with the Netherlands Authority for the Financial Market.
- (4) Derived from the register of notifications on substantial holdings in issuing institutions filed April 23, 2008 with the Netherlands Authority for the Financial Markets.

A "beneficial owner" of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares (i) voting power which includes the power to vote, or to direct the voting of, such security and/or (ii) investment power which includes the power to dispose, or to direct the disposition, of such security. In addition, a person shall be deemed to be the beneficial owner of a security if that person has the right to acquire beneficial ownership of such security, as defined above, within 60 days, including but not limited to any right to acquire: (i) through the exercise of any option, warrant or right; (ii) through the conversion of a security; or (iii) pursuant to the power to revoke, or pursuant to the automatic termination of, a trust, discretionary account, or similar arrangement.

On May 28, 1997, we entered into an agreement with Stichting Continuïteit ASM International (Stichting), pursuant to which Stichting was granted an option to acquire up to a number of our preferred shares corresponding with a total par value equal to 50% of the par value of our common shares issued and outstanding at the date of the exercise of the option. Stichting is a non-membership organization organized under Netherlands law. The objective of Stichting is to serve the interests of the Company. To that objective

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Stichting may, amongst others, acquire, own and vote our preferred shares in order to maintain our independence and/or continuity and/or identity. The members of the board of Stichting are:

Michiel J.C. van Galen (chairman)	Retired Managing Director, Breevast N.V.
Rinze Veenenga Kingma	President Archeus Consulting B.V.
Jan Klaassen	Emeritus Professor, Vrije Universiteit Amsterdam

On May 14, 2008, Stichting exercised its right to acquire preferred shares in the Company and acquired 21,985 preferred shares representing 21,985,000 votes, which constituted 29.9% of the total voting power of our outstanding capital stock as of May 14, 2008. Stichting paid € 219,850, which constituted one-fourth of the nominal value of the preferred shares acquired, in accordance with the option agreement. This amount was paid by Stichting using an existing credit line. In a press release issued on May 14, 2008, Stichting gave the following explanation for it exercising the option to acquire preferred shares:

“..... Stichting [...] is making this move as it considers this in the best interest of the Company and its stakeholders. Current discussions between the Board and a number of shareholders are still ongoing; the replacement of the CEO and the substantial changes in the Supervisory Board, proposed as voting items by one of the shareholders for the Annual Shareholders Meeting of May 21, 2008, is seriously disruptive to the continuity of the Company as the aforementioned discussions have not come to a conclusive end.”

The issuance of preferred shares to Stichting has since been the subject of litigation in the Enterprise Chamber of the Amsterdam court of appeal. This litigation was initiated by shareholders Hermes Focus Asset Management Ltd. and Fursa Alternative Investment Strategies LLC. In its judgment of May 20, 2008, the Enterprise Chamber did not order ASMI to annul the preferred shares (as requested by Hermes and Fursa) but did prohibit the general meeting of shareholders of ASMI to take certain decisions in the 2008 annual general meeting regarding the composition of the management board and the supervisory board. The litigation between ASMI, Hermes and Fursa and various other parties in the Amsterdam Enterprise Chamber is still ongoing. Currently, the 21,985 preferred shares representing 21,985,000 votes are outstanding and held by Stichting.

Except as described above regarding Stichting, we are unaware of any arrangement which we anticipate will result in a change in control of ASM International. All shares of our common stock entitle the holder to the same voting rights. Our preferred shares entitle the holder to 1,000 votes per share.

Of our 54,275,131 outstanding common shares at March 6, 2009, 2,142,039 are registered with us in the Netherlands, 43,711,429 are registered with our transfer agent in the Netherlands, ABN AMRO Bank N.V., and 8,421,663 are registered with our transfer agent in the United States, Citibank, N.A., New York. Our common shares registered with Citibank, N.A., New York are listed on the NASDAQ Global Select Market under the symbol “ASMI.” As of March 6, 2009 there were approximately 170 record holders of our common shares registered with Citibank. The common shares registered with ABN AMRO Bank N.V., are in bearer form and are traded on Euronext Amsterdam under the symbol “ASM.”

B. Related party transactions.

For information regarding related party transactions, see Note 26 to our Consolidated Financial Statements, which is incorporated herein by reference.

Item 8. Financial Information

A. Consolidated statements and other financial information

Consolidated financial statements

See Item 18, "Financial Statements."

Legal proceedings

See Item 4.B., "Business Overview" and Note 18 to our Consolidated Financial Statements, which is incorporated herein by reference.

Dividend policy

In 2007, we paid an interim dividend of € 0.10 per common share. We have not paid dividends in 2008 and in any year prior to 2007. We do not expect to pay dividends on our common shares in 2009.

B. Significant changes

No significant changes have occurred since the date of our Consolidated Financial Statements.

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Item 9. The Offer and Listing

A. Offer and listing details.

The following table sets forth, for the periods indicated, the high and low closing prices of our common shares as reported on the NASDAQ Global Select Market and the high and low closing prices as reported on Euronext Amsterdam:

Price Range of Common Shares

	NASDAQ Closing Prices		Euronext Closing Prices	
	High	Low	High	Low
Annual Information				
2004	\$ 27.61	\$ 12.80	€ 22.10	€ 10.47
2005	19.15	12.83	14.50	10.37
2006	21.34	13.72	16.97	10.95
2007	30.32	20.94	21.08	15.08
2008	32.66	6.60	20.96	5.00
Quarterly Information				
2007:				
First Quarter	\$ 24.00	\$ 20.94	€ 18.12	€ 16.00
Second Quarter	27.11	22.47	20.37	16.76
Third Quarter	29.06	26.62	21.08	18.21
Fourth Quarter	30.32	21.43	21.08	15.08
2008:				
First Quarter	\$ 24.30	\$ 17.60	€ 16.56	€ 11.20
Second Quarter	32.66	19.12	20.96	12.14
Third Quarter	30.88	17.43	19.13	12.52
Fourth Quarter	19.47	6.60	14.01	5.00
Monthly Information				
September 2008	\$ 25.52	\$ 17.43	€ 17.97	€ 12.52
October 2008	19.47	9.85	14.01	7.51
November 2008	10.92	7.10	8.46	5.68
December 2008	8.94	6.60	6.16	5.00
January 2009	10.47	6.82	7.55	5.20
February 2009	8.60	6.61	6.90	5.16
March 2009 ¹	6.55	6.36	5.20	4.92

(1) Through March 6, 2009.

B. Plan of distribution.

Not applicable.

C. Markets.

Our common shares are listed on the NASDAQ Global Select Market under the symbol "ASMI" and listed on Euronext Amsterdam under the symbol "ASM."

D. Selling shareholders.

Not applicable.

E. Dilution.

Not applicable.

F. Expenses of the issue.

Not applicable.

Item 10. Additional Information

A. Share capital.

Not applicable.

B. Memorandum and articles of association.

The information required by Item 10.B. is incorporated by reference to Exhibit 1.1 in our Form 20-F filed with the United States Securities and Exchange Commission on March 16, 2007 and the Form 6-K filed on April 30, 2007.

C. Material contracts.

None.

D. Exchange controls.

There are no foreign exchange controls or other governmental laws, decrees or regulations in the Netherlands restricting the import or export of capital or affecting the remittance of dividends, interest or other payments to non-resident shareholders. Neither the laws of the Netherlands nor the Articles of Association of ASM International restrict remittances to non-resident shareholders or the right to hold or vote such securities.

E. Taxation.

Summary of Dutch Tax Provisions Applicable to Nonresident Shareholders with a particular focus on U.S. Shareholders

The statements below briefly summarize the current Dutch tax laws, based on the laws as in force at January 1, 2009. The description is limited to the tax implications for shareholders who neither are nor are deemed to be a resident of the Netherlands for purposes of the relevant tax codes. The description does not address special rules that may apply to holders of special classes of shares and should not be interpreted as extending by implication to matters not specifically referred to in this document. As to individual tax consequences, shareholders are advised to consult their own tax advisors.

Withholding Tax

Dividends distributed by us generally are subject to a withholding tax imposed by the Netherlands at a rate of 15%. The expression "dividends distributed" includes, among other things:

- distributions in cash or in kind, deemed and constructive distributions and repayments of paid-in capital which is not recognized as such for Dutch dividend withholding tax purposes;
- liquidation proceeds, proceeds of redemption of ordinary shares or consideration for the repurchase of ordinary shares by us, or one of our subsidiaries, to the extent that such consideration exceeds the average paid-in capital which is recognized as such for Dutch dividend withholding tax purposes;
- the par value of ordinary shares issued to a holder of ordinary shares or an increase in the par value of ordinary shares, as the case may be, to the extent that it does not appear that a contribution, which is recognized as such for Dutch dividend withholding tax purposes, has been made or will be made; and
- partial repayments of paid-in capital, which is recognized as such for Dutch dividend withholding tax purposes, if and insofar as there are net profits (*zuivere winst*) unless the general meeting of our shareholders has resolved in advance to make such repayment and provided that the par value of the ordinary shares concerned has been reduced by an equal amount by way of an amendment to the articles of association.

If a holder of ordinary shares resides in a country that signed a double taxation convention with the Netherlands and such convention is in effect, such holder of ordinary shares may, depending on the terms of that double taxation convention, be eligible for a full or partial exemption from, reduction or refund of Dutch dividend withholding tax. The Netherlands has concluded such a convention with the United States, among other countries.

Under the Convention between the United States of America and the Kingdom of the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (the "US Tax Treaty") currently in effect, dividends we pay to a corporate holder of our common shares who

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is not, or is not deemed to be, a resident of the Netherlands for Dutch tax purposes but who is a resident of the United States as defined in the U.S. Tax Treaty may be eligible for a reduction of the 15% Netherlands withholding tax. In the case of certain U.S. corporate shareholders owning at least 10% of ASM International voting power, the Netherlands withholding tax may be reduced to 5%, provided that such shareholder does not have an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or permanent representative in the Netherlands to which the dividends are attributable. A full exemption of Netherlands withholding tax is applicable for a U.S. corporate shareholder owning at least 80% of voting power in the Company for a period of at least twelve months prior to the distribution, provided that this shareholder meets specific tests of the limitation of benefits clause of the U.S. Tax Treaty. The U.S. Tax Treaty provides for complete exemption from tax on dividends received by exempt pension trusts and exempt organizations, as defined therein. Except in the case of exempt organizations, the reduced dividend withholding rate can be applied at the source upon payment of the dividends, provided that the proper forms have been filed prior to the payment. Exempt organizations remain subject to the statutory withholding rate of 15% and are required to file an application for a refund of such withholding.

A holder who is not, or is not deemed to be, a resident of the Netherlands may only claim the benefits of the U.S. Tax Treaty if:

- the holder is a resident of the United States as defined therein; and
- the holder's entitlement to such benefits is not limited by the provisions of Article 26 ("limitation on benefits") of the U.S. Tax Treaty.

Under current Dutch law, in situations where we distribute dividends which we received ourselves (flow through dividends) from subsidiaries established in countries with which the Netherlands has concluded a tax treaty, we may be permitted under limited circumstances to deduct and retain from the withholding a portion of the amount that otherwise would be required to be remitted to the Dutch Tax Authorities. That portion generally may not exceed 3% of the total dividend distributed by us. If we retain a portion of the amount withheld from the dividends paid, the portion (which is not remitted to the tax authorities) might not be creditable against your domestic income tax or corporate income tax liability. We will endeavor to provide you with information concerning the extent to which we have applied the reduction described above to dividends paid to you and advise you to check the consequences thereof with your local tax advisor.

Different than under the U.S. Tax Treaty, a refund, reduction, exemption or credit of Dutch dividend withholding tax on the basis of Dutch tax law or on the basis of a tax treaty between the Netherlands and another state, will be granted only if the dividends are paid to the beneficial owner of the dividends. A receiver of a dividend is *not* considered to be the beneficial owner of a dividend in an event of "dividend stripping" in which he has paid a consideration related to the receipt of such dividend. In general terms, "dividend stripping" can be described as the situation in which a foreign or domestic person (usually, but not necessarily, the original shareholder) has transferred his shares or his entitlement to the dividend distributions to a party that has a more favorable right to a refund or reduction of Dutch dividend withholding tax than the foreign or domestic person. In these situations, the foreign or domestic person (usually the original shareholder), by transferring his shares or his entitlement to the dividend distributions, avoids Dutch dividend withholding tax while retaining his "beneficial" interest in the shares and the dividend distributions. This regime may also apply to the transfer of shares or the entitlement to dividend distributions as described above, if the avoidance of dividend withholding tax is not the main purpose of the transfer.

Income Tax and Corporate Income Tax on Dividends

A nonresident individual or corporate shareholder will not be subject to Dutch income tax with respect to dividends distributed by us or with respect to capital gains derived from the sale, disposal or deemed disposal of our common shares, provided that:

- such holder is neither resident nor deemed to be resident in the Netherlands nor has made an election for the application of the rules of the Dutch 2001 Income Tax Act as they apply to residents of the Netherlands; and
- such holder does not have, and is not deemed to have, an enterprise or an interest in an enterprise which is, in whole or in part, carried on through a permanent establishment, a deemed permanent establishment, or a permanent representative in the Netherlands and to which enterprise or part of an enterprise the shares are attributable, nor does such holder carry out any other activities in the Netherlands that exceed regular asset management;
- such holder does not have a profit share in, or any other entitlement to the assets or income of an enterprise, other than by way of securities, which enterprise is effectively managed in the Netherlands and to which enterprise the shares are attributable;
- such holder does not carry out and has not carried out employment activities with which the holding of the shares is connected directly or indirectly; and

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- such holder, individuals relating to such holder and some of their relations by blood or marriage in the direct line (including foster children) do not have a substantial interest or deemed substantial interest in us, or, if such holder has a substantial interest or a deemed substantial interest in us, it forms part of the assets of an enterprise.

Generally, a nonresident holder will have a substantial interest if he, his partner, certain other relatives (including foster children) or certain persons sharing his household, alone or together, directly or indirectly:

- hold shares representing 5% or more of our total issued and outstanding capital (or the issued and outstanding capital of any class of our shares);
- hold or have rights to acquire shares (including the right to convert notes or stock options into shares), whether or not already issued, that at any time (and from time to time) represent 5% or more of our total issued and outstanding capital (or the issued and outstanding capital of any class of our shares); or
- hold or own certain profit-participating rights that relate to 5% or more of our annual profit and/or to 5% or more of our liquidation proceeds.

The same criteria apply to a nonresident entity, save for the extension to partners, certain other relatives, and certain persons sharing the holder's household.

Gift and Inheritance Tax

In principle, liability for Dutch gift tax or inheritance tax arises in respect of any gifts of common shares by or inheritance of common shares from any person who resides in the Netherlands at the time of the gift or death.

A gift or inheritance of common shares from a nonresident shareholder will not be subject to Dutch gift and inheritance tax, provided that:

- the nonresident shareholder does not have an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which or to whom the common shares are attributable;
- the nonresident shareholder is not entitled to a share in the profits of an enterprise that is effectively managed in the Netherlands other than by way of securities or through an employment contract, the common shares being attributable to that enterprise; and
- the nonresident shareholder makes a gift of shares and does not die within 180 days after the date of the gift, while being resident or deemed to be resident in the Netherlands at the time of his death.

For the purposes of Dutch gift and inheritance tax, a Dutch national is deemed to be a resident of the Netherlands if he resided in that country at any time during a period of ten years preceding the date of the gift or death, as the case may be. In addition, for the purposes of Dutch gift tax, a person not possessing Dutch nationality is also deemed to be a Dutch resident, irrespective of his nationality, if he was a Dutch resident at any time during a period of twelve months preceding the time at which the gift was made. The Netherlands has concluded a treaty with the United States, based on which double taxation on inheritances may be avoided if the inheritance is subject to Netherlands and/or U.S. inheritance tax and the deceased was a resident of either the Netherlands or the United States.

United States Federal Income Taxation

The following is a general description of select U.S. federal income tax consequences of the ownership and disposition of our common shares by a U.S. Holder (as defined below). This summary only applies to "U.S. Holders" (as defined below) that hold their shares as capital assets. This discussion does not purport to be a comprehensive description of all U.S. federal income taxation considerations that may be relevant to holders of shares in view of their particular circumstances, and does not deal with holders subject to special rules, such as, but not limited to, the alternative minimum tax provisions of the Internal Revenue Code of 1986 ("Internal Revenue Code") or the Internal Revenue Code's provisions applicable to dealers in securities or foreign currencies, traders in securities that elect to use a mark-to-market method of accounting, certain financial institutions, tax-exempt organizations, tax-qualified employer plans and other tax-qualified accounts, insurance companies, persons that actually or constructively own 10% or more of our voting stock, persons holding common shares as part of a straddle, hedging, conversion or constructive sale transaction or holders of common shares whose "functional currency" is not the U.S. dollar.

This discussion is based on the Internal Revenue Code, as amended to the date hereof, final, temporary and proposed U.S. Treasury Department regulations promulgated thereunder, and administrative and judicial interpretations thereof, any or all of which could be changed subsequent to the date of this

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summary, possibly with retroactive effect. Any such change could affect the tax consequences described in this summary. We will not update this summary to reflect any such changes after the date of this annual report. In addition, there can be no assurance that the Internal Revenue Service will not challenge any tax treatment that is based upon or consistent with any discussion of tax consequences described in this summary, and we have not obtained, nor do we intend to obtain, a ruling from the Internal Revenue Service or an opinion of counsel with respect to the U.S. federal income tax consequences of acquiring or holding common shares. Prospective holders of shares should consult their own tax advisors as to the application of the U.S. federal income tax laws to their particular situation, as well as to any tax consequences that may arise under the U.S. federal estate or gift tax laws or under any state, local or foreign tax laws with respect to the ownership and disposition of our common shares.

The following discussion is a summary of the tax rules applicable to U.S. Holders of common shares and does not consider any U.S. federal income tax consequences to non-U.S. Holders. As used in this summary, "U.S. Holder" means a beneficial owner of common shares that is (i) an individual citizen or resident alien of the United States (as defined for U.S. federal income tax purposes), (ii) a corporation (or any other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or any State, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if either (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (b) a valid election is in place to treat the trust as a U.S. person. A "non-U.S. Holder" is a beneficial owner of common shares that is not a U.S. Holder as so defined herein.

If a partnership (or other entity treated as a partnership for US federal income tax purposes) holds common shares, the tax treatment of a partner generally will depend upon the status and tax residency of the partner and the activities of the partnership. Partners in a partnership that holds common shares are urged to consult their own tax advisor regarding the specific tax consequences of the owning and disposing of such common shares by the partnership.

Taxation of Dispositions

A U.S. Holder will recognize gain or loss for U.S. federal income tax purposes upon a taxable sale or other disposition of common shares. The amount of such gain or loss will equal the difference between the amount realized by the U.S. Holder and the U.S. Holder's adjusted tax basis in the common shares. For these purposes, a U.S. Holder's adjusted tax basis in the common shares generally will equal the U.S. dollar cost of the common shares to the U.S. Holder. Subject to the passive foreign investment company rules described below, gain or loss realized by a U.S. Holder on a sale or other disposition of common shares generally will be treated as capital gain or loss, and will be long-term capital gain or loss if the common shares were held for more than one year as of the date of the sale or other disposition. Any such gain generally will be treated as U.S. source income for U.S. foreign tax credit purposes. Net long-term capital gain recognized by a U.S. Holder who is an individual generally is subject to reduced rates of taxation. The deduction of capital losses is subject to certain limitations. Prospective investors should consult their own tax advisors in this regard.

If we repurchase our common shares, the repurchase generally will be treated as a sale or exchange of the common shares subject to the rules discussed above. However, under certain circumstances as provided in Section 302 of the Internal Revenue Code, the repurchase may be treated fully or partially as a dividend taxable as described below under "Taxation of Distributions." U.S. Holders should consult their own tax advisors concerning the U.S. federal income tax consequences of our repurchase of their common shares.

Taxation of Distributions

Subject to the anti-deferral tax rules described below, the gross amount (before reduction for Netherlands withholding taxes) of any distribution actually or constructively paid with respect to common shares will be included in the gross income of the U.S. Holder as foreign source dividend income to the extent the distributions are paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. The amount of any distribution of property other than cash will be the fair market value of such property on the date of distribution. To the extent that the amount of any distribution exceeds our current and accumulated earnings and profits, the distribution will first be treated as a tax-free return of capital to the extent of the U.S. Holder's adjusted tax basis in the common shares (thereby increasing the amount of gain or decreasing the amount of loss to be recognized on the subsequent disposition of the common shares), and to the extent that such distribution exceeds the U.S. Holder's adjusted tax basis in the common shares such excess will be taxed as capital gain. We do not maintain calculations of our earnings and profits under U.S. federal income tax principles, and therefore it may not be possible to determine whether or to what extent a distribution should be treated as a dividend.

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Distributions treated as dividends generally will not be eligible for the dividends received deduction allowed to corporations under the Internal Revenue Code. The availability of this deduction is subject to several complex limitations which are beyond the scope of this summary.

If a U.S. Holder receives a dividend in euros, the amount of the dividend for U.S. federal income tax purposes should be the U.S. dollar value of the dividend, determined at the spot rate in effect on the date of such payment, regardless of whether the payment is later converted into U.S. dollars. In the case of such later conversion, the U.S. Holder may recognize U.S. source ordinary income or loss as a result of currency fluctuations between the date on which the dividend is paid and the date the dividend amount is converted to U.S. dollars.

Dividends received by a U.S. Holder generally will be taxed at ordinary income rates. However, certain dividends received by individuals through taxable years beginning on or before December 31, 2010, may qualify to be taxed at capital gain rates (15% or less), provided (i) the recipient has held the underlying stock for more than 60 days during the 121 day period beginning 60 days before the ex-dividend date and (ii) the dividends are received from a "qualified foreign corporation." A non-U.S. corporation (other than a passive foreign investment company) generally will be considered to be a "qualified foreign corporation" if (i) the shares of the non-U.S. corporation are readily tradable on an established securities market in the United States or (ii) the non-U.S. corporation is eligible with respect to substantially all of its income for the benefits of a comprehensive income tax treaty with the United States which contains an exchange of information program. We believe that we are, and will continue to be, a "qualified foreign corporation." Individual U.S. Holders should consult their tax advisors regarding the impact of distributions paid with respect to their common shares in light of their particular situations.

Foreign Tax Credit

Dividends distributed by us generally are subject to a withholding tax imposed by the Netherlands at a rate of 15% (see "Summary of Dutch Tax Provisions Applicable to Nonresident Shareholders with a particular focus on U.S. Shareholders – Withholding Tax"). Subject to certain conditions and limitations set forth in the Internal Revenue Code, foreign withholding tax paid with respect to dividends on common shares generally will be eligible for credit against a U.S. Holder's U.S. federal income tax liability. Alternatively, a U.S. Holder may claim a deduction for the amount of foreign withholding taxes, but only for a year for which the U.S. Holder elects to do so with respect to all foreign income taxes. Under current Dutch law, we may be permitted, under limited circumstances, to retain a portion of Netherlands taxes we withhold from dividends paid to our shareholders, rather than pay that portion of the withheld taxes to the taxing authorities in the Netherlands (see "Summary of Dutch Tax Provisions Applicable to Nonresident Shareholders with a particular focus on U.S. Shareholders – Withholding Tax"). This amount generally may not exceed 3% of the total dividend distributed by us. If we retain a portion of the Netherlands withholding taxes, the retained amount in all likelihood will not qualify as a creditable tax for U.S. federal income tax purposes. We will endeavor to provide U.S. Holders with information concerning the extent to which we retain any Netherlands taxes on dividends paid to U.S. Holders.

Effective for tax years beginning after December 31, 2006, there will be two specific classes (passive and general) of income for purposes of calculating foreign tax credit limitations. Dividends will generally constitute "passive category income" but could, in the case of certain U.S. Holders, constitute "general category income." Gain from a sale, exchange or other disposition of our common shares will be treated as U.S. source income for foreign tax credit purposes unless the U.S. Holder makes an election under the Internal Revenue Code to treat any such gain as foreign source. The rules relating to the determination of the U.S. foreign tax credit are complex. U.S. Holders should consult their own tax advisors with respect to the availability of a foreign tax credit or deduction for foreign, including Netherlands, taxes withheld.

Anti-Deferral Tax Rules

The Internal Revenue Code contains various provisions that impose current U.S. federal income tax on certain foreign corporations or their U.S. shareholders if such corporations derive certain types of passive income and fail to make adequate distribution of profits to their U.S. shareholders. These provisions include the passive foreign investment company and controlled foreign corporation rules. While we do not believe that any of these rules should apply to us, we are not certain that we can avoid these tax rules because we cannot predict with any degree of certainty the amount and character of our future income or the amount of our common shares any particular U.S. Holder will own. Accordingly, we will only briefly summarize those provisions and then only the rules that we believe may have the greatest likelihood of applying to us in the future.

Passive Foreign Investment Company. As a foreign corporation with U.S. Holders, we could potentially be treated as a "passive foreign investment company" ("PFIC") as defined in the Internal Revenue Code.

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The PFIC provisions of the Internal Revenue Code can have significant tax effects on U.S. Holders. In general, a foreign corporation will be a PFIC in a particular tax year and for all succeeding tax years if:

- 75% or more of its gross income (including the foreign corporation's pro rata share of the gross income of any U.S. or foreign company in which the corporation owns or is considered to own 25% or more of the shares by value) in a taxable year is passive income (which generally includes interest, dividends and certain rents and royalties); or
- at least 50% of the average value of the corporation's gross assets in a taxable year (average determined as of the end of each quarter of the corporation's taxable year and ordinarily determined based on gross fair market value, including the proportionate share of the assets of any U.S. or foreign company in which the corporation owns or is considered to own 25% or more of the shares by value) produce, or are held for the production of, passive income.

If we were a PFIC for a taxable year during which a U.S. Holder owned our shares, then a U.S. Holder would likely incur increased tax liabilities (possibly including an interest charge) upon the sale or other disposition of our common shares or upon receipt of "excess distributions." In other words, gain recognized by a U.S. Holder on a sale or other disposition of our common shares would be allocated ratably over the U.S. Holder's holding period for the common shares. The amounts allocated to the taxable year of the sale or other disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, and an interest charge would be imposed on the amount allocated to that taxable year. Further, any distribution in excess of 125 percent of the average of the annual distributions on common shares received by the U.S. Holder during the preceding three years or the U.S. Holder's holding period, whichever is shorter, would be subject to taxation as described above. Certain elections may be available (including a qualified electing fund election and a mark to market election) to U.S. Holders that may mitigate the adverse consequences resulting from PFIC status. In addition, if we were a PFIC in a taxable year in which we pay a dividend or the prior year, the 15% dividend rate discussed above with respect to dividends paid to certain U.S. Holders would not apply.

We believe that we are not a PFIC, and we do not expect to become a PFIC. However, we cannot assure that we will not qualify as a PFIC in the future. The PFIC rules are very complex and U.S. Holders should consult their own tax advisors on this issue.

Controlled Foreign Corporation Rules. If more than 50% of the voting power or total value of all classes of our common shares is owned, directly or indirectly, by U.S. Holders, each of which owns 10% or more of the total combined voting power of all classes of our common shares, we could be treated as a controlled foreign corporation ("CFC") under Subpart F of the Internal Revenue Code. This classification would result in many complex consequences, including the required inclusion into income by such 10% or greater shareholders of their pro rata shares of our "Subpart F Income," as defined in the Internal Revenue Code. In addition, under Section 1248 of the Internal Revenue Code, gain from the sale or exchange of common shares by any U.S. Holder who is or was a 10% or greater shareholder at any time during the five-year period ending with the sale or exchange will be dividend income to the extent of our earnings and profits attributable to the common shares sold or exchanged and accumulated during the periods that we were a CFC. Under certain circumstances, a U.S. Holder that directly owns 10% or more of our voting common shares and is a corporation may be entitled to an indirect foreign tax credit for amounts characterized as dividends under Section 1248 of the Internal Revenue Code. We believe that we are not a CFC and we will not become a CFC, however, we can not assure you that we will not become a CFC in the future.

United States Backup Withholding Tax and Information Reporting

Under certain circumstances, a U.S. Holder may be subject to information reporting and backup withholding with respect to certain payments made in respect of the common shares and the proceeds received on the disposition of the common shares paid within the U.S. (and in certain cases, outside the U.S.). Such amounts may be subject to a 28% U.S. backup withholding tax unless the U.S. Holder otherwise establishes an exemption. For example, backup withholding generally will not apply to a U.S. Holder who (1) is a corporation or comes within certain other exempt categories and, when required, demonstrates that fact, or (2) furnishes a correct taxpayer identification number and makes certain other required certifications as provided by the backup withholding rules.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle a U.S. Holder to a refund, provided that the required information is furnished to the Internal Revenue Service.

The discussion set forth above is included for general information only and may not be applicable depending upon a holder's particular situation. Holders should consult their tax advisors with respect to the

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tax consequences of the purchase, ownership and disposition of common shares including the tax consequences under state, local and other laws and the possible effects of changes in United States federal and other tax laws.

F. Dividends and paying agents.

Not Applicable.

G. Statement by experts.

Not Applicable.

H. Documents on display.

Whenever a reference is made in this Form 20-F to any contract, agreement or other document, the reference may not be complete and you should refer to the copy of that contract, agreement or other document filed as an exhibit to one of our previous SEC filings.

We file annual and special reports and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC maintains an Internet site at <http://www.sec.gov> that contains reports, registration statements and other information regarding issuers that file electronically with the SEC, including ASM International.

I. Subsidiary information.

Not Applicable.

Item 11. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks (including foreign exchange rate risk and interest rate risk), credit risk and liquidity risk. We use forward exchange contracts to hedge foreign exchange risk. We do not enter into financial instrument transactions for trading or speculative purposes.

Foreign exchange rate risk management

We conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of ASM International (euro) or one of our subsidiaries conducting the business. The purpose of the Company's foreign currency management is to manage the effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in selected foreign currencies, in particular denominated in U.S. dollars.

Our front-end segment uses forward exchange contracts to hedge its foreign exchange risk of anticipated sales or purchase transactions in the normal course of business, which occur within the next twelve months, for which it has a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. The hedges related to forecasted transactions are designated and documented at the inception of the hedge as cash flow hedges, and are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of accumulated other comprehensive income in Shareholders' Equity, and is reclassified into earnings when the hedged transaction affects earnings.

The majority of revenues and costs of our back-end segment are denominated in Hong Kong dollars, Chinese Yuan and U.S. dollars. The functional currency of our back-end segment (Hong Kong dollar) is linked to the U.S. dollar. Since foreign currency exposure is not significant, no forward exchange contracts are used. The effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in foreign currencies is periodically reviewed.

Changes in the fair value of derivatives that do not qualify for hedge treatment, as well as the ineffective portion of any hedges, are recognized in earnings. We record all derivatives, including forward exchange contracts, on the balance sheet at fair value in other current assets or accrued expenses.

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We expect that substantially all of the € 47,000 unrealized gains included in accumulated other comprehensive income as of December 31, 2008 will be reclassified to net earnings within the next twelve months, upon completion of the underlying transactions. If the underlying transaction being hedged fails to occur, or if a portion of any derivative is ineffective, the gain or loss is immediately recognized in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Hedge ineffectiveness was insignificant for the years ended December 31, 2007 and December 31, 2008.

Furthermore, we manage the currency exposure of certain receivables and payables using derivative instruments, such as forward exchange contracts (fair value hedges) and currency swaps, and non-derivative instruments, such as debt borrowings in foreign currencies. The gains or losses on these instruments provide an offset to the gains or losses recorded on receivables and payables denominated in foreign currencies. The derivative instruments are recorded at fair value and changes in fair value are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations.

We do not use forward exchange contracts for trading or speculative purposes.

To the extent that foreign currency fluctuations affect the value of our investments in our foreign affiliates, they are not hedged. The cumulative effect of these fluctuations is separately reported in Consolidated Shareholders' Equity. For the year ended December 31, 2007, we recorded an unfavorable movement of € 12.1 million. For the year ended December 31, 2008, we recorded a favorable movement of € 10.0 million. See Note 15 to our Consolidated Financial Statements, which is incorporated herein by reference.

The following table summarizes our financial instruments as of December 31, 2008 and analyzes the sensitivity of the fair value of our financial instruments to an immediate change in foreign currency rates. Fair values represent the present value of forecasted future cash flows at market foreign currency exchange rates. The sensitivity analysis assumes an immediate 10% favorable or unfavorable change in all foreign currency exchange rates against the euro from their levels as of December 31 with all other variables kept constant. A favorable 10% change indicates a strengthening of the currency in which our financial instruments are denominated, primarily the U.S. dollar, against the euro and an unfavorable change indicates a weakening of the currency in which our financial instruments are denominated, primarily the U.S. dollar, against the euro. The selection of 10% favorable or unfavorable change in foreign currency exchange rates should not be construed as a prediction by us of future market events, but rather, to illustrate the potential impact of such an event. The modeling technique used to calculate the exposure does not take into account correlation among foreign currency exchange rates, or correlation among various markets (i.e., the foreign exchange, equity and fixed-income markets). Even though we believe it to be possible that all of the foreign currency exchange rates to which we are exposed would simultaneously change by more than 10%, we find it meaningful to "stress test" our exposure under this 10% fluctuation scenario and other hypothetical adverse market scenarios. Our actual experience may differ from the results in the table below due to the correlation assumptions utilized, or if events occur that were not included in the methodology, such as significant liquidity or market events.

	Currency and notional amount (in millions)	Carrying amount	Fair value	Sensitivity analysis		
				Favorable change of 10%	Unfavorable change of 10%	
(in millions of EUR)						
As of December 31, 2008:						
Notes payable to banks, due within twelve months	yen	2,000.0	15.9	15.9	14.3	17.5
	SG\$	2.0	1.0	1.0	0.9	1.1
Long-term debt with maturities:						
due from 2009—2012	yen	3,552.1	28.2	28.2	25.4	31.0
due from 2010	euro	0.4	0.4	0.4	0.4	0.4
due from 2011	SG\$	2.9	1.4	1.4	1.3	1.6
Convertible subordinated debt:						
due May 15, 2010	US\$	20.9	15.0	13.7	13.5	16.5
due December 6, 2011	US\$	127.7	91.8	56.2	82.6	100.9
Foreign exchange contracts:						
purchase of currency contracts to be settled within twelve months:	US\$	4.3	3.1	3.1	2.8	3.4
sale of currency contracts to be settled within twelve months:	US\$	23.6	17.0	17.0	15.3	18.7

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For long-term debt, the estimated fair values of our long-term debt are based on current interest rates available to us for debt instruments with similar terms and remaining maturities. The fair values of our convertible subordinated debt borrowings are based on our estimates. For forward exchange contracts, market values based on external quotes from banks have been used to determine the fair value.

The following tables analyze our sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar, Hong Kong dollar or Japanese yen against the euro as of December 31, 2008. This analysis includes foreign currency denominated monetary items and adjusts their translation at year end for a 10% increase and 10% decrease of the U.S. dollar, Hong Kong dollar or Japanese yen against the euro.

A positive amount indicates an increase in equity. Recognized in equity is the revaluation effect of subsidiaries denominated in U.S. dollars, Hong Kong dollars and Japanese yen.

	<u>2007</u>	<u>2008</u>
	<u>Impact on equity</u>	<u>Impact on equity</u>
10% increase of U.S. dollar versus euro	(8,279)	(3,566)
10% decrease of U.S. dollar versus euro	8,279	3,566
10% increase of Hong Kong dollar versus euro	13,647	17,851
10% decrease of Hong Kong dollar versus euro	(13,647)	(17,851)
10% increase of Japanese yen versus euro	3,162	4,214
10% decrease of Japanese yen versus euro	<u>(3,162)</u>	<u>(4,214)</u>

A positive amount indicates a gain in net earnings.

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar, Hong Kong dollar or Japanese yen against the euro as of December 31, 2007 and December 31, 2008 would not result in a material impact on equity.

The following table analyzes our sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar and Hong Kong dollar against the euro at average exchange rates for the years 2007 and 2008. A positive amount indicates an increase in net earnings.

	<u>2007</u>	<u>2008</u>
	<u>Impact on net earnings</u>	<u>Impact on Net earnings</u>
10% increase of U.S. dollar versus euro	(2,470)	(451)
10% decrease of U.S. dollar versus euro	2,470	451
10% increase of Hong Kong dollar versus euro	6,697	4,819
10% decrease of Hong Kong dollar versus euro	<u>(6,697)</u>	<u>(4,819)</u>

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar and the Hong Kong dollar against the euro at average exchange rates for the years 2007 and 2008 would not result in a material impact on net earnings.

Interest risk

We are exposed to interest rate risk primarily through our borrowing activities. We do not enter into financial instrument transactions for trading or speculative purposes or to manage interest rate exposure. At December 31, 2008 we had convertible subordinated debt borrowings outstanding of € 15,037 at a fixed interest rate, maturing in May 2010 and € 91,756 at a fixed interest rate, maturing in December 2011 and € 30,031 in long-term debt at fixed interest rates and € 16,858 in other borrowings with variable short-term interest rates. A hypothetical change in the average interest rate by 10% on the portion of debt bearing interest at variable rates would not result in a material change in interest expense at December 31, 2007 and December 31, 2008 borrowing levels.

Credit risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable and derivative instruments. These instruments contain a risk of counterparties failing to discharge their obligations. We monitor credit risk and manage credit risk exposure by type of financial instrument by assessing the creditworthiness of counterparties. We do not anticipate nonperformance by counterparties given their high creditworthiness.

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Our customers are semiconductor device manufacturers located throughout the world. We generally do not require collateral or other security to support financial instruments with credit risk.

Concentrations of credit risk (whether on or off-balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

A significant percentage of our revenue is derived from a small number of large customers. Our largest customer accounted for approximately 13.8% of net sales in 2008 (2007: 9.6%; 2006: 11.4%) and the ten largest customers accounted for approximately 32.0% of net sales in 2008 (2007: 32.4%; 2006: 33.9%). Sales to these large customers also may fluctuate significantly from time to time depending on the timing and level of purchases by these customers. Significant orders from such customers may expose us to a concentration of credit risk and difficulties in collecting amounts due, which could harm our financial results. At December 31, 2008 one customer accounted for 12.3% of the outstanding balance in accounts receivable (2007: 7.8%; 2006: 8.8%).

We place our cash and cash equivalent and derivative instruments with high quality financial institutions to limit the amount of credit risk exposure.

The maximum credit exposure is equal to the carrying values of cash and cash equivalent and accounts receivable.

Item 12. Description of Securities Other Than Equity Securities

Not applicable.

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modification to the Rights of Security Holders and Use of Proceeds

On May 14, 2008, Stichting Continuïteit ASM International (“Stichting”) exercised an option under a 1997 agreement with us and acquired 21,985 preferred shares representing 21,985,000 votes on matters to be acted on by our shareholders. See the discussion of this acquisition under Item 7.A., “Major Shareholders and Related Party Transactions—Major shareholders,” above.

Item 15. Controls and Procedures

(a) Disclosure Controls and Procedures: Our CEO and CFO, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Form 20-F, have concluded that as of December 31, 2008 our disclosure controls and procedures were effective.

(b) Management’s Annual Report on Internal Control Over Financial Reporting: Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting for external purposes in accordance with applicable generally accepted accounting principles. Internal control over financial reporting includes policies and procedures for maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of Company assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of Company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Management, including our CEO and CFO, conducted an evaluation of the effectiveness of our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on this evaluation, management concluded that the Company’s internal control over financial reporting was effective as of December 31, 2008. Deloitte Accountants B.V., an independent registered public accounting firm, has audited the Consolidated Financial Statements included in this annual report on Form 20-F and, as part of the audit, has issued a report, included herein, on the effectiveness of ASM’s internal control over financial reporting.

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(c) Attestation Report of the Registered Public Accounting Firm: The attestation report of Deloitte Accountants B.V. is included in this annual report on Form 20-F and is incorporated by reference herein.

(d) Changes in Internal Control Over Financial Reporting: There were no changes to our internal control over financial reporting that occurred during the period covered by this Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

All internal control systems no matter how well designed and implemented have inherent limitations. Even systems determined to be effective may not prevent or detect misstatements or fraud and can only provide reasonable assurance with respect to disclosure and financial statement presentation and reporting. Additionally, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changed conditions and the degree of compliance with the policies or procedures may deteriorate.

Item 16A. Audit Committee Financial Expert

Upon the resignation on March 9, 2009 of Leon P.E.M. van den Boom as a Supervisory Board Member and Chairman of the Audit Committee, the Audit Committee no longer included a member that the Supervisory Board has determined to be an Audit Committee Financial Expert. The Supervisory Board has commenced a search for a successor to fill the vacancy created by Mr. van den Boom's resignation who qualifies as an Audit Committee Financial Expert.

Item 16B. Code of Ethics

We have a code of ethics applicable to all of our employees. The code of ethics, which is also applicable to our CEO, CFO and controllers, is designed to promote honest and ethical conduct and timely and accurate disclosure in our periodic financial reports.

Our whistleblower policy provides for the reporting of alleged violations of the code of ethics and alleged irregularities of a financial nature by Company employees or other stakeholders to the Management Board and/or the Supervisory Board without any fear of reprisal against the individual that reports the violation or irregularity.

Our anti-fraud policy provides specific rules to promote ethical and legal conduct regarding anti-corruption matters (such as bribery and corruption of governmental officials) and anti-fraud matters (such as maintaining accurate and complete Company records, protection and use of Company resources, information security, and conflicts of interest).

For further information, see the Code of Ethics, Whistleblower Policy, Anti-Fraud Policy and other related policies including our Rules Concerning Insider Trading, which are all posted on our website (www.asm.com).

Item 16C. Principal Accountant Fees and Services

Audit fees.

Deloitte Accountants B.V., its affiliates, and its member firms ("Deloitte") billed us an aggregate € 2,902,577 and € 2,512,596 for the audit of our Consolidated Financial Statements for the years ended December 31, 2007 and 2008, respectively, and certain agreed upon procedures regarding our quarterly financial results. These amounts accounted for 76% and 80% of the total fees billed to us by Deloitte in 2007 and 2008, respectively.

Audit-related fees.

Deloitte billed us an aggregate of € 14,327 and € 10,550 for fees for audit related services for the years ended December 31, 2007 and 2008, respectively. These amounts accounted for 1% and 1% of the total fees billed to us by Deloitte in 2007 and 2008, respectively.

Tax fees.

Deloitte billed us an aggregate of € 863,141 and € 533,144 in 2007 and 2008, respectively, for tax services relating to tax compliance, tax planning and advice. These amounts accounted for 22% and 17% of the total fees billed to us by Deloitte in 2007 and 2008, respectively.

All other fees.

Deloitte billed us an aggregate of € 54,245 and € 57,907 in 2007 and 2008, respectively, for all other services. These amounts accounted for 1% and 2% of the total fees billed to us by Deloitte in 2007 and 2008, respectively.

Audit Committee pre-approval policies.

The Audit Committee has determined that the provision of services by Deloitte described in the preceding paragraphs is compatible with maintaining Deloitte's independence. All audit and permitted non-audit services provided by Deloitte during 2008 were pre-approved by the Audit Committee.

The Audit Committee has adopted the following policies and procedures for pre-approval of all audit and permitted non-audit services provided by our independent registered public accounting firm:

Audit Services. Management submits to the Audit Committee for pre-approval the scope and estimated fees for specific services directly related to performing the independent audit of our Consolidated Financial Statements for the current year.

Audit-Related Services. The Audit Committee may pre-approve expenditures up to a specified amount for services included in identified service categories that are related extensions of audit services and are logically performed by the auditors. Additional services exceeding the specified pre-approved limits require specific Audit Committee approval.

Tax Services. The Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total for identified services related to tax matters. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, requires specific Audit Committee approval.

Other Services. In the case of specified services for which utilizing our independent registered public accounting firm creates efficiencies, minimizes disruption, or preserves confidentiality, or for which management has determined that our independent registered public accounting firm possesses unique or superior qualifications to provide such services, the Audit Committee may pre-approve expenditures up to a specified amount per engagement and in total. Additional services exceeding the specified pre-approved limits, or involving service types not included in the pre-approved list, requires specific Audit Committee approval.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Between November 6, 2008 and December 12, 2008, we repurchased US\$ 48.3 million principal amount of our 5.25% Convertible Subordinated Notes due 2010 for a market value of US\$ 37.6 million.

On May 22, 2007, the General Meeting of Shareholders authorized, for an 18-month period, to be calculated from the date of the General Meeting to cause the Company to repurchase its own shares up to the statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the acquisition date.

The number of shares bought back under the authorization of May 22, 2007 was 2,655,100. Of this number, 135,580 were sold upon the exercise of options by employees of ASMI, under the Employee Stock Option Plan. Upon conversion of convertible subordinated debt by holders of the notes, 103,029 shares were delivered.

The following table summarizes shares repurchased under the authorization of May 22, 2007:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Average Price Paid per Share</u>	<u>Maximum Number of Shares that May Yet be Purchased under the Programs</u>
August 2007	250,000	250,000	€ 18.67	—
March – April 2008	2,405,100	2,405,100	€ 13.31	—

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On May 21, 2008, the General Meeting of Shareholders authorized, for an 18-month period, to be calculated from the date of the General Meeting to cause the Company to repurchase its own shares up to the statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the acquisition date.

The number of shares bought back under the authorization of May 21, 2008 was 250,000. None of these shares were sold upon the exercise of options by employees of ASMI.

The following table summarizes shares repurchased under the authorization of May 21, 2008:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Average Price Paid per Share</u>	<u>Maximum Number of Shares that May Yet be Purchased under the Programs</u>
September 2008	250,000	250,000	€ 17.74	2,758,656

The maximum number of shares that may yet be purchased under the program takes into account the 2,666,491 treasury shares held by the Company at December 31, 2008 and the maximum number of common shares which the Company can hold according to its Articles of Association. This maximum is 10% of the number of common shares issued.

Of the treasury shares, 2,552,071 shares are held in a custody account with Lehman Brothers International (Europe), which was placed into administration on September 15, 2008. Recovery of these treasury shares from Lehman is subject to the procedures for the return of trust property in the administration proceedings.

Item 16G. Corporate Governance Practices

Because we are a Netherlands public limited liability company, with principal executive offices outside of the U.S., some of our corporate practices vary from those required by the NASDAQ Marketplace Rules, as follows:

(i) Marketplace Rule 4350(f): Quorum

Pursuant to Dutch corporate law (section 2:120 sub 2 Dutch Civil Code) the validity of a resolution by the general meeting of shareholders does not depend on the proportion of the capital or shareholders represented at the meeting (i.e. quorum), unless the law or articles of association of a company otherwise provide. It is the generally accepted business practice for Dutch companies not to provide for a quorum requirement in their articles, and there is no contrary requirement in the Dutch securities laws or under the rules of Euronext Amsterdam. Accordingly, our Articles of Association do not provide for a quorum, and provide that a resolution of the general or any extraordinary meeting of shareholders will be adopted upon the favorable vote of a majority of the votes cast at the meeting, except in the case of the shareholder appointment of persons to, or dismissal of persons from, our Supervisory Board and Management Board not proposed by our Supervisory Board, which require the affirmative vote of a majority of the votes cast at an annual or extraordinary shareholders meeting, which affirmative votes represent more than half our issued capital. To this extent, our practice varies from the requirement of Marketplace Rule 4350(f), which requires an issuer to provide in its bylaws for a quorum, and that such quorum may not be less than one-third of the outstanding voting stock.

(ii) Marketplace Rule 4350(g): Proxies

The solicitation of proxies and the distribution of proxy statements for meetings of shareholders are not required under Dutch law or by the rules of Euronext Amsterdam. It is still business practice for Dutch companies not to solicit proxies or distribute proxy statements in respect of European shareholders. In part this is because a substantial portion of shares held by these shareholders are held in bearer form. This is the case for our common shares traded on Euronext Amsterdam and, accordingly, it is impractical to solicit proxies as to these shares. As a result, our practice in respect of the holders of shares other than our common shares listed on the NASDAQ Global Select Market varies from that required by Marketplace Rule 4350(g), which provides that issuers shall solicit proxies and provide proxy statements for all meetings of shareholders.

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As to our common shares listed on the NASDAQ Global Select Market, which we refer to as New York registry shares, we prepare a proxy statement and solicit proxies from the holders of such shares since there are procedures in place under the Securities Exchange Act of 1934, as amended, for soliciting proxies from beneficial owners. Our practice in this regard, however, differs from the typical practice of U.S. corporate issuers in that the advance record date for determining the holders of record entitled to attend and vote at our shareholder meetings may not be more than 30 days prior to the meeting under applicable Dutch corporate law (section 2:119 sub 2 of Dutch Civil Code). As an administrative necessity, we establish a mailing record date in advance of each meeting of shareholders for purposes of determining the shareholders to which the proxy statement and form of proxy, or the notice of Internet availability, will be sent. However, only shareholders of record on the specified record date are entitled to attend and vote, directly or by proxy, at the meeting.

Item 17. Financial Statements

Not Applicable.

Item 18. Financial Statements

See pages F-1 through F-43, which are incorporated herein by reference.

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Item 19. Exhibits (*)

<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated by Reference to:</u>	<u>Included Herein:</u>
1.1	English Informal Translation of ASM International N.V.'s Articles of Association, as amended	Exhibit 1.1 to the Registrant's Form 20-F filed on March 16, 2007	
2.1	Indenture Agreement dated May 6, 2003 between ASM International N.V. and Citibank N.A.	Exhibit 4.18 to the Registrant's Form F-3 filed on July 25, 2003	
2.2	Indenture Agreement dated December 6, 2004 for the 4.25 % Convertible Subordinated Notes.	Exhibit 99.1 to the Registrant's Form 6-K filed on December 9, 2004	
4.1	2001 Stock Option Plan	Exhibit 99.1 to the Registrant's Form S-8 filed on April 30, 2002	
4.2	1994 Stock Option Plan	Exhibit 99.1 to the Registrant's S-8 filed October 25, 1999	
4.3	Trust Deed and Rules of The ASM Pacific Technology Employee Share Incentive Scheme, dated March 23, 1990	Exhibit 4.14 to the Registrant's Form 20-F filed on April 17, 2003	
4.4	Deed of Adherence Relating to Participation in the Employee Share Incentive Scheme of ASM Pacific Technology Limited, dated April 12, 1999	Exhibit 4.15 to the Registrant's Form 20-F filed on April 17, 2003	
4.5	Supplemental Deed Relating to the Employee Share Incentive Scheme of ASM Pacific Technology Limited	Exhibit 4.16 to the Registrant's Form 20-F filed on April 17, 2003	
4.6	English Translation of Arnold J.M. van der Ven's Employment Agreement	Exhibit 99.1 to the Registrant's Form 6-K filed on September 29, 2005	
4.7	Overview of Remuneration of Members of the Management Board, appointed May 18, 2006	Exhibit 4.23 to the Registrant's Form 20-F filed on March 16, 2007	
4.8	Overview of Remuneration of Mr. W.K. Lee, appointed Member of the Management Board effective January 1, 2007	Exhibit 4.24 to the Registrant's Form 20-F filed on March 16, 2007	
4.9	Form of Supervisory Board Member Indemnification Agreement	Exhibit 10.1 to the Registrant's Form 20-F filed on March 16, 2007	
4.10	Form of Management Board Member Indemnification Agreement	Exhibit 10.2 to the Registrant's Form 20-F filed on March 16, 2007	
4.11	Amended and Restated Settlement Agreement dated as of December 16, 1998 by and among ASM International N.V., ASM America, Inc. and Applied Materials, Inc. **	Exhibit 10.3 to the Registrant's Form 20-F filed on March 16, 2007	
4.12	Summary of the material elements of employment contract with Mr. C.D. del Prado (effective as of March 1, 2008)	Exhibit 99.9 to the Registrant's Form 6-K filed on May 20, 2008	
8.1	Subsidiaries		X
12.1	Certification of CEO pursuant to Rule 13a-14(a)		X
12.2	Certification of CFO pursuant to Rule 13a-14(a)		X
13.1	Certification of CEO and CFO pursuant to Rule 13a-14(b) and 18 U.S.C. 1350		X
15.1	Consent of Independent Registered Public Accounting Firm		X

* Pursuant to Instruction 2(b)(ii), the Registrant has omitted certain agreements with respect to long-term debt not exceeding 10% of consolidated total assets. The Registrant agrees to furnish a copy of any such agreements to the Securities Exchange Commission upon request.

** Redacted version, originally filed as an exhibit to Registrant's Form 6-K filed February 11, 1999. Portions of the Agreement have been omitted pursuant to a request for confidential treatment.

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Report of Independent Registered Public Accounting Firm

To the Supervisory Board and Shareholders of
ASM International N.V.
Almere, the Netherlands

We have audited the accompanying consolidated balance sheets of ASM International N.V. and subsidiaries (the "Company") as of December 31, 2008 and 2007, and the related consolidated statements of operations, comprehensive income, shareholders' 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, such consolidated financial statements present fairly, in all material respects, the financial position of ASM International NV and subsidiaries at December 31, 2008 and 2007, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2008, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2008, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 20, 2009 expressed an unqualified opinion on the Company's internal control over financial reporting.

Deloitte Accountants B.V.
Amsterdam, the Netherlands,

March 20, 2009

Report of Independent Registered Public Accounting Firm

To the Supervisory Board and Shareholders of
ASM International N.V.
Almere, the Netherlands

We have audited the internal control over financial reporting of ASM International NV and subsidiaries (the "Company") 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 Company'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, included in the accompanying Management's Annual Report on 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 by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel 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 the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the 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, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2008 of the Company and our report dated March 20, 2009 expressed an unqualified opinion on those financial statements.

Deloitte Accountants B.V.
Amsterdam, the Netherlands,

March 20, 2009

Consolidated Balance Sheets

(thousands except share data)	Note	EUR	
		December 31,	
		2007	2008
Assets			
Cash and cash equivalents	4	167,923	157,277
Accounts receivable (less allowance for doubtful accounts of € 5,075 and € 7,300)	5	229,160	172,603
Inventories, net	6	205,504	197,700
Income taxes receivable		117	108
Deferred tax assets	21	4,062	4,685
Other current assets		26,786	27,323
Total current assets		633,552	559,696
Debt issuance costs	14	2,316	1,353
Deferred tax assets	21	951	2,285
Other intangible assets, net	7	4,251	7,918
Goodwill, net	8	49,621	47,989
Property, plant and equipment, net	9	149,642	148,557
Total assets		840,333	767,798
Liabilities and Shareholders' Equity			
Notes payable to banks	10	16,677	16,858
Accounts payable		99,046	69,718
Provision for warranty	11	17,039	9,913
Accrued expenses and other	12	73,453	57,451
Income taxes payable		19,686	26,964
Current portion of long-term debt	13	15,438	6,763
Total current liabilities		241,339	187,667
Pension liabilities	16	3,872	6,490
Deferred tax liabilities	21	799	539
Long-term debt	13	15,828	23,268
Convertible subordinated debt	14	138,993	106,793
Total liabilities		400,831	324,757
Commitments and contingencies	17, 18		
Minority interest		120,624	125,139
Common shares:			
Authorized 110,000,000 shares, par value € 0.04, issued and outstanding 54,005,214 and 54,275,131 shares		2,160	2,171
Financing preferred shares:			
Authorized 8,000 shares, par value € 40, non issued		—	—
Preferred shares:			
Authorized 118,000 shares, par value € 40, issued and outstanding 21,985 shares		—	220
Capital in excess of par value		319,657	324,707
Treasury shares at cost		(3,985)	(37,215)
Retained earnings		73,965	92,111
Accumulated other comprehensive loss		(72,919)	(64,092)
Total shareholders' equity	15	318,878	317,902
Total liabilities and shareholders' equity		840,333	767,798

See Notes to Consolidated Financial Statements.

Consolidated Statements of Operations

(thousands, except per share data)	Note	EUR		
		Year ended December 31,		
		2006	2007	2008
Net sales	22	877,491	955,239	747,362
Cost of sales		(538,674)	(594,163)	(477,100)
Gross profit	22	338,817	361,076	270,262
Operating expenses:				
Selling, general and administrative		(120,654)	(129,676)	(126,591)
Research and development, net	20	(88,130)	(83,468)	(75,011)
Amortization of other intangible assets	7	(553)	(553)	(475)
Impairment of goodwill	8	—	—	(1,395)
Restructuring expenses	9	—	—	(7,068)
Total operating expenses		(209,337)	(213,697)	(210,540)
Earnings from operations	22	129,480	147,379	59,722
Interest income		5,902	6,113	4,047
Interest expense		(11,726)	(9,866)	(7,745)
Gain (expense) resulting from early extinguishment of debt	14	—	(10,049)	7,956
Foreign currency exchange gains (losses), net		(1,250)	(1,020)	785
Earnings from continuing operations before income taxes and minority interest		122,406	132,557	64,765
Income tax expense	21	(14,095)	(19,245)	(12,144)
Earnings from continuing operations before minority interest		108,311	113,312	52,621
Minority interest		(54,882)	(55,345)	(38,298)
Gain on dilution of investment in subsidiary	16	1,255	3,010	4,088
Net earnings from continuing operations		54,684	60,977	18,411
Loss from discontinued operations	2	(20,350)	—	—
Net earnings		34,334	60,977	18,411
Dividend preferred shares	15	—	—	(10)
Net earnings to common shareholders		34,334	60,977	18,401
Net earnings per share:	24			
Basic net earnings from continuing operations		1.02	1.13	0.35
Basic net loss from discontinued operations		(0.38)	—	—
Basic net earnings		0.64	1.13	0.35
Diluted net earnings from continuing operations		1.02	1.07	0.35
Diluted net loss from discontinued operations		(0.38)	—	—
Diluted net earnings		0.64	1.07	0.35
Weighted average number of shares used in computing per share amounts (in thousands):				
Basic		53,403	53,968	52,259
Diluted		53,575	65,076	52,389

See Notes to Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

<u>(thousands)</u>	Note	EUR		
		Year ended December 31,		
		2006	2007	2008
Net earnings		34,334	60,977	18,411
Other comprehensive income (loss):				
Foreign currency translation effect	15	(16,998)	(12,023)	9,795
Reclassification to Consolidated Statement of Operations of cumulative translation adjustment ASM NuTool	2	4,832	—	—
Unrealized gains (losses) on derivative instruments, net of tax	15	244	270	(99)
Actuarial losses SFAS 158	15	—	—	(936)
Amortization of transition obligation SFAS 158	15	—	22	67
Total other comprehensive income (loss)		(11,922)	(11,731)	8,827
Comprehensive income		22,412	49,246	27,238
Dividend preferred shares	15	—	—	(10)
Comprehensive income common shareholders		22,412	49,246	27,228

See Notes to Consolidated Financial Statements.

Consolidated Statements of Shareholders' Equity

(thousands, except for number of shares)	Note	EUR							Total Share- holders' Equity	
		Number of common shares	Number of preferred shares	Common shares	Preferred shares	Capital in excess of par value	Treasury shares at cost	Retained earnings		Accumulated other comprehensive income (loss)
Balance January 1, 2006		52,678,952	—	2,107	—	300,479	—	(15,586)	(48,406)	238,594
Issuance of common shares:										
For stock options	16	899,652	—	36	—	10,931	—	—	—	10,967
Settlement agreement with former shareholders NuTool	2	250,141	—	10	—	3,914	—	—	—	3,924
Compensation expense stock options	16	—	—	—	—	1,421	—	—	—	1,421
Net earnings to common shareholders		—	—	—	—	—	—	34,334	—	34,334
Impact of initial adoption of SFAS 158	16	—	—	—	—	—	—	—	(860)	(860)
Other comprehensive loss	15	—	—	—	—	—	—	—	(11,922)	(11,922)
Balance December 31, 2006		53,828,745	—	2,153	—	316,745	—	18,748	(61,188)	276,458
Issuance of common shares:										
For stock options	16	176,469	—	7	—	2,319	—	—	—	2,326
Compensation expense stock options	16	—	—	—	—	1,718	—	—	—	1,718
Purchase of common shares	15	—	—	—	—	—	(8,162)	—	—	(8,162)
Exercise of stock options out of treasury shares	15	—	—	—	—	(1,125)	4,177	(363)	—	2,689
Dividend		—	—	—	—	—	—	(5,397)	—	(5,397)
Net earnings to common shareholders		—	—	—	—	—	—	60,977	—	60,977
Other comprehensive loss	15	—	—	—	—	—	—	—	(11,731)	(11,731)
Balance December 31, 2007		<u>54,005,214</u>	<u>—</u>	<u>2,160</u>	<u>—</u>	<u>319,657</u>	<u>(3,985)</u>	<u>73,965</u>	<u>(72,919)</u>	<u>318,878</u>
Compensation expense stock options	16	—	—	—	—	2,024	—	—	—	2,024
Purchase of common shares	15	—	—	—	—	—	(36,453)	—	—	(36,453)
Issuance of preferred shares	15	—	21,985	—	220	—	—	—	—	220
Conversion of debt into common shares	14	269,917	—	11	—	3,582	—	—	—	3,593
Conversion of debt into common shares out of treasury shares	14, 15	—	—	—	—	—	1,373	—	—	1,373
Exercise of stock options out of treasury shares	15, 16	—	—	—	—	(556)	1,850	(255)	—	1,039
Net earnings to common shareholders		—	—	—	—	—	—	18,401	—	18,401
Other comprehensive income	15	—	—	—	—	—	—	—	8,827	8,827
Balance December 31, 2008		<u>54,275,131</u>	<u>21,985</u>	<u>2,171</u>	<u>220</u>	<u>324,707</u>	<u>(37,215)</u>	<u>92,111</u>	<u>(64,092)</u>	<u>317,902</u>

See Notes to Consolidated Financial Statements.

Consolidated Statements of Cash Flows

(thousands, except for number of shares)	Note	EUR		
		Year ended December 31,		
		2006	2007	2008
Cash flows from operating activities:				
Net earnings		34,334	60,977	18,411
Adjustments to reconcile net earnings to net cash from operating activities:				
Depreciation	9	35,067	33,250	33,176
Amortization of other intangible assets	7	2,439	1,391	1,484
Impairment of property, plant and equipment	9	—	(788)	7,068
Impairment and disposal of discontinued operations	2	12,841	—	—
Impairment of goodwill	8	—	—	1,395
Amortization of debt issuance costs	14	976	825	742
Compensation expense employee share incentive scheme	16	7,290	7,685	7,524
Compensation expense employee stock option plan	16	1,421	1,718	2,024
Deferred income taxes		(151)	(913)	(514)
(Gain) expense resulting from early extinguishment of debt	14	—	10,049	(7,956)
Minority interest		54,882	55,346	38,298
Gain on dilution of investment in subsidiary	16	(1,255)	(3,010)	(4,088)
Increase (decrease) in allowance for doubtful receivables	5	(169)	(260)	1,927
Changes in assets and liabilities:				
Accounts receivable		(6,974)	(47,599)	73,159
Inventories		(26,095)	(26,613)	23,980
Other current assets		(1,632)	(5,184)	1,699
Accounts payable and accrued expenses		15,585	9,872	(54,471)
Advance payments from customers		1,403	3,044	(4,339)
Deferred revenue		4,241	(741)	(7,680)
Pension liabilities		629	775	743
Income taxes		8,960	5,781	4,820
Net cash provided by operating activities		143,792	105,605	137,402
Cash flows from investing activities:				
Capital expenditures	9	(39,374)	(47,206)	(31,450)
Purchase of intangible assets	7	(3,298)	(695)	(5,362)
Acquisition of business	8	(1,162)	(281)	(176)
Proceeds from sale of business	8	—	—	410
Proceeds from sale of intangible assets	2	11,032	—	—
Proceeds from sale of property, plant and equipment	9	2,750	3,652	3,569
Net cash used in investing activities		(30,052)	(44,530)	(33,009)
Cash flows from financing activities:				
Notes payable to banks, net		1,052	(2,013)	(5,172)
Proceeds from long-term debt and subordinated debt		2,694	14,496	7,980
Repayments of long-term debt and subordinated debt		(6,282)	(42,344)	(45,754)
Purchase of treasury shares	15	—	(8,162)	(36,453)
Proceeds from issuance of common shares and exercise of stock options		11,843	5,015	1,039
Proceeds from issuance of preferred shares	15	—	—	220
Dividends to minority shareholders ASMPT		(51,125)	(42,900)	(43,398)
Dividend to shareholders ASMI		—	(5,397)	—
Net cash used in financing activities		(41,818)	(81,305)	(121,538)
Foreign currency translation effect		(13,050)	(5,719)	6,499
Net (decrease) increase in cash and cash equivalents		58,872	(25,949)	(10,646)
Cash and cash equivalents at beginning of year	4	135,000	193,872	167,923
Cash and cash equivalents at end of year	4	193,872	167,923	157,277
Supplemental disclosures of cash flow information				
Cash paid during the year for:				
Interest		6,000	3,890	3,843
Income taxes		5,893	14,329	8,438
Non cash investing and financing activities:				
Subordinated debt converted	14	—	—	4,966
Number of shares issued upon conversion of subordinated debt	14	—	—	372,946

See Notes to Consolidated Financial Statements.

Notes to Consolidated Financial Statements

Amounts in euro thousands, except per share data and unless otherwise stated

NOTE 1 Summary of Significant Accounting Policies

Basis of Presentation—ASM International N.V. (“ASMI” or “the Company”) is a Netherlands public liability company domiciled in the Netherlands with its principal operations in Europe, the United States, Southeast Asia and Japan. The Company dedicates its resources to the research, development, manufacturing, marketing and servicing of equipment and materials used to produce semiconductor devices. The Company provides production solutions for the main areas of semiconductor production: wafer processing (front-end), assembly and packaging (back-end). The Company follows accounting principles generally accepted in the United States of America (“U.S. GAAP”) and applies the going concern basis in preparing its Consolidated Financial Statements. Historical cost is used as the measurement basis unless otherwise indicated.

As discussed in Note 27; the Company announced a restructuring of its subsidiary ASM Europe in the Netherlands.

Principles of Consolidation —The Consolidated Financial Statements include the accounts of ASMI and its subsidiaries (“the Company”), where ASMI holds a controlling interest. The minority interest of third parties is disclosed separately in the Consolidated Financial Statements. All intercompany profits, transactions and balances have been eliminated in consolidation.

Foreign Currency Translation—The functional and reporting currency of ASMI is the euro (“EUR”). The financial information for subsidiaries outside the Netherlands is measured using local currencies as the functional currency of that subsidiary. Assets and liabilities of foreign subsidiaries, of which the functional currency is not the euro, are translated into euros at foreign currency exchange rates prevailing at the end of the year. Revenues and costs relating to the operation of such subsidiaries are translated at weighted average foreign currency exchange rates during the year. Resulting translation adjustments are directly recorded in Shareholders’ Equity. Exchange rate differences on translations of other transactions in foreign currencies are reflected in the Consolidated Statement of Operations.

Reclassifications—Certain reclassifications have been made to the prior year Consolidated Financial Statements to conform to the current year presentation.

Derivative Financial Instruments—ASMI and its subsidiaries conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of the Company (euro) or one of its subsidiaries conducting the business. The purpose of the Company’s foreign currency management is to manage the effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in selected foreign currencies, in particular denominated in U.S. dollar.

The Company’s front-end segment uses forward exchange contracts to hedge its foreign exchange risk of anticipated sales or purchase transactions in the normal course of business, which occur within the next twelve months, for which the Company has a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. The hedges related to forecasted transactions are designated and documented at the inception of the hedge as cash flow hedges, and are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of accumulated other comprehensive loss in Shareholders’ Equity, and is reclassified into earnings when the hedged transaction affects earnings.

Changes in the fair value of derivatives that do not qualify for hedge treatment, as well as the ineffective portion of any hedges, are recognized in earnings. The Company records all derivatives, including forward exchange contracts, on the balance sheet at fair value in other current assets or accrued expenses and other.

Substantially all amounts included in accumulated other comprehensive loss at December 31, 2008 will be reclassified to net earnings within the next twelve months, upon completion of the underlying transactions. If the underlying transaction being hedged fails to occur, or if a portion of any derivative is ineffective, the gain or loss is immediately recognized in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations.

Furthermore, the Company manages the currency exposure of certain receivables and payables using derivative instruments, such as forward exchange contracts (fair value hedges) and currency swaps, and non-derivative instruments, such as debt borrowings in foreign currencies. The gains or losses on these instruments provide an offset to the gains or losses recorded on receivables and payables denominated in foreign currencies. The derivative instruments are recorded at fair value and changes in fair value are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations.

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The Company does not use forward exchange contracts for trading or speculative purposes.

Cash and Cash Equivalents—Cash and cash equivalents include cash on hand, current accounts with banks, and short-term deposits with a maturity of three months or less at the date of purchase.

Accounts Receivable—Accounts receivable are stated at nominal value less an allowance for doubtful accounts.

Inventories—Inventories are stated at the lower of cost (first-in, first-out method) or market value. Costs include net prices paid for materials purchased, charges for freight and custom duties, direct wages of employees and charges for material handling.

Property, Plant and Equipment—Property, plant and equipment are carried at cost, less accumulated depreciation. Capital leased assets are recorded at the present value of future lease obligations. Depreciation is calculated using the straight-line method over the estimated useful lives. Leasehold improvements are depreciated over the lesser of the estimated useful life of the leasehold improvement or the term of the underlying lease.

Goodwill and Other Intangible Assets—Business combinations are accounted for under the purchase accounting method. As from January 1, 2002, goodwill and other intangible assets with indefinite lives are no longer amortized. Instead, the Company tests its recorded goodwill and other intangible assets with indefinite lives for impairment each year on December 31 or if events or changes in circumstances indicate that the carrying amount exceeds the fair value of the goodwill and other intangible assets with indefinite lives. Other intangible assets with finite lives are amortized over the estimated useful lives using the straight-line method.

Recoverability of Long-Lived Assets—Long-lived assets and other intangible assets (except those not being amortized) to be held and used by the Company are reviewed by the Company for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In performing the review for recoverability, the Company estimates the future undiscounted cash flows expected to result from the use of the asset. If the undiscounted future cash flow is less than the carrying amount of the asset, the asset is deemed impaired. The amount of the impairment is measured as the difference between the carrying value and the fair value of the asset. Long-lived assets and other intangibles (except those not being amortized) to be disposed of are reported at the lower of carrying amount or fair value less cost to sell.

Revenue Recognition—The Company recognizes revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; seller's price to buyer is fixed or determinable; and collectibility is reasonably assured. The Company's revenue includes revenue from contractual arrangements consisting of multiple deliverables, such as equipment and installation. The revenue from the undelivered element of the arrangement is deferred at fair value until delivery of the element.

In general, the Company recognizes revenue from sales of equipment upon shipment of equipment, only if testing at the factory has proven that the equipment has met substantially all of the customer's criteria and specifications. The outcome of the test is signed-off by the customer ("factory acceptance"). Instead of signing-off, the customer may choose to provide a waiver, e.g. with respect to repeat orders.

The Company recognizes revenue from installation of equipment upon completion of installation at the customer's site. At the time of shipment, the Company defers that portion of the sales price related to the fair value of installation. The fair value of the installation process is measured based upon the per-hour amounts charged by third parties for similar installation services. Installation is completed when testing at the customer's site has proven that the equipment has met all of the customer's criteria and specifications. The completion of installation is signed-off by the customer ("final acceptance").

The Company's sales frequently involve complex equipment, which may include customer-specific criteria, sales to new customers or equipment with new technology. For each sale, the decision whether to recognize revenue is, in addition to shipment and factory acceptance, based on the contractual agreement with a customer, the experience with a particular customer, the technology and the number of similarly configured equipment previously delivered. Instead of recognizing revenue, the Company could decide to defer revenue recognition until completion of installation at the customer's site and obtaining final acceptance from the customer.

Revenue related to training and technical support service is recognized when the service is rendered. Revenue from the sale of spare parts and materials is recognized when the goods are shipped.

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Cost of Sales—Cost of sales includes direct costs such as materials, labor and related overhead. Cost of sales also includes cost of warranty, third party commission and royalty payments and costs relating to prototype and experimental products, which the Company may subsequently sell to customers. Costs of warranty include the cost of labor, material and related overhead necessary to repair a product during the warranty period. The warranty period is usually one to two years. The Company accrues for the estimated cost of the warranty on its products shipped in a provision for warranty, upon recognition of the sale of the product. The costs are estimated based on actual historical expenses incurred and on estimated future expenses related to current sales, and are updated periodically. Actual warranty costs are charged against the provision for warranty.

Restructuring expenses—Restructuring expenses are recognized for exit or disposal activities when the liability arising from restructuring plans is incurred. In 2008 impairment charges related to the announced restructuring of the Company's subsidiary ASM Europe in the Netherlands were recorded as restructuring expenses. Reference is made to note 9 and note 27.

Research and Development Expenses —Research and development costs are expensed as incurred. Costs, which relate to prototype and experimental models and are sold to customers, are charged to cost of sales. Subsidies and other governmental credits to cover research and development costs relating to approved projects are recorded as research and development credits in the period when such project costs occur. The research and development expenses are presented net of the development credits. Technical development credits received from the government of the Netherlands, to offset the costs of certain research and development projects, are contingently repayable to the extent sales of products developed in such projects occur within the agreed upon period. Such repayments are calculated as a percentage of sales and are charged to cost of sales. No such repayments are required if such sales do not occur within the agreed upon period. Reference is made to Note 20.

Income Taxes—The Company recognizes deferred tax assets and liabilities for the estimated future tax consequences of events attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using currently enacted tax rates. The effect on deferred tax assets and liabilities of changes in tax rates is recognized in the Consolidated Statement of Operations in the period in which the enacted rate changes. Deferred tax assets are reduced through a valuation allowance at such time as, based on available evidence, it is more likely than not that the deferred tax assets will not be realized.

On January 1, 2007 the Company adopted Interpretation 48, "Accounting for Uncertainty in Income Taxes" ("FIN 48"). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with Statement of Financial Accounting Standard ("SFAS") No. 109, "Accounting for Income Taxes". FIN 48 prescribes a two step approach for recognizing and measuring tax positions taken or expected to be taken in a tax return. Prior to recognizing the benefit of a tax position in the financial statements, the tax position must be more-likely-than-not of being sustained based solely on its technical merits. Once this recognition threshold has been met, tax positions are recognized at the largest amount that is more-likely-than-not to be sustained. FIN 48 also provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition.

Pensions—The Company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the Company's operations in the Netherlands and Japan. The Company's employees in the Netherlands participate in a multi-employer plan. Payment to defined contribution plans and the multi-employer plan are recognized as an expense in the Consolidated Statement of Operations as they fall due.

The Company's employees in Japan participate in a defined benefit plan. Pension costs in respect of this defined benefit plan are determined using the projected unit credit method. These costs primarily represent the increase in the actuarial present value of the obligation for pension benefits based on employee service during the year and the interest on this obligation in respect of employee service in previous years, net of the expected return on plan assets.

Actuarial gains and losses are recognized in income, spread over the average remaining service lives of employees, using the corridor approach. In accordance with SFAS No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans—an amendment of SFAS No. 87, 88, 106, and 132(R)" ("SFAS 158"), the Company recognizes in its Consolidated Balance Sheet an asset or a liability for the plan's overfunded status or underfunded status respectively. Reference is made to Note 16.

Stock-Based Compensation—On January 1, 2006 ASMI adopted SFAS No. 123R "Share-Based Payment" ("SFAS 123R"), using the modified prospective transition method. SFAS 123R requires that the cost of all employee stock options, as well as other equity-based compensation arrangements, be reflected in the

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financial statements based on the estimated fair value of the awards. The cost is recognized in the Consolidated Statement of Operations over the requisite service period. Pro forma disclosure is no longer an alternative. In January 2005, the SEC issued Staff Accounting Bulletin (“SAB”) No. 107 (“SAB 107”), which provides supplemental implementation guidance for SFAS 123R. The Company has applied the provisions of SFAS 123R to all share-based payments, including employee stock options granted, vested, modified or settled subsequent to the date of adoption. Additionally, the cost of employee stock options that are outstanding as of January 1, 2006 and for which the requisite service has not been rendered are also recognized as the requisite service is rendered on or after that date. The cost relating to employee stock options is measured at fair value on the grant date, by using the Black-Scholes option pricing model. For further information on ASMI’s employee stock option plans reference is made to Note 16.

Issuance of Shares by a Subsidiary—As further described in the Notes to Consolidated Financial Statements herein, from time to time, the consolidated subsidiary ASM Pacific Technology Ltd. (“ASMPT”) will issue common shares pursuant to their Employee Share Incentive Scheme. The effect of these issuances is a dilution of the ownership in ASMPT. The Company recognizes the impact of these issuances in the Consolidated Statement of Operations as a gain on dilution of investment in subsidiary.

Net Earnings per Share—Basic net earnings per share is computed by dividing net earnings per share by the weighted average common shares outstanding for the year. Diluted net earnings per share reflects the potential dilution that could occur if options issued under the Company’s stock option plan were exercised and if the Company’s convertible subordinated debt borrowings were converted, unless the conversion would have an anti-dilutive effect.

Comprehensive Income—Comprehensive income consists of net earnings and other comprehensive income. Other comprehensive income includes gains and losses that are not included in net earnings, but are recorded directly in Shareholders’ Equity.

Use of Estimates—The preparation of the Company’s Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet dates and the reported amounts of revenues and expenses during the reported periods. Actual results could differ from those estimates.

New Accounting Pronouncements

In December 2007, the FASB issued SFAS No. 141(R), “Business Combinations”. This statement replaces FASB Statement No. 141 “Business Combinations”. SFAS 141(R) improves the relevance, representational faithfulness and comparability of the information that a reporting entity provides in its financial reports about a business combination and its effects. This FASB statement applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008.

In April 2008, the FASB issued FASB Staff Position No. FAS 142-3, “Determination of the Useful Life of Intangible Assets” (“FSP FAS 142-3”). This FASB Staff Position (FSP) 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 FASB Statement No. 142, “Goodwill and Other Intangible Assets”. FSP FAS 142-3 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. We are currently assessing the impact that FSP SFAS 142-3 may have on our consolidated financial statements.

In September 2006, the FASB issued SFAS No. 157, “Fair Value Measurements” (“SFAS 157”). The Statement defines fair value, provides guidance on how to measure assets and liabilities using fair value and expands disclosures about fair value measurements. The Statement is effective for financial statements issued for fiscal years beginning after November 15, 2007 and should be applied prospectively (with a limited form of retrospective application) as of the beginning of the fiscal year in which this Statement is initially applied. The Company adopted SFAS No. 157 as per fiscal year 2008, which did not have an impact on the valuation of its financial assets and liabilities. In February 2008, the FASB issued FASB Staff Position No. 157-2, “Effective date of FASB Statement No. 157” (“FSP FAS 157-2”), which delays the effective date of SFAS 157 for certain non-recurring fair value measurements of non-financial assets and liabilities until fiscal years beginning after November 15, 2008. We are currently assessing the impact that the adoption of SFAS No. 157 as delayed by FSP FAS 157-2 may have on our consolidated financial statements.

In October 2008, the FASB issued FASB Staff Position No. FAS 157-3, “Determining the Fair value of a Financial Asset in a Market That Is Not Active” (“FSP FAS 157-3”), which clarifies the application of SFAS 157 when the market for a financial asset is inactive. Specifically, FSP FAS 157-3 clarifies how (1) management’s internal assumptions should be considered in measuring fair value when observable data

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are not present, (2) observable market information from an inactive market should be taken into account, and (3) the use of broker quotes or pricing services should be considered in assessing the relevance of observable and unobservable data to measure fair value. The guidance in FSP FAS 157-3 is effective immediately and will apply to ASMI upon adoption of SFAS 157. We believe that the adoption of FSP FAS 157-3 for the items currently deferred by FSP FAS 157-2 will not have a material impact on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51*. SFAS No. 160 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 earnings attributable to the noncontrolling interest will be included in consolidated net income on the face of the income statement. The statement also amends certain of ARB No. 51's consolidation procedures for consistency with the requirements of SFAS No. 141(R). This statement also includes expanded disclosure requirements regarding the interests of the parent and its noncontrolling interest. We do not expect adoption of SFAS No. 160 to have a significant impact on the reporting of our results of operations.

In March 2008, the FASB issued SFAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities" ("SFAS 161"). This statement is intended to enhance required disclosures regarding derivatives and hedging activities, including enhanced disclosures regarding how: (a) an entity uses derivative instruments; (b) derivative instruments and related hedged items are accounted for under FASB No. 133, Accounting for Derivative Instruments and Hedging Activities; and (c) derivative instruments and related hedged items affect an entity's financial position, financial performance, and cash-flows. SFAS 161 is effective for fiscal years and interim periods beginning after November 15, 2008. We are currently assessing the impact that SFAS 161 may have on our consolidated financial statements.

In June 2008, the FASB ratified the consensus reached on Emerging Issues Task Force ("EITF") Issue No. 07-05, "Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock" ("EITF No. 07-05"). EITF No. 07-05 clarifies the determination of whether an instrument (or an embedded feature) is indexed to an entity's own stock, which would qualify as a scope extension under SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities". EITF No. 07-05 is effective for financial statements issued for fiscal years beginning after December 15, 2008. Early adoption for an existing instrument is not permitted. We are currently assessing the impact that EITF No. 07-05 may have on our consolidated financial statements.

NOTE 2 Discontinued Operations

Discontinued Operations ASM NuTool, Inc.—Due to continued negative cash flows and the expected future returns on the invested capital employed, the Company decided in 2005 to reduce its 100% subsidiary ASM NuTool to a small operation, focusing on process and intellectual property development with the intention of licensing these technologies in the future. In December 2006, the Company sold substantially all of the ASM NuTool patent portfolio to a third party. This caused ASM NuTool to be accounted for retroactively as discontinued operations in the Company's Consolidated Financial Statements, in accordance with SFAS No. 144 "Accounting for the Impairment or Disposal of Long-Lived Assets".

Summarized results from discontinued operations, as reported in the Company's front-end segment, are as follows:

	Year ended December 31, 2006
Net sales	(1,478)
Cost of sales	1,286
Gross profit	(192)
Operating expenses	(5,232)
Gain from the sale of patent portfolio	6,689
Impairment of goodwill	(11,364)
Settlement agreement with former shareholders NuTool	(3,048)
Reclassification of cumulative translation adjustment	(4,832)
Other restructuring charges	(2,371)
Loss from operations	(20,350)
Loss on equity investments	—
Loss from discontinued operations before income taxes	(20,350)
Income tax expense	—
Net loss from discontinued operations	(20,350)

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The gain from the sale of patent portfolio is specified as follows:

Net cash proceeds	11,908
Settlement charges former shareholders NuTool	(876)
	<u>11,032</u>
Carrying value of patent portfolio	(4,343)
Gain from the sale of patent portfolio	<u>6,689</u>

In January 2006, the Company reached a settlement agreement in the dispute with former NuTool shareholders regarding the number of additional common shares of the Company to be issued in connection with the potential satisfaction of financial performance targets following the 2004 acquisition of NuTool. The Company issued 193,883 common shares of the Company with a fair value of € 3,048 in March 2006 and 56,258 common shares of the Company with a fair value of € 876 in December 2006 related to the sale of the patent portfolio of ASM NuTool.

The impairment charges recorded in 2006 for goodwill are the result of a comparison between the fair value of the goodwill with respect to ASM NuTool and the carrying amount of the goodwill. The fair value is estimated by management using a discounted cash flow technique of expected future returns.

The Company reclassified the cumulative translation adjustment of ASM NuTool's operations, included in Shareholders' Equity, as a loss to the Consolidated Statement of Operations, in accordance with SFAS No. 52 "Foreign Currency Translation."

Other restructuring charges recorded by the Company in 2006 include impairment charges for property, plant and equipment, the write-down of other current assets and the recognition of contractual lease obligations. No charges were accrued for as of December 31, 2008.

A breakdown of adjustments to reconcile net loss to net cash from discontinued operations, as reported in the Consolidated Statements of Cash Flows, is as follows:

	<u>Year ended</u> <u>December 31,</u> <u>2006</u>
Gain from the sale of patent portfolio	(6,689)
Impairment of property, plant and equipment	286
Impairment of goodwill	11,364
Settlement agreement with former shareholders NuTool	3,048
Reclassification of cumulative translation adjustment	4,832
	<u>12,841</u>

Reference is made to Note 8 and Note 9.

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NOTE 3 List of Significant Subsidiaries

Name	Location	% Ownership December 31,	
		2007	2008
ASM Europe B.V. ¹	Almere, the Netherlands	100.00%	100.00%
ASM United Kingdom Sales B.V. ¹	Almere, the Netherlands	100.00%	100.00%
ASM Germany Sales B.V. ¹	Almere, the Netherlands	100.00%	100.00%
ASM Pacific Holding B.V. ³	Almere, the Netherlands	100.00%	100.00%
Advanced Semiconductor Materials (Netherlands Antilles) N.V.	Willemstad, Curacao, Netherlands Antilles	100.00%	100.00%
ASM France S.A.R.L.	Montpellier, France	100.00%	100.00%
ASM Belgium N.V.	Leuven, Belgium	100.00%	100.00%
ASM Italia S.r.l.	Agrate, Italy	100.00%	100.00%
ASM Microchemistry Oy	Helsinki, Finland	100.00%	100.00%
ASM Services and Support Ireland Ltd.	Dublin, Ireland	100.00%	100.00%
ASM Services and Support Israel Ltd	Tel Aviv, Israel	100.00%	100.00%
ASM America, Inc.	Phoenix, Arizona, United States	100.00%	100.00%
ASM Japan K.K.	Tokyo, Japan	100.00%	100.00%
ASM Wafer Process Equipment Ltd.	Quarry Bay, Hong Kong, People's Republic of China	100.00%	100.00%
ASM China Ltd.	Shanghai, People's Republic of China	100.00%	100.00%
ASM Wafer Process Equipment Singapore Pte Ltd.	Singapore	100.00%	100.00%
ASM Far East Marketing Ltd.	Hsin-Chu, Taiwan	100.00%	100.00%
ASM Front-End Sales & Services Taiwan Co., Ltd.	Hsin-Chu, Taiwan	100.00%	100.00%
ASM Front-End Manufacturing Singapore Pte Ltd.	Singapore	100.00%	100.00%
ASM NuTool, Inc.	Phoenix, Arizona, United States	100.00%	100.00%
ASM Genitech Korea Ltd.	Cheonan, South Korea	100.00%	100.00%
NanoPhotonics AG	Mainz, Germany	72.86%	—
ASM Pacific Technology Ltd.	Kwai Chung, Hong Kong, People's Republic of China	53.10%	52.87%
ASM Assembly Automation Ltd. ²	Kwai Chung, Hong Kong, People's Republic of China	53.10%	52.87%
ASM Assembly Materials Ltd. ²	Kwai Chung, Hong Kong, People's Republic of China	53.10%	52.87%
ASM Technology Singapore Pte Ltd. ²	Singapore	53.10%	52.87%
ASM Technology (M) Sdn. Bhd. ²	Johor Bahru, Malaysia	53.10%	52.87%
ASM Semiconductor Materials (Shenzhen) Co. Ltd. ²	Shenzhen, People's Republic of China	53.10%	52.87%
ASM Pacific Investments Ltd. ²	Kwai Chung, Hong Kong, People's Republic of China	53.10%	52.87%
Edgeward Development Ltd. ²	Guernsey, Channel Islands	53.10%	52.87%
Edgeward USA L.L.C. ²	Wilmington, Delaware, United States	53.10%	52.87%
Shenzhen ASM Micro Electronic Technology Co. Ltd. ²	Shenzhen, People's Republic of China	53.10%	52.87%

(1) For these subsidiaries ASM International N.V. has filed statements at the Dutch Chamber of Commerce assuming joint and several liability in accordance with Article 403 of Book 2, Part 9 of the Netherlands Civil Code.

(2) 100% subsidiaries of ASM Pacific Technology Ltd.

(3) ASM Pacific Holding B.V. is holding 52.87% of the shares in ASM Pacific Technology Ltd.

The accounts of the above mentioned entities and of certain insignificant subsidiaries not mentioned above have been consolidated in the Consolidated Financial Statements.

NOTE 4 Cash and Cash Equivalents

At December 31, 2008, cash and cash equivalents of the Company's subsidiaries ASMPT and ASM Japan amounted to € 78,380 and € 11,735 respectively, which are restricted to be used only in the operations of ASMPT and ASM Japan respectively.

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NOTE 5 Accounts receivable

The carrying amount of accounts receivable is as follows:

	<u>Current</u>	<u>Overdue < 30 days</u>	<u>Overdue 31 – 60 days</u>	<u>Overdue 61 – 120 days</u>	<u>Overdue > – 120 days</u>	<u>Total</u>
December 31, 2007	175,195	24,989	14,123	9,537	5,316	229,160
December 31, 2008	138,430	15,982	8,236	8,468	1,487	172,603

The changes in the allowance for doubtful accounts receivable are as follows:

Balance January 1, 2006	(6,693)
Charged to selling, general and administrative expenses	(1,176)
Deductions	1,345
Foreign currency translation effect	598
Balance December 31, 2006	(5,926)
Charged to selling, general and administrative expenses	(137)
Deductions	397
Foreign currency translation effect	591
Balance December 31, 2007	(5,075)
Charged to selling, general and administrative expenses	(2,859)
Deductions	932
Foreign currency translation effect	(298)
Balance December 31, 2008	<u>(7,300)</u>

NOTE 6 Inventories

Inventories consist of the following:

	<u>December 31,</u>	
	<u>2007</u>	<u>2008</u>
Components and raw materials	106,565	97,824
Work in process	83,444	82,341
Finished goods	42,988	50,150
Total inventories, gross	232,997	230,315
Allowance for obsolescence	(27,493)	(32,615)
Total inventories, net	<u>205,504</u>	<u>197,700</u>

The changes in the allowance for obsolescence are as follows:

Balance January 1, 2006	(27,922)
Charged to cost of sales	(7,747)
Deductions	5,136
Foreign currency translation effect	2,471
Balance December 31, 2006	(28,062)
Charged to cost of sales	(6,268)
Deductions	4,320
Foreign currency translation effect	2,517
Balance December 31, 2007	(27,493)
Charged to cost of sales	(11,711)
Deductions	8,299
Foreign currency translation effect	(1,710)
Balance December 31, 2008	<u>(32,615)</u>

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NOTE 7 Other Intangible Assets

Other intangible assets include purchased technology from third parties and software developed or purchased for internal use. The changes in the amount of other intangible assets are as follows:

	Software	Purchased technology and other intangible assets	Total
At cost:			
Balance January 1, 2007	3,605	3,675	7,280
Additions	695	—	695
Reclassification	718	—	718
Foreign currency translation effect	(278)	(359)	(637)
Balance December 31, 2007	<u>4,740</u>	<u>3,316</u>	<u>8,056</u>
Additions	5,362	—	5,362
Sale of NanoPhotonics AG	(146)	—	(146)
Foreign currency translation effect	155	(562)	(407)
Balance December 31, 2008	<u>10,111</u>	<u>2,754</u>	<u>12,865</u>
Accumulated amortization:			
Balance January 1, 2007	955	1,377	2,332
Amortization for the year	838	553	1,391
Reclassification	409	—	409
Foreign currency translation effect	(146)	(181)	(327)
Balance December 31, 2007	<u>2,056</u>	<u>1,749</u>	<u>3,805</u>
Amortization for the year	1,009	475	1,484
Sale of NanoPhotonics AG	(138)	—	(138)
Foreign currency translation effect	115	(319)	(204)
Balance December 31, 2008	<u>3,042</u>	<u>1,905</u>	<u>4,947</u>
Other intangible assets, net:			
December 31, 2007	2,684	1,567	4,251
December 31, 2008	<u>7,069</u>	<u>849</u>	<u>7,918</u>

Other intangible assets are amortized over useful lives of 3 to 7 years. Estimated amortization expenses relating to other intangible assets are as follows:

2009	1,855
2010	1,711
2011	1,338
2012	1,113
2013	1,109
2014	792
	<u>7,918</u>

NOTE 8 Goodwill

The changes in the carrying amount of goodwill are as follows:

Balance January 1, 2007	54,576
Addition:	
ASM Genitech Korea Ltd.	281
Foreign currency translation effect	(5,236)
Balance December 31, 2007	<u>49,621</u>
Addition:	
ASM Genitech Korea Ltd.	176
Impairment charge:	
NanoPhotonics AG	(1,395)
Deductions:	
Sale of NanoPhotonics AG	(334)
Foreign currency translation effect	(79)
Balance December 31, 2008	<u>47,989</u>

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The allocation of the carrying amount of goodwill is as follows:

	December 31,	
	2007	2008
<i>Front-end segment:</i>		
ASM Microchemistry Oy	3,560	3,560
NanoPhotonics AG	1,729	—
ASM Genitech Korea Ltd.	8,257	6,285
<i>Back-end segment:</i>		
ASM Pacific Technology Ltd.	36,075	38,144
Total	<u>49,621</u>	<u>47,989</u>

NanoPhotonics AG—In September 2008, the Company sold its entire 72.86% interest in NanoPhotonics AG. The Company recorded an impairment charge of € 1,395 related to goodwill of its investment in NanoPhotonics AG in June 2008.

The proceeds from the sale of NanoPhotonics AG and the impairment charge can be summarized as follows:

Carrying value of assets and liabilities:	
Intangible assets:	8
Goodwill	1,729
Property, plant & equipment	346
Other assets and liabilities	(278)
	<u>1,805</u>
Cash proceeds from sale of NanoPhotonics AG	(410)
Impairment charge	<u>1,395</u>

ASM Genitech Korea Ltd.—In 2004, the Company acquired 100% of the common shares in Genitech in exchange for 247,638 common shares of the Company, € 4,640 in cash and possible future variable cash payments of up to US\$ 9,200 if certain financial performance targets are satisfied at various times from the acquisition date in 2004 through the year ended December 31, 2008. The total consideration at the date of the acquisition in 2004, including expenses, amounted to € 7,939, excluding variable cash payments that may be payable in the future based on certain financial performance targets.

The excess of the purchase price over the fair value of the identifiable net assets has been recorded as goodwill in the amount of € 6,917 in 2004. In 2006, 2007 and 2008 the Company recorded € 862, € 281 and € 176 respectively as additional purchase consideration as certain financial performance targets were satisfied.

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NOTE 9 Property, Plant and Equipment

The changes in the amount of property, plant and equipment are as follows:

	Land, buildings and leasehold improvements	Machinery, equipment, furniture and fixtures	Total
At cost:			
Balance January 1, 2007	98,220	283,771	381,991
Capital expenditures	11,942	35,264	47,206
Reclassification	—	(718)	(718)
Revaluation fixed assets held for sale	788	—	788
Retirements and sales	(603)	(9,304)	(9,907)
Foreign currency translation effect	(7,382)	(27,249)	(34,631)
Balance December 31, 2007	102,965	281,764	384,729
Capital expenditures	6,406	25,044	31,450
Reclassification	766	(766)	—
Impairment charges	(7,068)	—	(7,068)
Sale of NanoPhotonics AG	—	(1,043)	(1,043)
Retirements and sales	(6,838)	(4,535)	(11,373)
Foreign currency translation effect	8,629	27,319	35,948
Balance December 31, 2008	104,860	327,783	432,643
Accumulated depreciation:			
Balance January 1, 2007	49,766	180,960	230,726
Depreciation for the year	6,400	26,850	33,250
Reclassifications	—	(409)	(409)
Retirements and sales	(75)	(6,179)	(6,254)
Foreign currency translation effect	(4,386)	(17,840)	(22,226)
Balance December 31, 2007	51,705	183,382	235,087
Depreciation for the year	7,332	25,844	33,176
Sale of NanoPhotonics AG	—	(697)	(697)
Retirements and sales	(4,149)	(3,655)	(7,804)
Foreign currency translation effect	4,268	20,056	24,324
Balance December 31, 2008	59,156	224,930	284,086
Property, plant and equipment, net:			
December 31, 2007	51,260	98,382	149,642
December 31, 2008	45,704	102,853	148,557

Useful lives in years:	- Buildings and leasehold improvements	10-25
	- Machinery and equipment	2-10
	- Furniture and fixtures	2-10

ASM Japan and ASM Front-End Manufacturing Singapore have pledged real estate with a carrying value of € 23,601 to secure loan facilities outstanding in Japan and Singapore.

In 2008 the Company recorded an impairment charge related to the manufacturing plant at ASM Europe in the Netherlands of € 7,068. The impairment is the consequence of the announcement in January 2009 of the restructuring of the ASM Europe operations including the transfer of the manufacturing operations to the Company's subsidiary ASM Front-End Manufacturing Singapore. ASM Europe will cease using the manufacturing plant upon completion of the transfer.

The impairment charge is included in the Consolidated Statements of Operations as restructuring expenses.

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NOTE 10 Notes Payable to Banks

Information on notes payable to banks is as follows:

<u>Short-term debt outstanding in:</u>	<u>December 31,</u>	
	<u>2007</u>	<u>2008</u>
Japan	15,756	15,860
Singapore	921	998
	<u>16,677</u>	<u>16,858</u>

Short-term debt outstanding in local currencies is as follows (in thousands):

	<u>December 31,</u>	
	<u>2007</u>	<u>2008</u>
Japanese yen	2,600,000	2,000,000
Singapore dollar	1,950	2,000

Short-term debt outstanding in Japan in the amount of € 7,137 is collateralized by real estate with a carrying value of € 7,413 of ASM Japan.

ASMI and its individual subsidiaries borrow under separate short-term lines of credit with banks in the countries where they are located. The lines contain general provisions concerning renewal and continuance at the option of the banks. The weighted average interest rate of the outstanding notes payable was 2.13% at December 31, 2008.

Total short-term lines of credit amounted to € 104,660 at December 31, 2008. The amount outstanding at December 31, 2008 was € 16,858 and the undrawn portion totaled € 87,802. The undrawn portion includes the Company's available credit facility of € 31,000 with Rabobank. The facility, available through February 28, 2010, is secured by a portion of the Company's shareholding in ASMPT. The available part of this facility can be increased to € 50,000 by increasing the portion of the Company's shareholding in ASMPT by which this facility is secured. The undrawn portion further includes € 27,756 for ASMPT, which amount is restricted to be used only in the operations of ASMPT. The undrawn portion further includes € 29,024 for ASM Japan, which amount is restricted to be used only in the operations of ASM Japan.

The credit facility of € 31,000 with Rabobank include two financial covenants: a solvency ratio and a total net debt/equity ratio. These financial covenants are measured twice each year, at June 30 and December 31. The Company is in compliance with these financial covenants as of December 31, 2008. Short-term line of credits of ASM Japan of € 41,236 include financial covenants, of which the most important covenants, measured at December 31 of each year are as follows:

- no two loss making years in a row (ASM Japan was profitable in the year 2008);
- no annual loss in excess of a certain percentage of the equity of ASM Japan;
- pledge of accounts receivable if the total debt of ASM Japan exceeds 60% of sales.

ASM Japan is in compliance with these financial covenants as of December 31, 2008.

ASMI is guarantor with respect to all short-term debt outstanding of ASM Front-End Manufacturing Singapore. ASMI is guarantor with respect to a credit line of € 11,895, with € 7,137 outstanding, of ASM Japan. ASMI does not provide guarantees for borrowings of ASMPT and there are no guarantees from ASMPT to secure indebtedness of ASMI. Under the rules of the Stock Exchange of Hong Kong, ASMPT is precluded from providing loans and advances other than trade receivables in the normal course of business, to ASMI or its non ASMPT subsidiaries.

NOTE 11 Provision for Warranty

The changes in the amount of provision for warranty are as follows:

Balance January 1, 2007	16,299
Charged to cost of sales	13,808
Deductions	(12,228)
Foreign currency translation effect	(840)
Balance December 31, 2007	17,039
Charged to cost of sales	6,610
Deductions	(14,882)
Foreign currency translation effect	1,146
Balance December 31, 2008	9,913

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NOTE 12 Accrued Expenses and Other

Accrued expenses and other consist of the following:

	December 31,	
	2007	2008
Advance payments from customers	10,039	5,728
Deferred revenue	12,377	4,979
Personnel related items	24,219	24,284
Other	26,818	22,460
	<u>73,453</u>	<u>57,451</u>

NOTE 13 Long-term Debt

Long-term debt consists of the following:

	December 31,	
	2007	2008
Term loans:		
Japan, 1.3-2.4%, due 2009 – 2012	21,780	21,585
Finland, 1.8%, due 2010	641	427
Singapore, 4.5%, due 2011	2,333	1,436
South Korea, 4.9%, due 2008	37	—
Mortgage loans:		
Japan, 2.1-2.2%, due 2012	4,242	4,718
Capital lease commitments:		
Japan, 1.8%, due 2009 – 2012	2,233	1,865
	31,266	30,031
Current portion	(15,438)	(6,763)
	<u>15,828</u>	<u>23,268</u>

Long-term debt, including current portion, in local currencies is as follows (in thousands):

	December 31,	
	2007	2008
Euro	641	427
Japanese yen	4,662,546	3,552,162
Singapore dollars	4,939	2,876
Korean won	50,000	—

Aggregate annual principal repayments for years subsequent to December 31, 2008 are:

2009	6,763
2010	6,080
2011	13,746
2012	3,442
	<u>30,031</u>

Long-term debt outstanding in Japan in the amount of € 14,234 is collateralized by real estate with a carrying value of € 4,966 of ASM Japan

Long-term debt outstanding in Singapore in the amount of € 1,436 is collateralized by real estate with a carrying value of € 11,223 and other assets with a carrying value of € 16,240 of ASM Front-End Manufacturing Singapore.

Long-term debt of ASM Japan of € 9,516 include financial covenants, of which the most important covenants, measured at December 31 of each year are as follows:

- no two loss making years in a row (ASM Japan was profitable in the year 2008);
- no annual loss in excess of a certain percentage of the equity of ASM Japan.

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ASM Japan is in compliance with these financial covenants as of December 31, 2008.

ASMI is guarantor with respect to all long-term debt outstanding of ASM Front-End Manufacturing Singapore and is guarantor with respect to € 8,882 long-term debt outstanding of ASM Japan.

Capital lease commitments relate to commitments for equipment and machinery.

NOTE 14 Convertible Subordinated Debt

The changes in the outstanding amounts of convertible subordinated debt are as follows:

	5.25% convertible subordinated notes, due 2010	4.25% convertible subordinated notes, due 2011	Total
Balance January 1, 2007	68,337	113,895	182,232
Repurchase	(15,245)	(10,682)	(25,927)
Foreign currency translation effect	(6,076)	(11,236)	(17,312)
Balance December 31, 2007	47,016	91,977	138,993
Repurchase	(37,868)	—	(37,868)
Conversion into common shares, newly issued	—	(3,593)	(3,593)
Conversion into common shares out of treasury shares	(7)	(1,366)	(1,373)
Foreign currency translation effect	5,896	4,738	10,634
Balance December 31, 2008	15,037	91,756	106,793

The convertible subordinated notes are denominated in US dollars. The outstanding amount in thousands of US dollars is as follows:

	December 31	
	2007	2008
5.25% convertible subordinated notes, due 2010	69,212	20,925
4.25% convertible subordinated notes, due 2011	135,400	127,687
	204,612	148,612

5.25% convertible subordinated notes, due 2010

In May 2003, ASMI issued US\$ 90.0 million in principal amount of 5.25% convertible subordinated notes due in May 2010 in a private offering. Interest on the notes is payable on May 15 and November 15 of each year. The notes are subordinated in right of payment to all of the Company's existing and future senior indebtedness. The notes are convertible, at the option of the holder, into shares of the Company's common stock initially at a conversion rate of 52.0237 shares of common stock for each US\$ 1,000 principal amount of notes, subject to adjustment in certain circumstances. This is equivalent to an initial conversion price of US\$ 19.22 per share. On or after May 20, 2006, the Company may redeem any of the notes at a redemption price equal to 100% of the principal amount of the notes being redeemed, plus accrued and unpaid interest, if the closing price of the Company's common shares has exceeded 150% of the conversion price for at least 20 trading days in any period of 30 consecutive trading days and if certain other conditions are satisfied. In the event of a change in control, the Company may be required to repurchase the notes.

In 2007, US\$ 20.8 million of the US\$ 90.0 million convertible subordinated notes has been repurchased. The US\$ 20.8 million has been repurchased for a market value of US\$ 29.0 million. The loss for the early extinguishment of the notes of € 6,309, which includes the premium paid above par and the write-off of unamortized issuance costs, has been recorded as an expense from early extinguishment of debt in the Consolidated Statement of Operations for the year 2007.

In 2008, US\$ 48.3 million convertible subordinated notes has been repurchased. The US\$ 48.3 million has been repurchased for a market value of US\$ 37.7 million. The gain from the early extinguishment of the notes of € 7,957, which includes the difference between the nominal value and the lower market value and the write-off of unamortized issuance costs, has been recorded as a gain from early extinguishment of debt in the Consolidated Statement of Operations for the year 2008.

In 2008 US\$ 0.01 million in convertible subordinated notes were converted into 520 common shares out of the treasury shares, previously purchased by the Company.

4.25% convertible subordinated notes, due 2011

In December 2004, ASMI issued US\$ 150.0 million in principal amount of 4.25% convertible subordinated notes due in December 2011 in a private offering. Interest on the notes is payable on June 6 and December 6 of each year. The notes are subordinated in right of payment to all of the Company's existing and future senior indebtedness. The notes are convertible, at the option of the holder, into shares of the Company's common stock initially at a conversion rate of 48.0307 shares of common stock for each US\$ 1,000 principal amount of notes, subject to adjustment in certain circumstances. This is equivalent to an initial conversion price of US\$ 20.82 per share. Effective December 6, 2007, the conversion price is adjusted for the cash dividend paid in September 2007 to US\$ 20.71 per share. On or after December 6, 2007, the Company may redeem any of the notes at a redemption price equal to 100% of the principal amount of the notes being redeemed, plus accrued and unpaid interest, if the closing price of the Company's common shares has exceeded 130% of the conversion price for at least 20 trading days in any period of 30 consecutive trading days. In the event of a change in control, the Company may be required to repurchase the notes.

In 2007, US\$ 14.6 million of the US\$ 150.0 million convertible subordinated notes has been repurchased. The US\$ 14.6 million has been repurchased for a market value of US\$ 19.4 million. The loss from the early extinguishment of the notes of € 3,740, which includes the premium paid above par and the write-off of unamortized issuance costs, has been recorded as an expense from early extinguishment of debt in the Consolidated Statement of Operations for the year 2007.

In 2008 US\$ 7.7 million in convertible subordinated notes were converted into 372,426 common shares of which 102,509 out of the treasury shares previously purchased by the Company and 269,917 newly issued common shares.

The 4.25% convertible subordinated notes rank pari passu with the 5.25% convertible subordinated notes.

Debt issuance costs

The fees incurred for the issuance of the convertible subordinated notes are included as debt issuance costs in the Consolidated Balance Sheet and amortized by the interest method as interest cost during the life of the debts. Debt issuance costs of € 509 are expected to be amortized in 2009.

NOTE 15 Shareholders' Equity

Common shares, preferred and financing preferred shares

The authorized capital of the Company amounts to 110,000,000 shares of € 0.04 par value common shares, 118,000 shares of € 40 par value preferred shares and 8,000 shares of € 40 par value financing preferred shares, of which 54,275,131 common shares, 21,985 preferred and no financing preferred shares were outstanding as at December 31, 2008. All shares have one vote per € 0.04 par value. Treasury shares held by the Company cannot be voted on.

Financing preferred shares are designed to allow ASMI to finance equity with an instrument paying a preferred dividend, linked to EURIBOR loans and government loans, without the dilutive effects of issuing additional common shares.

Preferred and financing preferred shares are issued in registered form only and are subject to transfer restrictions. Essentially, a preferred or financing preferred shareholder must obtain the approval of the Company's Supervisory Board to transfer shares. If the approval is denied, the Supervisory Board will provide a list of acceptable prospective buyers who are willing to purchase the shares at a cash price to be fixed by consent of the Supervisory Board and seller within two months after the approval is denied. If the transfer is approved, the shareholder must complete the transfer within three months, at which time the approval expires.

Preferred shares are entitled to a cumulative preferred dividend based on the amount paid-up on such shares. Financing preferred shares are entitled to a cumulative dividend based on the par value and share premium paid on such shares. The preferred dividend on the amount paid-up was € 10 for the year 2008.

In the event preferred shares are issued, the Management Board must, within two years after such preferred shares were issued, submit to the general meeting a proposal to annul the preferred shares. On May 14, 2008, 21,985 preferred shares were issued to Stichting Continuïteit ASM International ("Stichting"). The amount paid-up by Stichting was € 220, which is the equivalent of one-fourth of the nominal value of the preferred shares.

Treasury shares at cost

The changes in the number and amount of treasury shares at cost is as follows:

	Number of treasury shares	Amount	Amount per share
Balance January 1, 2007	—	—	—
Purchase of common shares	428,706	8,162	19.02
Issuance of treasury shares upon exercise of options	(214,919)	(4,177)	19.40
Balance December 31, 2007	213,787	3,985	18.64
Purchase of common shares	2,655,100	36,453	13.73
Issuance of treasury shares upon exercise of options	(99,367)	(1,850)	18.63
Issuance of treasury shares upon conversion of convertible subordinated notes	(103,029)	(1,373)	13.32
Balance December 31, 2008	<u>2,666,491</u>	<u>37,215</u>	<u>13.96</u>

From the treasury shares outstanding on December 31, 2008 2,552,071 shares are held in custody with Lehman Brothers Europe International and 114,420 shares are held in custody with Fortis Bank (Nederland) N.V.

Retained earnings

Distributions to common shareholders are limited to the extent the total amount of shareholders' equity exceeds the amounts of nominal paid-in share capital (exclusive any share premium) and any reserves to be formed pursuant to law or the Company's articles of association. The amounts are derived from the Statutory Financial Statements of ASM International N.V.

Accumulated other comprehensive loss

The changes in the amount of accumulated other comprehensive loss are as follows:

	Foreign currency translation effects	Unrealized gains (losses) on derivative instruments, net	Unrecognized pension obligations, net of tax	Total
Balance January 1, 2007	(60,204)	(124)	(860)	(61,188)
Foreign currency translation effect on translation of foreign operations	(12,114)	—	91	(12,023)
Increase in fair value of derivative instruments, net of tax	—	1,159	—	1,159
Transfer to Consolidated Statement of Operations of derivative instruments, net of tax	—	(889)	—	(889)
Amortization of transition obligation SFAS 158	—	—	22	22
Total change in accumulated other comprehensive loss	(12,114)	270	113	(11,731)
Balance December 31, 2007	(72,318)	146	(747)	(72,919)
Foreign currency translation effect on translation of foreign operations	10,017	—	(222)	9,795
Increase in fair value of derivative instruments, net of tax	—	799	—	799
Transfer to Consolidated Statement of Operations of derivative instruments, net of tax	—	(898)	—	(898)
Actuarial losses SFAS 158	—	—	(936)	(936)
Amortization of transition obligation SFAS 158	—	—	67	67
Total change in accumulated other comprehensive loss	10,017	(99)	(1,091)	8,827
Balance December 31, 2008	<u>(62,301)</u>	<u>47</u>	<u>(1,838)</u>	<u>(64,092)</u>

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On May 22, 2007, the General Meeting of Shareholders authorized the Company, for an 18-month period, to be calculated from the date of the General Meeting, to repurchase its own shares up to the statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the purchase date.

The number of shares bought back under the authorization of May 22, 2007 was 2,655,100. Of this number, 135,580 were sold upon the exercise of options by employees of ASMI, under the Employee Stock Option Plan and 103,029 were issued upon conversion of convertible subordinated debt.

The following table summarizes shares repurchased under the authorization of May 22, 2007:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Average Price Paid per Share</u>	<u>Maximum Number of Shares that May Yet be Purchased under the Programs</u>
August 2007	250,000	250,000	€ 18.67	—
March and April 2008	2,405,100	2,405,100	€ 13.31	—

On May 21, 2008, the General Meeting of Shareholders authorized the Company, for an 18-month period, to be calculated from the date of the General Meeting, to repurchase its own shares up to the statutory maximum, at a price at least equal to the shares' nominal value and at most a price equal to 110% of the share's average closing price according to the listing on the Euronext Amsterdam stock exchange during the five trading days preceding the purchase date.

The number of shares bought back under the authorization of May 21, 2008 was 250,000.

The following table summarizes shares repurchased under the authorization of May 21, 2008:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Average Price Paid per Share</u>	<u>Maximum Number of Shares that May Yet be Purchased under the Programs</u>
September 2008	250,000	250,000	€ 17.74	2,758,656

The maximum of shares that may yet be purchased under the program takes into account the 2,666,491 treasury shares held by the Company at December 31, 2008 and the maximum number of common shares which the Company can hold according to its Articles of Association. This maximum is 10% of the number of common shares issued.

NOTE 16 *Employee Benefits*

Pension plans

The Company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the Company's operations in the Netherlands and Japan.

The Company's employees in the Netherlands participate in a multi-employer plan ("Bedrijfstakpensioenfonds Metalektro"). The plan monitors the risks of the entire investment portfolio, not by individual company or employee, and is subject to regulation by Dutch governmental authorities. By Dutch law, a multi-employer union plan must be monitored against specific criteria, including the coverage ratio of its assets to its obligations. This ratio includes a minimum coverage ratio of 105%. Each company participating in the plan contributes a percentage of its total pensionable salaries, each company contributes the same percentage. The pension rights of individual employees are based on the employee's average salary during employment. The Company's net periodic pension cost for the multi-employer plan for a fiscal period is equal to the required contribution for that period. At December 31, 2008 the coverage ratio of the multi-employer plan was 90% (December 31, 2007: 135%) as a result of the economic crisis in 2008. Consequently the Board of the multi-employer plan decided that existing pension obligations will not be indexed and pension premiums will increase with 1% of the pensionable salaries for the year 2009.

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The Company's employees in Japan participate in a defined benefit plan. The funded status of the plan and the amounts not yet recognized in the Consolidated Statement of Operations and the amounts recognized in the Consolidated Balance Sheet are as follows:

	December 31,	
	2007	2008
Defined benefit obligations	(7,401)	(10,046)
Fair value of plan assets	4,831	4,973
Funded status deficit	<u>(2,570)</u>	<u>(5,073)</u>
Unrecognized actuarial loss (gain)	(6)	1,586
Unrecognized transition amount	1,272	1,530
Net liabilities	<u>(1,304)</u>	<u>(1,957)</u>

The changes in defined benefit obligations and fair value of plan assets are as follows:

	Year ended December 31,	
	2007	2008
Defined benefit obligations		
Balance January 1	7,024	7,401
Current service cost	650	739
Interest on obligation	135	160
Actuarial losses (gains)	52	(159)
Benefits paid	(70)	(439)
Foreign currency translation effect	(390)	2,344
Balance December 31	<u>7,401</u>	<u>10,046</u>
Fair value of plan assets		
Balance January 1	4,375	4,831
Expected return on plan assets	156	193
Actuarial losses	64	(1,485)
Company contribution	555	610
Benefits paid	(70)	(439)
Foreign currency translation effect	(249)	1,263
Balance December 31	<u>4,831</u>	<u>4,973</u>

The net periodic benefit cost consists of the following:

	Year ended December 31,		
	2006	2007	2008
Current service cost	679	650	739
Interest on obligation	134	135	160
Expected return on plan assets	(142)	(156)	(193)
Amortization of transition amount	116	106	113
Net periodic pension benefit cost	<u>787</u>	<u>735</u>	<u>819</u>

The actual return on plan assets was € 333, € 219, and (€ 1,293) for the years ended December 31, 2006, 2007 and 2008 respectively.

The assumptions in calculating the actuarial present value of benefit obligations and net periodic benefit cost are as follows:

	Year ended December 31,		
	2006	2007	2008
Discount rate for obligations	2.00%	2.00%	2.00%
Expected return on plan assets	3.50%	3.50%	3.00%
Future salary increases	2.94%	2.94%	2.94%

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The allocation of plan assets is as follows:

	Year ended December 31,			
	2007		2008	
Shares	2,508	51.9%	2,229	44.8%
Bonds	1,912	39.6%	2,150	43.2%
Loans	125	2.6%	267	5.4%
Real estate	34	0.7%	54	1.1%
Other	252	5.2%	273	5.5%
	<u>4,831</u>	<u>100.0%</u>	<u>4,973</u>	<u>100.0%</u>

The plan assets do not include any of the Company's shares.

The Company expects to contribute € 748 to the defined benefit plan in 2009. The Company expects to pay benefits for years subsequent to December 31, 2008 as follows:

2009	193
2010	200
2011	263
2012	276
2013	350
Aggregate for the years 2014-2018	2,372
Total	<u>3,654</u>

In September 2006, the FASB issued SFAS No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans—an amendment of SFAS No. 87, 88, 106, and 132(R)". SFAS 158 requires an employer to (a) recognize in its statement of financial position an asset for a plan's overfunded status or a liability for a plan's underfunded status, other than a multi-employer plan; (b) measure plan's assets and obligations that determine its funded status as of the end of the employer's fiscal year (with limited exceptions); (c) recognize changes in the funded status of a defined benefit postretirement plan in the year in which the changes occur; and (d) disclose in the notes to financial statements additional information about certain effects on net periodic benefit cost for the next fiscal year that arise from delayed recognition of the gains or losses, prior service costs or credits, and transition asset or obligation. Reference is made to Note 1.

With respect to the defined benefit plan in which the Company's employees in Japan participate, the incremental effect of the adoption of SFAS 158 on individual line items in the Consolidated Balance Sheet at December, 31 2006 was as follows:

	Pre SFAS 158	Adjustments	Post SFAS 158
Deferred tax assets	454	598	1,052
Total assets	831,699	598	832,297
Liability for pension benefits	2,032	1,458	3,490
Total liabilities	439,465	1,458	440,923
Accumulated other comprehensive loss	(60,328)	(860)	(61,188)
Total shareholders' equity	277,318	(860)	276,458
Total liabilities and shareholders' equity	<u>831,699</u>	<u>598</u>	<u>832,297</u>

Retirement plan costs consist of the following:

	Year ended December 31,		
	2006	2007	2008
Defined contribution plans	7,343	7,813	7,863
Multi-employer plans	2,197	2,586	2,792
Defined benefit plans	787	735	819
Total retirement plan costs	<u>10,327</u>	<u>11,134</u>	<u>11,474</u>

The Company does not provide for any significant post retirement benefits other than pensions.

Employee Stock Option Plan

The Company has adopted various stock option plans and has entered into stock option agreements with various employees. Under these plans, employees may purchase a specific number of shares of the Company's common stock. Options are priced at market value in euros or U.S. dollars on the date of grant, are generally vesting in equal parts over a period of five years and generally expire after five or ten years. Under the 2001 Stock Option Plan the Company is authorized to issue 4,000,000 shares. At December 31, 2008, options to purchase 2,893,345 shares have been issued under the 2001 Stock Option Plan. Under previous plans no more options to purchase shares can be issued. Under the various stock option plans a total of 1,460,730 options to purchase common stock were outstanding at December 31, 2008, expiring at various dates through 2018. The number of options outstanding at December 31, 2006 and 2007 were 1,399,711 and 1,189,797 respectively.

The following is a summary of changes in options outstanding:

	Number of options	Weighted average exercise price in US\$	Number of options	Weighted average exercise price in €
Balance January 1, 2006	1,369,146	15.70	505,466	14.26
Options granted	177,500	15.03	327,532	13.97
Options forfeited	(56,715)	20.88	(23,566)	15.49
Options exercised	(844,403)	15.23	(55,249)	12.12
Balance December 31, 2006	645,528	15.69	754,183	14.26
Options granted	72,000	24.35	217,868	18.46
Options forfeited	(18,594)	16.80	(89,800)	18.07
Options exercised	(256,137)	16.76	(135,251)	13.80
Balance December 31, 2007	442,797	16.43	747,000	15.10
Options granted	276,000	20.49	148,000	12.36
Options forfeited	(36,500)	16.43	(17,200)	17.55
Options exercised	(79,357)	15.07	(20,010)	13.85
Balance December 31, 2008	602,940	18.47	857,790	14.61

The weighted average fair value of employee stock options granted in U.S. dollars were US\$ 6.21 in 2006, US\$ 13.85 in 2007 and US\$ 11.01 in 2008. The weighted average fair values of employee stock option granted in euros were € 4.90 in 2006, € 7.27 in 2007 and € 5.55 in 2008.

The weighted average remaining contractual life of the outstanding options granted in 2008 is 7.8 years at December 31, 2008.

The total intrinsic value of options exercised was € 3,451, € 2,320, and € 818 for the years ended December 31, 2006, 2007 and 2008 respectively. For all exercises of options in 2006 new shares have been issued. New shares have been issued for the exercise of 176,469 options in 2007. No new shares have been issued for the exercise of options in 2008.

At December 31, 2008 options outstanding and options exercisable classified by range of exercise prices are:

Range of exercise prices In US\$	Options outstanding			Options exercisable	
	Number outstanding	Weighted average remaining contractual life In years	Weighted average exercise price In US\$	Number exercisable	Weighted average exercise price In US\$
1.00-10.00	6,000	0.32	6.46	6,000	6.46
10.00-15.00	250,700	3.58	12.97	102,700	12.94
15.00-20.00	136,100	7.16	17.98	32,600	17.36
20.00-30.00	210,140	8.55	25.68	27,800	24.13
1.00-30.00	602,940	6.08	18.47	169,100	15.40
In €		In years	In €		In €
1.00-10.00	22,000	4.84	7.79	—	—
10.00-15.00	529,922	3.83	13.12	101,487	12.16
15.00-20.00	305,868	4.34	17.68	58,480	16.10
1.00-20.00	857,790	4.04	14.61	159,967	13.61

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At December 31, 2008, the aggregate intrinsic value of all options outstanding and all options exercisable is € 11,474 and € 2,005 respectively.

On January 1, 2006 the Company adopted SFAS 123R which requires that the cost of all employee stock options, as well as other equity-based compensation arrangements, be reflected in the financial statements. The cost relating to employee stock options is measured at fair value on the grant date. The fair value was computed using the Black-Scholes option pricing model with the following weighted average assumptions:

	Year ended December 31,	
	2007	2008
Expected life (years)	5 – 10	5 – 10
Risk free interest rate	4.0%	4.0%
Dividend yield	—	0.85
Expected volatility	30.0%	72.5%

Following the adoption of SFAS 123R, the Company's recorded in 2007 compensation expenses of € 1,718 and in 2008 compensation expenses of € 2,024.

Employee Share Incentive Scheme ASMPT

In 1989, the shareholders of ASMPT approved a plan to issue up to 5.0 percent of the total issued shares of ASMPT to directors and employees. This plan has been extended in 1999 for a term up to March 23, 2010. The directors annually may approve an amount of supplemental compensation to the designated directors and officers, which will be used to issue or purchase ASMPT's common shares for the designees at current market value. In December 2008, 1,728,700 common shares of ASMPT were issued, for cash at par value of HK\$ 0.10 per share, pursuant to the Employee Share Incentive Scheme of ASMPT. In 2007 and 2006, respectively 1,789,000 and 1,779,500 ASMPT shares were issued to certain directors and employees under the plan. The effect of this transaction on ASMI was a dilution of its ownership interest in ASMPT of 0.23% in 2008, 0.25% in 2007, and 0.24% in 2006. The shares issued under the plan in 2008 have diluted ASMI's ownership in ASMPT to 52.87% as of December 31, 2008. Total compensation expenses related to the Employee Share Incentive Scheme of respectively € 7,290 in 2006, € 7,685 in 2007, and € 7,524 in 2008 were charged to the Consolidated Statement of Operations.

The dilution in ownership has resulted in a gain on the investment in ASMPT of € 3,031 in 2006, € 3,010 in 2007, and € 4,088 in 2008, which gain has been separately included in the Consolidated Statement of Operations. Due to the participation exemption in the Netherlands no deferred income taxes have been provided for these gains. In 2006, the Company charged € 1,776 as a loss on the investment of ASMPT related to the repurchase of shares of ASMPT by ASMPT in 2004, initially recorded as goodwill.

NOTE 17 Commitments and Contingencies

Capital leases included in property, plant and equipment are as follows:

	December 31,	
	2007	2008
Machinery and equipment	4,990	6,530
Furniture and fixtures	597	780
	5,587	7,310
Less accumulated depreciation	(3,380)	(5,418)
	2,207	1,892

At December 31, 2008 minimum rental commitments under capital leases and operating leases having initial or remaining non-cancelable terms in excess of one year are as follows:

	Capital leases	Operating leases
2009	872	8,477
2010	665	5,409
2011	258	4,377
2012	113	2,730
2013	—	1,805
Years thereafter	—	2,722
Total	1,908	25,520
Less amount representing interest	(43)	
Present value of net minimum lease payments	1,865	

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Aggregate rental expense for operating leases was € 8,881 in 2006, € 7,873 in 2007 and € 9,748 in 2008. At December 31, 2008 the Company had entered into purchase commitments with suppliers in the amount of € 35,049 for purchases, of which € 34,537 for purchases within the next 12 months. Commitments for capital expenditures at December 31, 2008 were € 1,721.

Change of Control Transaction

If the Company desires to effect a change of control transaction with a competitor of Applied Materials, Inc., ("Applied Materials") the Company must, pursuant to a litigation settlement agreement in 1997, as amended and restated in 1998, first offer the change of control transaction to Applied Materials on the same terms as the Company would be willing to accept from that competitor pursuant to a bona fide arm's-length offer by that competitor.

NOTE 18 *Litigation and Environmental Matters*

The Company is party to various legal proceedings generally incidental to its business and is subject to a variety of environmental and pollution control laws and regulations. As is the case with other companies in similar industries, the Company faces exposure from actual or potential claims and legal proceedings. Although the ultimate disposition of legal proceedings cannot be predicted with certainty, it is the opinion of the Company's management that the outcome of any claim which is pending or threatened, either individually or on a combined basis, will not have a materially adverse effect on the financial position of the Company, but could materially affect the Company's results of operations in a given reporting period.

Under a license agreement with Applied Materials, the Company pays royalties based upon our sales of equipment that employs technology covered by the licensed patents. The Company believes that it no longer practices patents applicable to certain equipment and ceased paying royalties on the sale of such equipment as of December 18, 2007. Applied Materials is verifying our position through the review by an independent expert. If this review is not conclusive, Applied Materials may proceed arbitration regarding the Company's obligation to pay these royalties. Although the Company believes that its position is correct, the outcome of any such arbitration is uncertain and, if the Company is not successful, it could be required to pay up to approximately € 2.5 million for royalties as of December 31, 2008.

NOTE 19 *Financial Instruments and Risk Management*

Categories of Financial Instruments

Financial instruments include:

Financial assets:

	December 31,	
	2007	2008
Cash and cash equivalents	167,923	157,277
Accounts receivable	229,160	172,603
Derivative instruments designated in cash flow hedges	163	172
Derivative instruments designated in fair value hedges	226	613

Financial liabilities:

	December 31,	
	2007	2008
Notes payable to banks	16,677	16,858
Accounts payable	99,046	69,718
Current portion of long-term debt	15,438	6,763
Long-term debt	15,828	23,268
Convertible subordinated debt	138,993	106,793
Derivative instruments designated in cash flow hedges	29	55
Derivative instruments designated in fair value hedges	7	360

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Gains or losses related to financial instruments are as follows:

	Year ended December 31,	
	2007	2008
Interest income	6,113	4,047
Interest expense	(9,866)	(7,745)
Gain (expense) from early extinguishment of debt	(10,049)	7,956
Foreign currency exchange gain (losses), net	(1,020)	785
Addition to allowance for doubtful accounts receivable	(137)	(2,859)

We adopted FAS No. 157, *Fair Value Measurements*, on January 1, 2008, for financial assets and liabilities and for nonfinancial assets and liabilities that are remeasured at least annually. SFAS No. 157 defines fair value as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. SFAS No. 157 establishes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels.

- Level 1. Quoted prices in active markets that are accessible at the measurement date for identical assets and liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.
- Level 2. Observable inputs other than quoted prices in active markets.
- Level 3. Unobservable inputs for which there is little or no market data available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

The fair value of financial assets and liabilities measured as fair value on a recurring basis related to our derivative instruments are valued according to the Level 2 method.

Financial Risk Factors

ASMI is exposed to a number of risk factors: market risks (including foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Company uses forward exchange contracts to hedge its foreign exchange risk. The Company does not enter into financial instrument transactions for trading or speculative purposes.

Foreign Exchange Risk

ASMI and its subsidiaries conduct business in a number of foreign countries, with certain transactions denominated in currencies other than the functional currency of the Company (euro) or one of its subsidiaries conducting the business. The purpose of the Company's foreign currency management is to manage the effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in selected foreign currencies, in particular denominated in U.S. dollar.

The Company's front-end segment uses forward exchange contracts to hedge its foreign exchange risk of anticipated sales or purchase transactions in the normal course of business, which occur within the next twelve months, for which the Company has a firm commitment from a customer or to a supplier. The terms of these contracts are consistent with the timing of the transactions being hedged. The hedges related to forecasted transactions are designated and documented at the inception of the hedge as cash flow hedges, and are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of accumulated other comprehensive loss in Shareholders' Equity, and is reclassified into earnings when the hedged transaction affects earnings.

The majority of revenues and costs of the Company's back-end segment are denominated in Hong Kong dollars, Chinese Yuan and U.S. dollars. Since foreign currency exposure is not significant, no forward exchange contracts are used. The effect of exchange rate fluctuations on revenues, costs and cash flows and assets and liabilities denominated in foreign currencies is periodically reviewed.

Changes in the fair value of derivatives that do not qualify for hedge treatment, as well as the ineffective portion of any hedges, are recognized in earnings. The Company records all derivatives, including forward exchange contracts, on the balance sheet at fair value in other current assets or accrued expenses.

The Company expects that substantially all of the € 47 unrealized gains included in accumulated other comprehensive loss as of December 31, 2008 will be reclassified to net earnings within the next twelve months, upon completion of the underlying transactions. If the underlying transaction being hedged fails to

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occur, or if a portion of any derivative is ineffective, the gain or loss is immediately recognized in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Unrealized gains included in accumulated other comprehensive loss as of December 31, 2007 of € 146 were reclassified to earnings in 2008. Hedge ineffectiveness was insignificant for the years ended December 31, 2007 and December 31, 2008.

Furthermore, the Company manages the currency exposure of certain receivables and payables using derivative instruments, such as forward exchange contracts (fair value hedges) and currency swaps, and non-derivative instruments, such as debt borrowings in foreign currencies. The gains or losses on these instruments provide an offset to the gains or losses recorded on receivables and payables denominated in foreign currencies. The derivative instruments are recorded at fair value and changes in fair value are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations. Receivables and payables denominated in foreign currencies are recorded at the exchange rate at the balance sheet date and gains and losses as a result of changes in exchange rates are recorded in earnings under foreign currency exchange gains (losses) in the Consolidated Statement of Operations.

To the extent that exchange rate fluctuations impact the value of the Company's investments in its foreign subsidiaries, they are not hedged. The cumulative effect of these fluctuations is separately reported in Consolidated Shareholders' Equity. Reference is made to Note 15.

The outstanding forward exchange contracts are as follows:

	<u>Currency</u>	<u>Notional amount</u>	<u>Forward contract value</u> Euro	<u>Fair value</u> Euro	<u>Difference between forward value and fair value</u> Euro	<u>Included in accumulated other comprehensive income (loss)</u> Euro
December 31, 2007:						
Assets:						
Cash flow hedge contracts:						
Short position	US\$	(14,073)	(9,671)	(9,537)	134	146
Fair value hedge contracts:						
Short position	US\$	(7,774)	(5,499)	(5,273)	226	—
Liabilities:						
Fair value hedge contracts:						
Long position	US\$	42,500	28,900	28,870	(30)	—
	Euro	1,350	1,318	1,341	23	—
December 31, 2008:						
Assets:						
Cash flow hedge contracts:						
Short position	US\$	(3,892)	(2,988)	(2,789)	199	128
Fair value hedge contracts:						
Short position	US\$	(19,724)	(14,531)	(14,185)	346	—
Liabilities:						
Cash flow hedge contracts						
Long position	US\$	2,228	1,687	1,606	(81)	(81)
Fair value hedge contracts:						
Long position	US\$	2,038	1,560	1,466	(94)	—

For forward exchange contracts, market values based on external quotes from banks have been used to determine the fair value.

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The following table analyzes the Company's sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar, Hong Kong dollar and Japanese yen against the euro as of December 31, 2007 and December 31, 2008. This analysis includes foreign currency denominated monetary items and adjusts their translation at year end for a 10% increase and 10% decrease of the U.S. dollar, Hong Kong dollar or Japanese yen against the euro. A positive amount indicates an increase in equity. Recognized in equity is the revaluation effect of subsidiaries denominated in U.S. dollar, Hong Kong dollar and Japanese yen.

	<u>2007</u> Impact on equity	<u>2008</u> Impact on equity
10% increase of U.S. dollar versus euro	(8,279)	(3,566)
10% decrease of U.S. dollar versus euro	8,279	3,566
10% increase of Hong Kong dollar versus euro	13,647	17,851
10% decrease of Hong Kong dollar versus euro	(13,647)	(17,851)
10% increase of Japanese yen versus euro	3,162	4,214
10% decrease of Japanese yen versus euro	(3,162)	(4,214)

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar, Hong Kong dollar and Japanese yen against the euro as of December 31, 2007 and December 31, 2008 would not result in a material impact on equity.

The following table analyzes the Company's sensitivity to a hypothetical 10% strengthening and 10% weakening of the U.S. dollar and Hong Kong dollar against the euro at average exchange rates for the years 2007 and 2008. A positive amount indicates an increase in net earnings.

	<u>2007</u> Impact on net earnings	<u>2008</u> Impact on net earnings
10% increase of U.S. dollar versus euro	(2,470)	451
10% decrease of U.S. dollar versus euro	2,470	(451)
10% increase of Hong Kong dollar versus euro	6,697	4,819
10% decrease of Hong Kong dollar versus euro	(6,697)	(4,819)

A hypothetical 10% strengthening or 10% weakening of any currency other than the U.S. dollar and Hong Kong dollar against the euro at average exchange rates for the years 2007 and 2008 would not result in a material impact on net earnings.

Interest Risk

The Company is exposed to interest rate risk primarily through its borrowing activities. The Company does not enter into financial instrument transactions for trading or speculative purposes or to manage interest rate exposure. At December 31, 2008 the Company had convertible subordinated debt borrowings outstanding of € 15,037 at a fixed interest rate, maturing in May 2010 and € 91,756 at a fixed interest rate, maturing in December 2011 and € 30,031 in long-term debt at fixed interest rates and € 16,858 in other borrowings with variable short-term interest rates. A hypothetical change in the average interest rate by 10% on the portion of the Company's debt bearing interest at variable rates would not result in a material change in interest expense at December 31, 2007 and December 31, 2008 borrowing levels.

Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable and derivative instruments. These instruments contain a risk of counterparties failing to discharge their obligations. The Company monitors credit risk and manages credit risk exposure by type of financial instrument by assessing the creditworthiness of counterparties. The Company does not anticipate nonperformance by counterparties given their high creditworthiness.

The Company's customers are semiconductor device manufacturers located throughout the world. The Company generally does not require collateral or other security to support financial instruments with credit risk.

Concentrations of credit risk (whether on or off-balance sheet) that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

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The Company derives a significant percentage of its revenue from a small number of large customers. The Company's largest customer accounted for approximately 13.8% of net sales in 2008 (2007: 9.6%; 2006: 11.4%) and the ten largest customers accounted for approximately 32.0% of net sales in 2008 (2007: 32.4%; 2006: 33.9%). Sales to these large customers also may fluctuate significantly from time to time depending on the timing and level of purchases by these customers. Significant orders from such customers may expose the Company to a concentration of credit risk and difficulties in collecting amounts due, which could harm the Company's financial results. At December 31, 2008 one customer accounted for 12.3% of the outstanding balance in accounts receivable (2007: 7.8%; 2006: 8.8%).

The Company places its cash and cash equivalent and derivative instruments with high quality financial institutions to limit the amount of credit risk exposure.

The maximum credit exposure is equal to the carrying values of cash and cash equivalent and accounts receivable.

Liquidity Risk

The following table summarizes the Company's contractual obligations as at December 31, 2008 aggregated by type of contractual obligation:

<u>Contractual obligations</u>	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Notes payable to banks ¹	17,217	17,217	—	—	—
Long-term debt ^{1, 2}	31,392	7,326	20,569	3,497	—
Convertible subordinated debt ¹	120,070	4,689	115,381	—	—
Operating leases	25,520	8,477	9,786	4,535	2,722
Purchase obligations:					
Purchase commitments to suppliers	35,049	34,535	514	—	—
Capital expenditure commitments	1,721	1,721	—	—	—
Unrecognized tax benefits (FIN 48)	14,841	14,841	—	—	—
Total contractual obligations	245,810	88,806	146,250	8,032	2,722

(1) Including interest expense based on the percentages at the reporting date.

(2) Capital lease obligations of € 1,865 are included in long-term debt.

Total short-term lines of credit amounted to €104,660 at December 31, 2008. The amount outstanding at December 31, 2008 was € 16,858 and the undrawn portion totaled € 87,802. The undrawn portion includes the Company's bank credit facility of € 31,000 with Rabobank. The facility, available through February 28, 2010, is secured by a portion of the Company's shareholding in ASMPT. The available part of this facility can be increased to € 50,000 by increasing the portion of the Company's shareholding in ASMPT. The undrawn portion includes € 27,756 for ASMPT, which amount is restricted to be used only in the operations of ASMPT. The undrawn portion includes € 29,024 for ASM Japan, which amount is restricted to be used only in the operations of ASM Japan.

The Company uses notes payable to banks to manage short term liquidity and uses long-term debt and convertible subordinated debt to manage long term liquidity.

For the majority of purchase commitments, the Company has flexible delivery schedules depending on the market conditions, which allows the Company, to a certain extent, to delay delivery beyond originally planned delivery schedules.

Methods and Assumptions Used in Estimating Fair Value Disclosure for Financial Instruments

For cash and cash equivalents, accounts receivable, notes payable to banks, accounts payable and accrued expenses, the carrying amounts approximate fair value due to their short maturities.

For long-term debt, the estimated fair values of the Company's long-term debt are based on current interest rates available to the Company for debt instruments with similar terms and remaining maturities. The estimated fair values of long-term debt approximate the carrying amount of long-term debt.

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The fair values of the Company's convertible subordinated debt borrowings are based on the Company's estimates:

	2007		2008	
	Carrying amount	Fair Value	Carrying amount	Fair value
Convertible subordinated debt	138,993	174,508	106,793	69,865

NOTE 20 Research and Development

Research and Development consists of the following:

	Year ended December 31,		
	2006	2007	2008
Research and development expenses from continuing operations	89,719	84,340	75,650
Research and development grants and credits	(1,589)	(872)	(639)
Research and development from continuing operations	88,130	83,468	75,011
Research and development expenses included in discontinued operations	2,477	—	—
Total research and development	90,607	83,468	75,011

The Company's operations in the Netherlands, Germany and the United States receive research and development grants and credits from various sources. The research and development grants and credits received from governmental sources in the Netherlands include a credit which is contingently repayable to the extent the Company recognizes sales of products to which the credit is related within an agreed upon period. The Company does not recognize a liability on the Consolidated Balance Sheet in respect of this credit until it recognizes sales of products to which the credit is related, within the agreed upon period and is then charged to cost of sales when such sales are recorded. The repayment amounts to 4.0% of the realized sales of these products. In 2006, 2007 and 2008 the Company accounted for repayments with respect to such credits of € 243, € 114 and € 86 respectively. Interest on the contingent repayments is accrued at an interest rate of 6.05% per annum. The contingent repayment, including accrued interest, was € 2,953 at December 31, 2007 and € 3,162 at December 31, 2008. This amount has not been recognized as a liability in the Consolidated Balance Sheet since the Company has not recognized sales of products to which the credit is related.

NOTE 21 Income Taxes

The components of earnings (loss) before income taxes and minority interest consist of:

	Year ended December 31,		
	2006	2007	2008
The Netherlands	13,781	9,155	(32,287)
Other countries	88,275	123,402	97,052
	102,056	132,557	64,765
Earnings from continuing operations before income taxes and minority interest	122,406	132,557	64,765
Loss from discontinued operations before income taxes	(20,350)	—	—
	102,056	132,557	64,765

The income tax expense consists of:

	Year ended December 31,		
	2006	2007	2008
Current:			
The Netherlands	—	(320)	(64)
Other countries	(14,246)	(19,838)	(12,594)
	(14,246)	(20,158)	(12,658)
Deferred:			
The Netherlands	—	—	—
Other countries	151	913	514
	151	913	514
Income tax expense	(14,095)	(19,245)	(12,144)

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The provisions for income taxes as shown in the Consolidated Statements of Operations differ from the amounts computed by applying the Netherlands statutory income tax rates to earnings before taxes. A reconciliation of the provisions for income taxes and the amounts that would be computed using the Netherlands statutory income tax rates is set forth as follows:

	Year ended December 31.		
	2006	2007	2008
Earnings before income taxes and minority interest	102,056	132,557	64,765
Netherlands statutory income tax rate	29.6%	25.5%	25.5%
Income tax provision at statutory rate	(30,209)	(33,802)	(16,515)
Non-deductible expenses	(6,978)	(8,811)	(653)
Foreign taxes at a rate other than the Netherlands statutory rate	29,397	16,390	11,017
Valuation allowance	(7,493)	994	(10,604)
Non-taxable income	9,340	11,776	4,608
Other	(8,152)	(5,792)	3
Income tax expense	<u>(14,095)</u>	<u>(19,245)</u>	<u>(12,144)</u>

Included in non-taxable income is € 2,998 regarding the Company's manufacturing operations in Singapore and other countries where income covering certain products is non-taxable under tax incentive schemes granted by the local tax authority. The majority of these tax exemption schemes have terms ending in 2010.

The government of the Netherlands has enacted income tax rate reductions at the end of 2005 to 29.6% in 2006, at the end of 2006 to 25.5% in 2007 and following years. The Company's deferred tax assets and liabilities have been determined in accordance with these statutory income tax rates.

Deferred income taxes consist of the following:

	December 31.	
	2007	2008
Deferred tax assets:		
Reserves and allowances	3,311	4,010
Net operating losses	91,874	110,525
Depreciation	—	506
Other	724	1,711
Gross deferred tax assets	95,909	116,752
Less: valuation allowance	(90,879)	(109,515)
Net deferred tax assets	5,030	7,237
Deferred tax liabilities:		
Depreciation	(63)	—
Research and development credits	(753)	(806)
Deferred tax liabilities	(816)	(806)
Net deferred income taxes	<u>4,214</u>	<u>6,431</u>

Deferred tax assets and liabilities are classified in the balance sheet as follows:

	December 31.	
	2007	2008
Deferred tax assets—current	4,062	4,685
Deferred tax assets—non-current	951	2,285
Deferred tax liabilities—non-current	(799)	(539)
	<u>4,214</u>	<u>6,431</u>

Based on tax filings, ASMI and its individual subsidiaries have net operating losses available at December 31, 2008 of € 395,290 for tax return purposes to reduce future income taxes, mainly in Europe and the United States. The Company believes that realization of its net deferred tax assets is dependent on the ability of the Company to generate taxable income in the future. Given the volatile nature of the semiconductor equipment industry, past experience, and the tax jurisdictions where the Company has net operating losses, the Company believes that there is currently insufficient evidence to substantiate recognition of substantially all net deferred tax assets with respect to net operating losses. Accordingly, a valuation allowance of € 90,879 in 2007 and € 109,515 in 2008 has been recorded.

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The amounts and expiration dates of net operating losses for tax purposes are as follows:

<u>Expiration year</u>	
2009	450
2010	2,350
2011	144,174
2012	44,307
2013	21,129
2014	38,670
2016	4,578
2017	89,490
2018	3,876
2022	7,143
2023	3,752
2024	405
2025	4,556
2026	2,165
2027	2,733
2028	0
Unlimited	25,512
Net operating losses	<u>395,290</u>

The Company has not provided for deferred foreign withholding taxes, if any, on undistributed earnings of its foreign subsidiaries. At December 31, 2008 undistributed earnings of subsidiaries, subject to withholding taxes, were approximately € 26,005. These earnings could become subject to foreign withholding taxes if they were remitted as dividends or if the Company should sell its interest in the subsidiaries. However, the Company believes that Netherlands tax credits would largely eliminate any foreign withholding tax that might otherwise be due.

Until December 31, 2006, the Company accounted for income tax contingencies in accordance with SFAS No. 5, "Accounting for Contingencies". The Company provides for these tax contingencies for the duration of the statute of limitation period, which differs per tax jurisdiction. At December 31, 2006 tax contingencies amounted to € 8,276 and are included in income taxes payable in the Consolidated Balance Sheet.

On January 1, 2007 the Company adopted FIN 48 "Accounting for Uncertainty in Income Taxes". The Company's net operating losses for tax purposes decreased by € 5,369 as a result of the adoption of FIN 48. Since a valuation allowance was recorded against the net deferred tax assets with respect to these net operating losses, the adoption of FIN 48 did not impact the Company's financial position and net earnings.

A reconciliation of the beginning and ending balance of the liability for unrecognized tax benefits is as follows:

Balance January 1, 2007	8,276
Gross increases—tax positions in prior period	10,340
Gross decreases—tax positions in prior period	(5,537)
Gross increases—tax positions in current year	1,156
Foreign currency translation effect	(1,327)
Balance December 31, 2007	12,908
Gross increases—tax positions in current year	1,044
Foreign currency translation effect	889
Balance December 31, 2008	<u>14,841</u>

Unrecognized tax benefits mainly relate to transfer pricing positions, operational activities in countries where the Company is not tax registered and tax deductible costs.

The Company estimates that no interest and penalties are related to these unrecognized tax benefits.

In the year ended December 31, 2008, no settlement with tax authorities and no reduction as a result of a lapse of statute of limitations occurred.

Unrecognized tax benefits of € 14,841 would, if recognized, impact the Company's effective tax rate. The Company estimates that the liability for unrecognized tax benefits will change with € 14,841 within the next 12 months, following the expected outcome of investigations by local tax authorities.

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A summary of open tax years by major jurisdiction is as follows:

<u>Jurisdiction</u>	
Japan	2002—2008
Hong Kong	2000—2008
The Netherlands	2004—2008
Singapore	2004—2008
United States	1994—2008

The calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax laws. The Company's estimate for the potential outcome of any unrecognized tax benefits is highly judgmental. Settlement of unrecognized tax benefits in a manner inconsistent with the Company's expectations could have a material impact on the Company's financial position, net earnings and cash flows.

NOTE 22 *Disclosures about Segments and Related Information*

The Company organizes its activities in two operating segments, front-end and back-end.

The front-end segment manufactures and sells equipment used in wafer processing, encompassing the fabrication steps in which silicon wafers are layered with semiconductor devices. The segment is a product driven organizational unit comprised of manufacturing, service, and sales operations in Europe, the United States, Japan and Southeast Asia.

The back-end segment manufactures and sells equipment and materials used in assembly and packaging, encompassing the processes in which silicon wafers are separated into individual circuits and subsequently assembled, packaged and tested. The segment is organized in ASM Pacific Technology Ltd., in which the Company holds a majority of 52.87% interest, whilst the remaining shares are listed on the Stock Exchange of Hong Kong. The segment's main operations are located in Hong Kong, the People's Republic of China, Singapore and Malaysia.

<u>(euro thousands, except for headcount)</u>	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>
Year ended December 31, 2006			
Net sales to unaffiliated customers	409,383	468,108	877,491
Gross profit	127,856	210,961	338,817
Earnings from operations	1,390	128,090	129,480
Net interest income (expense)	(9,131)	3,307	(5,824)
Foreign currency exchange losses, net	(1,228)	(22)	(1,250)
Income tax expense	(976)	(13,119)	(14,095)
Minority interest	—	(54,882)	(54,882)
Net earnings (loss) from continuing operations before gain on dilution of investment in subsidiary	(9,945)	63,374	53,429
Net loss from discontinued operations	(20,350)	—	(20,350)
Net earnings (loss) before gain on dilution of investment in subsidiary	(30,295)	63,374	33,079
Gain on dilution of investment in subsidiary			1,255
Net earnings to common shareholders			34,334
Capital expenditures	18,811	20,563	39,374
Purchase of other intangibles	2,611	687	3,298
Depreciation	18,070	16,997	35,067
Amortization of other intangible assets	2,053	386	2,439
Impairment and disposal of discontinued operations	12,841	—	12,841
Cash and cash equivalents	104,599	89,273	193,872
Capitalized goodwill	14,253	40,323	54,576
Other intangible assets	4,646	302	4,948
Other identifiable assets	328,257	250,644	578,901
Total assets	451,755	380,542	832,297
Total debt	227,793	707	228,500
Headcount in full-time equivalents ¹	1,860	9,008	10,868

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<u>(euro thousands, except for headcount)</u>	<u>Front-end</u>	<u>Back-end</u>	<u>Total</u>
<u>Year ended December 31, 2007</u>			
Net sales to unaffiliated customers	450,899	504,340	955,239
Gross profit	145,036	216,040	361,076
Earnings from operations	15,525	131,854	147,379
Net interest income (expense)	(6,278)	2,525	(3,753)
Expense resulting from early extinguishment of debt	(10,049)	—	(10,049)
Foreign currency exchange gains (losses), net	(1,902)	882	(1,020)
Income tax expense	(2,612)	(16,633)	(19,245)
Minority interest	—	(55,345)	(55,345)
Net earnings (loss) before gain on dilution of investment in subsidiary	(5,316)	63,283	57,967
Gain on dilution of investment in subsidiary			3,010
Net earnings to common shareholders			60,977
Capital expenditures	17,411	29,795	47,206
Purchase of other intangibles	253	442	695
Depreciation	14,997	18,253	33,250
Amortization of other intangible assets	1,087	304	1,391
Impairment of property, plant and equipment	(788)	—	(788)
Cash and cash equivalents	100,143	67,780	167,923
Capitalized goodwill	13,546	36,075	49,621
Other intangible assets	3,576	675	4,251
Other identifiable assets	333,013	285,525	618,538
Total assets	450,278	390,055	840,333
Total debt	186,936	—	186,936
Headcount in full-time equivalents ¹	1,843	9,989	11,832
<u>(euro thousands, except for headcount)</u>			
<u>Year ended December 31, 2008</u>			
Net sales to unaffiliated customers	296,737	450,625	747,362
Gross profit	93,898	176,364	270,262
Earnings (loss) from operations	(30,445)	90,167	59,722
Net interest income (expense)	(4,743)	1,045	(3,698)
Gain resulting from early extinguishment of debt	7,956	—	7,956
Foreign currency exchange gains (losses), net	(566)	1,351	785
Income tax expense	(1,486)	(10,658)	(12,144)
Minority interest	—	(38,298)	(38,298)
Net earnings (loss) before gain on dilution of investment in subsidiary	(29,284)	43,607	14,323
Gain on dilution of investment in subsidiary			4,088
Dividend preferred shares			(10)
Net earnings to common shareholders			18,401
Capital expenditures	11,173	20,277	31,450
Purchase of other intangibles	4,994	368	5,362
Depreciation	14,440	18,736	33,176
Amortization of other intangible assets	985	499	1,484
Impairment of goodwill	1,395	—	1,395
Impairment of property, plant and equipment	7,068	—	7,068
Cash and cash equivalents	78,897	78,380	157,277
Capitalized goodwill	9,844	38,145	47,989
Other intangible assets	7,335	583	7,918
Other identifiable assets	282,340	272,274	554,614
Total assets	378,416	389,382	767,798
Total debt	153,682	—	153,682
Headcount in full-time equivalents ¹	1,667	10,047	11,714

(1) Headcount includes those employees with a fixed contract, and is exclusive of temporary workers.

There are no inter-segment transactions, other than charges for management services, which are based on actual cost. The accounting policies used to measure the net earnings and total assets in each segment are identical to those used in the Consolidated Financial Statements. The measurement methods used to determine reported segment earnings are consistently applied for all periods presented. There were no asymmetrical allocations to segments.

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Geographical information is summarized as follows:

	Europe	United States	Japan	Southeast Asia	Corporate	Consolidated
Year ended December 31, 2006						
Net sales to unaffiliated customers	102,098	159,686	69,746	545,961	—	877,491
Long-lived assets	11,616	20,690	18,449	99,281	1,229	151,265
Total assets	100,133	121,373	95,427	429,559	85,805	832,297
Capital expenditures	2,264	8,078	3,452	25,580	—	39,374
Purchase of intangible assets	11	339	—	1,022	1,926	3,298
Year ended December 31, 2007						
Net sales to unaffiliated customers	89,306	128,002	87,162	650,769	—	955,239
Long-lived assets	11,115	12,153	21,947	101,599	2,828	149,642
Total assets	119,251	89,957	110,739	441,186	79,200	840,333
Capital expenditures	3,700	1,179	8,718	33,586	23	47,206
Purchase of intangible assets	7	13	—	489	186	695
Year ended December 31, 2008						
Net sales to unaffiliated customers	80,237	110,264	70,948	485,913	—	747,362
Long-lived assets	5,809	9,679	26,050	106,763	256	148,557
Total assets	73,877	83,876	115,103	436,325	58,617	767,798
Capital expenditures	5,655	1,909	2,383	21,400	103	31,450
Purchase of intangible assets	—	142	—	386	4,834	5,362

Long-lived assets for the years ended December 31, 2006, 2007 and 2008 consist of the Company's property, plant and equipment.

NOTE 23 Selected Operating Expenses and Additional Information

Personnel expenses for employees were as follows:

	Year ended December 31,		
	2006	2007	2008
Wages and salaries	187,757	194,047	184,371
Social security	17,414	18,578	18,050
Pension expenses	10,327	11,134	11,474
	<u>215,498</u>	<u>223,759</u>	<u>213,895</u>

The average number of employees, exclusive of temporary workers, by geographic area during the year was as follows:

	Year ended December 31,		
	2006	2007	2008
The Netherlands	340	352	352
Other European countries	178	209	197
United States	614	593	494
Southeast Asia	8,704	9,993	10,687
Japan	284	293	292
	<u>10,120</u>	<u>11,440</u>	<u>12,022</u>

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NOTE 24 Earnings per Share

The following represents a reconciliation of net earnings (loss) and weighted average number of shares outstanding (in thousands) for purposes of calculating basic and diluted net earnings (loss) per share:

	Year ended December 31,		
	2006	2007	2008
Net earnings used for purpose of computing basic earnings per common share	34,334	60,977	18,401
After-tax equivalent of interest expense on convertible subordinated notes	—	8,425	—
Net earnings used for purposes of computing diluted net earnings per common share	<u>34,334</u>	<u>69,402</u>	<u>18,401</u>
Basic weighted average number of shares outstanding during the year used for purpose of computing basic earnings per share	53,403	53,968	52,259
Dilutive effect of stock options	172	94	130
Dilutive effect of convertible subordinated notes	—	11,014	—
Dilutive weighted average number of shares outstanding	<u>53,575</u>	<u>65,076</u>	<u>52,389</u>
Net earnings per share:			
Basic net earnings from continuing operations	1.02	1.13	0.35
Basic net loss from discontinued operations	(0.38)	—	—
Basic net earnings	0.64	1.13	0.35
Diluted net earnings from continuing operations	1.02	1.07	0.35
Diluted net loss from discontinued operations	(0.38)	—	—
Diluted net earnings	<u>0.64</u>	<u>1.07</u>	<u>0.35</u>

For the year ended December 31, 2008, the effect of 9,661 conversion rights to acquire common stock was anti-dilutive.

For the year ended December 31, 2006, the effect of 11,887 conversion rights to acquire common stock was anti-dilutive.

NOTE 25 Board Remuneration

The following table sets forth as to all current and former members of the Management Board and Supervisory Board of the Company information concerning all remuneration from the Company (including its subsidiaries) for services in all capacities:

	Base compensation	Bonuses ⁶	Pensions	Year ended December 31,	
				2008 Total	2007 Total
Management Board:					
C.D. del Prado	465	63	20	548	336
W.K. Lee ¹	312	242	19	573	562
A.J.M. van der Ven	282	54	18	354	314
J.F.M. Westendorp	332	67	24	423	351
A.H. del Prado ²	97	—	—	97	641
	<u>1,488</u>	<u>426</u>	<u>81</u>	<u>1,995</u>	<u>2,204</u>
Supervisory Board:					
P.C. van den Hoek	54	—	—	54	54
E.A. van Amerongen	33	—	—	33	30
L.P.E.M. van den Boom ³	131	—	—	131	33
B.C. Brix ⁴	15	—	—	15	30
J.M.R. Danneels	29	—	—	29	29
H.W. Kreutzer	30	—	—	30	30
U.H.R. Schumacher ⁵	15	—	—	15	—
	<u>307</u>	<u>—</u>	<u>—</u>	<u>307</u>	<u>206</u>

(1) All remuneration relates to the compensation Mr. W.K. Lee received in his capacity as member of the Board of Directors of ASMPT.

(2) Mr. A.H. del Prado retired March 1, 2008.

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- (3) The remuneration of 2008 for Mr. L.P.E.M. van den Boom includes the compensation of € 99 for additional services performed as the Supervisory Board's designee on the Company's Transaction Committee.
- (4) For the period January 1, 2008 through May 21, 2008.
- (5) For the period May 21, 2008 through December 31, 2008.
- (6) All bonuses paid in 2008 were calculated and paid in respect of performance in 2007.

The remuneration of members of the Management Board has been determined by the Supervisory Board, with the exception of Mr. W.K. Lee. His compensation has been determined by the Board of ASM Pacific Technology. The remuneration of members of the Supervisory Board has been determined by the General Meeting of Shareholders.

No stock options have been issued to members of the Supervisory Board. The following table shows the outstanding options to purchase ASM International N.V. common shares held by current and former members of the Management Board, and changes in such holdings during 2008:

	Year of grant	Outstanding January 1, 2008	Granted in 2008	Forfeited in 2008	Exercised in 2008	Outstanding December 31, 2008	Exercise price	Remaining term, in years
A.H. del Prado ¹	2006	100,856	—	—	—	100,856	€ 14.08	2
A.H. del Prado ¹	2007	60,441	—	—	—	60,441	€ 19.47	3
C.D. del Prado ²	2003	20,000	—	—	—	20,000	US\$ 11.35	5
C.D. del Prado ¹	2006	35,680	—	—	—	35,680	€ 14.08	6
C.D. del Prado ¹	2007	22,451	—	—	—	22,451	€ 19.47	7
C.D. del Prado ¹	2008	—	100,000	—	—	100,000	€ 12.71	8
A.J.M. van der Ven ³	2005	30,000	—	—	—	30,000	€ 11.18	5
A.J.M. van der Ven ¹	2006	20,000	—	—	—	20,000	€ 14.13	6
A.J.M. van der Ven ¹	2006	15,680	—	—	—	15,680	€ 14.08	6
A.J.M. van der Ven ¹	2007	21,917	—	—	—	21,917	€ 19.47	7
J.F.M. Westendorp ⁴	2006	56,000	—	—	—	56,000	€ 15.40	3
J.F.M. Westendorp ¹	2006	42,816	—	—	—	42,816	€ 14.08	6
J.F.M. Westendorp ¹	2007	25,659	—	—	—	25,659	€ 19.47	7
		<u>451,500</u>	<u>100,000</u>	<u>—</u>	<u>—</u>	<u>551,500</u>		

The fair value per option of options granted to current and former members of the Management Board was € 8.31 in 2007 and € 5.82 in 2008. The compensation expense recorded in the Consolidated Statements of Operations related to options held by current and former members of the Management Board was € 658 in 2007 and € 868 in 2008.

No new shares have been issued for the exercise of options.

The stock option grants to members of the Management Board have been determined by the Supervisory Board.

- (1) These options are conditional. A percentage—not exceeding 150%—of the options which have been granted conditionally will become unconditional after three years, based on the total return of the Company's shares for the three years after the options are granted compared to the average total return of the shares of a relevant number of companies which are similar to the Company during the same three-year period. The options are granted for a term of eight years. Upon the retirement of Mr. A.H. del Prado in 2008, the remaining term of his options has been shortened.
- (2) These options are granted for a term of ten years, and become exercisable in equal parts over a five year period.
- (3) These options are granted for a term of eight years, and become exercisable in equal parts over a three year period, starting 2008.
- (4) These options are granted for a term of five years, and become exercisable in equal parts over a five year period.

In February 2008, Mr. W.K. Lee in his capacity of member of the Board of Directors of ASMPT was granted 110,000 shares in the share capital of ASMPT under the Employee Share Incentive Scheme of ASMPT. The shares were issued in December 2008. The fair value of the shares granted amounted to € 479. In February 2007, Mr. W.K. Lee in his capacity of member of the Board of Directors of ASMPT was granted

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100,000 shares in the share capital of ASMPT under the Employee Share Incentive Scheme of ASMPT. The shares were issued in December 2007. The fair value of the shares granted amounted to € 430.

NOTE 26 Share Ownership and Related Party Transactions

The ownership or controlling interest of outstanding common shares of ASM International N.V. by members of the Management Board and Supervisory Board or members of their immediate family are as follows:

	December 31, 2007		December 31, 2008	
	Shares owned	Percentage of Common shares outstanding	Shares owned	Percentage of Common shares outstanding
Management Board:				
A.H. del Prado	3,784,839	7.01%	6,684,839	12.32%
C.D. del Prado	132,945	0.25%	132,945	0.24%
J.F.M. Westendorp	6,000	0.01%	6,000	0.01%
Supervisory Board:				
P.C. van den Hoek	300,000	0.56%	300,000	0.55%
Stichting Administratiekantoor ASMI	<u>7,692,039</u>	<u>14.24%</u>	<u>4,792,039</u>	<u>8.83%</u>

Stichting Administratiekantoor ASMI is a trust controlled by Mr. A.H. del Prado. The number of shares owned by Stichting Administratiekantoor ASMI includes 713,000 common shares which are beneficially owned by Mr. C.D. del Prado.

NanoPhotonics AG—In 1999, the Company acquired a 24.0% interest in NanoPhotonics, a German supplier of precision thin film metrology equipment, for € 407. In 1999, the Company's then Chief Executive Officer also purchased a 44.5% interest in NanoPhotonics. Due to the issuance of new shares by NanoPhotonics to third parties in 2003, the Company's interest diluted to 23.61% and the then Chief Executive Officer's interest diluted to 43.77%. In 2004 the then Chief Executive Officer purchased an additional 1.72% interest in NanoPhotonics from another shareholder. For all the shares purchased by the then Chief Executive Officer, the Company and the then Chief Executive Officer agreed that the Company could purchase such shares at the same price the officer paid to acquire the shares. The Company exercised this option in December 2005, for a total consideration of € 1,101. In 2006 the Company acquired an additional 2% interest in NanoPhotonics for a consideration of € 300. In September 2008, the Company finalized the sale of its interest for a total consideration of € 410. Related to this sale, the Company recorded an impairment charge of € 1,395. At December 31, 2007 the Company has provided NanoPhotonics with intercompany loans of € 300. In 2007 and 2008 the Company purchased no equipment from NanoPhotonics.

In March 2000, the Company made an interest-bearing loan to its then Chief Executive Officer in connection with the exercise of stock options at an average interest rate for 2007 of 6.24%. At December 31, 2007 the loan is fully repaid.

The Chairman of the Supervisory Board, Mr. P.C. van den Hoek, was a partner in the European law firm of Stibbe until March 2009, and is now Of Counsel to Stibbe. Another partner at Stibbe serves as the Company's general outside legal counsel. Mr. van den Hoek has been with Stibbe since 1965. Mr. van den Hoek also serves on the boards of directors of various European companies. Fees for services to Stibbe amounted to € 360 and € 1,415 in 2007 and 2008, respectively.

NOTE 27 Subsequent Events

On January 9, 2009 the Company announced its plans for a major restructuring of ASM Europe. This plan involves the transfer from Almere, the Netherlands, of manufacturing and operational procurement activities for the Vertical Furnace product line to the Company's Front-end manufacturing operations in Singapore and further reduction in workforce due to market circumstances. The implementation will take place in 2009. The Company expects restructuring expenses in the amount of € 25 - € 30 million related to impairment charges on property, plant and equipment, contractual obligations including operational leases, one-time termination benefits to employees and other transition costs. In the year ended December 31, 2008, the Company recorded € 7,068 in non-cash impairment charges on property, plant and equipment and expects the majority of the remaining restructuring expenses (all cash items) to incur in the year ending December 31, 2009.

SUBSIDIARIES

Advanced Semiconductor Materials (Netherlands Antilles) N.V.
ASM Pacific Holding B.V.
ASM Pacific Technology Limited (subsidiary of ASM Pacific Holding B.V.)
ASM Assembly Automation Limited (subsidiary of ASM Pacific Technology Limited)
ASM Assembly Materials Limited (subsidiary of ASM Pacific Technology Limited)
ASM Assembly Products B.V. (subsidiary of ASM Pacific Technology Limited)
ASM Assembly Technology Co. Limited (subsidiary of ASM Pacific Technology Limited)
ASM Pacific Assembly Products Inc. (subsidiary of ASM Pacific Technology Limited)
ASM Pacific International Marketing Limited (subsidiary of ASM Pacific Technology Limited)
ASM Pacific Investments Limited (subsidiary of ASM Pacific Technology Limited)
ASM Pacific KOR Limited (subsidiary of ASM Pacific Technology Limited)
ASM Assembly Equipment Bangkok Limited (subsidiary of ASM Pacific Technology Limited)
ASM Semiconductor Materials (Shenzhen) Co. Limited (subsidiary of ASM Pacific Technology Limited)
ASM Technology Singapore Pte. Limited (subsidiary of ASM Pacific Technology Limited)
ASM Technology (M) Sdn. Bhd. (subsidiary of ASM Pacific Technology Limited)
Capital Equipment Distribution Limited (subsidiary of ASM Pacific Technology Limited)
Shenzhen ASM Micro Electronic Technology Co. Limited (subsidiary of ASM Pacific Technology Limited)
Shenzhen ASM Precision Machinery Manufactory Limited (subsidiary of ASM Pacific Technology Limited)
ASM Assembly Equipment (M) Sdn. Bhd. (subsidiary of ASM Pacific Technology Limited)
ASM Assembly Equipment Trading (Shanghai) Co. Limited (subsidiary of ASM Pacific Technology Limited)
ASM Pacific (Bermuda) Limited (subsidiary of ASM Pacific Technology Limited)
ASM Asia Limited (subsidiary of ASM Pacific Technology Limited)
Edgeward Development Limited (subsidiary of ASM Pacific Technology Limited)
Edgeward USA L.L.C. (subsidiary of ASM Pacific Technology Limited)
ASM America, Inc.

ASM Front-End Manufacturing Singapore Pte Limited

ASM Japan K.K.

ASM Microchemistry Oy

ASM NuTool, Inc.

ASM Genitech Korea Ltd

ASM Europe B.V.

ASM France S.A.R.L. (subsidiary of ASM Europe B.V.)

ASM Belgium N.V. (subsidiary of ASM Europe B.V.)

ASM United Kingdom Sales B.V. (subsidiary of ASM Europe B.V.)

ASM Germany Sales B.V. (subsidiary of ASM Europe B.V.)

ASM Italia S.r.l. (subsidiary of ASM Europe B.V.)

ASM Services and Support Ireland Ltd. (subsidiary of ASM Europe B.V.)

ASM Services and Support Israel Ltd. (subsidiary of ASM Europe B.V.)

ASM China Limited

ASM Wafer Process Equipment Limited

ASM Wafer Process Equipment Singapore Pte Limited

ASM Far East Marketing Limited (subsidiary of ASM Wafer Process Equipment Limited)

ASM Front-End Sales & Services Taiwan Co., Ltd.

I, Charles D. del Prado, certify that:

1. I have reviewed this annual report on Form 20-F of ASM International N.V.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: March 20, 2009

/s/ CHARLES D. DEL PRADO

Charles D. del Prado
Chief Executive Officer

I, Arnold J.M. van der Ven, certify that:

1. I have reviewed this annual report on Form 20-F of ASM International N.V.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: March 20, 2009

/s/ ARNOLD J.M. VANDER VEN

Arnold J.M. van der Ven
Chief Financial Officer

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

In connection with the annual report on Form 20-F of ASM International N.V. (the "Company") for the period ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Charles D. del Prado, Chief Executive Officer of the Company, and Arnold J.M. van der Ven, Chief Financial Officer of the Company, each certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

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

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

By: /s/ CHARLES D. DEL PRADO

Charles D. del Prado
Chief Executive Officer
March 20, 2009

By: /s/ ARNOLD J.M. VAN DER VEN

Arnold J.M. van der Ven
Chief Financial Officer
March 20, 2009

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Deloitte Accountants B.V.

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1043 DP Amsterdam
P.O.Box 58110
1040 HC Amsterdam
Netherlands

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To the Supervisory Board and Shareholders of
ASM International N.V.
Versterkerstraat 8
1322 AP
Almere, the Netherlands

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements on Form S-8 (Nos. 033-07111, 033-07109, 333-87262, 333-11060, 033-06184, 033-06185, 033-06186, 033-78628 and 033-93026) and on Form F-3 (Nos. 333-08080, 333-11502, and 333-11234) of our reports dated March 20, 2009, relating to the financial statements of ASM International N.V. and the effectiveness of ASM International N.V.'s internal control over financial reporting, appearing in this Annual Report on Form 20-F of ASM International N.V. for the year ended December 31, 2008.

Deloitte Accountants B.V.
Amsterdam, the Netherlands,
March 20, 2009

Deloitte Accountants B.V. is registered with the Trade Register of the Chamber of Commerce and Industry in Rotterdam number 24362853.

Member of
Deloitte Touche Tohmatsu