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SAP AKTIENGESELLSCHAFT SYSTEMS APPLICATIONS PRODUCTS IN DATA

Form 20-F

March 21, 2003

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 20-F**

(Mark One)

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, 2002

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to  
\_\_\_\_\_

Commission file number:

1-14251

**SAP AKTIENGESELLSCHAFT**

**SYSTEME, ANWENDUNGEN, PRODUKTE IN DER DATENVERARBEITUNG**

(Exact name of registrant as specified in its charter)

**SAP CORPORATION**

**SYSTEMS, APPLICATIONS AND PRODUCTS IN DATA PROCESSING**

(Translation of Registrant's name into English)

**Federal Republic of Germany**

(Jurisdiction of incorporation or organization)

**Neurottstrasse 16**

**69190 Walldorf**

**Federal Republic of Germany**

(Address of principal executive offices)

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

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American Depositary Shares, each representing one-fourth of one Ordinary Share, without nominal value

New York Stock Exchange

Ordinary Shares, without nominal value

Frankfurt Stock Exchange  
New York Stock Exchange\*

**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 at the close of the period covered by the annual report:

Ordinary Shares, without nominal value (as of December 31, 2002)**	314,962,606
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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

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\* Not for trading, but only in connection with the registration of American Depositary Shares representing such ordinary shares.

\*\* Including 3,516,235 treasury shares.

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\* Omitted because the Item is not applicable or the answer is negative.

\*\* The Registrant has responded to Item 18 in lieu of this Item.

## INTRODUCTION

SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung, is a German stock corporation (*Aktiengesellschaft*) and is referred to in this Annual Report on Form 20-F as SAP AG and, together with its subsidiaries, as SAP, or as the Company, we, our, or us. Our consolidated financial statements included in Item 18. Financial Statements in this Annual Report on Form 20-F have been prepared in accordance with accounting principles generally accepted in the United States of America, referred to as U.S. GAAP.

In this Annual Report on Form 20-F: (i) references to U.S.\$, \$, or Dollars are to U.S. Dollars; (ii) references to DM or Marks are to German Deutsche Marks; and (iii) references to € or euro are to the euro, a currency of the countries currently participating in the European Economic Monetary Union (EMU). Certain amounts that appear in this Annual Report on Form 20-F may not sum because of rounding adjustments. In this Annual Report on Form 20-F, except as otherwise specified, financial information with respect to SAP has been expressed in euros and/or Dollars. The fixed exchange rate for euros converted to Marks is DM 1.95583 per 1.00 (Official Fixed Conversion Rate). Effective as of January 1, 1999, we adopted the euro as our financial and reporting currency. Effective February 26, 1999, all of SAP AG's share capital was converted from Marks to the euro.

Unless otherwise specified herein, all euro financial data that has been converted into Dollars have been converted at the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the Noon Buying Rate) on December 31, 2002, which was 1.00 per \$ 1.0485. No representation is made that such euro amounts actually represent such Dollar amounts or that such euro amounts could have been or could be converted into Dollars at that or any other exchange rate on such date or on any other dates. For information regarding recent rates of exchange between euros and Dollars, see Item 3. Key Information Exchange Rates. At March 7, 2003, the Noon Buying Rate for converting euros to Dollars was U.S.\$ 1.1014 per 1.00.

Unless the context otherwise requires, references in this Annual Report on Form 20-F to ordinary shares are to SAP AG's ordinary shares, without nominal value, and references to preference shares are to SAP AG's non-voting preference shares, without nominal value, which were converted to ordinary shares as of June 18, 2001. References in this Annual Report on Form 20-F to ADSs are to SAP AG's American Depositary Shares, each representing one-fourth of an ordinary share.

On June 26, 2000, we effected a division of our capital stock by means of a three-for-one stock split of the ordinary shares and the preference shares. Contemporaneously with the stock split, we reduced the ratio of ADSs to preference shares from 12:1 to 4:1. All references to subscribed capital, ordinary shares, preference shares, shares outstanding, average number of shares outstanding, convertible bonds, stock options or per share amounts in this Annual Report on Form 20-F prior to the effectiveness of the stock split have been restated to reflect the three-for-one stock split on a retroactive basis.

The annual general shareholders' meeting and a special meeting of holders of the preference shares on May 3, 2001 approved a conversion of the preference shares into ordinary shares on a share for share basis, which came into effect on June 18, 2001. The amount of subscribed capital for ordinary shares was therefore increased by the amount of the outstanding preference shares on the effective date of the conversion.

SAP, the SAP logo, R/2, R/3, mySAP, mySAP.com, xApp, xApps, SAP NetWeaver and other SAP product and service names herein are trademarks or registered trademarks of SAP AG in Germany and/or in several other countries. MarketSet is a jointly owned trademark of SAP AG and Commerce One, Inc. (Commerce One). This Annual Report on Form 20-F also contains product and service names of companies other than SAP that are trademarks of their respective owners.

### FORWARD-LOOKING INFORMATION

This Annual Report on Form 20-F contains forward-looking statements based on beliefs of our management. Any statements contained in this Annual Report on Form 20-F that are not historical facts are forward-looking statements as defined in the U.S. Private Securities Litigation Reform Act of 1995. We have based these forward-looking statements on our current expectations and projections about future events, including:

- general economic and business conditions;
- attracting and retaining personnel;
- competition in the software industry;
- implementing our business strategy;
- developing and introducing new services and products;
- obtaining and expanding market acceptance of our services and products; and
- meeting our requirements with customers.

The words anticipate, believe, continue, counting on, is confident, estimate, expect, forecast, intend, may, plan, project, want, will, would and similar expressions as they relate to us are intended to identify such forward-looking statements. Such statements reflect our current views and assumptions and all forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. The factors that could affect our future financial results are discussed more fully under Item 3. Key Information Risk Factors, as well as elsewhere in this Annual Report on Form 20-F and in our other filings with the U.S. Securities and Exchange Commission ( SEC ). Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. We undertake no obligation to publicly update or revise any forward-looking statements.

**PART I****Item 1. Identity of Directors, Senior Management and Advisers**

Not Applicable.

**Item 2. Offer Statistics and Expected Timetable**

Not Applicable.

**Item 3. Key Information****Selected Financial Data**

The following table represents selected consolidated financial information of SAP. The table should be read together with Item 5. Operating and Financial Review and Prospects. The selected consolidated financial data of SAP is a summary of, is derived from and is qualified by reference to, our consolidated financial statements and notes thereto audited for the year ended December 31, 2002 by KPMG Deutsche Treuhand-Gesellschaft Aktiengesellschaft Wirtschaftsprüfungsgesellschaft ( KPMG ), independent auditors and for the years ended December 31, 2001, 2000, 1999 and 1998 by ARTHUR ANDERSEN Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft mbH ( Arthur Andersen ), independent auditors. For a discussion of the risks relating to Arthur Andersen's audit of our financial statements, please see Item 3. Risk Factors We and our shareholders face certain risks related to our former employment of Arthur Andersen as our independent auditors.

The audited consolidated income statements, consolidated statements of cash flows and consolidated statements of changes in shareholders equity for the years ended December 31, 2002, 2001 and 2000, and the consolidated balance sheets at December 31, 2002 and 2001 are included in Item 18. Financial Statements. Certain reclassifications have been made to prior year amounts to conform to the current year's presentation.

**SELECTED FINANCIAL DATA**

	Year Ended December 31, (in thousands, except per share and exchange rate data)					
	2002	2002	2001	2000 <sup>(2)</sup>	1999	1998
	U.S.\$ <sup>(1)</sup>					
<b>Income Statement Data:</b>						
Total revenue	7,772,361	7,412,838	7,340,804	6,264,595	5,110,213	4,315,614
Operating income	1,704,524	1,625,678	1,312,374	802,658	796,180	900,794
Income before income taxes and extraordinary gain	1,161,421	1,107,698	1,068,757	1,012,869	980,347	931,952
Net income	533,282	508,614	581,136	615,732	601,001	526,944
Earnings per share <sup>(3)</sup>						
Basic	1.70	1.62	1.85	1.96	1.92	1.68
Diluted	1.70	1.62	1.85	1.95	1.90	1.67
<b>Other Data:</b>						
Weighted average number of shares outstanding <sup>(3)(4)</sup>						
Basic	313,016	313,016	314,309	314,423	313,815	313,302
Diluted	313,980	313,980	314,412	315,737	315,750	315,750
<b>Balance Sheet Data:</b>						
Total assets	5,881,825	5,609,752	6,195,604	5,618,971	4,826,889	3,445,935
Shareholders' equity	3,011,387	2,872,091	3,109,513	2,517,081	2,559,355	1,818,267
Subscribed capital	330,239	314,963	314,826	314,715	267,805	267,315
Short-term bank loans and overdrafts	23,756	22,657	458,266	146,877	24,600	96,290
Long-term financial debt <sup>(5)</sup>	11,867	11,318	7,375	6,543	32,913	26,457





- (1) Amounts in the column are unaudited and translated for the convenience of the reader at 1.00 to U.S.\$ 1.0485, the Noon Buying Rate for converting 1.00 into Dollars on December 31, 2002. See Exchange Rates for recent exchange rates between the euro and the Dollar.
- (2) The 2000 figures have been adjusted for the effect of the change in the investment in Commerce One to the equity method. See note 2 of Item 18. Financial Statements .
- (3) Amounts are adjusted for our one-for-one conversion of preference shares to ordinary shares in 2001 and the three-for-one stock split in 2000.
- (4) Includes preference and ordinary shares for periods prior to June 18, 2001, the effective date of the conversion of the preference shares into ordinary shares on a share-for-share basis.
- (5) Long-term financial debt represents financial liabilities with a remaining life beyond one year, which is comprised of bank loans and overdrafts, the outstanding 1994 Bonds issued to SAP employees and convertible bonds issued pursuant to the LTI Plan. See Item 6. Directors, Senior Management and Employees Share Ownership Stock-Based Compensation Plans LTI Plan and 1994 Bonds.

#### Exchange Rates

After the introduction of the euro on January 1, 1999, the Federal Reserve Bank of New York ceased to quote a Noon Buying Rate for the Mark. Accordingly, the following table sets forth, for the periods after January 1, 1999, the average, high, low and period-end Noon Buying Rates for the euro expressed as Dollars per 1.00. For 1998, the table reflects the average, high, low and period-end Noon Buying Rates for the Mark, shown after conversion into euros at the Official Fixed Conversion Rate and expressed in Dollars per 1.00.

Year	Average <sup>(1)</sup>	High	Low	Period-End
1998	1.1120	1.2178	1.0548	1.1733
1999	1.0588	1.1812	1.0016	1.0070
2000	0.9207	1.0335	0.8270	0.9388
2001	0.8909	0.9535	0.8370	0.8901
2002	0.9495	1.0485	0.8594	1.0485

Month	High	Low	Period-End
2002			
July	1.0156	0.9730	0.9796
August	0.9882	0.9640	0.9806
September	0.9959	0.9685	0.9879
October	0.9881	0.9708	0.9881
November	1.0139	0.9895	0.9932
December	1.0485	0.9927	1.0485
2003			
January	1.0861	1.0361	1.0739
February	1.0875	1.0708	1.0779
March (through March 7, 2003)	1.1014	1.0835	1.1014

- (1) The average of the applicable Noon Buying Rates on the last day of each month during the relevant period.  
On March 7, 2003, the Noon Buying Rate for converting euros to Dollars was U.S.\$ 1.1014 per 1.00.

The prices for ordinary shares traded on German stock exchanges are denominated in euros. Fluctuations in the exchange rate between the euro and the Dollar will affect the Dollar equivalent of the euro price of the ordinary shares traded on the German stock exchanges and, as a result, may affect the price of the ADSs in the United States. In addition, SAP AG pays cash dividends, if any, in euros, so that such exchange rate fluctuations will also affect the Dollar amounts received by the holders of ADSs on the conversion into Dollars of cash dividends paid in euros on the ordinary shares represented by the ADSs. The deposit agreement for the ADSs requires the depositary to convert any dividend

payments from euros into Dollars as promptly as practicable upon receipt.

A significant portion of our revenue and expenses is denominated in currencies other than the euro. Therefore, movements in the exchange rate between the euro, on the one hand, and the respective currencies to which we are exposed, on the other hand, may materially affect our consolidated financial position, results of operations and cash flows. See Item 5. Operating and Financial Review and Prospects Exchange Rate Exposure.

## Dividends

Dividends are jointly proposed by SAP AG's Supervisory Board (*Aufsichtsrat*) and Executive Board (*Vorstand*) based on SAP AG's year-end stand-alone financial statements, subject to approval by the shareholders, and are officially declared for the prior year at SAP AG's annual general shareholders meeting. Dividends paid to holders of the ADSs may be subject to German withholding tax. See Item 8. Financial Information Dividend Policy and Item 10. Additional Information Taxation. For 1998, the figures shown reflect conversion into euros at the Official Fixed Conversion Rate and expressed in Dollars per 1.00.

The following table sets forth in euros the annual dividends paid or proposed to be paid per ordinary share and preference share in respect of each of the years indicated.

Year Ended December 31,	Dividend Paid per Ordinary Share		Dividend Paid per Preference Share	
		U.S.\$		U.S.\$
1998	0.52	0.56(1)	0.53	0.57(1)
1999	0.52	0.47(1)	0.53	0.48(1)
2000	0.57	0.52(1)	0.58	0.53(1)
2001	0.58	0.53(1)	N/A	N/A
2002	0.60(2)	0.66(2)(3)	N/A	N/A

(1) Translated for the convenience of the reader from euros into Dollars at the Noon Buying Rate for converting euros into Dollars on the dividend payment date. The depositary is required to convert any dividend payments received from SAP as promptly as practicable upon receipt.

(2) Subject to approval of the holders of ordinary shares at the SAP AG annual general shareholders meeting to be held on May 9, 2003.

(3) Translated for the convenience of the reader from euros into Dollars at the Noon Buying Rate for converting euros into Dollars on March 7, 2003 of U.S.\$ 1.1014 per 1.00. The depositary is required to convert any dividend payments received from SAP as promptly as practicable upon receipt. The dividend paid can actually differ due to changes in the exchange rate.

The amount of dividends paid on the ordinary shares depends on the amount of SAP AG profits to be distributed by SAP AG, which depends in part upon our performance. For years prior to 2001, a holder of preference shares was entitled to a cumulative annual preferred dividend which exceeded the annual dividend paid to holders of ordinary shares by an amount equal to 0.01 per preference share, but in no event less than a minimum dividend equal to 0.01 per preference share. The timing and amount of future dividend payments will depend upon our future earnings, capital needs and other relevant factors in each case as proposed by the Executive Board and the Supervisory Board of SAP AG and approved at the annual general shareholders meeting.

## Risk Factors

We operate in a dynamic and rapidly changing environment that involves numerous risks and uncertainties, many of which are beyond our control. An investor should carefully consider the risks described below before purchasing SAP AG's ordinary shares or ADSs. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected, and the trading price of our ordinary shares or ADSs could decline and you may lose all or part of your investment.

***Substantial, prolonged declines in European, U.S. and Asian global technology and software markets resulting from general adverse economic conditions may cause our revenues and profitability to suffer.***

Implementation of SAP software products can constitute a major portion of our customers' overall corporate budget, and the amount customers are willing to invest in acquiring and implementing SAP products and the timing of our customers' investment has tended to vary due to economic or financial crises or other business conditions. Prolonged economic slowdowns may result in customers requiring us to renegotiate existing contracts resulting in less advantageous terms than those currently in place. A recession or other difficulties in the economies where we license our products, including Europe, North America, South America and Asia, could have a material adverse effect on our business, financial position, operating results or cash flows. In particular, our profitability and cash flows may be significantly adversely affected by a prolonged economic slowdown in Europe or the United States because we derive a substantial portion of our revenue from software licenses and services in those markets.

***Undetected errors or delays in new products and product enhancements may result in increased costs to us and delayed market acceptance of our products.***

To achieve market acceptance, new products and product enhancements can require long development and testing periods, which may result in delays in scheduled introduction. Generally, first releases are licensed to a controlled group of customers. Such new products and product enhancements may contain a number of undetected errors or "bugs" when they are first released. As a result, in the first year following the introduction of certain releases, we generally devote significant resources, primarily consulting and development services, to work with early customers to correct such errors. There can be no assurance, however, that all such errors can be corrected to the customer's satisfaction, with the result that certain customers may bring claims for cash refunds, damages, replacement software or other concessions. The risks of errors and their adverse consequences may increase as we seek simultaneously to introduce a variety of new software products.

Although we test each new product and product enhancement release before introducing it to the market, there can be no assurance that significant errors will not be found in existing or future releases of SAP software products, with the possible result that significant resources and expenditures may be required in order to correct such errors or otherwise satisfy customer demands. In addition, the possibility cannot be excluded that customers may bring actions for damages, make claims for replacement of software, or demand other concessions from SAP. Significant undetected errors or delays in new products or product enhancements may affect market acceptance of SAP software products.

***We are subject to pricing pressure.***

In response to competition and general adverse economic conditions, we have been required in the past, and may be required in the future, to furnish additional discounts to customers or otherwise modify our pricing practices. These developments have and may increasingly negatively impact our revenue and earnings. We generally license our products in individual software components or a suite of software components on a "right to use" basis pursuant to a perpetual license providing for an initial license fee based on the number and types of identified users or other applicable criteria. Changes in our pricing model or any other future broadly-based changes to our prices and pricing policies could lead to a decline or delay in sales as our sales force and our customers adjust to the new pricing policies.

We, together with certain business partners, offer certain SAP software products to small and midsize customers as a component of our hosted solutions or rental offerings, in which license and maintenance fees or rental payments may be paid to us on a per user, per month or similar subscription basis rather than an upfront license fee payment as under our standard pricing models. While our hosted solutions and rental programs have not generated significant revenues through 2002, we expect that these programs will generate incremental revenue from small and midsize customers. There can be no assurance that such programs will be successful or, if successful, that they will not negatively impact our standard pricing models. The proliferation of outsourcing of enterprise business applications or business processes could result in increased competition through the entry of systems integrators, consulting firms, telecommunications firms, computer hardware vendors and other applica-

tion-hosting providers. In addition, the distribution of applications through application service providers may reduce the price paid for our products or adversely affect other sales of our products.

***We may not be able to protect our intellectual property rights, which may cause us to incur significant costs in litigation and an erosion in the value of our brands and products.***

We rely on a combination of the protections provided by applicable trade secret, copyright, patent and trademark laws, license and non-disclosure agreements and technical measures to establish and protect our rights in our products. There can be no assurance that these protections will be adequate or that our competitors will not independently develop technologies that are substantially equivalent or superior to our technology. Despite our efforts, it may be possible for third parties to copy certain portions of our products or reverse-engineer or otherwise obtain and use information that we regard as proprietary. In addition, the laws of certain countries do not protect our proprietary rights to the same extent as do the laws of the United States or Germany. Accordingly, there can be no assurance that we will be able to protect our proprietary software against unauthorized third party copying or use, which could adversely affect our competitive position.

Some of our competitors may have been more aggressive than us in applying for or obtaining patent protection for innovative proprietary technologies. Although we have been issued patents under our patent program and have a number of patent applications pending for inventions claimed by us, there can be no assurance that, in the future, patents of third parties will not preclude us from utilizing a technology in our products or require us to enter into royalty and licensing arrangements on terms that are not favorable to us.

Although we do not believe that we are infringing any proprietary rights of others, third parties have claimed and may claim in the future that we have infringed their intellectual property rights. We expect that our software products will increasingly be subject to such claims as the number of products and competitors in our industry segment grows, as we expand our products into new industry segments and as the functionality of products overlap. There can be no assurance that, in the future, a third party will not assert that our technology violates its patents, copyrights or trade secrets. Any claims, with or without merit, could be time-consuming, result in costly litigation, cause product shipment delays, subject our products to an injunction, require a complete or partial re-design of the relevant product or require us to enter into royalty or licensing agreements. Royalty or licensing agreements, if required, may not be available on terms acceptable to us or at all.

***Our encryption technology may be breached or compromised.***

Consumers have significant concerns about secure transmissions of confidential information, especially financial information, over public networks like the Internet. This remains a significant barrier to general acceptance of e-commerce and other aspects of SAP's business. We rely on encryption, authentication technology and firewalls, to provide the necessary security for the confidential information transmitted to and from us over the Internet. Advances in computer capabilities, new discoveries in the field of cryptography or other events or developments could result in compromises or breaches of our security systems or those of other Web sites to protect proprietary information. If any compromises of security were to occur, it could have the effect of substantially reducing the use of the Web for commerce and communications. Anyone who circumvents our security measures could misappropriate proprietary information or cause interruptions in our services or operations. The Internet is a public network, and data is sent over this network from many sources. In the past, computer viruses, software programs that disable or impair computers, have been distributed and have rapidly spread over the Internet. Computer viruses could be introduced into our systems or those of our customers or suppliers, which could disrupt our network or make it inaccessible to customers or suppliers. Our security measures may be inadequate to prevent security breaches, and our business would be harmed if we do not prevent them. In addition, we may be required to expend significant capital and other resources to protect against the threat of security breaches or to alleviate problems caused by breaches.

*We depend on technology licensed to us by third parties, and the loss of this technology could delay implementation of our products or force us to pay higher license fees.*

We license numerous critical third-party software products that we incorporate into our existing products. There can be no assurance that the licenses for such third-party software will not be terminated or that we will be able to license critical third-party software for future products. In addition, we may be unable to renegotiate acceptable third-party license terms to reflect changes in our pricing models. Changes in or the loss of a third party license could lead to a material increase in the costs of licensing or to SAP software products becoming inoperable or their performance being materially reduced, with the result that we may need to incur additional development costs to ensure continued performance of our products.

*Because our products are critical to the operations of our customers' businesses, we could incur substantial costs as a result of warranty or product liability claims.*

The use of SAP software products by customers in business-critical applications and processes creates the risk that customers or other third parties may pursue warranty or other claims against us in the event of actual or alleged failures of SAP software products, the provision of services or application hosting. We have in the past been, and may in the future continue to be, subject to such warranty or other claims. In addition, certain of our Internet browser-enabled products include security features that are intended to protect the privacy and integrity of customer data. Despite these security features, our products may be vulnerable to break-ins and similar problems caused by Internet users, such as hackers bypassing firewalls and misappropriating confidential information. Such break-ins or other disruptions could jeopardize the security of information stored in and transmitted through the computer systems of our customers. Addressing problems and claims associated with such actual or alleged failures could have a material adverse effect on our business, financial position, results of operations or cash flows.

Although our agreements generally contain provisions designed to limit our exposure as a result of actual or alleged failures of SAP software products, the provision of services or application hosting or security features, such provisions may not cover every eventuality or be effective under applicable law. Any claim, regardless of its merits, could entail substantial expense and require the devotion of significant time and attention by key management personnel.

*Terrorist attacks and risk of war or international hostilities could adversely impact our business.*

Further attacks like those of September 11, 2001 or longer-lasting war or international hostilities could damage the world economy and affect our investment and our customers' investment decisions over an extended period of time. We operate in a sector of the economy that may be impacted by the effects of any such attack or war or international hostilities.

*Our failure to develop new relationships and enhance existing relationships with third-party distributors, software vendors and value-added resellers that help sell our services and products may adversely affect our revenues.*

We have entered into agreements with a number of leading computer software and hardware vendors and telecommunications providers to cooperate and ensure that certain of the software and hardware products produced by such vendors are compatible with SAP software products. We have also supplemented our consulting and support services (in the areas of product implementation, training and maintenance) through alliance partnerships with third-party hardware and software vendors, systems integrators, consulting groups formerly associated with major accounting firms and other consulting firms. Most of these agreements and partnerships are of relatively short duration and all are non-exclusive. In addition, we have established relationships relating to the resale of certain SAP software products by third parties. These third parties include certain value-added resellers and, in the area of application hosting services, certain computer hardware vendors, systems integrators and telecommunications providers.

There can be no assurance that these third parties or partners, most of which have similar arrangements with our competitors and some of which also produce their own standard application software in competition with us,

will continue to cooperate with us when such agreements or partnerships expire or are up for renewal. In addition, there can be no assurance that such third parties or partners will provide high-quality products or services or that actions taken or omitted to be taken by such parties will not adversely affect us. There can be no assurance that the slowing economy will not affect such third parties or partners or the products and services that they provide pursuant to the agreements with us. The failure to obtain high quality products or services or to renew such agreements or partnerships could adversely affect our ability to continue to develop product enhancements and new solutions that keep pace with anticipated changes in hardware and software technology and telecommunications, or could adversely affect the market for SAP software products.

*Because we conduct our operations throughout the world, our results of operations may be affected by currency fluctuations.*

Although the euro has been our financial and reporting currency since January 1, 1999, a significant portion of our business is conducted in currencies other than the euro. Approximately 60.4% of our consolidated revenue in 2002 was attributable to operations in non-EMU member states and translated into euros. As a consequence, period-to-period changes in the average exchange rate in a particular currency can significantly affect reported revenue and operating results. In general, appreciation of the euro relative to another currency has a negative effect on reported results of operations, while depreciation of the euro has a positive effect.

Because a significant portion of our revenue is from countries other than EMU member states and denominated in currencies other than the euro, we have significant exposure to the risk of currency fluctuations, especially to fluctuations in the value of the Dollar, the Japanese yen, the British pound, the Swiss franc, the Canadian dollar, the Brazilian real, and the Australian dollar. As of March 7, 2003, the Noon Buying Rate for converting euros to Dollars was U.S.\$ 1.1014 per 1.00, representing one of the lowest exchange rates since 1999. Conversely, increases in the value of the Dollar or other currencies relative to the euro may positively affect earnings, although such positive effects may be only short-term in nature.

We continually monitor our exposure to currency risk and pursue a company-wide foreign exchange risk management policy and may hedge such risks with certain financial instruments. However, there can be no assurance that our hedging activities, if any, will be effective. See Item 11. Quantitative and Qualitative Disclosure about Market Risk Foreign Currency Risk.

*If we are unable to keep up with rapid technological changes, we may not be able to compete effectively.*

Our future success will depend in part upon our ability to:

continue to enhance and expand our existing products and services;

provide best-in-class e-business solutions and services; and

develop and introduce new products and provide new services that satisfy increasingly sophisticated customer requirements, that keep pace with technological developments and that are accepted in the market.

We continue to transform our suite of business applications to reduce the total cost of IT ownership for our customers and to allow our customers the integration of heterogeneous systems. In addition we provide industry-specific business solutions. There can be no assurance that we will be successful in anticipating and developing product enhancements or new solutions and services to adequately address changing technologies and customer requirements. Any such enhancements, solutions or services may not be successful in the marketplace or may not generate increased revenue. We may fail to anticipate and develop technological improvements, to adapt our products to technological change, emerging industry standards and changing customer requirements or to produce high-quality products, enhancements and releases in a timely and cost-effective manner in order to compete with applications offered by our competitors.



***Due to intense competition, our market share and financial performance could suffer.***

The software industry is intensely competitive. As part of our business strategy, we have focused our efforts in areas of our business where the market is expected to grow more rapidly. In particular, we have expanded our focus on markets for customer relationship management, supply chain management, and technology integration platform solutions. Our expansion from the traditional ERP market exposes us to different markets and different competitors. Competition, including with respect to pricing, product quality and consulting and support services, could increase substantially and result in price reductions, cost increases or loss of market share.

We compete with a wide range of global, regional and local competitors. Some of our competitors and many of our potential competitors are involved in a wider range of businesses, and some competitors and potential competitors have a larger installed customer base for their products and services, or have significantly greater financial, technical, marketing and other resources than us, enhancing their ability to compete with us. There are many other companies engaged in the research, development and marketing of integrated e-business solutions, standard business application software and associated applications development tools, decision support products and services. Some of these companies may develop (or may have already developed) an overall concept or individual product offering, which may be perceived to be as good as or better than our product offerings.

New distribution methods (e.g. electronic channels) and opportunities presented by the Internet and electronic commerce have removed many of the barriers to entry to the markets in which we compete. Historically, most of our competitors provided solutions which covered certain functional areas offering the customer a software application product designed for a specific business or manufacturing process. Such products compete with individual functions offered by us. Our competitors have already broadened, or are implementing plans to broaden, the scope of their business activities into other areas of the market. A competitor may be able to capitalize upon the success of a niche product by developing and marketing broader system applications in competition with us. Niche competitors may also benefit from alternative delivery systems, such as the Internet, to become more competitive with us.

Current and potential competitors have established or may establish cooperative relationships among themselves or with third parties to increase the ability of their products to address customer needs. In addition, we believe that competition will increase as a result of industry consolidations. Accordingly, it is possible that new competitors or alliances among competitors may emerge and rapidly acquire significant market share.

Among the competitive advantages that are decisive for predicted revenue growth is the fact that we are one of the largest companies in our industry. Significant mergers and/or acquisitions could alter the competitive environment and impact SAP's future financial position and results of operation.

We believe that our experience with business process applications, our increasingly flexible, component-based installation options and our focus on Internet and industry solutions give us a strong competitive position. However, there can be no assurance that our strategies will prove to be successful or that our competitors' strategies would not be more successful than ours.

***Our revenue mix may vary and may negatively affect our profit margins.***

In 2000, our software and maintenance revenue increased, while service revenue decreased, as a percentage of total revenue. For fiscal years 2002 and 2001, our service and maintenance revenue increased, while software revenue decreased, as a percentage of total revenue. Variances or slowdowns in our licensing activity may negatively impact our current and future revenue from services and maintenance since such services and maintenance revenue typically lag behind license fee revenue. In addition, growth in service revenue will depend on our ability to compete effectively in obtaining customer engagements to provide services related to SAP software products. On average, our profit margins on service and maintenance revenue historically are less than our profit margin on software revenue. Any decrease in the percentage of our total revenue derived from software licensing could have a material adverse effect on our business, financial position, results of operations or cash flows.

***Customer implementation and installation involves significant resources and is subject to significant risks.***

Implementation of SAP software is a process that often involves a significant commitment of resources by our customers and is subject to a number of significant risks over which we have little or no control. Some of our customers have incurred significant third-party consulting costs and experienced protracted implementation times in connection with the purchase and installation of SAP software products. We believe that these costs and delays were due in many cases to the fact that, in connection with the implementation of the SAP software products, these customers conducted extensive business re-engineering projects involving complex changes relating to business processes within the customer's own organization. We offer accelerated installation support and/or fixed fees for certain SAP software products installation projects. However, criticisms regarding these additional costs and protracted implementation times have been directed at us, and there have been, from time to time, shortages of our trained consultants available to assist customers in the implementation of our products. In addition, the success of new SAP software products introduced by us may be adversely impacted by the perceived time and cost to implement existing SAP software products or the actual time and cost to implement such new products. We can not provide assurance that protracted installation times or criticisms of us will continue, that shortages of our trained consultants will not occur or that the costs of installation projects will not exceed the fixed fees being charged by us.

***If we were to lose the services of members of management and employees who possess specialized market knowledge and technology skills, we may not be able to manage our operations effectively or develop new products and services.***

Our operations could be adversely affected if senior managers or other skilled personnel were to leave and qualified replacements were not available. Despite recent adverse economic trends, competition for managerial and skilled personnel in the software industry remains intense. Such personnel in certain regions (including the United States and Europe) are in short supply. We expect continued increases in compensation costs in order to attract and retain senior managers and skilled employees, especially if the current weakened economy improves. Most of our current key employees are subject to employment agreements or conditions that (i) do not contain post employment non-competition provisions and (ii) in the case of most of our existing employees outside of Germany, permit the employees to terminate their employment on relatively short notice. There can be no assurance that we will continue to be able to attract and retain the personnel we require to develop and market new and enhanced products and to market and service our existing products and conduct our operations successfully.

***Our joint product development relationships may not be successful.***

We have entered into relationships with various companies to jointly develop and market new software products. In connection with these relationships, we occasionally make equity investments. These joint development and marketing relationships can be difficult to implement and may not succeed for various reasons, including:

operating differences between the companies or between their respective employees;

financial difficulties experienced by the partners;

difficulties in coordinating sales and marketing efforts;

technical obstacles to combining existing software products or developing new compatible products; and

the need to divert significant management attention, technical and sales personnel and capital to these relationships.

There can be no assurance that these joint development and marketing relationships will lead to successful new products, greater market penetration or increased revenue for us. Should these joint development efforts fail, amounts we have invested, including equity investments, may not be recoverable, resulting in adverse effects on our financial position and results of operations.

***Our internal risk management policies and procedures may not be sufficient for us to identify, analyze and respond appropriately in a timely manner.***

We believe we have a system comprising multiple mechanisms across the SAP group to recognize and analyze risks early and respond appropriately. These mechanisms include recording, monitoring and controlling internal enterprise processes using internal reporting functions, a number of management and controlling systems and a planning process that is uniform throughout our group. Further elements of the system include our internal audit function, comprehensive published reports and the work of the Supervisory Board in monitoring and controlling the Executive Board. SAP's Principles of Corporate Governance, ratified by our Supervisory Board at the end of 2001 and updated in August 2002, constitute the remaining component in the system. They comprise, among others, standards and guidelines for the work of the Executive Board and Supervisory Board, and for the cooperation between them. In addition, SAP promptly started to implement measures in accordance with the Sarbanes-Oxley Act, a U.S. law on corporate governance and financial reporting that came into effect on July 30, 2002. Amongst other measures, we established a Disclosure Committee, whose main task is to monitor the quality of information released to the financial markets. For further information on the measures we have undertaken relating to the Sarbanes-Oxley Act, please refer to Item 6. Directors, Senior Management and Employees and Item 15. Controls and Procedures.

Although we believe our risk management policies and procedures are sufficient, there is no guarantee that all risks will be identified, analyzed or responded to appropriately in a timely manner, especially those which are outside of our control.

***Future changes in financial accounting standards regarding the accounting for stock based compensation may have an adverse effect on our reported results of operation.***

The Financial Accounting Standards Board (FASB) is currently deliberating whether it should undertake a comprehensive reconsideration of accounting for stock options in light of the recently proposed guidance issued by the International Accounting Standards Board. Changes requiring SAP to record stock-based compensation expense in the income statements for our employee stock options using the fair market value method could have a significant negative effect on our reported operating results. Changes to existing accounting standards or the questioning of current accounting practices may adversely affect our reported financial results. See Item 5. Operating and Financial Review and Prospects Critical Accounting Policies .

***Management's use of estimates may affect our results of operations and financial position.***

Our financial statements are based upon the accounting policies as described in note 3 of our consolidated financial statements and included in Item 18. Financial Statements . Such policies may require management to make significant estimates and assumptions. Facts and circumstances which management uses in making estimates and judgments may change from time to time and may result in significant variations, including adverse effects on our results of operation or financial position. See Item 5. Operating and Financial Review and Prospects Critical Accounting Policies .

***We and our shareholders face certain risks related to our former employment of Arthur Andersen as our independent auditors.***

Prior to May 3, 2002, Arthur Andersen served as our independent auditors. On May 3, 2002, we dismissed Arthur Andersen and retained KPMG as our independent auditors for the fiscal year ended December 31, 2002. On August 31, 2002, Arthur Andersen LLP, an affiliate of Arthur Andersen, ceased practicing before the SEC.

Because our former key audit engagement team personnel have since left Arthur Andersen, Arthur Andersen did not participate in the preparation of this report, reissue its audit report with respect to the consolidated financial statements included in this report, or consent to the inclusion in this report of its audit report. As a result, investors in SAP may have no effective remedy against Arthur Andersen in connection with a material misstatement or omission in the financial statements to which its audit report relates. In addition, even if such investors were able to assert such a claim, Arthur Andersen may fail or otherwise have insufficient assets to

satisfy claims made by investors that might arise under Federal securities laws or otherwise with respect to its audit report.

***Issues related to Arthur Andersen may impede our ability to access the capital markets.***

SEC rules and regulations require us to present historical audited financial statements in various SEC filings, such as registration statements, along with Arthur Andersen's consent to our inclusion of its audit report in those filings. If the SEC ceased accepting financial statements audited by Arthur Andersen LLP and its affiliates, we would be unable to access the public capital markets unless KPMG, our current independent auditor, or another independent auditor, is able to re-audit the financial statements originally audited by Arthur Andersen. In addition, investors in any future offerings we make for which we use Arthur Andersen audit reports will not be entitled to recovery against Arthur Andersen under Section 11 of the Securities Act for any material misstatements or omissions in those financial statements. Furthermore, Arthur Andersen will be unable to participate in the due diligence process that would customarily be performed by potential investors in our securities, which process includes having Arthur Andersen perform procedures to assure the continued accuracy of its report on our audited financial statements and to confirm its review of unaudited interim periods presented for comparative purposes. As a result, we may not be able to bring to the market successfully an offering of our securities. Consequently, our financing costs may increase or we may miss attractive market opportunities.

***The market in which we compete continues to evolve and, if it does not grow rapidly in the long-term, our business will be adversely affected.***

SAP is investing significant resources in further developing and marketing new and enhanced products and services. The areas of customer relationship management, supply chain management and technology integration solutions are expected to experience higher growth rates than the traditional ERP market. Demand and market acceptance for recently introduced products and services in these new market areas are subject to a high level of uncertainty, especially where acquisition of SAP software products requires a large capital commitment or other significant commitment of resources. This uncertainty is compounded by the risk that consumers and enterprises will not accept the mySAP Business Suite solutions. Moreover, the adoption of mySAP Business Suite solutions, particularly by those individuals and enterprises that have historically relied upon traditional means of commerce and communication, will require a broad acceptance of new and substantially different methods of conducting business and exchanging information. These products and services involve a new approach to the conduct of business and, as a result, we have invested in, and intend to continue to pursue, intensive marketing and sales efforts to educate prospective customers regarding the uses and benefits of these products and services in order to generate demand. The markets for these products and services may not develop, or SAP may not develop acceptable solutions in a timely or cost-effective manner.

***Our insurance coverage may not be sufficient to avoid negative impacts on our financial position or results of operations resulting from the settlement of claims.***

We maintain extensive insurance coverage for protection against many risks of liability. The extent of insurance coverage is under continuous review and is modified if we deem it necessary. Our goal of insurance coverage is to ensure that the financial effects, to the largest extent possible, resulting from risk occurrences are excluded or at least limited considering the costs associated with the insurance coverage. Despite these measures, it is possible that claims may have a significant adverse impact on our financial position or results of operations.

***Our sales forecasts may not be accurate.***

We use a pipeline system, a common industry practice, to forecast sales and trends in our business. Our sales personnel monitor the status of proposals, including the date when they estimate that a customer will make a purchase decision and the potential revenue from the sale. We aggregate these estimates periodically in order to generate a sales pipeline. We compare the pipeline at various points in time to look for trends in our business. While this pipeline analysis may provide us with some guidance in business planning and budgeting, these pipeline estimates are necessarily speculative and may not consistently correlate to revenue in a particular quarter or over a longer period of time. A variation in the conversion of the pipeline into revenue or in the pipeline itself

could cause us to improperly plan or budget and thereby adversely affect our business or results of operations. In particular, a slowdown in the economy may cause customer purchasing decisions to be delayed, reduced in amount or cancelled, which will in turn reduce the overall license pipeline conversion rates in a particular period of time.

***If we do not effectively manage our growth, our existing personnel and systems may be strained and our business may not operate efficiently.***

We have a history of rapid growth and will need to effectively manage our future growth to be successful. In order to support our future growth, we expect to continue in the long-term to incur significant costs to increase headcount in key areas of our business, explore and/or enter new markets and build infrastructure ahead of anticipated revenue. Although revenue on a per employee basis remained relatively flat from 2001 to 2002, there can be no assurance that significant increases in employees and infrastructure will result in growth in revenue or operating results in the future. There can be no assurance that we can effectively retain and utilize our personnel, accurately forecast revenue and control costs, maintain and control adequate levels of quality of service (especially of our partners or other third parties) or implement and improve our operational and financial infrastructure.

***If we acquire other companies, we may not be able to integrate their operations effectively and, if we enter into joint ventures, we may not work successfully with our alliance partners.***

In order to complement or expand our business, SAP has made and expects to continue to make acquisitions of additional businesses, products and technologies, and has entered into, and expects to continue to enter into, alliance arrangements. Management's negotiations of potential acquisitions or alliances and management's integration of acquired businesses, products or technologies could divert its time and resources. In addition, risks commonly encountered in such transactions include:

inability to successfully integrate the acquired business;

inability to integrate the acquired technologies or products with our current products and technologies;

potential disruption of our ongoing business;

inability to retain key technical and managerial personnel;

dilution of existing equity holders caused by capital stock issuances to the stockholders of acquired companies or capital stock issuances to retain employees of the acquired companies;

assumption of unknown material liabilities of acquired companies;

incurrence of debt and/or significant cash expenditure;

difficulty in maintaining controls, procedures and policies;

potential adverse impact on our relationships with partner companies or third-party providers of technology or products;

impairment of relationships with employees and customers; and

problems in the area of product quality, product architecture, legal contingencies, product development issues or other significant issues that may not be detected through the due diligence process.

In addition, acquisitions of additional businesses may require large write-offs of any in-process research and development costs related to companies being acquired and amortization costs related to certain acquired intangible assets. Ultimately, certain acquired businesses may not perform as anticipated, resulting in charges for the impairment of goodwill and/or other intangible assets. Such write-offs and amortization charges may have a significant negative impact on operating margins and net income in the quarter in which the business combination is completed and subsequent periods. In addition, we have and expect to continue to enter into alliance agreements for the purpose of developing new products and services. There can be no assurances that any such products or services will be successfully developed or that we will not incur significant unanticipated liabilities in



connection with such arrangements. We may not be successful in overcoming these risks or any other problems encountered in connection with any such transactions and may therefore not be able to receive the intended benefits of those acquisitions or alliances.

***Currency fluctuations may impact the value of the ADSs.***

The currency in which the ordinary shares are traded is the euro. While the currency in which the ADSs are traded is the Dollar, the trading price of the ADSs is expected to be largely based upon the trading price of the underlying ordinary shares in its principal trading market in the Frankfurt Stock Exchange. Cash dividends payable to holders of ADSs will be paid to the depositary pursuant to the Amended and Restated Deposit Agreement between SAP AG and the depositary in euros and, subject to certain exceptions, will be converted by the depositary into Dollars as promptly as practicable upon receipt for payment to such holders. The amount of dividends received by the holders of ADSs, therefore, will also be affected by fluctuations in exchange rates as well as by the specific exchange rate used by the depositary (which may incorporate fees charged).

***The market price for our ADSs and ordinary shares may be volatile.***

The trading prices of the ADSs and the ordinary shares have experienced and may continue to experience significant volatility. The current trading price of the ADSs and the ordinary shares reflect certain expectations about the future performance and growth of SAP, particularly on a quarterly basis. However, our revenue can vary, sometimes substantially, from quarter to quarter, causing significant variations in operating results during certain quarters and in growth rates compared to prior periods. Any shortfall in revenue or earnings from levels projected by us or quarterly or other projections made by securities analysts could have an immediate and significant adverse effect on the trading price of the ADSs or the ordinary shares in any given period. Additionally, we may not be able to confirm any such shortfalls until late in the quarter or following the end of the quarter because license agreements are often executed late in a quarter. Finally, the stock prices for many companies in the software sector have experienced wide fluctuations, which have often not been directly related to individual company's operating performance. The trading price of the ADSs or the ordinary shares may fluctuate in response to the announcement of new products or product enhancements by us or our competitors, technological innovation by us or our competitors, quarterly variations in our competitors' results of operations, changes in revenue and revenue growth rates on a consolidated basis or for specific geographic areas, business units, products or product categories, speculation in the press or analyst community and general market conditions specific to particular industries. In the past, companies that have experienced volatility in the market price of their stock have been the object of securities class action litigation. Any such securities class action litigation against us, with or without merit, could result in substantial costs and the diversion of management's attention and resources.

***We may incur losses in connection with strategic and venture capital investments.***

SAP has acquired and expects to continue to acquire equity interests in or makes advances to technology-related companies, many of which currently generate net losses. Such activities may involve significant capital outlay. Most of these companies are recently established. It is possible that changes in market conditions, the performance of companies in which we hold investments or to which we made advances or other factors will negatively impact our results of operations and financial condition or our ability to recognize gains from the sale of marketable equity securities. An other than temporary impairment charge related to our ability to recover the carrying value of our investment in Commerce One adversely impacted our financial position and results of operations in 2002. See Item 5. Operating and Financial Review and Prospects Critical Accounting Principles . Additionally, due to changes in German tax laws in 2000 and effective January 2001 ( *Steuersenkungsgesetz* ), capital losses or write-downs of equity securities are no longer tax deductible, which may negatively impact our effective tax rate, cash flows and net income going forward.

***Increasing government regulation of the Internet could harm our business.***

As Internet commerce evolves, we expect that U.S. federal, U.S. state, German, European Union or other foreign governments will adopt laws or regulations covering issues such as taxation, user privacy, pricing, content

and quality of products and services. For example, the United States Telecommunications Act sought to prohibit transmitting various types of information and content over the Internet. Several telecommunications companies have petitioned the U.S. Federal Communications Commission to regulate Internet service providers and other online service providers in a manner similar to long distance telephone carriers and to impose access fees on those companies. This could increase the cost of transmitting data over the Internet. Moreover, it may take years to determine the extent to which existing laws relating to issues such as property ownership, libel and personal privacy are applicable to the Internet. It is possible such laws or regulation could expose companies involved in electronic commerce to liability, which could limit the growth of electronic commerce generally. In addition, such regulation could weaken growth in Internet usage and decrease our acceptance as a communications and commercial medium. If enacted, these laws or regulations could limit the market for our products and services.

***Because we expect to continue to expand globally, we may face special economic and regulatory challenges that we may not be able to meet.***

Our products and services are currently marketed in over 120 countries, with Europe, Middle East and Africa ( EMEA ), North and South America ( Americas ) and Asia-Pacific ( APA ) regions being our principal markets. In 2002, revenue derived from outside Germany totaled 5,758.7 million, representing approximately 78% of our total revenue. Sales in our principal markets are subject to risks inherent in international business activities, including, in particular:

- general economic or political conditions in each country;
- overlap of differing tax structures;
- management of an organization spread over various jurisdictions;
- unexpected changes in regulatory requirements;
- exchange rate fluctuations; and
- compliance with a variety of foreign laws and regulations.

Other general risks associated with international operations include import and export licensing requirements, trade restrictions, changes in tariff and freight rates and travel and communication costs. There can be no assurance that our international operations will continue to be successful or that we will be able to manage effectively the increased level of international operations.

***Our principal shareholders may be able to exert significant control over our future direction and operations.***

As of March 7, 2003, the beneficial holdings of SAP's three principal shareholders and the holdings of entities controlled by them, constituted in the aggregate approximately 34.7% of the outstanding ordinary shares of SAP AG. Related entities of the three principal shareholders were formerly parties to a certain pooling agreement (the Pooling Agreement ). The Pooling Agreement was terminated effective September 2, 2002. Although the ordinary shares covered formerly by the Pooling Agreement are no longer required to be voted as a block, if these shares are otherwise voted together, it may have the effect of delaying or preventing a change in control of SAP or other significant changes to SAP or its capital structure. See Item 7. Major Shareholders and Related Party Transactions Major Shareholders.

***Sales of ordinary shares by our principal shareholders could adversely affect the price of our capital stock.***

As stated, three principal shareholders and related entities own beneficially approximately 34.7% of the outstanding ordinary shares of SAP AG as of March 7, 2003. The sale of a large number of ordinary shares by any of the three principal shareholders could have a negative effect on the trading price of the ADSs or the ordinary shares. SAP is not aware of any restrictions on the transferability of the shares owned by the principal shareholders or any related entity.



***The cost of derivative instruments for hedging of the STAR Plan may exceed the benefits of those arrangements.***

Under our Stock Appreciation Rights Plan (the STAR Plan), stock appreciation rights (SARs) are granted to eligible employees of SAP. The SARs are primarily granted in the first quarter of each year and generally give the participants the right to a portion of the appreciation in the market price of the ordinary shares for the relevant measurement period. We have entered into in the past, and expect to enter into in the future, derivative instruments to hedge all or a portion of the anticipated cash flows in connection with the SARs in the event cash payments to participants are required as a result of an increase in the market price of the ordinary shares. We believe hedging anticipated cash flows in connection with the SARs limits the potential exposure associated with the STAR Plan, including potentially significant cash outlays and resulting compensation expense. There can be no assurance that the benefits achieved from hedging our STAR Plan exceed the related costs.

***Our sales are subject to quarterly fluctuations.***

Our revenue and operating results can vary, sometimes substantially, from quarter to quarter. Our revenue in general, and in particular our software revenue, is difficult to forecast for a number of reasons, including:

- the relatively long sales cycles for our products;
- the size and timing of individual license transactions;
- the timing of the introduction of new products or product enhancements by us or our competitors;
- the potential for delay of customer implementations of SAP software products;
- changes in customer budgets;
- seasonality of a customer's technology purchases; and
- other general economic and market conditions.

As is common in the software industry, our business has historically experienced its highest revenue in the fourth quarter of each year, due primarily to year-end capital purchases by customers. Such factors have resulted in 2002, 2001, and 2000 first quarter revenue being lower than revenue in the prior year's fourth quarter. We believe that this trend will continue in the future and that our revenue will peak in the fourth quarter of each year and decline from that level in the first quarter of the following year.

Because our operating expenses are based upon anticipated revenue levels and because a high percentage of our expenses are relatively fixed in the near term, any shortfall in anticipated revenue or delay in recognition of revenue could result in significant variations in our results of operations from quarter to quarter. We significantly increased in 2000 through 2002, and plan to continue to increase throughout 2003 the following expenditures depending on our results and outlook during 2003:

- expenditures to fund continued development of our operations;
- greater levels of research and development directed towards new products and product enhancements; and
- development of new distribution and resale channels for small and midsize businesses.

Such increases in expenditures will depend, among other things, upon ongoing results and evolving business needs. To the extent such expenses precede or are not subsequently followed by increased revenue, our quarterly operating results would be materially adversely affected and may vary significantly from preceding or subsequent quarters.

***Revenue recognition accounting pronouncements may adversely affect our reported results of operations.***

We continuously review our compliance with all new and existing revenue recognition accounting pronouncements. Depending upon the outcome of these ongoing reviews and the potential issuance of further



accounting pronouncements, implementation guidelines and interpretations, we may be required to modify our revenue recognition policies and business practices which could have a material adverse effect on our results of operation. Our existing revenue recognition policies are described in note 3 of our consolidated financial statements included in Item 18. Financial Statements and in Item 5. Operating and Financial Review and Prospects Critical Accounting Policies .

*U.S. judgments may be difficult or impossible to enforce against us.*

SAP AG is a stock corporation organized under the laws of Germany. With one exception, all members of SAP AG's Executive Board and Supervisory Board are non-residents of the United States. A substantial portion of the assets of SAP and such persons are located outside the United States. As a result, it may not be possible to effect service of process within the United States upon such persons or us or to enforce against them judgments obtained in U.S. courts predicated upon the civil liability provisions of the securities laws of the United States. In addition, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in Germany.

**Item 4. Information about SAP**

SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung is our legal corporate name, which is translated in English to SAP Corporation Systems, Applications and Products in Data Processing. SAP AG was incorporated under the laws of the Federal Republic of Germany in 1972. Where the context requires, in the discussion below, SAP AG refers to our predecessors, Systemanalyse und Programmentwicklung GdB (1972-1976) and SAP, Systeme, Anwendungen, Produkte in der Datenverarbeitung GmbH (1976-1988). SAP AG became a stock corporation (*Aktiengesellschaft*) in 1988. Our principal executive offices, headquarters and registered office are located at Neurottstrasse 16, 69190 Walldorf, Germany. Our telephone number is +49-6227-7-47474. SAP AG's agent for U.S. federal securities law purposes in the United States is Brad Brubaker. He can be reached c/o SAP America, Inc. at 3999 West Chester Pike, Newtown Square, PA 19073.

*Availability of this Report*

We intend to make this Annual Report on Form 20-F and other periodic reports publicly available on our web site ([www.sap.com](http://www.sap.com)) without charge immediately following our filing with the U.S. Securities and Exchange Commission. We assume no obligation to update or revise any part of this Annual Report on Form 20-F, whether as a result of new information, future events or otherwise, unless we are required to do so by law.

**Description of the Business**

*Overview*

SAP is a leading business software company and the world's third largest independent software supplier overall based on license revenue. Headquartered in Walldorf, Germany, SAP employs more than 29,000 people in more than 50 countries. SAP consists of SAP AG and our network of 91 operating subsidiaries and has a presence or a representation in more than 120 countries. As of December 31, 2002, we had more than 60,100 software installations at over 19,000 customers. Our customers include multinational enterprises as well as small and midsize businesses. With more than 1,500 partners offering complementary software, services and hardware, we have established a wide-ranging partner network.

SAP offers the mySAP Business Suite, which is a family of integrated software solutions designed to empower customers, partners and employees to work together in an open collaborative Internet environment. Total 2002 revenues grew 1.0% over 2001 to 7,412.8 million (2001: 7,340.8 million). Net income for 2002 decreased 12.5% to 508.6 million (2001: 581.1 million). In 2002, total revenues were derived as follows: sales of software products 2,290.8 million (30.9%), maintenance 2,422.8 million (32.7%), consulting services 2,204.2 million (29.7%), training services 413.9 million (5.6%) and other revenue 81.1 million (1.1%).

See Item 4. Description of Business Revenue by Industry Sector and note 34 to our consolidated financial statements for further details on revenues by industry sector.

### *Evolution of SAP's Solutions and Products*

We introduced our first generation of software in 1973. It initially included only a financial accounting application. In the following years the software was expanded to include materials management.

Expanding from this first generation, we started to develop integrated, cross-functional, multi-language, multi-currency business process solutions applicable to several business processes. As a result, in 1981, we introduced our second generation of application software, the SAP R/2 system, which could be installed on an enterprise-wide basis. SAP R/2 was our first Enterprise Resource Planning ( ERP ) system, aiming at integrating all aspects of business, including distribution centers, field operations centers, corporate headquarters and sales offices. Beyond the scope of our first generation software, SAP R/2 included, among others, functionalities for cost accounting, human resource management, logistics and manufacturing. We believe that SAP R/2 also reduced bottlenecks by improving and accelerating user access to data.

In 1988, we anticipated and capitalized upon growth in the demand for more decentralized business software solutions. During this period, we designed the initial version of the SAP R/3 system moving from mainframe to open systems. SAP R/3 offers the functionality of SAP R/2 in an open, three-tier client/server architecture. SAP R/3 was brought to the market in the early 1990s and quickly became the category leader in ERP systems. We believe that SAP R/3 not only improved manufacturing efficiency, but also distribution, finance, sales, procurement, inventory and human resources. In the years following the introduction of SAP R/3, we introduced several new business software applications and enhanced existing products to operate independently of SAP R/3.

During the 1990s we introduced several industry solutions which built on the SAP R/3 system and included industry-specific functionalities. In 1996 we started to expand our product offering by developing new solutions, such as SAP Business Information Warehouse ( BW ) and SAP Advanced Planner and Optimizer ( APO ). Emerging customer needs led us to create more of these solutions designed to solve particular business issues and foster inter-enterprise cooperation. These solutions, such as SAP Customer Relationship Management consist of a number of components that work together due to the underlying technology.

In 1999 SAP introduced the mySAP.com e-business platform. This Internet-based platform expanded the SAP products with new solutions and offered extended functionality beyond traditional ERP that not only linked together disparate enterprises but also enabled collaboration across different organizations. The mySAP.com e-business platform was designed to enable companies to participate in a larger collaborative community of customers, suppliers and partners. This collaborative community permits customers, suppliers and partners to shift functions and responsibilities as needed. It also transformed the sequential supplier-to-customer value chain into a collaborative dialogue, allowing companies to work in parallel with their customers, suppliers and business partners, each defining their needs in the relevant business process.

In 2002 we renamed mySAP.com as mySAP Business Suite. The mySAP Business Suite is a suite of business applications and an application and integration platform (SAP NetWeaver) designed to enable companies to manage the entire value chain across business networks. The mySAP Business Suite, running on the SAP NetWeaver technology platform, is designed to allow organizations to excel in a business environment requiring rapid adaptation to changing business conditions. The mySAP Business Suite is designed to lower our customers' total cost of IT ownership.

### *SAP's strategy*

SAP's business and product strategy is designed to grow the value and the size of our business including revenues, profitability and customer base by extending the range of software applications and solutions that can bring more value, be implemented faster, attain better integration, meet the needs of core customers and reach new customer segments. Our business strategy is to increase our profitability and market share by offering solutions, comprised of software and services, to enable our large existing customer base and new customer prospects to increase value. We expect to leverage our large customer base to generate revenues through licenses of additional software solutions, either individually by solution, or collectively as the mySAP Business Suite.

We believe we can increase our marketshare by expanding footprint in ERP, such as basic finance, human resources and logistics applications, and in other high value-added solutions such as inter-enterprise integration and collaboration.

The SAP NetWeaver application and integration platform will play an increasing role in this process by allowing integration of heterogeneous systems at the user level through a portal, through information via the business warehouse analytic application and through processes within the exchange infrastructure levels. As discussed below, solutions for the small and midsize business are another area of anticipated growth for SAP.

As described below, our Customer Service Network includes consulting, education, active global support, hosting and global custom development services. Our strategy is to derive 15%-20% of the overall SAP related service market, the remainder to be provided by our partner network.

We intend to continue our growth primarily organically and through selected acquisitions designed to enhance our range of products and increase our installed customer base, our industry knowledge and our geographic penetration.

### **Software Products**

We license components of our software solutions on an individual user basis, either for a single solution or as the mySAP Business Suite, as described below. In addition to the user licenses for a solution, some specialized functionality and software engines, which are not user specific, are licensed separately.

#### *mySAP Business Suite*

The mySAP Business Suite is a suite of business software applications and an application and integration platform designed to enable companies to manage the entire value chain across business networks, allowing the company to adapt quickly and remain flexible when faced with changing business conditions. mySAP Business

Suite, based on the SAP NetWeaver platform, is designed to reduce the total cost of IT infrastructure ownership. The mySAP Business Suite can be deployed on a variety of computer hardware types and different operating systems.

mySAP Business Suite consists of the following SAP solutions:

mySAP ERP (*Enterprise Resource Planning*), which includes mySAP FIN (*Financials*) and mySAP HR (*Human Resources*);

mySAP CRM (*Customer Relationship Management*);

mySAP SCM (*Supply Chain Management*);

mySAP PLM (*Product Life Cycle Management*);

mySAP SRM (*Supplier Relationship Management*); and

mySAP Mobile Business.

These applications run on the SAP NetWeaver application platform, which includes:

SAP Business Information Warehouse (*SAP BW*),

SAP Enterprise Portal (*SAP EP*),

SAP Exchange Infrastructure (*SAP XI*),

SAP Mobile Infrastructure (*SAP MI*),

SAP Master Data Management (*SAP MDM*) and

SAP Web Application Server (*SAP Web AS*).

The mySAP Business Suite can be tailored to suit the requirements of most industries. Industry solutions employ our substantial industry experience acquired over years of providing industry-specific business solutions. Tailored industry solutions use up to the entire scope of the mySAP Business Suite. SAP's industry solutions are packaged and configured with detailed features based on industry best practices. We organized our industry business units (IBUs), which develop our industry solutions, into two industry business sectors (IBSs), named IBS Manufacturing and IBS Services, in order to align them more closely with field operations and facilitate our accumulation of industry expertise.

Industry solutions span over 23 different industries and are grouped into six industry sectors as shown below:

*Process Industries*

SAP for Chemicals  
SAP for Mill Products  
SAP for Oil & Gas  
SAP for Pharmaceuticals  
SAP for Mining

*Discrete Industries*

SAP for Aerospace & Defense  
SAP for Automotive  
SAP for Engineering, Construction & Operations  
SAP for High Tech  
SAP for Industrial Machinery and for Components

*Consumer Industries*

*Service Industries*

SAP for Media  
SAP for Service Providers  
SAP for Telecommunications  
SAP for Utilities  
SAP for Professional Services

*Financial Services*

SAP for Banking  
SAP for Insurance  
SAP for Financial Service Provider

*Public Services*

SAP for Healthcare  
SAP for Higher Education & Research

SAP for Consumer Products  
SAP for Retail

SAP for Public Sector

*mySAP ERP*

mySAP ERP is licensed both as an individual product and as part of the mySAP Business Suite. mySAP ERP is designed to enable companies to run the core business functions of the enterprise, including human capital management, financials and administration and operations. mySAP ERP includes mySAP HR and mySAP FIN. It runs on the SAP NetWeaver application platform. mySAP ERP provides our ERP solution along with the business and technology foundation of SAP NetWeaver to extend traditional ERP to be interoperable with mySAP Business Suite solutions and third party solutions.

*mySAP Financials*

mySAP Financials is a finance and accounting solution that helps companies to improve their ability to process and interpret financial and business data and handle financial transactions. Additionally, it includes functions that allow companies to manage profitability, business performance and growth. mySAP Financials enables company-wide control and integration of financial and business information essential to strategic and operational decision-making, including giving companies the ability to track financial accounting data within an international framework of multiple companies, languages, currencies, and books of accounts.

mySAP Financials key components include general ledger, special purpose ledger and sub ledger, cost management and profitability analysis.

*mySAP Human Resources*

mySAP HR provides a comprehensive set of tools to manage the human resources functions within an organization to optimize its investment in its employees. mySAP HR supports human resources professionals in managing employee capabilities down to the line-management level and combines strategic human capital management features with work-force analytics. The employee transaction management capabilities allow a company to streamline a wide range of essential human resources transactions and processes necessary to run the business, including support of regulatory compliance requirements on a global basis.

Key functional areas of mySAP HR include administration, payroll, benefits, legal reporting, e-recruiting, blended learning, organizational management, compensation, manager self-service, employee collaboration, and work force analytics.

*mySAP Customer Relationship Management*

mySAP CRM focuses on managing the relationship between an enterprise and its customers. mySAP CRM comprises a complete set of capabilities that help maximize the value delivered to and derived from customers throughout all phases of the customer relationship. mySAP CRM facilitates customer interactions through the customer engagement, business transaction, order fulfillment and customer service phases of the customer interaction cycle. Within this cycle, mySAP CRM continuously strives to optimize ways of:

Identifying and engaging with potential customers;

Performing business transactions with customers;

Fulfilling individual customer needs as contracted; and

Providing after-sales care such as maintenance and customer service.

Key functions include analytics that allow a company to analyze data about its customers, and presents the data so that the company can make better and quicker business decisions. mySAP CRM also includes sales, customer service management, marketing and other capabilities that are applicable throughout the entire customer interaction cycle.

*mySAP Supply Chain Management*

mySAP SCM handles the oversight of materials, information, and finances along the whole supply chain. The supply chain management involves coordinating and integrating these flows both within and among





companies. mySAP SCM allows a company to react quickly and remain flexible when faced with sudden changes in factors such as demand or requirements.

mySAP SCM allows companies and their supply chain partners to easily view supplier and customer allocations, inventory levels, orders, forecasts, production plans and key performance indicators to plan together for an efficient supply chain. In addition, mySAP SCM supports fulfillment processes through availability checks, inventory management and delivery. It also monitors the execution of supply chain activities creating alerts in the event of deviation from plans.

Key functions of mySAP SCM include supply chain planning, execution, collaboration and coordination.

#### *mySAP Product Lifecycle Management*

mySAP PLM assists a company in managing the complete product life cycle, including first product idea, design and engineering, production ramp-up, product change management and service and maintenance. mySAP PLM enables collaborative engineering, custom product development, and project, asset, and quality management among multiple business partners.

mySAP PLM is typically applicable to industries that require product innovation and fast product development, such as high-tech, engineering and construction, aerospace and defense and automotive. Process, consumer product and service industries can also take advantage of the functions of mySAP PLM.

Key functional areas of mySAP PLM include life-cycle data management, life-cycle collaboration, program and project management, quality management, asset life-cycle management and environmental, health and safety.

#### *mySAP Supply Relationship Management*

mySAP SRM is a comprehensive solution for managing a company's interactions with the businesses that supply the goods and services it uses by streamlining and making more effective the processes between the company and its suppliers. mySAP SRM, which became generally available in 2002, incorporates and extends mySAP E-Procurement which was introduced in 1999. mySAP SRM is designed to provide timely, relevant information for every facet of the procurement and sourcing process, creating value through higher compliance and control throughout business operations.

mySAP SRM provides comprehensive electronic sourcing functionality in the areas of supply strategy development, supplier qualification, supplier selection and contract negotiation and management. In addition, mySAP SRM enables suppliers of all sizes to work closely together with their customers, and to manage content for their electronic sourcing and procurement activities. mySAP SRM also provides extensive support for self-service procurement, plan-driven procurement, operational procurement and relationship monitoring.

#### *mySAP Mobile Business*

mySAP Mobile Business allows users of SAP's solutions to access various SAP mobile business software applications beyond desktop PCs and wire-bound networks. The foundation of mySAP Mobile Business is a technology platform that enables this mobility. Online functionality enables users to deploy mySAP Mobile Business inside a company through a wireless local area network or outside the company through wide-area mobile data networks. Off-line functionality allows applications to function locally, so employees can use mobile devices, such as smart phones and personal digital assistants, without a network connection.

The two key functional areas of mySAP Mobile Business are mobile access and mobile applications. Mobile access can be provided through all popular devices in both wired and wireless formats. mySAP Mobile Business also provides mobile applications based on SAP's industry solutions and designed to support industry-specific requirements.

#### *mySAP Enterprise Portal*

mySAP Enterprise Portal is a Web-based gateway solution that brings together collaboration, knowledge management, and relevant content by integrating diverse information, applications, and services. The solution



allows a user to access from one location all types of company-wide information, including SAP applications, third-party applications, databases, data warehouses, desktop documents, and Web content and services. The mySAP Enterprise Portal is designed to improve collaboration, speed information, decision making and boost employee productivity.

mySAP Enterprise Portal includes patented technology that allows users to work with information from different sources. Drag and relate capabilities allow users to access, interconnect, update, edit and delete information in multiple software applications and data sources without restrictions resulting from different technologies.

#### *mySAP Business Intelligence*

mySAP Business Intelligence is an information and knowledge management solution that includes a business intelligence platform, a comprehensive set of data management tools and data warehousing capabilities. mySAP Business Intelligence allows a company to access and disseminate information based on user needs, allowing users to collaborate throughout the organization. mySAP Business Intelligence is designed to enable organizations to access, analyze, and disseminate relevant and timely information. Information is delivered through the mySAP Enterprise Portal.

Key features of mySAP Business Intelligence include data warehousing, online analytical processing of information, report design and creation and performance management.

#### *mySAP Marketplace*

mySAP Marketplace provides a platform and value-added services allowing multiple organizations to buy, sell and conduct business over the Internet. mySAP Marketplace combines electronic procurement and selling capabilities with off-line trading services. mySAP Marketplace is delivered through MarketSet, a joint marketplace solution from SAP and Commerce One.

The solution's key capabilities include business partner management, RFP and RFQ automation, reverse and forward auctions, a variety of procurement functions, order management, customer billing, marketplace analytics and content management tools.

#### *SAP xApps*

In the second quarter of 2002, SAP announced the launch of a new breed of applications called cross applications (xApps). xApps build on existing software applications, connect multiple applications from different software vendors and use information from different companies.

Key features common to xApps are a portal that takes into consideration individual user business roles, data warehousing, information management and an exchange infrastructure that allows a company to structure business processes using various SAP and third-party applications.

The first xApp to be shipped is Resource and Program Management (RPM). RPM includes a broad scope of existing SAP functions to allow easier access to project costs, staffing and schedules. RPM is currently in limited release. Other xApps that are currently in development include xApp Mergers and Acquisitions, xApp Product Definition and xApp Employee Productivity, all of which have a planned release date in the third quarter of 2003.

#### *SAP R/3 Enterprise*

In 2002, SAP delivered its latest release of SAP R/3, SAP R/3 Enterprise. SAP R/3 Enterprise is licensed to SAP's existing customer base as an individual solution. SAP R/3 Enterprise consists of enterprise administration and operations management functionality. The benefits of SAP R/3 Enterprise include new business process functionality, continuity with pre-existing R/3 functionality, a more flexible method for deployment of new functionality and the SAP Web Application Server technology.

More than 10,000 SAP customers have implemented SAP R/3, a stable and reliable software package that provides them with the comprehensive functionality they need to run their business processes successfully. For

this reason, we will continue to provide both functional and technical improvements for SAP R/3, in addition to new technology that will allow our customers to migrate to the mySAP Business Suite solutions as easily as possible.

#### *Small and Midsize Business Solutions*

SAP Smart Business Solutions (formerly mySAP Small and Medium-Sized Enterprises and mySAP Small and Medium Business) is SAP's umbrella offering for small and midsize business (SMB). Two solutions fall under this initiative, SAP Business One and mySAP All-in-One. SAP unveiled the solutions at CeBIT 2002.

Both SAP Business One and mySAP All-in-One offer SMBs integrated application packages that they can quickly implement and that suit customer budgets. SAP's offering is also of particular interest to smaller subsidiaries and business partners of large corporations that already run SAP software.

To sell its new SMB solutions, SAP is primarily relying on indirect sales through channel partners. For instance, SAP is collaborating with the large IT company Hewlett-Packard (HP). In the future, SAP and HP intend to market SAP Business One in over 30 countries in Europe, the Middle East, and Africa (EMEA) using HP's sales partner network. HP will also select and train suitable retailers.

#### *mySAP All-in-One*

mySAP All-in-One is targeted at small and midsize companies that require industry-specific functionality delivered in a cost-effective, turnkey package. mySAP All-in-One solutions are based on the mySAP Business Suite and are tailored, configured, and complemented by SAP channel partners. The solutions are prepackaged to meet the needs of specific industries and can be fine-tuned to address the unique requirements of an organization. SAP delivers mySAP All-in-One through a network of certified solution providers and partners. Several prepackaged mySAP All-in-One solutions are currently available in North America, and more than 50 are under development worldwide.

#### *SAP Business One*

SAP Business One is targeted at small and midsize companies that do not require complex or industry-specific functionality. It is based on the core product of TopManage, which SAP acquired in early 2002. It is designed to meet common business needs for accounting, reporting, logistics, sales force automation, and more. It offers fast implementation, multiple customization tools, high performance and scalability, security, and the ability to evolve into more sophisticated solutions. Using open standards, SAP Business One can be integrated with other systems. Its drag and relate feature allows users to drag information resources from different data sources and link them on the computer desktop.

#### *SAP Packaged Solutions*

SAP Packaged Solution is a pre-defined combination of applications/components, services and content aimed at solving a specific business issue, with tightly scoped/limited risk implementation, designed for an accelerated return on investment (ROI).

These solutions can range from:

stand-alone point solutions, like Demand Management,

role based packages, like Store Manager Portal,

issue based packages, like Service Management (that include the two above).

SAP Packaged Solution can be accompanied by accelerated implementation methodologies delivered by SAP's Global Professional Services Organization (Global PSO) or SAP services partners to support fast implementation and quick ROI. SAP Global Trade Services (SAP GTS) is one of the SAP Packaged Solutions. It is a cross-industry commerce application designed to help companies manage the complexities and risks of global trade.

### *SAP NetWeaver*

In January 2003, SAP announced that, going forward, it would develop all of its business solutions along the lines of an Enterprise Services Architecture blueprint. Enterprise Services Architecture combines SAP's enterprise applications expertise with the flexibility of Web Services and other open technologies into a blueprint for complete and services-based business solutions. The technical foundation of SAP's Enterprise Services Architecture is the next generation of mySAP technology, called SAP NetWeaver. SAP NetWeaver is an application and integration platform designed to unify and align people, information and business processes across technologies and organizations. SAP NetWeaver is comprised of the following components:

SAP Business Information Warehouse (*SAP BW*),

SAP Enterprise Portal (*SAP EP*),

SAP Exchange Infrastructure (*SAP XI*),

SAP Mobile Infrastructure (*SAP MI*),

SAP Master Data Management (*SAP MDM*), and

SAP Web Application Server (*SAP Web AS*).

The enhanced capabilities of SAP NetWeaver include a composite application framework and master data management. The new composite application framework enables SAP and its partners to create new applications targeting cross-functional business processes through tools, frameworks, rules, and methodologies. SAP NetWeaver also includes master data management (MDM) services. MDM is a standardized offering designed to solve the widespread challenges of data integration from multiple systems, physical locations, and vendors. MDM is designed to achieve information integrity across a network of suppliers and customers by allowing companies with different IT systems, including different software systems, to consolidate, harmonize, and centrally master data. SAP NetWeaver is designed to be fully interoperable with two of the leading development standards, Microsoft.NET and IBM Websphere (J2EE).

### **The SAP Customer Services Network (previously mySAP Services)**

In addition to our software solution portfolio, SAP provides service offerings such as business solutions consulting, solution operations services, educational services, hosting services and support services that include project planning, implementation assistance, ongoing post-implementation support activities and virtual classroom training for new and existing customers.

We have expanded our consulting, support and training organization over the last several years. As of December 31, 2002, 13,014 employees were committed to consulting, support and training services, an increase of 16.4% from December 31, 2001. Key functional areas of the SAP Customer Services Network are described below.

#### *SAP Consulting*

We provide business solutions consulting services and solutions operations services to customers throughout the mySAP Business Suite product life cycle.

Business solutions consulting services include identifying business opportunities and selecting the solution that best fits the customer's business strategy, managing IT programs and projects and designing business processes, information architectures, portals and user roles. These services also include traditional solution elements such as software, technology, services and content organizational change management, and managing quality and risk.

Solution operations services offer implementation assistance and operations planning that cover issues encountered throughout the product life cycle.

We have established the Global PSO to provide expert guidance in design, implementation and ongoing optimization of new and existing SAP solutions. The SAP Global PSO was created to more efficiently address the



consulting needs of major multinational corporations. The organization currently employs over 7,000 consultants worldwide. The SAP Global PSO supports the international projects of SAP customers that are globally active, offering a service that is consistent worldwide because it applies uniform methodologies and procedural standards.

#### *SAP Education*

SAP is one of the largest training providers for business software in the world. Our curriculum includes more than 280 different courses, which are offered at more than 80 training centers worldwide or at customer sites. SAP focuses on training project team members of our customers who, in turn, typically train end-users, frequently with the support of SAP and our implementation partners. SAP also trains end-users directly. SAP offers training and certification for SAP's consulting partners to ensure the availability of competent SAP specialists.

#### *SAP Active Global Support*

SAP performs maintenance and information services that provide customers with technical support. In the event that a solution or program patch is not readily available, SAP's technical support staff can remotely access the customer's system and analyze the problem directly. Customer issue communication is also possible via phone, fax and the Internet. We provide global coverage of all customers by one of our major support hubs. We also offer protective services that provide monitoring of key system parameters and reporting of recommended actions.

We offer two premium support service levels, MaxAttention ServiceLevel and MaxAttention OnSite, in addition to our standard support services. MaxAttention provides a comprehensive, premium support offering enhancing SAP's standard support services. Fees charged for support services are based upon fixed percentages, which vary for each service level, calculated on the basis of the license fee paid by the customer.

#### *SAP Hosting*

mySAP Hosted Solutions are designed to allow companies to move to SAP software solutions quickly, easily and cost effectively. Application hosting provides infrastructure, implementation and operational and ongoing support for selected applications that can be accessed by the customer through a web browser. Marketplace hosting includes hosting of marketplaces, private exchanges, auction sites and specific, customized applications. Applications service provider (ASP) solutions combine software, infrastructure, service, support and rapid implementation for turnkey solutions and deliver them as services to customers from a single provider. With ASP, customers do not obtain a perpetual license, but subscribe to the application service for a periodic fee.

#### *SAP Global Custom Development Services*

During the second half of 2002, we introduced SAP Global Custom Development Services (GCDS), which gives customers direct access to SAP developers, partners, and business professionals. GCDS works with customers to successfully plan and execute high-quality custom software development projects that are consistent with our product strategy. One primary objective of GCDS is to provide reduced maintenance which is expected to result in substantial long-term savings for us and our customer. We expect to begin to realize benefits from GCDS in 2003.

#### *Business Maps and Engagement Tools*

SAP Business Maps allow customers to visualize and design business processes and solutions, and to streamline decision-making. They cover more than 20 industry sectors and help customers to understand how SAP solutions support key business processes in their industry. Collaborative Business Maps show how the elements of mySAP Business Suite enable effective collaboration across organizational boundaries. The E-Business Case Builder guides customers through a step-by-step process to produce a customized, high-level value proposition tailored to customers' unique business drivers.



**Seasonality**

As is common in the software industry, our business has historically experienced the highest revenue in the fourth quarter of each year, due primarily to year-end capital purchases by customers. Such factors have resulted in 2002, 2001 and 2000 first quarter revenue being lower than revenue in the prior year's fourth quarter. We believe that this trend will continue in the future and that our revenue will continue to peak in the fourth quarter of each year and decline from that level in the first quarter of the following year.

**Revenue by Geographic Region**

We operate our business in three principal geographic regions, namely EMEA, which represents Europe, Middle East and Africa, the Americas, which represents both North America and South America, and Asia-Pacific, which represents Japan, Australia and parts of Asia. We allocate revenue amounts to the region in which the customer is located. See note 34 to our consolidated financial statements included herein for additional information with respect to operations by geographic region.

The following table sets forth, for the years indicated, the total revenue attributable to each of our three principal geographic regions:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	(in millions of \$)		
Germany	1,654.1	1,468.7	1,237.4
Rest of EMEA	2,394.1	2,317.5	1,836.5
<b>Total EMEA</b>	<b>4,048.2</b>	<b>3,786.2</b>	<b>3,073.9</b>
United States	1,969.7	2,084.1	1,848.3
Rest of Americas	531.9	640.0	587.3
<b>Total Americas</b>	<b>2,501.6</b>	<b>2,724.1</b>	<b>2,435.6</b>
Japan	485.9	444.1	343.6
Rest of APA	377.1	386.4	411.5
<b>Total APA</b>	<b>863.1</b>	<b>830.5</b>	<b>755.1</b>
<b>Total revenue</b>	<b>7,412.8</b>	<b>7,340.8</b>	<b>6,264.6</b>

*EMEA.* In 2002 as in previous years, we were especially successful in EMEA. Despite the problematic economy, we increased revenues over the prior year. Approximately 54.6% of our 2002 total revenue was derived from the EMEA region compared to 51.6% in 2001. Approximately 40.9% of the revenue for the EMEA region in 2002 was derived from Germany compared to 38.8% in 2001, despite the German economy being weaker than that of other European countries. The remainder of the revenue for the EMEA region in 2002 was derived primarily from the United Kingdom, Switzerland, France, Italy and the Netherlands. The number of our employees in the EMEA region increased by 4.8% from 18,860 at December 31, 2001 to 19,760 at December 31, 2002. In Germany, the number of our employees increased by 5.2% to 13,002 at December 31, 2002 compared to 12,356 at December 31, 2001. See Item 6. Directors, Senior Management and Employees Employees.

*Americas.* Approximately 33.7% of our 2002 revenue was derived from the Americas region compared to 37.1% in 2001. Revenues declined 8.2% to 2,501.6 million. Revenue from the United States represented approximately 78.7% of SAP's total for the Americas region for 2002 and 76.5% of SAP's total for the Americas region for 2001. In the United States, revenue declined 5.5% to 1,969.7 million. During the later half of 2002, a new CEO was appointed to head the North America region and the sales force was subsequently reorganized. Based on our analysis of the key competitors' published license revenue figures, we believe we again gained market share in the United States and we are now the U.S. business software segment leader. The other countries of the Americas region posted revenues of 531.9 million, a 16.9% decrease from 2001, and revenues for the entire region decreased 8.2% to 2,501.6 million.

The remainder of revenue for the Americas region was derived primarily from Canada, Brazil, Mexico, Venezuela and Columbia. The number of employees in the Americas region decreased by 6.0% from 6,750 at December 31, 2001 to 6,345 at December 31, 2002.

*Asia-Pacific.* Approximately 11.6% of our 2002 revenue was derived from the Asia-Pacific region, compared to 11.3% in 2001. In 2002, SAP's revenue from the Asia-Pacific region was derived primarily from Japan, Australia, Singapore, India, South Korea and Malaysia. Our revenue in the APA region increased 3.9% to 863.1 million in 2002. Revenue attributable to Japan increased 41.8 million, or 9.4% from 444.1 million for 2001 to 485.9 million for 2002, and accounted for more than half of the APA revenue.

In the Asia-Pacific region, the number of employees remained relatively stable.

### **Software Revenue by Solution**

In 2001, we began to allocate software revenues to specific software solutions for the first time. These allocations include revenues from contracts for specific solutions and for integrated solution contracts, which are mostly allocated based on usage surveys provided by our customers. Such surveys reflect the customer's expected use of the various solutions within their integrated contract. Customers' actual use may differ from their expectations at the time they complete the surveys and we have no ability to monitor differences between actual use and amounts reported. Nevertheless, for internal purposes, we allocate revenues based upon the number of users and user type by solution as specified in the initial customer surveys. Revenues recognized are allocated to each applicable solution based upon weighted average values per solution resulting from the number of each user type per solution, as provided by the customer, multiplied by the respective price per user type as set forth in our standard price list. We then allocate the recognized revenue for the software license based upon each solution's weighted average values. The remainder of revenues, which relate to R/3, industry solutions and software engines are specifically identified in the license if applicable, and are allocated to the specific software solutions at fixed ratios based upon the functional capabilities to which they relate. This methodology is applied to each individual mySAP Business Suite contract. Although we believe this methodology in allocating revenue to specific software solution to be reasonable, and we apply this methodology on a consistent basis for informational purposes only, there can be no assurance that such calculated amounts reflect the amounts that would result from the individual licensing of each software solution.

	2002	2001
	(in millions of \$)	
mySAP SCM	464.0	582.9
mySAP CRM	473.0	444.9
mySAP PLM	168.0	196.0
mySAP BI/mySAP Enterprise Portals/mySAP SRM/mySAP Marketplaces	259.0	415.9
mySAP Financials/mySAP Human Resources	927.0	940.8
<b>Total software revenue</b>	<b>2,291.0</b>	<b>2,580.5</b>

**Revenue by Industry Sector**

We identified six industry sectors in order to focus our product development efforts on key industries of our existing and potential customers and to provide best business practices and integrated business solutions specific to those industries. We allocate our customers to a certain key industry at the outset of an initial arrangement. All subsequent revenues to a particular customer are recorded under that established industry sector. The following table sets forth the total sales revenue attributable to each sector for the years ended December 31, 2002, 2001 and 2000.

	2002	2001	2000
	(in millions of )		
Process Industries	1,537.0	1,524.3	1,342.1
Discrete Industries	1,764.1	1,807.5	1,582.7
Consumer Industries	1,299.7	1,186.8	999.3
Service Industries	1,765.9	1,849.8	1,578.8
Financial Services	514.8	448.2	336.0
Public Services	531.3	524.2	425.7
<b>Total revenue</b>	<b>7,412.8</b>	<b>7,340.8</b>	<b>6,264.6</b>

We achieved our steepest growth rates in 2002 in the financial services and consumer industries. Revenue growth from the financial services sector was 14.9% and 9.5% for the consumer industries sector, despite the difficult economic background. As in 2001, the service and discrete industries sectors generated the biggest revenue.

**Euro Currency**

Effective January 1, 1999, the euro was introduced in the member states of the European Union (including Germany) participating in the EMU as a common legal currency for paperless transactions, pending the substitution of euro bank notes and coins for the national currencies of the participating EMU states. As of January 1, 1999, fixed exchange rates were introduced, according to which funds denominated in the currency of one participating EMU state are convertible into the currency of another participating EMU states. On January 1, 2002, the euro currency was introduced as legal tender, and since March 1, 2002, business in participating member states has been conducted exclusively in the euro. As a result, companies operating in or conducting business in these participating EMU states needed to ensure that their financial and other software systems were capable of processing transactions and properly handling the euro currency.

*Competitive Implications.* Neither the introduction of the euro on January 1, 1999 nor the introduction of the euro currency as legal tender on January 1, 2002 had a material effect on the pricing of our products and services or on the markets for SAP software products. We believe that the introduction of the euro currency as legal tender on January 1, 2002 has not and will not have a material adverse effect on our business, financial position, and results of operations or cash flows.

*Systems.* Effective as of January 1, 1999, we adopted the euro as our financial accounting and reporting currency. SAP's internal business information systems primarily comprise the same commercial application software products generally offered for license by SAP to end-user customers. We did not experience any material problems to date as a result of the euro conversion.

*Foreign Currency and Exchange Exposure.* The introduction of fixed exchange rates among the participating EMU states and the ultimate transition to the euro has eliminated the impact on our consolidated financial statements of foreign currency translation from the participating EMU states' national currencies and foreign currency exchange risk associated with transactions involving the participating EMU states' national currencies. As a result, the need for hedging and other derivative transactions with respect to such national currencies have been eliminated, thereby creating opportunities for cost savings.

### *Sales, Marketing and Distribution*

SAP AG primarily uses its worldwide network of subsidiaries to market and distribute SAP's products and services locally. Those subsidiaries have entered into license agreements with SAP AG pursuant to which the subsidiary acquires the right to sublicense SAP AG's products to customers within a specific territory and agrees to provide primary support to those customers. Under these agreements, the subsidiaries retain a certain percentage of the revenue generated by the sublicensing activity. We began operating in the United States in 1988 through SAP America, Inc., a wholly owned subsidiary of SAP AG. Since then, the United States has become one of our most important markets. In certain countries, we have established distribution agreements with independent resellers rather than with subsidiaries particularly with regard to the Business One and All-in-One solutions.

In addition to our subsidiaries' sales forces, SAP has developed an independent sales and support force through value-added resellers who assume responsibility for the licensing, implementing and supporting of SAP solutions. We have also entered into alliances with major system integration firms, telecommunication firms and computer hardware providers to offer certain mySAP Business Suite solutions.

We supplement certain of our consulting and support services through alliances with hardware and software vendors, systems integrators and third-party consultants with the goal of providing customers with a wide selection of third-party competencies. The role of the alliance partner ranges from pre-sales consulting for e-business solutions to the implementation of our software products to project management and end-user training for customers and, in the case of certain hardware and software vendors, to technology support.

During 2000, we restructured our global marketing operations and laid the foundations for more effective communication of both our position as a leading e-business solution provider and the quality of our solution offerings. Subsequent to this reorganization, we ran a broad-based campaign including television spots and newspaper advertisements in more than 40 countries.

SAP's marketing efforts cover large, multinational groups of companies as well as smaller and midsize companies. We believe our solutions and services meet important needs of all kinds of customers and are not dependent on the size or industry of the customer.

Capitalizing on the new possibilities of the Internet, we actively make use of online marketing. Solutions such as the mySAP Enterprise Portal can be tested online via the Internet Demonstration and Evaluation System, which also offers special services to introduce customers and prospects to new solutions and services.

### *Partnerships, Alliances and Acquisitions*

Partnerships and strategic alliances are a key element of broadening the solutions and services offered to SAP customers. SAP's close collaboration with partners across the life cycle of a customer solution is a key element in enhancing customer satisfaction. We characterize our partnerships and strategic alliances into eight categories that together constitute what we refer to as the SAP Partner Services Network. Depending on the category, our partners may achieve the status of a local or global partner. We expect our alliance partnerships to provide customers with joint strategic solutions. Our partners generally have a strong position in a particular line of business or cross-industry and complement the range of SAP solutions in these areas. The partner categories are: Services Partners, Technology Partners, Software Partners, Hosting Partners, Channel Partners, Content Partners, Education Partners and Support Partners.

SAP has entered into agreements with a number of leading software and hardware vendors to cooperate and ensure that certain of the software, technology and services products produced by such vendors complement SAP software products. Our partner network includes more than 900 companies.

In 2001, we acquired the assets of TopTier, Inc. for approximately U.S.\$ 379 million in cash excluding cash acquired. See notes 2, 4 and 16 to our consolidated financial statements for more information on the acquisition of TopTier and the investment in Commerce One. TopTier was renamed SAP Portals, Inc. and specialized in technologies for creating enterprise portals. During 2002, SAP Portals and SAP Markets (another sub-group of

SAP) and their subsidiaries were reintegrated and merged with and into SAP AG and certain subsidiaries of SAP AG.

In 2001 SAP expanded its strategic alliance with Commerce One, which included an additional equity investment in the common stock of Commerce One of approximately U.S.\$ 225 million in connection with establishing a collaborative relationship to develop Internet based product solutions. The strategic alliance focuses on jointly delivering next-generation e-business marketplace solutions for the Internet economy.

Under the terms of the strategic alliance agreement, SAP AG has certain registration rights and pro-rata rights to purchase additional shares of Commerce One's common stock in the future, as well as the right to have a representative of SAP AG appointed to Commerce One's board of directors. In March 2002, SAP named a non-voting observer to attend the board of directors' meetings. We have also agreed to certain limitations on our ability to transfer our shares of Commerce One common stock, our ability to acquire more than 23% of Commerce One's outstanding common stock or to attempt to acquire Commerce One in a transaction not approved by Commerce One's board of directors. The carrying value of our investment in Commerce One was zero as of December 31, 2002 as a result of the recognition of impairment charges and the continued application of the equity method of accounting. See additional discussion under Item 5. Operating and Financial Review and Prospects Operating Results.

### ***Intellectual Property, Proprietary Rights and Licenses***

SAP relies on a combination of the protections provided by applicable trade secret, copyright, patent and trademark laws, license and non-disclosure agreements and technical measures to establish and protect our rights in our software products.

We generally license our products to customers pursuant to a perpetual license. These license agreements are generally in standard form, although each license is individually negotiated. The licenses generally restrict the use of SAP software products to authorized users, which may include (usually on a screen-only basis) access by a customer's dealers, distributors and suppliers, and prohibit a customer from disseminating or distributing SAP software products to any unauthorized person. The licenses are generally non-transferable or, if transferable, the transfer is subject to our reasonable approval. SAP software products are licensed to end-users not only by SAP but also by independent third-party distributors or by hosted solution providers and ASPs. Although we seek to establish the conditions under which such distributors and solution providers license our products, there can be no assurance that such distributors or solution providers license the SAP software products solely in compliance with such conditions.

SAP software products are generally provided to end-users in a combination of object code and certain source code. Some SAP software products contain third-party intellectual property that we license or otherwise acquire. In addition, certain licensed end-user customers of SAP software products can be beneficiaries of a master source code in escrow for our products, pursuant to which the source code will be released to such end-user customers upon the occurrence of certain events, such as the commencement of bankruptcy or insolvency proceedings by or against us, or certain material breaches of the maintenance agreement by us. We have the right to object to the release of source code in any such circumstance, and to submit the matter to dispute resolution procedures. In the event of any release of the source code from escrow, the end-user customer's license is limited to use of the source code to maintain, support and customize SAP software products.

SAP actively pursues trademark registrations and patents in countries in which SAP software products are licensed and used and in which our services are performed. We believe that the trademarks, which are material to our business, are registered in the countries in which we have significant sales. SAP also pursues patents, to the extent adequate protection is available, in select countries in which SAP software products are licensed and used and in which our services are performed. We continually review new developments for possible patent applications.

**Organizational Structure**

SAP AG is the holding company of 91 subsidiaries, whose main task is the distribution of SAP's products and services on a local basis, whereas the main research and development facilities, the overall group strategy and the corporate administration are concentrated at SAP AG's headquarters in Walldorf, Germany.

The following table illustrates a list of our significant subsidiaries:

Name of Subsidiary	Ownership %	Country of Incorporation	Function
<b>Germany</b>			
SAP Deutschland AG & Co. KG, Walldorf	100	Germany	Sales, consulting and training
<b>Rest of Europe / Middle East / Africa</b>			
SAP (UK) Limited, Feltham	100	Great Britain	Sales, consulting and training
SAP FRANCE S.A., Paris	100	France	Sales, consulting and training
SAP (Schweiz) AG, Biel	100	Switzerland	Sales, consulting and training
SAP ITALIA Sistemi, applicazioni, prodotti in data processing s.p.a., Milan	100	Italy	Sales, consulting and training
SAP Nederland B.V., s-Hertogenbosch	100	The Netherlands	Sales, consulting and training
<b>Americas</b>			
SAP America, Inc., Newtown Square	100	USA	Sales, consulting and training
SAP Canada Inc., North York	100	Canada	Sales, consulting and training
<b>Asia / Pacific</b>			
SAP JAPAN Co., Ltd., Tokyo	100	Japan	Sales, consulting and training, research and development

**Description of Property**

Our principal executive, administrative, marketing and sales, consulting, training, customer support and research and development facilities are located in Walldorf, Germany, 60 miles south of Frankfurt/ Main. We own our principal Walldorf facilities, which are currently being expanded. This expansion commenced in 2000. The primary reason for the expansion is to provide additional space for our research and development activities. The remaining cost to complete this expansion, together with expansions to other facilities in Walldorf, is not expected to exceed 28.3 million in total. In addition, during 2001, we commenced expansion of our data center in St. Leon-Rot, Germany. The cost associated with this expansion is not expected to exceed 10.4 million in 2003 and 86.3 million in total. We have financed such expansions through working capital and existing credit facilities described herein under Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources. We own a site in Newtown Square, Pennsylvania, for use as our U.S. headquarters for the Americas as well as for regional operations for administration, marketing, sales, consulting, training, customer support and research and development. We own or lease sufficient undeveloped land to expand the facilities in Newtown Square as required for currently foreseeable needs.

The location of each of our other facilities in excess of 40,000 square feet, all of which are leased (unless otherwise indicated), is set forth below:

Country, City	Facility Description
Austria, Vienna	Sales, consulting and training
Belgium, Brussels	Sales, consulting and training
Brazil, São Paulo	Sales, consulting and training
Bulgaria, Sofia	Sales, consulting and training
Canada, North York, Ontario	Sales, consulting and training
Czech Republic, Prague	Sales, consulting and training
Denmark, Copenhagen	Sales, consulting and training
France, Paris	Sales, consulting and training
Germany, Alsbach (owned)	Sales and consulting
Freiberg	Sales and consulting
Munich	Research and development, sales, consulting and training
Ratingen	Sales, consulting and training
St. Ingbert (owned)	Research and development, sales, consulting
St. Leon-Rot (owned)	Research and development, consulting and training
Hungary, Budapest	Sales, consulting, training and customer support
India, Bangalore	Research and development
Ireland, Dublin	Customer support
Italy, Milan	Sales, consulting and training
Japan, Tokyo	Research and development, sales, marketing and training
Mexico, Mexico City	Sales and consulting
The Netherlands, s-Hertogenbosch	Sales, consulting and training
Portugal, Lisbon	Sales, consulting and training
Singapore, Singapore	Sales, consulting, training and customer support
South Africa, Johannesburg	Sales, consulting and training
Spain, Madrid	Sales, consulting and training
Sweden, Stockholm	Sales and consulting
Switzerland, Biel (owned)	Sales and marketing
United Kingdom, Feltham (owned)	Sales and consulting
Hayes	Training
United States,	
Palo Alto, California	Research and development and sales
Waltham, Massachusetts	Sales, marketing, consulting and training
Chicago, Illinois	Sales, marketing, consulting and training
Foster City, California	Sales, marketing, consulting and training
Atlanta, Georgia	Sales, marketing, consulting and training

We believe that our facilities are in good operating condition and adequate for their present and anticipated usage.

### Capital Expenditures

SAP's capital expenditures for intangible assets and property, plant and equipment, excluding amounts acquired as part of the 2001 Top Tier acquisition, were \$309 million for the year ended December 31, 2002, \$378 million for the year ended December 31, 2001 and \$286 million for the year ended December 31, 2000. Principal areas of investment during 2002 related to construction of buildings, primarily in Germany, and to the purchase of computer hardware to support ongoing increases in employees and global operations. See note 34 in Item 18. Financial Statements for capital expenditures by region included herein. During 2003, we expect to spend approximately \$108 million for the purchase of computer hardware and other business equipment and

approximately 121 million primarily for the construction of an additional IT-center in Germany and additional facilities in the United States and India. See Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources and note 34 to our consolidated financial statements for further details regarding capital expenditures.

**Item 5. Operating and Financial Review and Prospects**

**Critical Accounting Policies**

Our consolidated financial statements are prepared based on the accounting policies described in note 3 of our consolidated financial statements in Item 18. Financial Statements in this Annual Report on Form 20-F. The application of such policies may require management to make significant estimates and assumptions. We believe that the following are our more critical accounting estimates used in the preparation of our consolidated financial statements that could have a significant impact on our future consolidated results of operations and financial position:

Revenue Recognition;

Collection of Accounts Receivable;

Accounting for Stock Based Compensation;

Accounting for Income Taxes and Other Income Tax Related Judgements;

Realizability of Strategic and Venture Capital Investments.

Please refer to note 3 to the accompanying financial statements for further discussion of SAP's accounting policies.

**Revenue Recognition**

Substantially all of our revenues are derived from the licensing of our software products and the sale of related maintenance, consulting, and training services. Our standard license agreement provides a perpetual license to use our products based on the number of licensed users. We may license our software in multiple element arrangements if the customer purchases any combination of maintenance, consulting, or training services in conjunction with the license.

We recognize revenue pursuant to the requirements of AICPA Statement of Position (SOP) 97-2 Software Revenue Recognition (SOP 97-2), as amended by SOP 98-9 Software Revenue Recognition, With Respect to Certain Transactions, Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements (SAB 101), and other authoritative accounting guidance. Revenue is recognized using the residual method when SAP-specific objective evidence of fair value exists for all of the undelivered elements in the arrangement, but does not exist for one or more delivered elements. We allocate revenue to each undelivered element based on its respective fair value determined by the price charged when that element is sold separately. We defer revenue for the undelivered elements and recognize the residual amount of the arrangement fee, if any, when the basic criteria in SOP 97-2 have been met. If an undelivered element is not sold separately, revenues for all elements are deferred until the delivery criteria have been satisfied.

Under SOP 97-2, provided that the arrangement does not require significant production, modification, or customization of the software, revenue is recognized when the following four criteria have been met:

1. Persuasive evidence of an arrangement exists,
2. Delivery has occurred,
3. The fee is fixed or determinable, and
4. Collectibility is probable.

If at the outset of an arrangement we determine that the arrangement fee is not fixed or determinable, revenue is deferred until the arrangement fee becomes due, assuming all other revenue recognition criteria have





been met. If at the outset of an arrangement we determine that collectibility is not probable, revenue is deferred until payment is received. If an arrangement allows for customer acceptance of the software or services, we defer revenue recognition until the earlier of customer acceptance or when the acceptance right lapses.

We recognize revenue from resellers when the software is licensed to the end-user based upon the terms and conditions provided by the reseller.

Depending on the country in which the maintenance agreement is executed, the initial maintenance term with our customer is from one to three years. Maintenance is renewable by the customer on an annual basis thereafter. The maintenance fee, including subsequent renewal rates, is typically established based on a specified percentage of the license fee paid by the customer. Our customers typically prepay maintenance for periods of three to twelve months. Maintenance revenues are deferred and recognized ratably over the term of the maintenance contract.

Our consulting and training revenues are accounted for separately from the license revenues in situations when the services are deemed not to be essential to the functionality of the software. Consulting and training revenues are recognized as the services are performed, generally on a time and materials basis. Consulting revenues attributed to fixed price arrangements are recognized using the percentage of completion method based on direct labor costs incurred to date as a percentage of total estimated costs to complete the project. Consulting services primarily comprise implementation support related to the installation and configuration of our products and do not typically require significant production, modification, or customization of the software. Arrangements that require significant production, modification, or customization of the software and where services are not available from third party vendors, are recognized, depending on the fee structure, on a time and materials basis or using the percentage of completion method. When total cost estimates exceed revenues in a fixed price arrangement, the estimated losses are recognized immediately based upon an average fully burdened daily cost rate applicable to the consulting organization delivering the services.

The assumptions, risks, and uncertainties inherent in the application of the percentage of completion method affect the amounts and timing of revenue and related expenses reported. Numerous internal and external factors can affect estimates, including direct labor rates, utilization, and efficiency variances.

For arrangements involving hosting, when all other revenue recognition criteria have been met, we recognize product revenue upon delivery of a software license key and hosting revenue over the hosting period unless the customer cannot take possession of the software at anytime during the hosting period without significant penalty or cannot contract with another hosting provider without significant effort or expenditure or unless the software's functionality is compromised by the termination of our hosting services. Under these circumstances, we recognize all revenue under the arrangement ratably over the longer of the hosting period or the maintenance period. Hosting revenues recognized to date have not been significant.

We believe that our accounting estimates to apply our revenue recognition policies are critical because:

The determination that it is probable that the customer will pay for the products and services purchased is inherently judgmental,

The allocation of proceeds to certain elements in multiple-element arrangements is complex,

The determination of whether a service is essential to the functionality of the software is complex,

Establishing company-specific fair values of elements in multiple-element arrangements requires adjustments from time-to-time to reflect recent prices charged when each element is sold separately, and

The determination of the stage of completion for certain consulting arrangements is complex.

Changes in the aforementioned items could have a material affect on the type and timing of revenue recognized.

There have been no significant changes in our accounting estimates related to our revenue recognition policies that had a material impact on the amount of our reported revenue, results of operations or our financial position in 2002 and 2001.

Historically, SAP-specific objective evidence of fair value for certain undelivered elements in multiple-element arrangements has been determined on an enterprise-wide or country-wide basis, depending on the nature of the undelivered element. As economic conditions change in certain geographic locations in which we operate, we may need to modify our business practices in these locations. Accordingly, future SAP-specific objective evidence of fair value for such undelivered elements may deviate from historical fair values. Consequently, the percentages and the amounts of revenue recognized in the future for multi-element arrangements could differ significantly from historical trends and could have a material impact on our reported revenue, results of operations and financial position in the future.

#### ***Collectibility of Accounts Receivable***

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Total accounts receivable at December 31, 2002 were 1,967.1 million, which is net of an allowance for bad debts of 92.5 million. Included in accounts receivable are unbilled receivables related to costs and estimated earnings in excess of billings on uncompleted fixed fee consulting arrangements of 182.7 million at December 31, 2002. The allowance for doubtful accounts represents our best estimate of the amount of probable credit losses in our existing accounts receivable portfolio. We base our estimate on a systematic, ongoing review and evaluation which we perform every month. As part of this evaluation, we determine the allowance for doubtful accounts after giving consideration to specific customer risks, regional economic risks and the length of time certain accounts receivable have been outstanding. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

Total provisions for bad debt expense charged to costs and expenses approximated 39.0 million and 63.2 million during 2002 and 2001, respectively. The provision for bad debt expense that is based on customer specific analysis is recorded in the respective functional cost category. General bad debt expense is recorded as a component of other operating income/expense and is based on the portion of the total remaining accounts receivable portfolio that is considered past due. Accounts receivable written-off approximated 21.2 million and 19.2 million during 2002 and 2001, respectively.

We believe that the accounting estimate related to the establishment of the allowance for credit losses is a critical accounting policy because the evaluation is inherently judgmental and requires the use of assumptions about customer defaults which may be subject to significant change and because changes in our estimates about the allowance for doubtful accounts could have a material affect on our financial statements. The recognition of allowances for doubtful accounts initially has no impact on our reported cash flows. Our liquidity, capital resources and net income could be adversely affected if actual credit losses exceed our estimates.

#### ***Accounting for Stock Based Compensation***

As further explained in note 24 to the consolidated financial statements, SAP has several stock-based compensation plans. We apply the intrinsic-value-based method of accounting for stock-based compensation prescribed by Accounting Principles Board Opinion ( APB ) 25, Accounting for Stock Issued to Employees ( APB 25 ) and related interpretations. Under this method we recognize compensation expense only for awards for which the exercise price is variable. For all of our fixed stock-based compensation plans we do not recognize any compensation expense as the exercise price, which is fixed on the grant date, at least equals the SAP share price on such date. SFAS 123, Accounting for Stock-Based Compensation, established accounting and disclosure requirements using a fair-value-based method of accounting for stock-based employee compensation plans. As allowed by SFAS 123, we have elected to continue to apply the intrinsic-value-based method of accounting described above, and we have adopted the disclosure requirements of SFAS 123 and SFAS 148. The summary of significant accounting policies in note 3 to our consolidated financial statements provides the

required pro forma effects on our reported net income for 2002, 2001 and 2000 as if the fair-value-based method was used to recognize compensation expense as follows:

### Net Income

	2002 (000)	2001 (000)	2000 (000)
<b>As reported</b>	508,614	581,136	615,732
Add: Expense for stock-based compensation, net of tax according to APB 25	5,600	40,357	286,604
Deduct: Expense for stock-based compensation, net of tax according to FAS 123	138,203	131,272	360,428
<b>Pro forma</b>	<b>376,011</b>	<b>490,221</b>	<b>541,908</b>

### Earnings per share

	2002	2001	2000
Basic as reported	1.62	1.85	1.96
Diluted as reported	1.62	1.85	1.95
Basic pro forma	1.20	1.56	1.72
Diluted pro forma	1.20	1.56	1.72

SAP uses the Black-Scholes valuation model to estimate the option's fair value. As described in note 24 to the consolidated financial statements, this valuation model requires us to use a number of assumptions, including future stock price volatility and expected option life (which represents our estimate of the amount of time remaining until the options are exercised or expire unexercised). Expected option life is based on the vesting period, the expected volatility of the underlying stock and on actual exercise activity from previous option grants. Future stock price volatility is estimated based upon historical stock price movements over the most recent period equal to the expected option life. Additionally, our share price on the date of grant influences the option value. Notwithstanding the fact that the exercise price of most options equals the quoted market price of our stock on the date of grant, the higher the share price, the more the option is worth. Changes in the option value after grant day are not reflected in expense.

We intend to continue to use stock based compensation plans in order to attract and retain senior managers and selected employees. Further, it is reasonably possible that changes in accounting standards may ultimately require the use of a fair-value-based method. For these reasons, we believe that the estimates used in determining and disclosing the pro forma effects of our stock based compensation in our consolidated financial statements is critical.

For purposes of determining the estimated fair value of our stock options, we believe expected volatility is the most sensitive assumption. We used an expected volatility of 50% as a weighted average assumption, based on information that is specific to SAP provided by three independent financial institutions. Changes in this assumption could significantly impact the estimated fair values produced by the Black-Scholes valuation model and, consequently, the required pro forma information reported in our consolidated financial statements.

The trading prices of our ordinary shares have experienced and may continue to experience significant volatility. The following table shows the effect of assumed changes in the volatility covering the major grants as of December 31, 2002, on the pro forma net income of \$376 million as disclosed in note 3 to our consolidated financial statements:

Assumed change in volatility in percentage-points	-10%	-5%	+5%	+10%
		(in millions of \$)		
Effect on Pro forma net income for volatility assumption change	20	10	(10)	(19)

Pro forma net income using revised volatility assumption	396	386	366	357
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*Accounting for Income Taxes and Other Income Tax Related Judgements*

We conduct operations and earn income in numerous foreign countries and are subject to the laws of taxing jurisdictions within those countries. We currently have net deferred tax assets related to activities in various countries approximating 291.2 million at December 31, 2002 which is net of a valuation allowance of approximately 3.0 million. At December 31, 2002, we have net operating loss carryforwards in certain foreign tax jurisdictions of approximately 140.5 million that may be used to offset future taxable income in those jurisdictions. Net operating loss carryforwards available in certain state tax jurisdictions in the United States of America approximate 91.2 million and will expire if unused in varying amounts over the next twenty years. Approximately 20.9 million of net operating loss carryforwards are available in other foreign tax jurisdictions that will expire if unused in varying amounts over the next three to seven years. The remaining net operating loss carryforwards currently have no expiration period for usage. The carrying values and realization of our net deferred tax assets are principally dependent upon our ability to generate future taxable income, management's interpretation of applicable tax laws and incorporate management's assumptions and judgements regarding the use of tax planning strategies in certain taxing jurisdictions.

We believe that our estimates pertaining to our accounting for income taxes are critical because:

Our judgments regarding future taxable income are based upon expectations of market conditions and other facts and circumstances. An adverse change to the underlying facts may require a reduction of the recorded deferred tax asset balances;

Our use of different estimates, assumptions and judgements in connection with tax planning strategies could result in materially different carrying values; and

At December 31, 2002, we have cumulative undistributed earnings at certain foreign subsidiaries of 1,646.3 million that are currently deemed to be permanently reinvested. A change in economic or other circumstances could impact our decision to repatriate some or all of these earnings, which would then result in the recognition of additional income tax liabilities.

Changes in the aforementioned items could have a material impact on our financial position and results of operations. There have been no significant changes in our estimates about our ability to realize our net deferred tax assets nor have there been any significant changes to our plans to repatriate undistributed earnings of those foreign subsidiaries where such earnings are considered to be permanently reinvested that had a material impact on our consolidated results of operations or financial condition during 2002 and 2001.

*Realizability of Strategic and Venture Capital Investments*

We have made investments and expect to continue to make additional investments to take minority ownership equity interests in or make advances to technology-related companies, many of which are currently reporting net losses. Most of these companies have only been established recently, so their prospects could only be assessed based on a limited amount of historical experience.

As disclosed in note 16 to our consolidated financial statements, the net carrying value of such investments at December 31, 2002 consisted of 0.3 million ( 434.7 million at December 31, 2001) for associated companies accounted for using the equity method, 44.6 million ( 160.5 million at December 31, 2001) for investees accounted for at cost, and 58.2 million ( 49.6 million at December 31, 2001) for related loans and advances. On a continuous basis, but no less frequently than at the end of each quarterly reporting period, we evaluate the recoverability of our carrying value of our total investments (which includes related loans and advances) for each of these investments for possible impairment. A write-down in the carrying value and a related charge to financial expense is recognized if the decline in value is deemed to be other-than-temporary. Indications of potential impairment include, but are not necessarily limited to, an inability of the associated company or investee to sustain an earnings capacity that would justify the carrying amount of the investment, or a quoted market price per share this is significantly below our carrying amount per share for the investee for a sustained period of time. In determining whether a decline in an investments value below our carrying value is other-than-temporary, we consider the length of time and the extent to which such value has been less than our carrying

value, the financial condition and prospects for the associate company or investee, and our ability and intent to retain our investment for a period of time sufficient to allow for any anticipated recovery in value.

We believe that the accounting estimates about our ability to recover the carrying values of these investments are critical because:

Significant judgement involved in determining whether a decline in the value is deemed to be other-than-temporary; and

Significant judgement is often necessary to estimate the amount we can expect to realize upon liquidation of the investment.

Changes in our estimates could have a material impact on our financial position and results of operations. For the years ended December 31, 2002 and 2001, we recognized impairment charges pertaining to these investments of 428.8 million (of which 297.6 million was for our investment in Commerce One) and 83.1 million, respectively.

### **New Accounting Pronouncements to be Adopted**

In June 2001, the FASB issued SFAS 143, *Accounting for Asset Retirement Obligations* ( SFAS 143 ). The statement applies to legal obligations associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development, and/or the normal operation of a long-lived asset, except for certain obligations of lessees. SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset and subsequently allocated to expense over the asset's useful life. We adopted SFAS 143 on January 1, 2003, and it did not have a material impact on SAP's consolidated financial statements.

In July 2002, the FASB issued SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities* ( SFAS 146 ), superseding Emerging Issues Task Force ( EITF ) Issue 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)* . The Statement requires that a liability for costs associated with exit or disposal activities be recognized in the period in which the costs are incurred if a reasonable estimate of fair value can be made. Under current accounting guidance, a liability can be recognized when management has committed to an exit plan. The requirements under SFAS 146 are effective prospectively for exit or disposal activities initiated after December 31, 2002. Previously issued financial statements cannot be restated for the effect of the provisions of SFAS 146, and liabilities previously recorded under EITF 94-3 are grandfathered. The adoption of this Statement will affect our accounting for exit and disposal activities initiated after December 31, 2002.

In November 2002, the EITF reached a final consensus on EITF 00-21, *Revenue Arrangements with Multiple Deliverables* . EITF 00-21 addresses certain aspects of the accounting of revenue arrangements with multiple deliverables by a vendor. EITF 00-21 outlines an approach to determine when a revenue arrangement for multiple deliverables should be divided into separate units of accounting and, if separation is appropriate, how the arrangement consideration should be allocated to the identified accounting units. The consensus reached in the Issue will be effective for SAP in our financial statements beginning July 1, 2003. We are determining the impact of the adoption of EITF 00-21, although we believe that the adoption will not have a material impact on its consolidated financial statements.

Also in November 2002, the FASB issued FASB Interpretation No. ( FIN ) 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* an interpretation of FASB statements 5, 57, and 107 and rescission of FASB Interpretation 34 ( FIN 45 ). This Interpretation elaborates on the disclosure to be made by a guarantor in its financial statements regarding obligations under certain guarantees that it has issued. FIN 45 also clarifies that a guarantor is required to recognize, at inception of a guarantee, a liability for the fair value of the obligation due to the issuance of the guarantee. The initial recognition and initial measurement provisions apply on a prospective basis to guarantees issued or modified after December 31, 2002. The disclosures of guarantees required by FIN 45 are included in notes 26 and 30 to our consolidated financial statements. We occasionally grant function and/or performance guarantees in routine consulting contracts and/or customer development arrangements, standard guarantee provisions and other items. Currently, we have several such agreements in place with various expiration dates. Based on historical experience and evaluation, we do not believe that any material loss is likely, and therefore no related liability has been recorded. We also provide a six to 12 month warranty period on our software. Although product warranties are excluded from the initial recognition and measurement provisions, FIN 45 requires certain additional disclosures about changes in warranty accruals which have been included in note 26 to our consolidated financial statements.

In December 2002, the FASB issued SFAS 148, which amends SFAS 123 to provide alternative methods of transition for a voluntary change to the fair-value-based method of accounting for stock-based employee compensation. In addition, SFAS 148 requires more prominent disclosures in both interim and annual financial statements about the method of accounting used for stock-based employee compensation and the effect of the method used on reported results. As described above, we apply APB 25, and use an intrinsic-value-based approach to measure compensation expense. Under SFAS 123, compensation expense of stock option plans is measured at the grant date based on the fair value of the award using an option-pricing model. Compensation



expense is recognized over the service period with an offsetting credit to equity (paid-in capital). If adopted, the additional compensation expense in the statements of income will be dependent upon the number, price, and other significant terms of the stock options granted.

In January 2003, the FASB issued FIN 46, Consolidation of Variable Interest Entities an interpretation of ARB No. 51 ( FIN 46 ), which clarifies the application of the consolidation rules to certain variable interest entities. In general, a variable interest entity is a corporation, partnership, trust, or any other legal structure used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors that do not provide sufficient financial resources for the entity to support its activities. FIN 46 requires a variable interest entity to be consolidated by a company if that company is subject to a majority of the risk of loss from the variable interest entity s activities or entitled to receive a majority of the entity s residual returns, or both. The consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003. The consolidation requirements apply to variable interest entities created before February 1, 2003, in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply in all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. We currently believe the adoption of FIN 46 will have no impact on our consolidated financial position or results of operations because we currently hold no significant variable interests in any variable interest entities.

## Overview

For the year ended December 31, 2002, our revenue and income before income taxes and extraordinary gain were approximately 7,412.8 million and 1,107.7 million, respectively, as compared with 7,340.8 million and 1,068.8 million, respectively, for the year ended December 31, 2001. Net income was 508.6 million and 581.1 million for the years ended December 31, 2002 and 2001, respectively. SAP consists of SAP AG and our network of 91 operating subsidiaries and has a presence or a representation in over 120 countries.

We operate in three geographic regions, namely EMEA, the Americas and Asia-Pacific. SAP has three lines of business that constitute our reporting segments: products, consulting and training. Furthermore, SAP focuses on six industry sectors, namely process, discrete, consumer, service, financial and public services. For a discussion of our geographic regions and industry sectors, see Item 4. Information on SAP Description of the Business Revenue by Geographic Region , Revenue by Industry Sector , SAP Strategy mySAP Business Suite and note 3 of our consolidated financial statements included herein.

SAP s principal sources of revenue are through sales of products and services. Product revenue consists primarily of software license fees and maintenance fees. License fees are derived from the licensing of SAP software products to customers. SAP provides optional maintenance for a fixed percentage calculated on the basis of the initial license fee paid by the customer. Maintenance entitles the customer to upgrades and enhancements through new product releases, versions and correction levels, telephone support on the use of the products and assistance in resolving problems, remote support, access to online bulletin board support services as well as a world-wide remote monitoring and diagnostics service for the mySAP Business Suite platform. Our service revenue consists of consulting and training revenue, which is derived primarily from the services rendered with respect to implementation and training of customer project teams and end-users, as well as training third-party consultants with respect to SAP software products.

We generally license our products in individual software components or a suite of software components on a right to use basis pursuant to a perpetual license providing for an initial license fee based on the number and types of identified users. Additional license fees are charged when the designated number of users or another relevant metric, like the number of transactions in a marketplace, is increased.

## *Global economy remains weak*

The global economy started to decelerate at the end of 2000 and continued to weaken through 2002 without, however, developing into a recession or causing deflation. In December 2002, the World Bank estimated 2.9% world trade growth for 2002.

Despite some isolated positive economic indicators, sustained recovery did not occur in the leading economies in 2002 – specifically North America, Europe, and Japan, which are SAP’s major markets. Drags on the economy included continuing high unemployment, persistent consumer cautiousness, damaging news decreasing investor confidence in light of large corporate scandals, and uncertainties in the geopolitical situation, of which, for example, numerous terrorist attacks and the latent threat of war were symptomatic.

***IT market’s first pronounced downturn***

In all sectors and all countries, anxiety resulting from the global financial and economic situation curbed companies’ willingness to commit to capital projects in 2002. This also impacted IT vendors and service providers.

Faced with having to limit spending because of acute pressure on costs, many companies responded by cutting back IT budgets, which they had rapidly built up toward the late 1990s. More than ever, the need to minimize total cost of ownership impacted their IT investment decisions.

Many companies downscaled or postponed their plans to implement new software or to expand hardware and network capacity. They placed substantially fewer contracts for large capital projects, as all IT vendors and providers found.

Major long-term strategic investments lost favor to smaller tactical projects offering a quick return on investment.

Industry analysts originally predicted the IT market would grow 11% in 2002, but they repeatedly adjusted their figures downward. For example, at the beginning of 2003 IT analyst IDC (International Data Corporation) estimates that the global IT market shrank 2.4% in 2002, the biggest contraction ever recorded in the IT market. On the other hand, industry analyst Gartner Group estimates that global IT spending declined only slightly, by 0.2%, in 2002.

***Industry consolidation continues***

Consolidation continued in the industry in response to the weakness of the IT market. However, it appears that established manufacturers in the industry benefited from customers’ growing appreciation of the importance of lasting protection for their planned IT investments – making sure that those investments will provide them with an adequate return.

Customers face the problem that their IT infrastructure grows increasingly complex, causing disproportionate system maintenance and administration expenses. As a result, more customers sought rapidly deployable ready-integrated application technologies offering long-term cost benefits and easy integration with solutions from other vendors.

**Foreign Currency Exchange Rate Exposure**

Although our reporting currency is the euro, a significant portion of our business is nevertheless conducted in currencies other than the euro. International sales are primarily made through our subsidiaries in the respective regions and are generally denominated in the local currency, although in certain countries where foreign currency exchange rate exposure is considered high, some sales may be denominated in euros or Dollars. Expenses incurred by the subsidiaries are generally denominated in the local currency. Accordingly, the functional currency of our subsidiaries is generally the local currency or the euro for countries that participate in the EMU. Therefore, movements in the foreign currency exchange rates between the euro, on the one hand, and the respective local currencies to which our subsidiaries are exposed, on the other hand, may materially affect our consolidated financial position, results of operation and cash flows. In general, appreciation of the euro relative to another currency has a negative effect on our results of operations, while depreciation of the euro has a positive effect. As a consequence, period-to-period changes in the average exchange rate in a particular currency can significantly affect our revenue and operating results. The principal currencies in which our subsidiaries conduct business that are subject to the risks described in this paragraph are the Dollar, the Japanese Yen, the British Pound, the Swiss Franc, the Brazilian Real, the Canadian Dollar and the Australian Dollar.

Approximately 60.4% of our consolidated revenue in 2002 and approximately 63% in 2001, is attributable to operations in non-EMU participating countries and such revenues had to be translated into euros for financial reporting purposes. Fluctuations in the value of the euro had (negative) effects on our consolidated revenue of (348.2) million, income before income taxes of (109.9) million and net income, of (88.8) million for 2002 and consolidated revenue of (64.7) million, income before income taxes of (55.9) million and net income of (52.2) million for 2001. See Item 11. Quantitative and Qualitative Disclosures About Market Risk Foreign Currency Risk.

### **Interest Rate Exposure**

We invest our cash in Germany primarily in bank time deposits and marketable securities, including fixed and variable rate marketable debt securities. The majority of such investments are denominated in euros and Dollars. Cash held by foreign subsidiaries is generally held in short-term time deposits denominated in the local currency.

Net interest income decreased to 24.8 million in 2002 compared to 33.7 million in 2001 and 59.2 million in 2000, primarily due to decreasing interest rates in 2002 and 2001 on cash and cash equivalents available to generate interest income. In addition the strong euro decreased interest income generated in U.S.\$\$. The decline in interest income was partially offset by the decrease in interest expense, which was due to increased liquidity and decreased levels of bank loans during 2002.

While we are exposed generally to fluctuations in the interest rates of many of the world's leading industrialized countries, our interest income and expense is most sensitive to fluctuations in the level of U.S. and EMU interest rates. The fair market values of both fixed and variable rate investments are exposed to such interest rate risk. To the extent that interest rates rise, fixed interest securities may be adversely impacted, whereas a decline in interest rates may decrease the anticipated interest income for variable rate investments. See Item 11. Quantitative and Qualitative Disclosures About Market Risk Interest Rate Risk.

### **Inflation**

The rates of inflation on an average basis in Germany were 1.3% during 2002, 2.5% during 2001, and 1.9% during 2000. The inflation rates on an annual average basis in the United States for those years were 1.6%, 2.8%, and 3.4%, respectively. The effects of inflation on our operations have not been significant in recent years.

### **Changes to German Tax Law**

In September 2002, the German government enacted a new legislation ( Flutopfersolidaritätsgesetz ) that increased our statutory corporate tax rate from 25% to 26.5%, effective only for the calendar year 2003. Accordingly, deferred tax assets and liabilities in Germany at December 31, 2002 are calculated using a corporate income tax rate of 26.5% for temporary differences that are expected to reverse in 2003 and 25% for temporary differences that are expected to reverse thereafter. Deferred taxes are also calculated using a solidarity surcharge of 5.5% on corporate income taxes and a municipal trade tax, which is deductible for corporate income tax purposes. Therefore, for SAP AG in Germany, the combined tax rate used to calculate deferred tax assets and liabilities for temporary differences that are expected to reverse in 2003 is 37.76% and 36.39% for temporary differences that are expected to reverse thereafter. The effect of the increase in the tax rate on the deferred tax assets and liabilities of our companies in Germany has to be recognized in the year of enactment and as a result, a net charge of 1,558 thousand is included in the consolidated statement of income in 2002.

In 2000, the German government enacted new tax legislation ( Steuersenkungsgesetz ) which reduced the statutory corporate income tax rate from 40% on retained earnings and 30% on distributed earnings to a uniform 25%, effective beginning January 1, 2001. The significant other tax law change was the exemption from tax for certain gains and non-recognition of losses from the sale of shares in affiliated and unaffiliated companies. The effects of the reduction in the tax rate and other changes on the deferred tax assets and liabilities of our companies in Germany were recognized in the year of enactment. As a result, an income tax benefit of 4,869 thousand was recorded in the consolidated statement of income for 2000.

## Operating Results

### *Year Ended December 31, 2002 Compared with Year Ended December 31, 2001*

#### *Total Revenue*

At the beginning of 2002 SAP expected a revenue growth of 15% for the year with all sales regions and revenue types (software, maintenance, consulting and training revenues) contributing positively. During the year this expectation was reduced due to the weak global economies and the strengthening of the euro in relation to the local currencies in the major geographic areas in which we operate. Based on realized results of the second quarter of 2002, our 2002 annualized growth expectations were reduced to 5% - 10% and after our third quarter 2002 results we reduced our 2002 annualized growth even further. Consequently we focused on increasing our operating margin. Total revenue increased from 7,340.8 million for 2001 to 7,412.8 million for 2002, representing an increase of 72.0 million or 1.0%. Foreign currency translation effects from the strengthening value of the euro during 2002 negatively impacted our total consolidated revenue by 420.2 million or 5.7%. The growth in 2002 total revenue was due to increases in product revenue of 0.3%, consulting revenue of 5.8% and a decrease in training revenue of 11.2% compared to 2001.

The following discussion is based on how we allocate revenues for classification in our consolidated statements of income, which is dependent on the nature of the sales transaction regardless of the operating segment it was provided by:

*Product Revenue.* Product revenue increased from 4,701.8 million in 2001 to 4,713.6 million in 2002, representing an increase of 11.8 million or 0.3%. Software revenue decreased from 2,580.5 million in 2001 to 2,290.8 million in 2002, representing a decrease of 289.7 million or 11.2%. For a summary of software revenue by solution in 2002 see Item 4. Information on SAP Software Revenue by Solution. Based on orders received versus revenue recognized, the installed customer base accounted for 77% of SAP's 2002 signed software contracts, with the remaining 23% coming from new customers (68% for installed customer base and 32% for new customers in 2001). SAP faced the industry-wide trend away from fewer contracts for very large capital projects to an increased volume of smaller contracts. Maintenance revenue increased from 2,121.3 million in 2001 to 2,422.8 million in 2002, representing an increase of 301.5 million or 14.2%. With the increase of our installed base, this strong growth in maintenance revenue was due primarily to the growth of the 2001 software sales and positively affected by the additional software contracts closed during 2002. As a significant portion of our software sales are entered in the last quarter, the trend related to the increase in the respective maintenance revenue that follows in subsequent quarters is expected to continue. The biggest contributor to the increase in maintenance revenues came from the sales region EMEA in 2002, due to strong software sales and lower foreign currency translation impact due to the weakened euro.

Product revenue as a percentage of total revenue still remains relatively high at 63.6%. The slight decrease from 64.1% in 2001 was due primarily to the 11.2% decline of software revenue and the 5.8% growth in our consulting revenue.

*Service Revenue.* Service revenue increased by 69.0 million, or 2.7%, from 2,549.1 million for 2001 to 2,618.1 million for 2002. Consulting revenue increased from 2,082.9 million in 2001 to 2,204.2 million in 2002, representing an increase of 5.8% compared to the extremely strong revenue growth of 27% in 2001 over 2000. The difference in growth results mainly from the different hiring pace. While our consulting workforce grew significantly in 2001, there was almost no growth in 2002. In regards to the subcontracting of third party consultants, the level as a percentage of sales remained in 2002 compared to 2001 relatively stable. Consulting revenue as a percentage of total revenue increased from 28.4% in 2001 to 29.7% in 2002. With decreasing rates in the consulting business, the increase was primarily due to an increase in utilization rates of our own consultant, supported by the establishment of the Global PSO, which addresses the consulting needs of major multinational corporations and leverages the utilization of consultants across countries and regions. The increase in software sales in 2001 also had a positive impact on consulting revenues in 2002. Furthermore, in 2002 a significant portion of our consulting revenue was generated by sub-contracted external consultants.

Training revenue decreased by 11.2% from 466.2 million in 2001 to 413.9 million in 2002. This decrease was a result of an overall shrinking market and the changed demand structure. Customers were willing to invest less in classical classroom training and became more reluctant to travel to training facilities of classroom training providers. The strong decrease in classroom training was partly offset by customer specific and end user trainings. We expect that this trend will continue in 2003.

#### *Total Operating Expenses*

Total operating expenses decreased from 6,028.4 million for 2001 to 5,787.2 million for 2002, representing a decrease of 241.2 million or 4.0%. This was achieved by the stringent cost management measures that SAP introduced in 2001 and accelerated during 2002 as the growth expectations were reduced in order to achieve the targeted margin improvement. While total operating expenses in the first half of 2002 increased by 5%, they were reduced by 12% in the second half of 2002 compared to the same period of 2001 leading to the overall reduction of 4%. The reduction in overall costs was achieved without significant reduction in our employee workforce. Instead, the successful result was achieved by a restrained hiring policy, cuts in variable compensation, reassignment of outsourced development work to internal resources, and tight control of other expenses including travel expenses. We achieved further economies by simplifying our global infrastructure, renegotiating vendor contracts to improve efficiency, and general streamlining processes. As in previous years, the biggest component of our operating expenses is our personnel cost. In 2002, operating expenses of 9 million for stock-based compensation were 86% lower than in 2001. Total personnel expenses in 2002 including all expenses for stock-based compensation were 2,965 million, a 2% increase over 2001. This moderate increase is primarily due to our restrained hiring policy and positive impact of foreign currency translation effects due to the strengthened euro. While in the first half of 2002 the number of full time equivalents increased by 944, the number of fulltime equivalents was reduced by 557 in the second half of 2002 following a cautious hiring policy in the first half versus a stringent hiring freeze in the second half of 2002.

As a result of our strict cost reduction measures, operating income increased by 24% in 2002 to 1,626 million. The gross operating margin increased to 22% in 2002 from 18% in 2001.

#### *Pro forma operating income*

SAP has provided guidance and information in 2002 and 2001 using pro forma operating income on a consolidated basis. We believe this pro forma measure provides meaningful information to our investors because we exclude acquisition related charges and settlements of stock-based compensation plans to focus attention on the financial performance of our core operations. We exclude stock-based compensation expenses because we have no direct influence over the actual expense of these awards once we enter into Stock-Based Compensation Plans. This pro forma information is not prepared in accordance with accounting principles generally accepted in the United States of America ( U.S. GAAP or US GAAP ) and should not be considered a substitute for the historical financial information presented in accordance with US GAAP. The pro forma measures used by us may be different from pro forma measures used by other companies.

At the beginning of 2002 SAP's target was to improve its pro forma operating margin (excluding expenses for stock-based compensation and TopTier acquisition-related charges) from 20% to at least 21%. Pro forma operating income (excluding expenses for stock-based compensation and TopTier acquisition-related charges) rose 18% in 2002 to 1,686 million, resulting in a pro forma operating margin of 22.7% significantly exceeding our target despite the poor economic environment. Pro forma operating expenses (excluding expenses for stock-based compensation and TopTier acquisition-related charges) in 2002 were reduced by 2% in comparison with the previous year, to 5,727 million.

A reconciliation from US GAAP operating income to pro-forma operating income is as follows:

	2002	2001
	(in millions of \$)	
<b>US GAAP Operating income</b>	1,626	1,312
Amortization of intangible assets	24	18
In process research and development	0	6
Amortization of goodwill	0	37
	—	—
<b>Total TopTier related acquisition costs</b>	24	61
	—	—
STAR Program	1	50
LTI 2000 Plan	8	14
Settlement of stock based compensation plans in the context of mergers and acquisitions	27	34
	—	—
<b>Total stock based compensation</b>	36	98
	—	—
<b>Pro forma operating income excluding stock based compensation and TopTier acquisition costs</b>	1,686	1,471
	—	—

*Cost of Product.* Cost of product consists of customer support costs and license fees and commissions paid to third parties for databases and the other complementary third-party products sublicensed by us to customers. Cost of product decreased by 3.0% from 887.4 million for 2001 to 860.4 million for 2002. As a percentage of product revenue, cost of product decreased from 18.9% in 2001 to 18.3% in 2002. This efficiency was achieved through a reduction of commissions paid for third parties' products as contracts were renegotiated. Although the number of installations steadily increased during 2002, the increase in product related support was lower than in 2001.

*Cost of Services.* Cost of services consists largely of consulting and training personnel expenses. Cost of services decreased by 0.5% from 1,965.0 million for 2001 to 1,955.8 million for 2002. As a percentage of service revenue, cost of services decreased to 74.7% in 2002 from 77.1% in 2001 as the overall service profitability increased. While third party expenses remained relatively stable, the average headcount in consulting increased only moderately. The increase in consulting revenue and utilization rates as noted above resulted in a profitability increase. Our training profitability decreased, because the shortfall in our training revenues as described above could not be completely offset by our reduction in our training infrastructure.

*Research and Development.* SAP's research and development expenses include those personnel expenses related to our research and development employees, amortization of computer hardware costs used in our research and development activities and costs incurred for independent contractors retained by us to assist in our research and development activities. Research and development expenses increased by 11.1 million, or 1.2%, from 898.3 million in 2001 to 909.4 million in 2002. As a percentage of total revenue, research and development expenses increased from 12.2% for 2001 to 12.3% for 2002. The number of research and development employees increased from 7,665 in 2001 to 8,173 in 2002, representing an increase of 6.6%. The percentage of employees working in the research and development department compared to total employees increased to 27.8% for 2002 from 26.5% in 2001. The primary reason for the increase of research and development expenses in 2002 compared to 2001 is the increase in headcount during 2002. The increase in expenses is lower than what could be expected due to the increase in employees because of our ongoing replacement of outsourced development activities to our inhouse resources.

*Sales and Marketing.* Sales and marketing expenses decreased by 9.5% from 1,797.6 million for 2001 to 1,627.2 million for 2002, representing 24.5% and 22.0% of total revenue, respectively. The primary reasons for the reduction were synergies caused by our reintegration of SAP Markets and SAP Portals operations, selected adjustments of the sales workforce which were dependent on the results achieved during the year, and cuts in advertising and sponsoring expenditures. The number of employees in sales and marketing grew by 1.4% from 5,071 in 2001 to 5,143 in 2002.

*General and administrative.* General and administrative expenses increased by 3.4% from 386.0 million for 2001 to 399.3 million for 2002, representing 5.3% and 5.4% of total revenue, respectively. During 2002 we took steps to substantially reduce our general and administrative costs, however, these savings were largely offset by additional charges for our internal restructuring measures.

*Other operating expenses, net.* Other operating expenses, net decreased by 62.7% from 94.2 million for 2001 to 35.1 million for 2002. The primary reason for the decrease was the application of SFAS 142 in 2002. As a result of the adoption of SFAS 142, we no longer amortize goodwill and, therefore, unless goodwill is found to be impaired in the future, it no longer affects net income. In 2002, other operating expenses, net included restructuring charges of 46.1 million related to on-going employee termination costs in the United States. The majority of these termination costs were paid during 2002 and the remaining portion of these costs, approximating 13.0 million are expected to be paid in the first quarter of 2003.

*Other Non-operating Income/Expense, Net*

Other non-operating income, net was 37.3 million in 2002 compared to other non-operating expense of 10.6 million in 2001. Net foreign currency transaction gains were 35.3 million in 2002 compared to net foreign currency transaction losses of 5.7 million in 2001 which primarily reflect the affects of the strengthening euro during 2002.

*Financial Expense, Net*

Financial expense, net is comprised primarily of (losses)/income from associated companies, (losses)/gains on sales of marketable equity securities and net interest income. Financial expense, net increased from 233.0 million for 2001 to 555.3 million for 2002, an increase of 322.3 million. The primary reason for this increase was the other than temporary impairment charge of 297.6 million recognized in the second quarter of 2002 to write-down the carrying value of our equity method investment in Commerce One to its estimated realizable value. Our equity in the net losses of Commerce One was 161.6 million in 2001 and 92.0 million in 2002. The carrying value of our total investments in Commerce One has been reduced to zero as of December 31, 2002 as a result of the recognition of the impairment charge and through the subsequent continuing application of the equity method of accounting. In accordance with US GAAP, the application of the equity method has been suspended and we will not recognize any additional losses related to our interest in Commerce One as we have not guaranteed any of their obligations nor are we otherwise committed to provide Commerce One with further financial support. Also during 2002 other minority investments were written down to their respective fair values since the decline in their respective values were also deemed to be other than temporary. The investments were made primarily from SAP's venture capital activities. The amount of impairment charges plus our share in the net losses of these equity method investees other than Commerce One totaled 128.1 million in 2002 and 72.5 million in 2001.

Net interest income decreased to 24.8 million in 2002 compared to 33.7 million in 2001, primarily due to lower interest rates in 2002. The decline in net interest income was partially offset by the decrease in interest expense, which was due to increased liquidity and decreased levels of interest bearing obligations during 2002.

Financial expense, net in 2002 and 2001 included unrealized losses of 58.9 million and 50.9 million, respectively, related to the change in fair values of various call options entered into in connection with certain stock-based compensation plans. See note 24 to the consolidated financial statements.

### *Income Taxes*

Our effective income tax rate increased from 44.6% for 2001 to 53.8% in 2002. This increase was primarily attributable to the EUR 389.6 million loss associated with our investment in Commerce One and EUR 98.5 million loss of impairment charges for other investments, which are not deductible for tax-purposes. Further, as a result of new German tax legislation enacted in 2002, an incremental income tax charge of EUR 1.6 million was recognized. Adjusted for the affects of these and other unusual items, the adjusted effective tax rate for 2002 was 36.7%, which was 1.3 percentage point lower than the adjusted effective tax rate for 2001. See note 11 to our consolidated financial statements.

### *Net Income*

Net income decreased from 581.1 million in 2001 to 508.6 million in 2002, representing a decrease of 72.5 million or 12.5%. Net income as a percentage of total revenue decreased from 7.9% for 2001 to 6.9% for 2002. This decrease was primarily due to the impairment charge of 297.6 million related to the write-down of the carrying value of our investment in Commerce One, the negative foreign currency translation effects resulting from the strengthening euro ( 88.8 million) and the incremental restructuring costs ( 32.5 million pretax) partially offset by cost reductions in our sales and marketing activities ( 170.3 million pretax) and the net increase in foreign currency transactions gains ( 41.0 million pretax). Basic and diluted earnings per share were 1.62 in 2002 compared to 1.85 in 2001.

In accordance with the new U.S. accounting standard, SFAS 142, amortization of goodwill no longer affects our net income. If we had been able to apply this standard from January 1, 2001, our reported net income for 2001 would have been 66.0 million higher and our reported basic and diluted earnings per share would have been increased by 0.21.

### *Segment Discussion*

As described in note 34 to our consolidated financial statements, we have three operating segments, product, consulting and training. Total revenue figures for each of our operating segments differ from the revenue figures classified in our consolidated statements of income because for segment reporting purposes, revenue is generally allocated to the segment that is responsible for the related project, regardless of the nature of the sales transaction, and it also includes inter-segment revenue. Segment contribution consists of total segment revenue offset by only expenses directly attributable to the segments. Expenses such as general and administrative costs, research and development activities, stock based compensation and other corporate costs which are included in determining our consolidated operating income are not allocated to the operating segments and therefore are not included in segment contribution. Therefore, segment contribution is not indicative of the actual profitability margin for the operating segments.

Product-segment revenue decreased from 5,299.9 million in 2001 to 5,270.0 million, or 0.4%. This slight decline is primarily attributable to the decrease in our software product sales offset by the increase in maintenance revenue, as discussed above. Furthermore, foreign currency translation has effected our revenue negatively. Segment contribution increased from 2,424.1 million (45.7% of total segment revenue) in 2001 to 2,685.7 million (51.0 % of total segment revenue) in 2002. This increase in contribution and in margin in 2002 was achieved through our reduction in expenses related to sales, marketing and commissions paid for third parties products.

Consulting-segment revenue increased from 2,458.3 million in 2001 to 2,654.2 million in 2002, or 8.0%. The increase in software sales in 2001 had a positive impact on consulting revenue in 2002. Further, we were able to increase the utilization rates of our own consultants, which was supported by the establishment of our Global PSO as discussed above. Segment contribution increased from 424.2 million (17.3% of total consulting revenue) in 2001 to 525.8 million (19.8% of total consulting revenue) in 2002. This increase in contribution and in margin is primarily due to the increase in external revenues and the increase in utilization of our own consultants.



Training-segment revenue decreased from 598.3 million in 2001 to 519.0 million in 2002, or 13.2%. This decrease was a result of an overall shrinking market and the changed customer demand structure. Customers became less willing to invest in traditional classroom training and more reluctant to travel to training facilities. This decline in classroom training was partially offset by additional customer specific and end user training. We expect that these trends will continue in 2003. Segment contribution decreased from 179.3 million (30.0% of total training revenue) in 2001 to 142.6 million (27.5% of total training revenue) in 2002. This decrease in contribution and in margin is due to the decrease in external revenues and the fact that the cost reduction of our training segment could not entirely compensate for this decline in customer demand.

***Year Ended December 31, 2001 Compared with Year Ended December 31, 2000***

*Total Revenue*

Total revenue increased from 6,264.6 million for 2000 to 7,340.8 million for 2001, representing an increase of 1,076.2 million or 17.2%. Total revenue consists of product revenue (software and maintenance) and service revenue (consulting and training). The growth in 2001 total revenue was due to increases in product revenue of 13.9%, consulting revenue of 26.6% and training revenue of 16.4% compared to 2000. The following discussion is based on how we allocate revenues for classification in our consolidated statements of income, which is dependent on the nature of the sales transaction regardless of the operating segment it was provided by.

*Product Revenue.* Product revenue increased from 4,129.1 million for 2000 to 4,701.8 million for 2001, representing an increase of 572.7 million or 13.9%. Software revenue increased from 2,458.7 million in 2000 to 2,580.5 million in 2001, representing an increase of 121.8 million or 5.0%. For a summary of software revenue by solution in 2001 see Item 4. Information on SAP Software Revenue by Solution. Based on orders booked, the installed customer base accounted for 68% of SAP's 2001 software revenue, with the remaining 32% coming from new customers (66% and 34% respectively in 2000). During 2001 mySAP.com accounted for 76% of software based on order entry values, thus continuing to be our main source of revenue since being introduced in October 1999. Fourth-quarter mySAP.com sales generated 75% of software revenue for the quarter, twelve percentage points higher than the corresponding quarter in 2000. Maintenance revenue increased from 1,670.4 million in 2000 to 2,121.3 million in 2001, representing an increase of 450.9 million or 27.0%. This strong growth was due primarily to the significant growth of 2000 software sales.

Product revenue as a percentage of total revenue decreased from 65.9% in 2000 to 64.1% in 2001. This decrease was due primarily to strong growth in our 2001 service revenue, the relatively flat growth of software revenue and a decline in maintenance revenue growth from 43.7% in 2000 to 27% in 2001.

*Service Revenue.* Service revenue increased by 503.3 million, or 24.6%, from 2,045.8 million for 2000 to 2,549.1 million for 2001. Consulting revenue increased from 1,645.2 million in 2000 to 2,082.9 million in 2001, representing an increase of 26.6%. Consulting revenue as a percentage of total revenue increased from 26.3% in 2000 to 28.4% in 2001. Year-on-year consulting revenue growth in 2001 increased from the 6.4% year-on-year growth rate in 2000 due in part to establishment of the Global PSO, to more efficiently address the consulting needs of major multinational corporations. The increase in software sales in 2000 also had a positive impact on consulting revenues in 2001.

Training revenue increased by 16.4% from 400.6 million in 2000 to 466.2 million in 2001. This increase was a result of an increase in educational service providers as well as growth of the education solution consultants which identified revenue opportunities at existing customers.

*Total Operating Expenses*

Total operating expenses increased from 5,461.9 million for 2000 to 6,028.4 million for 2001, representing an increase of 566.5 million or 10.4%. The impact of employee stock-based compensation plans, primarily the SARs granted to eligible employees in May 1999 (the 1999 SARs) under SAP's STAR Plan, was 98.4 million for 2001 operating expenses compared to 440.8 million for 2000. Additionally, our acquisition of TopTier in 2001 resulted in additional operating expenses, primarily from the amortization of intangible assets. Disregarding expenses for the stock-based compensation plans and TopTier acquisition costs, the increase in

operating expenses from 2000 to 2001 was 16.9%, just below the 17.2% increase in revenues. During 2001 SAP implemented costs-savings measures, which primarily impacted the fourth quarter. In addition, the increase in operating expenses resulted from the increase in sales and marketing costs associated with continued intensification of marketing activities. The increase in operating expenses also resulted from our investment in personnel, facilities and equipment in an effort to continue building a strong global infrastructure. The growth in total operating expenses was also due to our significant investment in the further development and support of the mySAP.com e-business platform.

*Cost of Product.* Cost of product increased by 23.0% from 721.6 million for 2000 to 887.4 million for 2001. As a percentage of product revenue, cost of product increased from 17.5% in 2000 to 18.9% in 2001. As a result of closer organizational links between maintenance and development functions in 2001, SAP's development employees provided more customer support activities. Consequently, the personnel expense relating to those maintenance services (approximately 60 million) are considered cost of product, thus increasing such costs. Excluding stock-based compensations and TopTier acquisition-related charges, cost of product rose 27% to 852 million keeping pace with the increase in maintenance revenue to which it substantially corresponds. Without the altered allocation of efforts, the rise would have been 18% instead of 27%.

*Cost of Services.* Cost of services increased by 12.3% from 1,750.5 million for 2000 to 1,965.0 million for 2001. As a percentage of service revenue, cost of services decreased to 77.1% in fiscal 2001 from 85.6% in 2000. In 2001, SAP also shifted certain responsibilities from the development departments to the service area. Consequently, the associated expense of 18 million was recorded not as a development expense but as a cost of service. Including this element, service expenses totaled 1,965 million. The corresponding figure before stock-based compensation plans, which gives a better comparison with previous years, was 1,944 million. It represents a 19% cost increase compared with 2000, which is significantly less than the 25% improvement in service revenues (that is, revenues from consulting and training).

*Research and Development.* Research and development expenses decreased by 71.1 million, or 7.3%, from 969.4 million in 2000 to 898.3 million in 2001. As a percentage of total revenue, research and development expenses decreased from 15.5% for 2000 to 12.2% for 2001. The number of research and development employees increased from 6,211 in 2000 to 7,665 in 2001, representing an increase of 23.4%. The percentage of employees working in the research and development department increased to 26.5% for 2001 from 25.4% in 2000. The primary reason for the decrease in 2001 research and development costs compared to 2000 is a 79 million decline in stock-based compensation incurred for our research and development employees for those periods. Furthermore, the increase in maintenance work recorded by developers and the reassignment of certain responsibilities to customer support and services activities resulted in those costs being classified as expenses other than for research and development. Finally, fewer external services were bought in 2001 than in 2000. Excluding both stock-based compensation and the effects from the reallocation of efforts and responsibilities, research and development expenses increased by 10% in 2001 and represented 12.9% and 13.7% as a percentage of revenue for 2001 and 2000, respectively.

*Sales and Marketing.* Sales and marketing expenses increased by 14.0% from 1,577.3 million for 2000 to 1,797.6 million for 2001, representing 25.2% and 24.5% of total revenue, respectively. Sales and marketing expenses, excluding stock-based compensation expenses, increased by approximately 19% to 1,777 million. This percentage increase exceeded the rate of growth in the corresponding software revenues. The level of sales and marketing costs increased primarily due to the intensification of marketing activities to drive an improvement in awareness, which we expect will generate revenue benefits in the future. SAP regards the associated expense as an investment in the future and expects that in the medium term it will have an increasingly positive impact on the growth of our business. The number of employees in sales and marketing grew by 18.9% from 4,266 in 2000 to 5,071 in 2001.

*General and Administration.* General and administrative expenses decreased by 7.6% from 417.6 million for 2000 to 386.0 million for 2001, representing 6.7% and 5.3% of total revenue, respectively. These decreases were mainly attributable to the impact of the stock-based compensation expenses in 2000, as administrative expenses include senior management expenses for all SAP group companies. Excluding stock-based compensation expenses and TopTier acquisition-related charges, general and administration expenses was 373 million in

2001, representing a 6.1% rise or 21.3 million from 352 million in 2000, which is well below SAP's revenue growth.

*Other operating expenses, net.* Other operating expenses, net increased from 25.6 million in 2000 to 94.2 million for 2001. The primary reason for the increase was for additional goodwill amortization of 29.5 million and the inclusion of restructuring charges of 13.7 million related to employee termination costs in the United States.

*Other Non-operating Expense, Net*

Other non-operating expense, net was 10.6 million in 2001 compared to 55.3 million in 2000. The primary reason for the decrease is attributable to net foreign currency transaction losses of 5.7 million in 2001 compared to 94.1 million in 2000. In September 2000, SAP Systems Integration AG (SAP SI) completed an initial public offering which resulting in the dilution of our ownership interest in SAP SI from 62% to 54%. Net proceeds received by SAP SI from the offering totaled 87.3 million and consequently we recognized a dilution gain of 44.2 million.

*Financial Expense, Net*

Financial expense, net was 233.0 million in 2001 compared to net financial income of 265.6 million in 2000. Realized gains from the sales of marketable securities was 355.1 million in 2001 compared to 23.6 million in 2000.

Financial expense, net includes our equity in the net losses of Commerce One of 161.6 million in 2001 and 18.6 million in 2000. In addition, a write down of some minority investments was necessary as the decline in the market value was deemed to be other than temporary. These investments were made primarily from SAP's venture capital activities.

Net interest income decreased to 33.7 million in 2001 from 59.2 million in 2000, primarily due to increased levels of bank loans and decreased liquidity resulting from our increased investing activities and the affects of lower interest rates in 2001.

Finance expense, net in 2001 and 2000 included unrealized losses of 50.9 million and 29.4 million, respectively, related to the change in fair values of various call options entered into connection with certain stock-based compensation plans. See note 24 to the consolidated financial statements.

*Income Taxes*

SAP's effective income tax rate increased from 38.7% for 2000 to 44.6% in 2001. This was primarily due to our share of Commerce One's net loss, which is not deductible for income tax purposes.

*Net Income*

Net income decreased from 615.7 million in 2000 to 581.1 million in 2001, representing a decrease of 34.6 million or 5.6%. Net income as a percentage of total revenue decreased from 9.8% for 2000 to 7.9% for 2001. This decrease was due to expenses for the TopTier acquisition and our share of Commerce One's loss included in financial expense as well as reduced gains on sales of securities, offset in part by the significant decreased impact of lower stock-based compensation in 2001. Basic earnings per share were 1.85 in 2001 compared to 1.96 in 2000. Excluding expenses for the TopTier acquisition and the impact of the Commerce One interest on financial income, basic earnings per share were 2.53 in 2001 compared to 2.02 in 2000.

*Segment Discussion*

As described in note 34 to our consolidated financial statements, we have three operating segments, product, consulting and training. Total revenue figures for each of our operating segments differ from the revenue figures classified in our consolidated statements of income because for segment reporting purposes, revenue is generally allocated to the segment that is responsible for the related project, regardless of the nature of the sales transaction, and it also includes inter-segment revenue. Segment contribution consists of total segment revenue offset by only

expenses directly attributable to the segments. Expenses such as general and administrative costs, research and development activities, stock based compensation and other corporate costs which are included in determining our consolidated operating income are not allocated to the operating segments and therefore are not included in segment contribution. Therefore, segment contribution is not indicative of the actual profitability margin for the operating segments.

Product-segment revenue increased from 4,326.9 million in 2000 to 5,299.9 million in 2001, or 22.5%. The increase is primarily attributable to an increase in software sales to external customers with corresponding increases in external maintenance revenue, as well as to a change in the way we reflect certain intercompany charges. Segment contribution increased from 2,256.5 million (52.2% of total segment revenue) in 2000 to 2,424.1 million (45.7% of total segment revenue) in 2001. The decrease in segment contribution as a percentage of segment revenue was due, in part, to an overall increase in cost of product and maintenance revenues as well as to an increase in segment expenses resulting from the change in the way we allocate intra-segment costs.

Consulting-segment revenue increased from 1,955.1 million in 2000 to 2,458.3 in 2001, or 25.7%, primarily due to the increase in sales to external customers. Segment contribution increased from 292.0 million (14.9% of total segment revenue) in 2000 to 424.2 million (17.3% of total segment revenue) primarily due to the increase in sales to external customers and an increase in utilization of our own consultants.

Training-segment revenue increased from 468.6 million in 2000 to 598.3 million in 2001, or 27.7%, due primarily to the increase in sales of product to external customers, who in turn invested in traditional classroom training. Segment contribution increased from 129.7 million (27.7% of total segment revenue) in 2000 to 179.3 million (30.0% of total segment revenue) in 2001 due primarily to an increase in external training revenue and more efficient use of our training infrastructure.

### Liquidity and Capital Resources

Historically, we have funded most of our growth internally from cash flow provided from operations and the sale of marketable securities. Over the past several years, our principal use of cash has been to support continuing operations and our capital expenditure requirements resulting from our growth. Cash and cash equivalents are primarily held in and U.S.\$ at December 31, 2002.

For the year ended December 31, 2002, SAP's net cash provided by operating activities amounted to 1,686.7 million, an increase of 697.9 million, or 70.6%, from 988.8 million for the year ended December 31, 2001. Accounts receivable decreased from 2,210.9 million at December 31, 2001 to 1,967.1 million at December 31, 2002, representing a decrease of 243.8 million or 11.0%. Days sales outstanding decreased from 94 days in 2001 to 87 days in 2002 as a result of the continued effectiveness of credit and collection management. Other obligations to employees decreased by 32.9 million from 540.2 million at December 31, 2001 to 507.3 million at December 31, 2002 as a result of reduced bonuses for 2002 as compared to 2001. Accounts payable during the same period decreased by 15.9%, or 62.4 million, to 328.8 million at December 31, 2002 from 391.2 million at December 31, 2001.

Net cash used in investing activities was 223.5 million in 2002, a decrease of 842.4 million from 1,065.9 million in 2001. Capital expenditures during 2002 for intangible assets and property, plant and equipment were 308.7 million, a decrease of 69.1 million from 377.8 million in 2001. This included 259.5 million in property, plant and equipment additions, mainly additional IT infrastructure and office facility construction during 2002 to keep pace with the overall growth in business activities. In 2001, we used cash to invest in Commerce One and acquire TopTier. During 2003, we expect to spend approximately 108 million for the purchase of computer hardware and other business equipment and approximately 121 million primarily to further fund the IT-Center in Germany and additional facilities in United States and India. The cash flow impact of our continued venture capital and strategic investment activities, including our investment in Commerce One and acquisition of TopTier was partially offset by cash received from the sale of marketable securities in 2001.

Net cash used in financing activities was 935.9 million in 2002, an increase of 809.6 million from the 126.3 million of net cash used in 2001. During 2002 we repaid 428.9 million in long term debt and amounts borrowed under line of credit arrangements. Dividend payments were 182.3 million and 180.4 million in 2002 and 2001, respectively. At December 31, 2002, we had outstanding long-term financial debt of 11.3 million and

outstanding short-term financial debt of approximately 22.7 million, consisting primarily of amounts borrowed by SAP AG under lines of credit and the outstanding bonds issued in connection with the various employee stock-based compensation plans. Additionally we spent approximately 94.2 million in 2001 to purchase 500,000 of our own shares and 279.3 million in 2002 to purchase 3,016,235 of our own shares, which are held in treasury at December 31, 2002.

Certain of our foreign subsidiaries have lines of credit available that allow them to borrow funds in their respective local currencies, generally to the extent SAP AG has guaranteed such amounts. At December 31, 2002, we had approximately 1,185 million available through such arrangements under which we may borrow on an overdraft or short-term basis. Interest under these lines of credit is determined at the time of borrowing based on current market rates. At December 31, 2002, SAP AG had no outstanding borrowings against these lines of credit. Our subsidiaries have aggregate borrowings under their lines of credit amounting to 24.3 million at December 31, 2002. SAP AG has provided guarantees for its subsidiaries' lines of credit, including unused amounts, and other commitments of approximately 204.8 million.

We also have available sources of cash through authorized and contingent capital. By resolution of the annual general shareholders' meeting held May 3, 2001, the Executive Board was authorized, subject to the consent of the Supervisory Board, to increase subscribed capital up to 60 million through May 1, 2006 through the issuance of additional ordinary shares in return for contributions in cash or in kind. Subject to certain preconditions and the consent of the Supervisory Board, the Executive Board is authorized to exclude the shareholders' preemptive rights. The annual general shareholders' meeting held on May 3, 2001 allows for the issuance of bonds with detachable warrants and/or convertible bonds carrying warrant rights or convertible rights, as appropriate, with respect to ordinary voting shares up to a maximum of 25 million through May 1, 2006. Shareholders' preemptive rights may be excluded. No ordinary shares have been issued as of December 31, 2002 with regards to the aforementioned authorized or contingent capital.

We believe that cash flow from operations, existing cash and cash equivalents, short-term marketable securities and available financing sources will be sufficient to meet our working capital needs and our currently planned capital expenditure requirements for the next twelve months. However, there can be no assurance that a downturn in the economy worldwide, or in a particular region, or for our products and services in general, will not change this outlook.

In order to complement or expand our business, we expect to make acquisitions of additional businesses, products and technologies, and to enter into joint venture arrangements. These acquisitions or joint venture arrangements may require additional financing. In addition, continued growth in our business may from time to time require additional capital. There can be no assurance that additional capital will be available to us if and when required, or that such additional capital will be available on acceptable terms to us.

We have not entered into any significant transactions, arrangements or other relationships with unconsolidated, variable interest entities.

The table below presents our on- and off-balance sheet contractual obligations as of December 31, 2002:

Contractual Obligation	Payments due by period (000)				
	Total	2003	2004/2005	2006/2007	Thereafter
<b>Off-balance sheet</b>					
Operating Leases	681,222	163,683	211,306	124,965	181,268
Purchase Commitments	83,277	83,277			
Other Commitments	22,063	13,658	8,405		
	<u>786,562</u>	<u>260,618</u>	<u>219,711</u>	<u>124,965</u>	<u>181,268</u>
<b>On-balance sheet</b>					
Bonds	9,668		691		8,977
Other Liabilities	748,762	725,085	813		22,864
	<u>758,430</u>	<u>725,085</u>	<u>1,504</u>		<u>31,841</u>
<b>Total</b>	<u>1,544,992</u>	<u>985,703</u>	<u>221,215</u>	<u>124,965</u>	<u>213,109</u>



Purchase commitments relate primarily to the construction of facilities in Germany, office equipment and car purchase commitments. Other commitments basically comprise food and security services and other facility commitments.

Bonds consist primarily of outstanding convertible bonds related to our LTI 2000 Plan as described in note 24 to the consolidated financial statements. Additional amounts pertain to outstanding bonds issued in conjunction with our 1994/2004 convertible bond program.

Please refer to note 27 to our consolidated financial statements for a detailed description of our other liabilities.

The table below presents our off-balance sheet contingent liabilities as of December 31, 2002:

	(000)
Guarantees and other commitments to third parties	11,329
Liabilities from the extension of collateral securities for others	4,102
	<u>15,431</u>

### Research and Development

Since our inception, we have devoted significant resources to research and development. Research and development expenses for the years ending December 31, 2002, 2001 and 2000 were 909.4 million, 898.3 million and 969.4 million, respectively. Research and development expenses as a percentage of revenue were 12.3%, 12.2% and 15.5% for the years ended December 31, 2002, 2001 and 2000, respectively. During each of 2002, 2001 and 2000, the percentage of employees devoted to research and development was 27.8 %, 26.5% and 25.4%, respectively. A major focus of the research and development effort has been to anticipate and use technological changes in the data processing industry to develop new business solutions. We have also entered into agreements with a number of leading computer software and hardware vendors and telecommunications providers to co-operate and enable certain of the software and hardware products produced by such vendors to be compatible with our solutions.

In 2000, we restructured our development area, orienting development efforts more closely to market and our customer needs. We set up six general business units for application development and six industry business units to develop industry solutions. Three other general business units are dedicated to special technology projects.

Significant areas of current and future research and development include:

SAP software solutions offering, including mySAP CRM, mySAP SCM, mySAP ERP, mySAP PLM, mySAP SRM, mySAP Enterprise Portal and mySAP Mobile Business;

New SAP software solutions like xApps and SAP Business One;

The continuous innovation of Industry Solutions;

The enhancement of the flexibility and openness of our technology and application infrastructure (SAP NetWeaver); and

The focus on new and innovative technologies.

SAP maintains research and development facilities in Germany, the United States, Japan, France, India, Israel, Bulgaria and Russia. Through this regional diversification, we maximize the efficient use of local resources and leverage access to industry expertise and customers.

**Item 6. Directors, Senior Management and Employees****Supervisory Board**

The current members of the Supervisory Board of SAP AG, each such member's principal occupation, the year in which each was first elected and the year in which the term of each expires, respectively, are as follows:

Name	Age	Principal Occupation	Year First Elected	Year Term Expires
Dietmar Hopp, Chairperson <sup>(1)(2)(3)(5)(7)</sup>	62	Managing Director, Dietmar Hopp Stiftung GmbH	1998	2007
Pekka Ala-Pietilä <sup>(1)(8)</sup>	46	President of Nokia Corporation	2002	2007
Prof. Dr. Wilhelm Haarmann <sup>(1)(3)(4)(5)(9)</sup>	52	Attorney at Law, Certified Public Auditor and Certified Tax Advisor; Haarmann, Hemmelrath & Partner	1988	2007
Klaus-Dieter Laidig <sup>(1)(6)(11)</sup>	60	Managing Partner, Laidig Business Consulting GmbH	1996	2007
Hartmut Mehdorn <sup>(1)(7)</sup>	60	Chairman of Executive Board, Deutsche Bahn AG	1998	2007
Prof. Dr. August-Wilhelm Scheer <sup>(1)(6)(8)</sup>	61	Director of the Institute for Information Systems at the German Research Center of Artificial Intelligence (DFKI)	2002	2007
Dr. Dieter Spoeri <sup>(1)(5)</sup>	59	Head of Corporate Representation Federal Affairs, DaimlerChrysler AG	1998	2007
Dr. h.c. Klaus Tschira <sup>(1)(2)(4)</sup>	62	Managing Director, Klaus Tschira Stiftung gGmbH	1998	2007
Hela Classen, Vice Chairperson <sup>(5)(7)(10)</sup>	52	Employee, Development Architect	1993	2007
Willi Burbach <sup>(7)(8)(10)</sup>	40	Employee, Developer	1993	2007
Bernhard Koller <sup>(4)(10)</sup>	53	Employee, Manager of Idea Management	1989	2007
Christiane Kuntz-Mayr <sup>(5)(8)(10)</sup>	40	Employee, Development Manager	2002	2007
Lars Lamadé <sup>(6)(10)</sup>	31	Employee, SAP Alliance Manager	2002	2007
Dr. Gerhard Maier <sup>(3)(6)(10)</sup>	49	Employee, Development Manager	1989	2007
Dr. Barbara Schennerlein <sup>(5)(10)</sup>	46	Employee, Consultant	1998	2007
Stefan Schulz <sup>(4)(8)(10)</sup>	33	Employee, Consultant	2002	2007

(1) Elected by SAP AG's shareholders on May 3, 2002.

(2) Member controls one or more entities that was a party to the Pooling Agreement, which was terminated effective September 2, 2002. See Item 7. Major Shareholders and Related Party Transactions - Major Shareholders.

(3) Member of the Compensation Committee.

(4) Member of the Audit Committee.

(5) Member of the General Committee.

(6) Member of the Finance and Investment Committee.

(7) Member of the Mediation Committee.

(8) Member of the Technology Committee.

(9)



Prof. Dr. Wilhelm Haarmann is a partner in Haarmann Hemmelrath & Partner, which serves as special German tax counsel to SAP AG and counsels SAP with regard to other legal matters.

(10) Elected by SAP AG's employees on April 9, 2002.

(11) On March 13, 2003 Mr. Klaus-Dieter Laidig resigned as a member of the Supervisory Board effective May 9, 2003.

For detailed information on the Supervisory Board committees and their tasks, please refer to Item 10. Directors, Senior Management and Employees, Supervisory Board.

The current members of the Supervisory Board of SAP AG that are members on other supervisory boards and comparable governing bodies of enterprises, other than SAP's, in Germany and other countries as of December 31, 2002 are set forth in the note 35 to our consolidated financial statements included in Item 18. Financial Statements. SAP AG has not entered into contracts with any member of the Supervisory Board that provide for benefits upon a termination of the employment of service of the member.

Pursuant to the German Co-determination Act of 1976 (*Mitbestimmungsgesetz*), SAP AG was required to increase the number of members on the Supervisory Board from twelve to sixteen, comprised of eight representatives of the shareholders and eight representatives of the employees. German law requires this increase since the number of employees of SAP AG and its group companies exceeded 10,000 employees in Germany in 2001. This increase was reflected in an amendment to SAP's Articles of Incorporation, which was approved at the annual general shareholders' meeting on May 3, 2002. All employees elected must be at least 18 years of age, must have been in the employment of SAP AG for at least one year and must fulfill the other qualifications for election codified in Section 8 of the German Works Council Constitution Act.

Mr. Klaus-Dieter Laidig resigned on March 13, 2003 as a member of the Supervisory Board effective as of the close of the annual general shareholders' meeting on May 9, 2003. SAP announced on March 13, 2003 that the Supervisory Board has moved to propose the election of Prof. Dr. h.c. Hasso Plattner to the Supervisory Board at the annual general shareholders' meeting as a shareholders' representative. Prof. Dr. h.c. Plattner, Co-Chairman and CEO of SAP's Executive Board, if elected to the Supervisory Board, would resign from the Executive Board effective the close of the annual general shareholders' meeting. The current Co-Chairman and CEO of the Executive Board, Prof. Dr. Henning Kagermann, would then become the sole CEO and sole Chairman of the Executive Board. In the event of Prof. Dr. h.c. Plattner's election to the Supervisory Board, Mr. Dietmar Hopp will propose that Prof. Dr. h.c. Plattner be elected as Chairman of the Supervisory Board, replacing Mr. Hopp.

## Executive Board

The current members of the Executive Board, the year in which each such member was first appointed and the year in which the term of each expires, respectively, are as follows:

Name	Year First Appointed <sup>(1)</sup>	Year Current Term Expires
Prof. Dr. h.c. Hasso Plattner, Co-Chairman <sup>(2)</sup>	1988	2004
Prof. Dr. Henning Kagermann, Co-Chairman	1991	2007
Dr. Peter Zencke	1993	2004
Prof. Dr. Claus Heinrich	1996	2005
Gerhard Oswald	1996	2005
Dr. Werner Brandt	2001	2005
Shai Agassi	2002	2005
Léo Apotheker	2002	2005

(1) SAP AG became a stock corporation (Aktiengesellschaft) with an Executive Board in 1988.

(2) On March 13, 2003 the Supervisory Board announced that it will propose Prof. Dr. h.c. Plattner's election to the Supervisory Board at the annual general shareholders' meeting on May 9, 2003. In the event of his election Prof. Dr. h.c. Plattner will resign from the Executive Board effective at the close of the annual general shareholders' meeting.

A description of the management responsibilities and backgrounds of the current members of the Executive Board are as follows:

*Prof. Dr. h.c. Hasso Plattner*, Co-Chairman (Vorstandssprecher) and CEO, 59 years old, engineering graduate. Prof. Dr. h.c. Plattner is one of the founders of SAP AG. He became Vice Chairman of the Executive Board in 1988 and Co-Chairman in 1997. He has overall responsibility for SAP's strategy and business development, product and technology strategy as well as for marketing and global communications. Further, he leads the Product Technology Board.

*Prof. Dr. Henning Kagermann*, Co-Chairman (Vorstandssprecher) and CEO, 55 years old, mathematics and physics graduate. Prof. Dr. Kagermann joined SAP AG in 1982. He became a member of the Executive Board in 1991 and Co-Chairman in 1998. He has overall responsibility for SAP's strategy and business development as well as for consulting, customer development, industry solutions, and strategic development projects. Further, he leads the Field Management Board.

*Shai Agassi*, 34 years old, computer science graduate. Mr. Agassi joined SAP in 2001 and became a member of the Executive Board in 2002. He is responsible for the technology strategy of the company.

*Léo Apotheker*, 49 years old, business economist. Mr. Apotheker joined SAP in 1988 and became a member of the Executive Board in 2002. He is responsible for the activities of SAP Global Field Operations.

*Dr. Werner Brandt*, 49 years old, business administration graduate. Dr. Brandt joined SAP on February 1, 2001 as the Chief Financial Officer and member of the Executive Board. He is responsible for finance and administration.

*Prof. Dr. Claus Heinrich*, 47 years old, business management and operations research graduate. Prof. Dr. Heinrich joined SAP AG in 1987 and became a member of the Executive Board in 1996. He is responsible for the development of mySAP Business Suite solutions in the area of finance and accounting, human resources management, product life-cycle management, manufacturing, and supply chain management. He has also been responsible for labor relations at SAP since 1998.

*Gerhard Oswald*, 49 years old, economics graduate. Mr. Oswald joined SAP AG in 1981 and became a member of the Executive Board in 1996. Mr. Oswald is responsible for global support and the information-technology infrastructure.

*Dr. Peter Zencke*, 53 years old, mathematics and economics graduate. Dr. Zencke joined SAP AG in 1984 and became a member of the Executive Board in 1993. He is responsible for the development of new solutions, such as mySAP CRM and mySAP Mobile Business. In addition, he coordinates SAP's international research groups and development labs.

The current members of the Executive Board of SAP AG that are members on other supervisory boards and comparable governing bodies of enterprises, other than SAP's, in Germany and other countries as of December 31, 2002 are set forth in note 35 to our consolidated financial statements in Item 18. Financial Statements. SAP AG has not entered into contracts with any member of the Executive Board that provide for benefits upon a termination of the employment of service of the member.

### **Compensation of Directors and Officers**

Under SAP AG's articles of incorporation, in addition to the reimbursement of their expenditures the members of the Supervisory Board receive remuneration composed of a fixed element and a variable element. The variable element depends on the distributed dividends. Both the fixed and the variable remuneration are higher for the chairperson and the deputy chairperson than for the other members.

The total annual remunerations of the Supervisory Board members for the year ended December 31, 2002, which is subject to the adoption of the dividend resolution by the shareholders at the annual general shareholders' meeting on May 9, 2003 is outlined in note 35 of our consolidated financial statements in Item 18. Financial Statements in this Annual Report on Form 20-F. The total annual remuneration of the Supervisory Board for the year ended December 31, 2002, will amount to 843,000. This consists of an annual fixed payment, which amounts to 50,000 for the Chairman, 37,500 for the Vice Chairman and 25,000 for all other members of the Supervisory Board, plus a variable payment equal to 2,000 for the Chairman, 1,500 for the Vice Chairman and 1,000 for all other members of the Supervisory Board for each 0.01 distributed dividends per share exceeding a dividend of 0.40 in relation to the share capital outstanding. Notwithstanding the foregoing, the aggregate remuneration shall not exceed 100,000 for the Chairman, 75,000 for the Vice Chairman and 50,000 for the other members of the Supervisory Board. The employee representatives on the supervisory board receive stock-based compensation for their services as employees only. Each employee representative owns less than one percent of the outstanding share capital. In addition, Supervisory Board members are reimbursed for

out-of-pocket expenses, and invoiced value-added tax or a sales tax are paid by SAP to the Supervisory Board members.

The total annual remuneration of the Executive Board for the year ended December 31, 2002 was 7,583,800. This amount includes 3,556,700 fixed and 4,027,100 variable remuneration. The accrued benefit liability as of December 31, 2002 for Executive Board members was approximately 4 million. For a detailed breakdown of the total fixed and all other variable remunerations, please see note 35 to our consolidated financial statements.

As of December 31, 2002, 2001 and 2000, we did not provide any loans, warranties or guaranties to members of the Executive Board. Furthermore, Section 402 of the Sarbanes-Oxley Act, which came into effect on July 30, 2002, precludes SAP AG from granting loans to members of the Supervisory Board or the Executive Board.

## Employees

At December 31, 2002, we employed 29,374 people worldwide, which represented an increase of 1.7% from December 31, 2001. Of the total employees, 13,002 employees were based in Germany and 4,903 in the United States. The following table sets forth the number of employees at December 31, 2002, 2001 and 2000:

	Employees as of December 31,											
	2002				2001				2000			
	Total	EMEA	Americas	Asia	Total	EMEA	Americas	Asia	Total	EMEA	Americas	Asia
Customer Service & Support	12,939	8,318	3,014	1,607	13,014	8,159	3,311	1,544	11,177	6,169	3,202	1,286
Research & Development	8,173	6,277	1,194	702	7,665	5,849	1,122	694	6,211	5,383	726	622
Sales & Marketing	5,143	3,075	1,427	641	5,071	2,865	1,539	667	4,266	2,373	1,333	560
General & Administrative	3,119	2,090	710	319	3,128	1,987	778	363	2,826	1,703	816	307
SAP Group	29,374	19,760	6,345	3,269	28,878	18,860	6,750	3,268	24,480	15,628	6,077	2,775

Sales revenue per employee equaled 250,451 for the year ended December 31, 2002, down from 267,405 for the year ended December 31, 2001. The focus of the systematic cost-containment measures in fiscal year 2002 was the strict containment of recruitment, which had already taken effect by the second quarter. However, apart from selective measures, SAP managed to avoid significant layoffs despite the difficult economic environment. SAP achieved this mainly by improving the internal allocation of personnel resources and drastically reducing third-party services requirements by reassigning tasks to internal resources.

SAP plans to adhere to a strict limit on hiring in 2003 if the economic conditions do not change. Nevertheless, we consider our employees as our most important success factor and would therefore wish to recruit new highly qualified employees in the future. At the same time, SAP continues to actively train its existing employees. As in previous years, SAP University's broad offering of classroom training and Internet-based courses as well as the internal training departments played a key role in 2002. Through such measures, SAP ensures that its employees, maintain and build on their high level of training.

None of our employees are subject to a collective bargaining agreement. We have never experienced a work stoppage and believe that our employee relations are excellent.

In January 2003 the SAP AG Executive Board approved a framework for a code of conduct, which will be applicable to all employees and management personnel of SAP companies. In 2003, this framework will be communicated to all companies of SAP, which are obliged to establish their own code of conduct, the content of which must at least include the rules codified in the framework.



## Share Ownership

### *Beneficial Ownership of Shares*

The ordinary shares beneficially owned by Dietmar Hopp (Chairman of the Supervisory Board), Hasso Plattner (Co-Chairman of the Executive Board (Vorstandssprecher)) and Klaus Tschira (Member of the Supervisory Board) and/or companies affiliated with aforementioned individuals are disclosed in Item 7. Major Shareholders and Related Party Transactions Major Shareholders. We believe each of the other members of the Supervisory Board and the Executive Board beneficially owns less than 1% of the ordinary shares as of March 7, 2003.

### *Stock-Based Compensation Plans*

#### *SOP 2002 Plan*

At the 2002 annual general meeting of shareholders, our shareholders approved the SAP Stock Option Plan ( SAP SOP 2002 ). The SAP SOP 2002, which provides for the issuance of stock options to the members of the Executive Board as well as to eligible executives and other top performers of SAP AG and its subsidiaries, is designed to replace the LTI 2000 Plan described below. Under the SAP SOP 2002, the Executive Board is authorized to issue, with the approval of the Supervisory Board, on or before April 30, 2007, up to 19,015,415 stock options.

Each stock option granted under SAP SOP 2002 entitles its holder to subscribe to one SAP share, against the payment of an exercise price, which is composed of a base price and a premium of 10% on the base price. The base price is the average market price of the SAP share on the Frankfurt Stock Exchange during the five trading days preceding the issuance of the respective stock option, calculated on the basis of the arithmetic mean of the closing auction prices of the SAP share in the XETRA trading system. These provisions notwithstanding, the exercise price can not be less than the closing auction price on the day before the issue date. The term of the stock options is five years. Subscription rights cannot be exercised until a vesting period has elapsed. The vesting period of an option holder's subscription rights ends two years after the issue date of that holder's options.

SAP SOP 2002 is considered a fixed plan under APB 25. Since the exercise price, which is fixed one day before grant, cannot be less than the share price on that date, no expenses are recorded for awards granted under SAP SOP 2002.

As of March 7, 2003, 3,692,259 options have been granted to participants under the SAP SOP 2002.

By resolution of the annual general shareholders meeting held on May 3, 2002, the Executive Board is authorized to acquire on or before October 31, 2003 up to 30 million shares in SAP on the condition such share purchases, together with any previously acquired shares, do not account for more than 10% of SAP's capital stock, and to use such repurchased ordinary shares to satisfy our obligations upon exercise of the stock under the SAP SOP 2002.

#### *LTI Plan*

On January 18, 2000, SAP's shareholders approved the LTI Plan. The LTI Plan is a stock-based compensation program providing members of the SAP AG Executive Board, members of subsidiaries' executive boards and selected employees a choice between convertible bonds, stock options or 50% of each. Under the LTI Plan, 15 million convertible bonds or 18.75 million stock options were originally authorized, and a maximum of 18.75 million ordinary shares were authorized pursuant to a contingent capital increase for issuance upon conversion of the convertible bonds and exercise of the stock options granted under the LTI Plan. Upon conversion of the convertible bonds and exercise of the stock options, we will be required to provide ordinary shares in return for payment of the conversion or exercise price, as the case may be, which will be less than the market price for the ordinary shares at the time of such conversion or exercise.

By resolution of the annual general shareholders meeting on May 3, 2002, the authorization to issue convertible bonds and stock options under the LTI Plan, to the extent not yet made use of, was revoked. In addition, the contingent capital for issuance upon conversion of the convertible bonds and exercise of the stock

options granted under the LTI Plan was reduced to the amount necessary to secure all convertible bonds and stock options already granted under the LTI Plan. As of March 14, 2002, SAP AG had issued approximately 8.68 million convertible bonds and approximately 3.63 million stock options under the LTI Plan.

The conversion price of the convertible bonds for one SAP AG ordinary share will equal the closing price of the SAP AG ordinary share quoted in the XETRA trading system (or any successor system) of the Frankfurt Stock Exchange on the last trading day prior to the issue of the respective convertible bond (the day on which SAP AG or the credit institution managing the issue on behalf of SAP AG accepts the beneficiary's subscription). Upon the exercise of the conversion rights, an additional payment is due for each share equal to the amount by which the conversion price of the share exceeds the nominal amount of the converted bond.

The exercise price of the stock options issued under the LTI Plan for one SAP ordinary share is calculated by reference to the outperformance. The outperformance is the percentage points by which the performance of the SAP ordinary share exceeds the performance of the reference index (Goldman Sachs Technology Index). The initial value for determining the performance by the SAP ordinary shares is the closing price of the SAP ordinary shares quoted in the XETRA trading system (or any successor system) of the Frankfurt Stock Exchange on the last trading day prior to the issue of the stock option (the day on which SAP or the credit institution managing the issue for SAP accepts the beneficiary's subscription). The initial value for determining the performance of the reference index is the last value recorded for the reference index on the same trading day on the Chicago Board Options Exchange. The final value for determining the performance of the SAP ordinary share is the closing price of SAP's ordinary shares quoted in the XETRA trading system (or any successor system) of the Frankfurt Stock Exchange on the latest trading day prior to exercise of the subscription right attaching to the stock option. The final value for determining the performance of the reference index is the last value for determining the performance of the reference on the same trading day on the Chicago Board Options Exchange. The initial value and the final value of the reference index will be translated from U.S.\$ to euros using the spot mid cashpaper range rate on the Frankfurt interbank market. Performance is the price change measured between the initial value and the final value, expressed as percentage points. In calculating the performance of the SAP ordinary share, the same adjustment rules for dividend payments, subscription rights, and other special rights are applied to the stock exchange prices used as are applied in determining the relevant reference index. The exercise price is the final value as determined above, less the product of the initial value as determined above and the outperformance.

The convertible bond program is considered a fixed plan under Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees (APB 25), and will result in no compensation expense under the current terms of the LTI Plan. Under APB 25, the stock option program is a variable plan because the exercise price varies depending upon the criteria described above. As such, compensation expense is recorded over the vesting period equal to the difference between the exercise price of the stock options and the market value of the ordinary share. Stock options may negatively impact our results of operations and both stock options and convertible bonds may negatively impact our earnings per share.

By resolution of the annual general shareholders' meeting held on May 3, 2002, the Executive Board was authorized to acquire on or before October 31, 2003 up to 30.0 million shares in SAP on the condition such share purchases, together with any previously acquired shares do not account for more than 10% of SAP's capital stock. Such repurchased ordinary shares may be used to satisfy our obligations upon conversion of the convertible bonds or exercise of the stock options under the LTI Plan and the exercise of stock options under the SAP SOP 2002. This resolution replaced the resolution of the annual general shareholders' meeting of May 3, 2001, which authorized to purchase up to 30.0 million of our ordinary shares and to use such repurchased ordinary shares to satisfy our obligations upon conversion of the convertible bonds or exercise of the stock option under the LTI 2000 Plan. These repurchases of ordinary shares are expected to reduce the dilutive effects on earnings per share. As of March 7, 2003 we have repurchased 52,056 ordinary shares and issued them to stock option holders who have exercised stock options under the LTI Plan.

#### *STAR Plan*

The STAR Plan provides for the grant of stock appreciation rights (SARs) to eligible executives and employees of SAP AG and our majority owned subsidiaries. The STAR Plan is administered by SAP AG's

Executive Board with respect to eligible employees. Beginning with the introduction of the LTI Plan in 2000, LTI Plan participants and or SAP SOP 2002 participants generally may not receive SARs under the STAR Plan in the same fiscal year. The Executive Board or the Supervisory Board, as applicable, has the authority to determine: (i) the persons to whom grants may be made under the STAR Plan; (ii) the size and other terms and conditions of each grant; (iii) the time when the grants will be made and the duration of any applicable exercise or restriction period, including the criteria for vesting and the acceleration of vesting; and (iv) any other matters arising under the STAR Plan.

**2003 SARs.** In March 2003 the Supervisory Board approved the granting of approximately 4 million 2003 SARs to selected employees who are not participants in the LTI Plan. The 2003 SARs grant value of \$84.91 is based upon the average fair market value of one ordinary share over the 20 business days from the day after the announcement of our 2002 preliminary results on January 30, 2003. The valuation of the 2003 SARs is calculated quarterly, over a period of two years. Each quarterly valuation is weighted as follows in determining the final valuation of the 2003 SARs:

<u>Quarter Ended</u>	<u>Weighting Factor</u>	<u>Quarter Ended</u>	<u>Weighting Factor</u>
March 31, 2003	5%	March 31, 2004	10%
June 30, 2003	5%	June 30, 2004	10%
September 30, 2003	10%	September 30, 2004	10%
December 31, 2003	20%	December 31, 2004	30%

The valuations for the quarterly periods ending December 31 are based on the amount by which the grant price of \$84.91 is exceeded by the average fair market value of one ordinary share as quoted on the XETRA trading system over the 20 consecutive business days commencing on the day after the announcement of our preliminary annual results for 2003 and 2004. The other quarterly valuations are based on the amount by which the grant price of \$84.91 is exceeded by the average fair market value of an ordinary share quoted on the XETRA trading system over the five consecutive business days commencing on the day after the announcement of our quarterly results. Because each quarterly valuation is measured independently, it will be unaffected by any other quarterly valuation.

The cash payout value of each 2003 SAR will be calculated quarterly as follows: (i) 100% of the first \$50 value appreciation for such quarter; (ii) 50% of the next \$50 value appreciation; and (iii) 25% of any additional value appreciation. Participants will, in the case such value appreciation occurred, receive payments with respect to the 2003 SARs on March 31, 2005 and January 31, 2006, each payment equal to 50% of the total payout amount. Participants will receive 2003 SAR payments provided that (subject to certain exceptions) they continue to be actively employed by us on the payment dates.

**2002 SARs.** In February 2002, we granted 3.6 million 2002 SARs to selected employees who are not participants in the LTI Plan. The 2002 SARs grant value of \$158.80 is based upon the average fair market value of one ordinary share over the 20 business days from the day after the announcement of our 2001 preliminary results on January 23, 2002. The valuation of the 2002 SARs is calculated quarterly, over a period of two years. Each quarterly valuation is weighted as follows in determining the final valuation of the 2002 SARs:

<u>Quarter Ended</u>	<u>Weighting Factor</u>	<u>Quarter Ended</u>	<u>Weighting Factor</u>
March 31, 2002.	5%	March 31, 2003	10%
June 30, 2002.	5%	June 30, 2003	10%
September 30, 2002.	10%	September 30, 2003	10%
December 31, 2002.	20%	December 31, 2003	30%

The valuations for the quarterly periods ending December 31 are based on the amount by which the grant price of \$158.80 is exceeded by the average fair market value of one ordinary share as quoted on the XETRA trading system over the 20 consecutive business days commencing on the day after the announcement of our preliminary annual results for 2002 and 2003. The other quarterly valuations are based on the amount by which the grant price of \$158.80 is exceeded by the average fair market value of an ordinary share quoted on the XETRA trading system over the five consecutive business days commencing on the day after the announcement



of our quarterly results. Because each quarterly valuation is measured independently, it will be unaffected by any other quarterly valuation.

The cash payout value of each 2002 SAR will be calculated quarterly as follows: (i) 100% of the first 50 value appreciation for such quarter; (ii) 50% of the next 50 value appreciation; and (iii) 25% of any additional value appreciation. Participants will receive payments with respect to the 2002 SARs on March 31, 2004 and January 31, 2005, each payment equal to 50% of the total payout amount. Participants will receive 2002 SAR payments provided that (subject to certain exceptions) they continue to be actively employed by us on the payment dates.

*2001 SARs.* In 2001, we granted 3.4 million 2001 SARs to selected employees who are not participants in the LTI Plan. Additional information regarding the 2001 SARs is included in note 24 of Item 18. Financial Statements. Because the grant price of the 2001 SARs was higher than the price of the ordinary shares during the measurement period, no payments will be made with respect to the 2001 SARs.

*2000 SARs.* In 2000, we granted approximately 3.3 million 2000 SARs (after consideration of the 3-for-1 stock split) to selected employees who did not participate in the LTI Plan and were employed by us on or prior to January 1, 1998. Because the grant price of the 2000 SARs was higher than the price of the preference shares during the measurement period, no payments will be made with respect to the 2000 SARs.

#### *1994 Bonds*

SAP has outstanding convertible bonds issued in 1994 to eligible participants, each of which is convertible into three preference shares (the 1994 Bonds). After the conversion of the preference shares into ordinary shares, each bond is convertible into three ordinary shares. The conversion rights of the 1994 Bonds became exercisable for the first time on September 30, 1996 and are thereafter exercisable on each June 30, July 31, August 31, September 30, October 31 and November 30, until June 30, 2004. At December 31, 2002, 6.8% of the 1994 Bonds remained outstanding, and 811,000 ordinary shares would be issued upon the conversion thereof. See note 23 to our consolidated financial statements included herein.

#### *German Employee Stock Purchase Plans*

SAP AG maintains two employee stock purchase plans for our German employees: (i) an ongoing payroll deduction plan (the German Payroll Deduction Plan); and (ii) an annual purchase plan (the German Annual Purchase Plan). Under the German Payroll Deduction Plan, an eligible German employee is able to purchase ordinary shares through payroll deductions of up to 10% of the gross monthly salary of the employee and SAP contributions of 15% of the ordinary share purchase price as well as the assumption of ancillary purchase expenses. As soon as the amount available for an employee is sufficient together with our contribution to purchase an ordinary share, such purchase is effected at the market price and credited to the employee's account. The acquired shares are not subject to a holding period. Under the German Annual Purchase Plan, eligible German employees may buy a determined number of ordinary shares per year on a set date. Under such plan, SAP contributes 260 per year. The employee provides any additional amounts, if necessary, to avoid the purchase of fractional shares. The acquired shares are transferred to a special account of the participating employee, and, as a result of a 2001 change in German law, they are not subject to a holding period. Employees must elect each year to participate in the German Annual Purchase Plan.

#### *U.S. Employee Stock Purchase Plans*

We maintain three plans which allow for our U.S. employees to acquire equity securities of SAP AG as follows: (i) an Employee Discount Stock Purchase Plan (U.S. Discount Plan); (ii) an employee non-discount purchase plan (the U.S. Non-discount Plan); and (iii) the ADR Stock Fund (the ADR Stock Fund) available under the SAP America, Inc. 401(k) Profit Sharing Plan and Trust (401(k) Plan). Under the U.S. Discount Plan, eligible employees are able to purchase ADRs through payroll deductions of up to 10% of their annual compensation or \$ 21,250, whichever is less, and we contribute 15% of the ADR's purchase price as well as the assumption of ancillary purchase expenses. Under the U.S. Non-discount Plan, an administrator makes open market purchases of ADRs for the accounts of participating employees on a semi-monthly basis. Such purchases

are made out of amounts deducted from each participating employee's salary. We do not make any contributions in connection with the U.S. Non-discount Plan. The ADR Stock Fund was introduced in 2000 as an investment option provided to certain U.S. employees under the 401(k) Plan. U.S. employees may contribute up to 15% of their pretax and after tax payroll under the 401(k) Plan, and we will contribute 50% of the contributed amounts up to 6% of the pretax and after tax pay (not to exceed \$ 3,000 per year). Both employee and employer contributions are submitted to a plan administrator who provides various investment fund options at the election of each participant.

#### *Other Foreign Stock Purchase Plans*

Although we maintain and are in the process of introducing various employee stock purchase plans similar to our German and U.S. plans in the majority of our remaining foreign subsidiaries, the combined impact of these plans on our results of operations, net income and cash flows is not material.

#### **Item 7. Major Shareholders and Related Party Transactions**

##### **Major Shareholders**

The share capital of SAP AG consists of ordinary shares, which are issued only in bearer form. Accordingly, SAP AG generally has no way of determining who our shareholders are or how many shares a particular shareholder owns. However, under Section 21 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), holders of voting securities of a German company admitted to official trading on a stock exchange within the European Union or the European Economic Area are obligated to notify a company of the level of their holdings whenever such holdings reach, exceed or fall below certain thresholds, which have been set at 5%, 10%, 25%, 50% and 75% of a company's outstanding voting rights.

As of September 2, 2002, the Pooling Agreement among several of our significant shareholders (described below) was dissolved. The following table sets forth certain information regarding the beneficial ownership of the ordinary shares as of March 7, 2003 of: (i) each person or group known by SAP AG to own beneficially 5% or more of the outstanding ordinary shares; and (ii) the beneficial ownership of all members of the Supervisory Board and all members of the Executive Board, individually and as a group, in each case as reported to SAP AG by such persons. Apart from the shares transfer as set forth in the footnotes to this table, there was, as far as we are able to tell given the nature of our shares, no significant change in the percentage ownership held by any major shareholder during the past three business years. None of the major shareholders have special voting rights.

<b>Principal Shareholders</b>	<b>Ordinary Shares Beneficially Owned</b>	
	<b>Number</b>	<b>% of Outstanding</b>
Dietmar Hopp Chairman Supervisory Board	33,028,795(1)	10.487%
Dietmar Hopp Stiftung GmbH	28,017,300(2)	8.895%
Prof. Dr. h.c. Hasso Plattner Co-Chairman and CEO, Executive Board	37,240,500(3)	11.824%
Hasso Plattner GmbH & Co. Beteiligungs-KG	31,240,500(4)	9.919%
Hasso Plattner Förderstiftung, gGmbH	6,000,000(5)	1.905%
Dr. h.c. Klaus Tschira Member, Supervisory Board	38,987,460(6)	12.378%
Dr. h.c. Tschira Beteiligungs GmbH & Co. KG	15,832,660(7)	5.027%
Klaus Tschira Stiftung gGmbH	21,154,800(8)	6.717%
Executive Board Members and Supervisory Board Members, as a group (24 persons)	109,264,025	34.691%
Options and convertible bonds that are vested and exercisable within 60 days of March 7, 2003, held by Executive Board Members and Supervisory Board Members, as a group (24 persons)	217,264(9)	n.a.

(1) Includes: (i) 28,017,300 ordinary shares owned by Dietmar Hopp Stiftung GmbH, and (ii) 5,011,495 ordinary shares owned by Golfplatz St. Leon-Rot GmbH & Co. Beteiligungs-KG, to which Mr. Hopp transferred such shares on December 28, 2001, and as to which



Mr. Hopp exercises sole voting and dispositive power. Mr. Hopp disclaims beneficial ownership with respect to 8,721,100 ordinary shares owned in the aggregate by Mr. Hopp's immediate family and such shares are not included above.

- (2) The Dietmar Hopp Stiftung GmbH was a party to the Pooling Agreement described below.
- (3) Consists of: (i) 31,240,500 ordinary shares owned by Hasso Plattner GmbH & Co. Beteiligungs-KG, as to which Prof. Dr. h.c. Plattner exercises sole voting and dispositive power; and (ii) 6,000,000 ordinary shares owned by Hasso Plattner Förderstiftung, gGmbH, as to which Prof. Dr. h.c. Plattner exercises sole voting and dispositive power. Prof. Dr. h.c. Plattner disclaims beneficial ownership with respect to 130,000 ordinary shares owned in the aggregate by Prof. Dr. h.c. Plattner's immediate family and such shares are not included above.
- (4) Prof. Dr. h.c. Plattner owns a 100% partnership interest in and controls the Hasso Plattner GmbH & Co. Beteiligungs-KG. The Hasso Plattner GmbH & Co. Beteiligungs-KG was a party to the Pooling Agreement described below, and 23,000,000 such ordinary shares were subject to the Pooling Agreement described below.
- (5) The Hasso Plattner Förderstiftung, gGmbH was a party to the Pooling Agreement described below.
- (6) Includes 21,154,800 ordinary shares owned by Klaus Tschira Stiftung gGmbH, as to which Dr. Tschira exercises shared voting and dispositive power. Dr. Tschira disclaims beneficial ownership with respect to 2,133,840 ordinary shares owned in the aggregate by Dr. Tschira's immediate family and such shares are not included above.
- (7) Effective as of December 2001, the Dr. h.c. Tschira Beteiligungs GmbH & Co. KG was a party to the Pooling Agreement described below.
- (8) The Klaus Tschira Stiftung gGmbH was a party to the Pooling Agreement described below.
- (9) Includes 111,032 stock options and 106,232 convertible bonds.

We have been informed that entities controlled by certain shareholders (the Pooling Shareholders), who in the aggregate beneficially hold 109,256,755 ordinary shares (which represent 34.689% of the outstanding ordinary shares as of March 7, 2003), were parties to a pooling agreement (the Pooling Agreement) with respect to shares owned by them that constituted in the aggregate 26.675% of the outstanding ordinary shares as of March 7, 2003 (the Pooled Shares). Pursuant to the Pooling Agreement, the Pooling Shareholders had agreed to vote their Pooled Shares jointly with respect to certain matters coming before SAP AG's general shareholders' meetings, including the election of the members of the Supervisory Board elected by SAP AG's shareholders. The Pooling Agreement was terminated effective as of September 2, 2002. For further information, please refer to SAP AG's report on Form 6-K submitted to the SEC on September 3, 2002. SAP AG at present has no knowledge about any arrangements, the operation of which may at a subsequent date result in a change in control of the company.

#### **Related Party Transactions**

On May 2, 2002, SAP agreed to purchase the assets of Menahel Management Data and Business Accounting Ltd. (Menahel), seated in the State of Israel, including all business intellectual property, contracts, software and related know-how and substantially all of Menahel's workforce for U.S.\$ 7.5 million. Menahel has been renamed to SAP Manage Ltd. Mr. Reuven Agassi, father of SAP AG Executive Board Member Shai Agassi, was the managing director as well as the indirect owner of one of Menahel's largest shareholders. Mr. Shai Agassi did not participate in the transaction, and a due diligence was performed by an independent audit firm.

Prof. Dr. Wilhelm Haarmann is a partner in Haarmann, Hemmelrath & Partner, which serves infrequently as special German tax counsel and counsels SAP with regard to other legal matters. According to the German Stock Corporation Act, the validity of a service contract or a contract to undertake a special assignment between the stock corporation and a member of the supervisory board is contingent upon the consent of the supervisory board. Prof. Dr. Haarmann received such consent for every service contract between Haarmann, Hemmelrath & Partner and SAP.

Other than the aforementioned items, we enter into transactions with entities with which certain members of the Supervisory Board, Executive Board or their relatives are affiliated, which we do not consider to be material to the business of SAP or the entities involved.

#### **Item 8. Financial Information**

##### **Consolidated Financial Statements**

See Item 18. Financial Statements and pages F-1 through F-60 and S-1.

## Other Financial Information

### *Legal Proceedings*

The German Federal Supervisory Office for Securities Trading (*Bundesaufsichtsamt für den Wertpapierhandel*) announced in January 1999 that it had initiated an investigation regarding possible insider trading by certain SAP AG employees prior to the release on January 5, 1999 of our preliminary results for 1998. We have cooperated with this investigation and believe that these investigations have been discontinued without seeking judgments against the persons under investigation.

The bankruptcy trustee of the U.S. company FoxMeyer Corp. ( FoxMeyer ) instituted legal proceedings against SAP AG and SAP America Inc., the U.S. subsidiary of SAP AG, in 1998. FoxMeyer was a pharmaceutical wholesaler that filed for bankruptcy protection in 1996. The discovery phase of the litigation is now proceeding. While the ultimate outcome of this matter cannot be presently determined with certainty, we believe that FoxMeyer's claims in this action are without merit. We are vigorously defending against the claims, and believe that this action is not likely to have a material effect on our business, results of operations, financial condition or cash flows.

We are subject to legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. Although the outcome of these proceedings and claims cannot be predicted with certainty, management does not believe that the outcome of any of these matters will have a material adverse effect on our business, results of operations, financial position or cash flows. Any litigation, however, involves potential risk and potentially significant litigation costs, and therefore there can be no assurance that any litigation which is now pending or which may arise in the future would not have such a material adverse effect on our business, financial position, results of operations or cash flows.

### **Dividend Policy**

Dividends are jointly proposed by SAP AG's Supervisory Board and Executive Board based on SAP AG's year-end stand-alone financial statements, subject to approval at the annual general shareholders' meeting and are officially declared for the prior year at SAP AG's annual general shareholders' meeting. SAP AG's annual general shareholders' meeting usually convenes during the second quarter of each year. Since ordinary shares are in bearer form, dividends are usually remitted to the custodian bank on behalf of the shareholder within one business day following the annual general shareholders' meeting. Record holders of the ADSs on the dividend record date will be entitled to receive payment in full of the dividend declared in respect of the year for which it is declared. Cash dividends payable to such holders will be paid to the Depositary in euros and, subject to certain exceptions, will be converted by the Depositary into Dollars. The amount of dividends received by holders of ADSs may be affected by fluctuations in exchange rates. See Item 3. Key Information Exchange Rates.

The amount of dividends paid on the ordinary shares depends on the amount of profits to be distributed by SAP AG, which depends in part upon our performance. The timing and amount of future dividend payments will depend upon our future earnings, capital needs and other relevant factors.

### **Significant Changes**

No significant change has occurred since the dates of the annual financial statements included in this Annual Report on Form 20-F.

## **Item 9. The Offer and Listing**

### **Nature of Trading Market**

#### *General*

The ordinary shares are listed on each of the Frankfurt Stock Exchange, the Berlin Stock Exchange, the Stuttgart Stock Exchange and the Zürich Stock Exchange. In addition, the ordinary shares are traded in the over-the-counter markets (*Freiverkehr*) in Germany. The principal trading market for the ordinary shares is the Frankfurt Stock Exchange. The ordinary shares are issued only in bearer form.

Pursuant to resolutions adopted at our annual general shareholders' meeting and a special meeting of holders of the preference shares on May 3, 2001, we effected on June 18, 2001 a conversion of the preference shares into ordinary shares on a share for share basis. The amount of subscribed capital for ordinary shares was therefore increased by the amount of preference shares converted on the effective date of the conversion. Due to the conversion, the ordinary shares are registered and listed on the various stock exchanges in Europe.

Effective August 3, 1998, the ADSs were listed on the New York Stock Exchange ( NYSE ) originally representing a fraction of a preference share. Due to the conversion, ordinary shares were registered with the NYSE as the underlying security for the ADSs. The ADSs trade on the NYSE under the symbol SAP and currently each represents one-fourth of one ordinary share. The Depositary for the ADSs pursuant to the Deposit Agreement is The Bank of New York.

#### *Trading on the Frankfurt Stock Exchange*

The Frankfurt Stock Exchange is the largest of the eight German stock exchanges. The aggregate annual turnover of the Frankfurt Stock Exchange in 2002 amounted to 3.0 trillion (based on the Frankfurt Stock Exchange's practice of separately recording the sale and purchase components involved in any trade) for both equity and debt instruments. At December 31, 2002, the equity securities of 5,768 corporations, including 4,901 foreign corporations, were traded on the Frankfurt Stock Exchange.

Prices are continuously quoted on the Frankfurt Stock Exchange floor each business day between 9:00 a.m. and 8:00 p.m. Central European Time for the ordinary shares and for other actively traded securities. Markets in listed securities are generally of the auction type, but listed securities also change hands in inter-bank dealer markets both on and off the Stock Exchange. Price formation is determined by open outcry by state-appointed specialists (*amtliche Kursmakler*) who are themselves exchange members, but who do not, as a rule, deal with the public. The Exchange continuously quotes prices for active stocks during Stock Exchange hours.

Transactions on the Frankfurt Stock Exchange are settled on the second business day following trading. Transactions off the Frankfurt Stock Exchange (which may be the case if one of the parties to the transaction is foreign) are generally also settled on the second business day following trading (although a different period may be agreed upon by the parties). A quotation can be suspended if orderly stock exchange trading is temporarily endangered or if a suspension is necessary in order to protect the public interest. Under German law, customers' orders to buy or sell listed securities must be executed on a stock exchange unless the customer gives other specific instructions for an individual transaction or an indeterminate number of transactions.

The ordinary shares are also traded on XETRA, a computerized trading system of the Frankfurt Stock Exchange. The trading hours for XETRA are from 9:00 a.m. until 8:00 p.m. Central European Time on each business day. Securities traded on XETRA include the securities of the 30 companies comprising the Deutsche Aktienindex ( DAX ), the leading index of trading on the Frankfurt Stock Exchange, as well as other stocks, warrants, and bonds. XETRA is subject to the rules and regulations of the Frankfurt Stock Exchange. The SAP preference shares were included in the DAX since beginning September 15, 1995 and were replaced by ordinary shares upon the conversion on June 18, 2001.

The table below sets forth, for the periods indicated, the high and low closing sales prices for the ordinary shares and for the preference shares, prior to June 18, 2001, on the Frankfurt Stock Exchange, as provided by the Deutsche Boerse AG, together with the closing highs and lows of the DAX. Since January 4, 1999, the first official trading day of 1999, the share prices of shares traded on the German stock exchanges have been quoted in euros.

	Price Per Ordinary Share <sup>(1)</sup>		Price Per Preference Share <sup>(1)(2)</sup>		DAX <sup>(3)</sup>	
	High	Low	High	Low	High	Low
	(in €)		(in €)			
<b>Annual Highs and Lows</b>						
<b>1998<sup>(4)</sup></b>	207.75	87.94	224.12	95.78	6,171.43	3,896.08
<b>1999</b>	166.00	78.67	208.33	89.67	6,958.14	4,678.72
<b>2000</b>	286.33	112.65	349.96	140.94	8,064.97	6,200.71
<b>2001</b>	180.90	100.00	N/A	N/A	6,795.14	3,787.23
<b>2002</b>	176.30	41.65	N/A	N/A	5,462.55	2,597.88
<b>Quarterly Highs and Lows</b>						
<b>2001</b>						
First Quarter	167.41	100.00	210.00	125.10	6,795.14	5,388.02
Second Quarter	180.90	108.25	181.00	110.00	6,278.90	5,553.46
Third Quarter	171.60	100.49	N/A	N/A	6,109.50	3,787.23
Fourth Quarter	156.11	111.30	N/A	N/A	5,271.29	4,239.97
<b>2002</b>						
First Quarter	176.30	143.18	N/A	N/A	5,462.55	4,745.58
Second Quarter	164.50	90.40	N/A	N/A	5,343.88	4,099.05
Third Quarter	95.59	46.34	N/A	N/A	4,483.03	2,769.03
Fourth Quarter	90.99	41.65	N/A	N/A	3,380.20	2,597.88
<b>Monthly Highs and Lows</b>						
<b>2002</b>						
July	95.59	71.85	N/A	N/A	4,483.03	3,515.83
August	87.65	66.00	N/A	N/A	3,906.55	3,332.65
September	74.80	46.34	N/A	N/A	3,609.41	2,769.03
October	77.84	41.65	N/A	N/A	3,282.67	2,597.88
November	90.99	74.29	N/A	N/A	3,360.76	3,042.06
December	90.35	74.38	N/A	N/A	3,380.20	2,840.00
<b>2003</b>						
January	93.74	81.52	N/A	N/A	3,157.25	2,643.80
February	87.79	77.19	N/A	N/A	2,751.99	2,450.20
March (through March 7)	76.55	70.08	N/A	N/A	2,549.65	2,431.66

(1) Since January 1, 2000, ordinary share prices are obtained from XETRA. Similarly, preference share prices between January 1, 2000 and June 18, 2001 were obtained from XETRA.

(2) All amounts for the preference shares shown reflect the highs and lows through June 18, 2001 due to the conversion of preference shares to ordinary shares.

(3) The DAX is a continuously updated, capital-weighted performance index of 30 German blue chip companies. In principle, the shares included in the DAX are selected on the basis of their stock exchange turnover and the issuer's market capitalization. Adjustments to the DAX are made for capital changes, subscription rights and dividends. Subsequent to June 18, 1999, the highs and lows of the DAX are disclosed on XETRA.

(4) Translated for the convenience of the reader from Marks into euros at the Official Fixed Conversion Rate.



On March 7, 2003, the closing sales price per ordinary share on the Frankfurt Stock Exchange was 70.60, as provided by the Deutsche Boerse AG.

#### *Trading on the NYSE*

At March 7, 2003, based upon information provided by the Depositary, there were 83,966,800 ADSs, representing approximately 20,991,700 ordinary shares, held of record by 1,313 registered holders. The ordinary shares underlying such ADSs represented 6.7% of the then-outstanding ordinary shares. Because the ordinary shares are issued in bearer form only, we are unable to determine the number of ordinary shares directly held by persons with U.S. addresses.

The table below sets forth, for the periods indicated, the high and low closing sales prices for the ADSs on the NYSE as reported on the NYSE Composite Tape.

	Price Per ADS	
	High	Low
	(in U.S.\$)	
<b>Annual Highs and Lows</b>		
<b>1998</b> (commencing August 3)	59.56	31.00
<b>1999</b>	53.75	23.81
<b>2000</b>	83.94	31.75
<b>2001</b>	47.64	23.00
<b>2002</b>	38.84	10.05
<b>Quarterly Highs and Lows</b>		
<b>1998</b>		
Third Quarter (commencing August 3)	59.56	38.94
Fourth Quarter	44.88	31.00
<b>1999</b>		
First Quarter	37.00	23.81
Second Quarter	36.81	24.63
Third Quarter	39.25	30.31
Fourth Quarter	53.75	33.13
<b>2000</b>		
First Quarter	83.94	44.87
Second Quarter	59.19	40.94
Third Quarter	67.81	46.06
Fourth Quarter	62.19	31.75
<b>2001</b>		
First Quarter	47.64	28.59
Second Quarter	40.99	24.39
Third Quarter	37.73	23.00
Fourth Quarter	34.80	25.09
<b>2002</b>		
First Quarter	38.84	32.41
Second Quarter	38.30	22.68
Third Quarter	23.51	11.25
Fourth Quarter	22.65	10.05

	Price Per ADS	
	High	Low
(in U.S.\$)		
<b>Monthly Highs and Lows</b>		
<b>2002</b>		
July	23.51	17.80
August	21.44	16.33
September	18.10	11.25
October	19.30	10.05
November	22.65	18.73
December	22.47	19.20
<b>2003</b>		
January	25.00	21.16
February	23.66	20.74
March (through March 7)	20.51	19.29

On March 7, 2003, the closing sales price per ADS on the NYSE was U.S.\$ 19.50, as reported on the NYSE Composite Tape.

#### Item 10. *Additional Information*

##### Articles of Incorporation

##### Organization and Register

SAP AG is a stock corporation organized in the Federal Republic of Germany under the Stock Corporation Act (*Aktiengesetz*). SAP AG is registered in the Commercial Register (*Handelsregister*) maintained by the lower court in Heidelberg, Germany, under the entry number HRB 269-Wie. SAP AG's official notices are published in the Federal Gazette (*Bundesanzeiger*); starting January 1, 2003, SAP AG's official notes will be published in the Internet version of the Federal Gazette ([www.ebundesanzeiger.de](http://www.ebundesanzeiger.de)).

##### Corporate Governance

In contrast to corporations organized in the United States, SAP AG, as a German stock corporation, is governed by three separate bodies: the Supervisory Board, the Executive Board and the annual general shareholders' meeting. Their roles are defined by German law and by SAP AG's Articles of Incorporation (*Satzung*), and may be described generally as follows:

##### *The Supervisory Board*

The Supervisory Board appoints and removes the members of the Executive Board and oversees the management of the corporation. Although prior approval of the Supervisory Board may be required in connection with certain significant matters, the law prohibits the Supervisory Board from making management decisions. The Supervisory Board is also responsible for representing SAP AG with respect to the Executive Board members.

The Supervisory Board currently consists of 16 members, of which eight members are elected by SAP AG's shareholders at a general shareholders' meeting and eight members are elected by SAP AG's employees pursuant to the German Co-determination Act of 1976 (*Mitbestimmungsgesetz*). Under German law, shareholders and employees of all corporations with more than 2,000 employees elect or appoint an equal number of representatives to the Supervisory Board. Since the number of SAP AG's and its affiliates' employees in Germany exceeded 10,000 in 2001, the Supervisory Board was enlarged to 16 members subsequent to the shareholders' meeting in May 2002, from the previous total number of members of the Supervisory Board of 12, of which six were elected by the shareholders and six were elected by SAP employees. Any Supervisory Board member elected by the shareholders at the general shareholders' meeting may be removed by two-thirds of the

votes cast at a general shareholders meeting. Any Supervisory Board member elected by the employees may be removed by three-quarters of the votes cast by the employees.

The Supervisory Board chooses a Chairman and a Deputy Chairman from among its members by a majority vote of its members. If such majority is not reached on the first vote, the Chairman will be chosen solely by the members elected by the shareholders, and the Deputy Chairman will be chosen solely by the members elected by the employees. Unless otherwise provided for by law, the Supervisory Board acts by simple majority. In the case of any deadlock, the Chairman has the deciding vote.

The members of the Supervisory Board are each elected for the same fixed term of approximately five years. The term expires at the close of the annual general shareholders meeting after the fourth fiscal year following the year in which the Supervisory Board was elected unless the general shareholders meeting specifies a shorter term of office when electing individual members of the Supervisory Board or the entire Supervisory Board. Reelection is possible. The term of a member of the Supervisory Board appointed by a court to cure a deficiency in the composition of the Supervisory Board ends at the time when such deficiency is cured. The term of a member of the Supervisory Board elected by the shareholders to succeed a departing member ends at the time when the term of the original member would have ended. A substitute member of the Supervisory Board may be elected by the shareholders at the same time as a member to replace such member in case he or she departs. The term of a substitute member who replaces a departing member ends with the conclusion of the next general shareholders meeting where members of the Supervisory Board are elected or, at the latest, at the time when the term of the original member would have ended. The remuneration of the members of the Supervisory Board is determined by the Articles of Incorporation.

The Supervisory Board may appoint committees from among its members and may, to the extent permitted by law, entrusts committees with the authority to make decisions. Until May 2002 seven committees existed: the Audit Committee (Bilanzprüfungsausschuss), the Compensation Committee (Personalausschuss), the Technology Committee (Technologieausschuss), the Venture Capital Committee (Venture-Capital-Ausschuss), the Finance Committee (Finanzausschuss), the Mediation Committee (Vermittlungsausschuss) and the Corporate Governance Committee (Corporate Governance-Ausschuss). After the election of the Supervisory Board at the general shareholders meeting in 2002 the committees were restructured. Currently, the Supervisory Board maintains the following committees:

The focus of the *Audit Committee* (Bilanzprüfungsausschuss) is the discussion and the monitoring of the independent auditor's reports about SAP companies and SAP AG financial statements as well as the summarized reviews of SAP companies and SAP AG operations. The Audit Committee proposes the appointment of the auditor and its compensation to the Supervisory Board, determines special audit areas and discusses critical accounting policies with and reviews audit issues identified by the auditor. Also, a process regarding the prior approval of all non-audit services of the auditor by the Audit Committee was established. The committee also reports on internal audit processes to the Supervisory Board.

The *General Committee* (Präsidentalausschuss) was assigned the granting of LTI 2000 and SAP SOP 2002 convertible bonds and/or stock options to all recipients with the exception of SAP AG Executive Board members. Additionally, this committee coordinates the Supervisory Board's agenda and meetings and deals with corporate governance issues.

The *Compensation Committee* (Personalausschuss) grants LTI 2000 and SAP SOP 2002 convertible bonds and/or stock options to SAP AG Executive Board members, and was assigned the conclusion of employment contracts with and the determination of the remuneration of Executive Board members, the granting of loans to senior management with special power of attorney and general personnel-related issues.

Amongst the tasks of the *Finance and Investment Committee* (Finanz- und Investitionsausschuss) are the approval and report to the Supervisory Board of venture capital investments above 7.5 million and other investments between 50 million and 100 million. It also addresses general financing issues.

Required by the German Co-determination Act of 1976 (Mitbestimmungsgesetz), the *Mediation Committee* (Vermittlungsausschuss) convenes only if the two-thirds majority required for appointing/ revoking the appointment of Executive Board members is not attained.

The *Technology Committee* (Technologieausschuss) monitors technology trends and provides the Supervisory Board with in-depth technical knowledge.

#### *The Executive Board*

The Executive Board manages the corporation's business and represents it in dealings with third parties. The Executive Board submits regular reports to the Supervisory Board about SAP operations and business strategies, and prepares special reports upon request. A person may not serve on the Executive Board and the Supervisory Board of a corporation at the same time.

Pursuant to the Articles of Incorporation, the Executive Board must consist of at least two members. Any two members of the Executive Board jointly or one member of the Executive Board and the holder of a special power of attorney jointly may legally represent SAP AG. Each member of the Executive Board is appointed by the Supervisory Board for a maximum term of five years and is eligible for reappointment thereafter. Under certain circumstances, such as a serious breach of duty or following a vote of no confidence (Vertrauensentzug) by a majority of shareholders at a general shareholders' meeting, a member of the Executive Board may be removed by the Supervisory Board prior to the expiration of such term. A member of the Executive Board may not vote on matters relating to certain contractual agreements between such member and SAP and may be liable to SAP if such member has a material interest in any contractual agreement between SAP and a third party, which was not disclosed to, and approved by, the Supervisory Board.

Under German law, SAP AG's Supervisory Board members and Executive Board members owe a duty of loyalty and care to SAP AG. They must exercise the standard of care of a prudent and diligent businessman and bear the burden of proving they did so if their actions are contested. Both boards must consider the interests of SAP AG's shareholders and our employees and, to some extent, the common interest. Those who violate their duties may be held jointly and severally liable for any resulting damages, unless their actions were validly approved by resolution at a shareholders' meeting.

The corporate governance standards and guidelines that SAP's Executive Board and Supervisory Board follow in carrying out their duties are collected in the SAP's Principles of Corporate Governance. In the interest of transparency, the Executive Board and Supervisory Board formalized the SAP corporate governance principles in October 2001 for the benefit of shareholders, customers, employees, and other stakeholders. The corporate governance principles are available on our website ([www.sap.com](http://www.sap.com)). In February 2002 the German government published the German Code of Corporate Governance (German Code), which was issued by a government appointed commission. The German Code recommends specific governance practices. After a change in the German Stock Corporation Act, the supervisory board and the executive board of a listed company are required to declare annually whether or not the company complies with these recommendations. Based on the German Code SAP examined its own principles to see if they could be improved. A large majority of the recommendations of the German Code were incorporated into SAP's principles and an update of SAP's Principles of Corporate Governance was published in August 2002. In accordance with the new German legal requirement SAP documented deviations from the German Code in the declaration of compliance, which is also available on the SAP website.

#### *The Annual General Shareholders' Meeting*

The annual general shareholders' meeting ratifies the actions of SAP AG's Supervisory Board and the Executive Board. It approves the amount of the appropriation of retained earnings, the appointment of an independent auditor and certain significant corporate transactions. The Executive Board calls the annual general shareholders' meeting. The annual general shareholders' meeting must be held within the first eight months of each fiscal year.

### ***Objectives and Purposes***

Section 2 of SAP AG's Articles of Incorporation states that our objectives involve direct or indirect activity in the area of development, production and marketing of products and the provisions of services in the field of information technology, including:

developing and marketing integrated product and service solutions for e-commerce;

developing software for information technology and the licensing of its use to others;

organization and deployment consulting, as well as user training, for e-commerce and other software solutions;

selling, leasing, renting and arranging the procurement and provision of all other forms of use of information technology systems and related equipment; and

making capital investments in enterprises active in the field of information technology to promote the opening and advancement of international markets in the field of information technology.

SAP AG is authorized to act in all the business areas listed above and to delegate such activities to affiliated enterprises within the meaning of the German Stock Corporation Act; in particular SAP AG is authorized to delegate its business in whole or in part to such enterprises. SAP AG is authorized to establish branch offices in Germany and other countries, as well as to form, acquire or invest in other companies of the same or related kind and to enter into collaboration and joint venture agreements. SAP AG is further authorized to invest in enterprises of all kinds principally for the purpose of placing financial resources. SAP AG is authorized to dispose of investments, to consolidate the management of enterprises in which it participates, to enter into affiliation agreements with such enterprises, or to do no more than manage its shareholdings.

### ***Share Capital***

As of December 31, 2002 the share capital of SAP AG amounts to 314,962,606 consisting of 314,962,606 no-par ordinary shares. The ordinary shares are issued only in bearer form.

SAP AG's shareholders approved at the annual general shareholders' meeting and a special meeting of holders of preference shares held on May 3, 2001 the conversion of each preference share into one ordinary share. The conversion was effective as of June 18, 2001.

Some of the significant provisions under German law and SAP AG's Articles of Incorporation relating to the capital stock of SAP AG may be summarized as follows:

*Capital Increases.* The capital stock may be increased in consideration of contributions in cash or in property, or by establishing authorized capital or contingent capital or by share capital reserves. Authorized capital provides the Executive Board with the flexibility to issue new shares for a period of up to five years, generally to preserve liquidity. Contingent capital allows the Executive Board to issue new shares for specified purposes, including employee stock option plans and the issuance of shares upon conversion of convertible bonds and exercise of stock options. Capital increases of ordinary shares require an amendment of the Articles of Incorporation approved by 75% of the issued shares present at the general shareholders' meeting at which the increase is proposed. The Executive Board must also obtain the approval of the Supervisory Board before issuing new shares. SAP AG's Articles of Incorporation do not contain conditions regarding changes in the capital stock that are more stringent than the law requires.

*Authorized and Contingent Capital.* Information regarding our authorized and contingent capital is included in note 23 of our consolidated financial statements included herein.

*Capital Reduction.* The share capital may be reduced by an amendment of the Articles of Incorporation approved by 75% of the issued shares present at the general shareholders' meeting.

*Preemptive Rights.* Shareholders have preemptive rights for capital increases. Subject to an authorization of the shareholders' meeting and consent of the Supervisory Board, these preemptive rights may be excluded by the Executive Board.

*Liquidation.* If SAP AG were to be liquidated, any liquidation proceeds remaining after all of our liabilities were paid would be distributed to our shareholders in proportion to their shareholdings.

*No Limitation on the right to own securities, including on Foreign Ownership.* With the exception to buy back treasury stock by a stock corporation, which is limited to 10 % of the share capital, there are no limitations under German law or in SAP AG's Articles of Incorporation on the right to own securities, including on the right of persons who are not citizens or residents of Germany to hold or vote ordinary shares.

According to the German stock corporation law, the rights of shareholders can not be amended without shareholders' consent. The Articles of Incorporation do not provide more stringent conditions than are required by German law.

### ***Voting Rights***

Each ordinary share represents one vote. Cumulative voting is not permitted under German law. SAP AG's Articles of Incorporation provide that resolutions are passed at general shareholders' meetings by a majority of votes cast, unless the law requires a higher vote. Additionally, German law requires that the following matters, among others, be approved by the affirmative vote of 75% of the issued shares present at the general shareholders' meeting at which the matter is proposed:

- changing the objectives provision in the articles of incorporation;
- capital increases and capital decreases;
- excluding preemptive rights of shareholders to subscribe for new shares;
- dissolution;
- a merger into, or a consolidation with, another company;
- a transfer of all or virtually all of the assets; and
- a change of corporate form.

### ***Shareholder Meetings***

The Executive Board calls the annual general shareholders' meeting. The Supervisory Board or the Executive Board may call an extraordinary meeting of the shareholders, if the interests of the stock corporation so require. Additionally, shareholders of SAP AG holding in the aggregate at least 5% of SAP AG's issued share capital may call an extraordinary meeting of the shareholders.

Among other things, the annual general shareholders' meeting is asked to ratify the actions of the Executive Board and the Supervisory Board during the prior year, approve the distribution of the corporation's profits and to appoint an independent auditor. Shareholder representatives to the Supervisory Board are elected at the annual general shareholders' meeting for terms of approximately five years.

Amendments to our Articles of Incorporation and other items for the agenda may be proposed either by our Supervisory Board and Executive Board, or by a shareholder or group of shareholders holding a minimum of either 5% of the issued shares or shares representing at least 500,000 of the company's capital stock.

### ***Change in Control***

There are no provisions in the Articles of Incorporation of SAP AG that would have an effect of delaying, deferring or preventing a change in control of SAP AG and that would only operate with respect to a merger, acquisition or corporate restructuring involving it or any of its subsidiaries.



On January 1, 2002, the German Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) became effective. It requires, among other things, that a bidder seeking control of a company with its corporate seat in Germany and traded on a European Union stock exchange must publish advance notice of a tender offer, submit a draft offer statement to the Federal Authority for Financial Services Supervision (*Bundesanstalt für Finanzdienstleistungsaufsicht*) for review, and obtain certification from a qualified financial institution that adequate financing is in place to complete the offer. Once a bidder has acquired shares representing 30% of the voting power, it must make an offer for all remaining shares of the target. The Takeover Act requires the Executive Board of the target to refrain from taking any measures that may frustrate the success of the takeover offer. However, the target executive board is permitted to take any action which a prudent and diligent management of a company that is not the target of a takeover bid would also take. Moreover, the target executive board may search for other bidders and, with the prior approval of the supervisory board, may take other defensive measures, provided that both boards act within the parameters of their general authority under the German Stock Corporation Act. An executive board may also adopt specific defensive measures if such measures have been approved by the supervisory board and were specifically authorized by the shareholders no later than eighteen months in advance of a takeover bid by resolution of 75% of the votes cast.

#### ***Disclosure of Share Holdings***

SAP AG's Articles of Incorporation do not require shareholders to disclose their share holdings. The Securities Trading Act (*Wertpapierhandelsgesetz*), however, requires holders of voting securities of a corporation whose shares are listed on a stock exchange to notify SAP AG of the number or shares they hold if that number reaches, exceeds or falls below specified thresholds. These thresholds are 5%, 10%, 25%, 50% and 75% of the corporation's outstanding voting rights.

#### ***Currency Conversion Dividends***

See Item 3. Key Information Dividends and Item 8. Financial Information Dividend Policy.

#### **Material Contracts**

We do not believe that any one particular contract, if terminated, would have a material adverse effect on our business, results of operations, financial condition or cash flows.

#### **Exchange Controls and Other Limitations Affecting Security Holders**

The euro is a fully convertible currency. At the present time, Germany does not restrict the export or import of capital, except for investments in certain areas in accordance with applicable resolutions adopted by the United Nations and the European Union. However, for statistical purposes only, every individual or corporation residing in Germany ( Resident ) must report to the German Central Bank (Deutsche Bundesbank), subject only to certain immaterial exceptions, any payment received from or made to an individual or a corporation residing ( Non-Resident ) outside of Germany if such payment exceeds 12,500 (or the equivalent in a foreign currency). In addition, German Residents must report any claims against or any liabilities payable to Non-Residents if such claims or liabilities, in the aggregate, exceed 5 million (or the equivalent in a foreign currency) at the end of any calendar month. Residents are also required to report annually to the German Central Bank any shares or voting rights of 10% or more they hold in non-resident corporations with total assets of more than 3 million. Corporations residing in Germany with assets in excess of 3 million must report annually to the German Central Bank any shares or voting rights of 10% held by a Non-Resident. For a discussion of the treatment of remittance of dividends, interest or other payments to Non-Resident holders of ADSs or ordinary shares, see below Taxation German Taxation of Holders of ADSs or Ordinary Shares.

There are no limitations imposed by German law or the Articles of Incorporation of SAP AG on the right of non-residents or foreign holders to hold the ADSs or ordinary shares or to receive dividends or other payments on such shares.



## Taxation

### *General*

The following discussion summarizes certain German tax and U.S. federal income tax consequences of the acquisition, ownership and disposition of ADSs or ordinary shares. Although the following discussion does not purport to describe all of the tax considerations that may be relevant to a prospective purchaser of ADSs or ordinary shares, such discussion: (i) summarizes the material German tax consequences to a holder of ADSs or ordinary shares; and (ii) summarizes certain material U.S. federal income tax consequences to a U.S. Holder (as hereinafter defined) of ADSs or ordinary shares that is not resident (in the case of an individual) or domiciled (in the case of a legal entity), as the case may be, in Germany (in either case, referred to herein as *not resident* or as a *non-resident* ) and does not have a permanent establishment or fixed base located in Germany through which such ADSs or ordinary shares are held.

### *German Taxation of Holders of ADSs or Ordinary Shares*

The following discussion generally summarizes the principal German tax consequences of the acquisition, ownership and disposition of ADSs or ordinary shares to a beneficial owner. This summary is based on the laws that are in force at the date of this Annual Report on Form 20-F and is subject to any changes in German law, or in any applicable double taxation conventions to which Germany is a party, occurring after such date. This discussion is also based, in part, on representations of the Depositary and assumes that each obligation of the Deposit Agreement and any related agreements will be performed in accordance with its terms.

The following discussion is not a complete analysis or listing of all potential German tax consequences to holders of ADSs or Ordinary Shares and does not address all tax considerations that may be relevant to all categories of potential purchasers or owners of ADSs or Ordinary Shares. In particular, the following discussion does not address the tax consequences for: (i) a person that owns, directly or indirectly, 1% or more of SAP AG's shares; (ii) a holding which forms part of a German permanent establishment of a person not resident in Germany; or (iii) a person that is resident in Germany and at the same time resident in another country.

**OWNERS AND PROSPECTIVE PURCHASERS OF ADSs OR ORDINARY SHARES ARE URGED TO CONSULT THEIR OWN TAX ADVISORS CONCERNING THE OVERALL GERMAN TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION THEREOF.**

For purposes of applying German tax law and the double tax conventions to which Germany is a party, a holder of ADSs will generally be treated as owning the ordinary shares represented thereby.

### *German Taxation of Dividends*

With regard to the taxation of dividends, the half-income system applies. Under this system only half of the distributed profits of a corporation will be included in the personal income tax base of an individual shareholder resident in Germany. It is not possible to credit the corporation tax paid by the company against the shareholder's income tax. Dividends received by corporate shareholders domiciled in Germany will be tax-exempt in order to avoid double taxation. These rules have some exceptions, which especially apply to financial institutions.

Based on these considerations the German taxation of dividends can be summarized as follows:

Under German domestic income tax laws, German corporations are required to withhold tax on dividends in an amount equal to 20% of the gross amount paid to resident and non-resident shareholders. As the basis for deduction of the withholding tax is the gross amount, withholding tax will be deducted on the taxable and tax-exempt portion of the dividend received. A 5.5% surtax on the German withholding tax is currently levied on dividend distributions paid by a German corporation, such as SAP AG. The surtax equals 1.1% (5.5% of 20%) of the gross amount of a cash dividend. Certain persons resident in Germany (*e.g.*, qualifying investment funds or tax-exempt organizations) may obtain a partial or full refund of such taxes.

For an individual holder of ADSs or ordinary shares that is resident in Germany, according to German income tax law, half of the dividends received are subject to German income tax. For such a holder, the taxable amount will be the sum of: (i) half of the cash payment by SAP AG and (ii) half of the taxes withheld. For a

corporate holder of ADSs or ordinary shares that is domiciled in Germany, according to German income tax law, dividends are exempt from corporation tax. These rules have some exceptions, which especially apply to financial institutions.

Subject to certain conditions, the tax withheld on the gross amount will be eligible for credit against the holder's income tax or corporation tax liability. Exceeding amounts are refunded upon filing and assessment of the tax return. For holders subject to German trade tax, such tax is imposed in general only on the amount of the dividends received, which is subject to income tax. On the portion of the dividends received which is exempt from income tax or corporation tax, trade tax will become due if the holder of ADSs or ordinary shares does not own at least 10% of the shares in the distributing corporation at the beginning of the tax year.

*Refund of German Tax to U.S. Holders*

A partial refund of the 20% withholding tax equal to 5% of the gross amount of the dividend and a full refund of the surtax can be obtained by a U.S. Holder (as hereinafter defined) under the U.S.-German income tax treaty (Convention between the Federal Republic of Germany and the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to taxes on Income, German Federal Law Gazette 1991 II page 355) (the "Treaty"). Thus, for each U.S.\$ 100 of gross dividends paid by SAP AG to a U.S. Holder, the dividends after partial refund of the 20% withholding tax and a refund of the surtax under the Treaty will be subject to a German withholding tax of U.S.\$ 15.

U.S. Holders were entitled to a further refund equal to 5% of the gross amount of the dividend in accordance with the Treaty so long as the German imputation system provided German resident individual shareholders with a tax credit for corporation taxes with respect to dividends paid by German corporations. The German full imputation system has been repealed with effect of the tax year 2002 for distributing companies whose fiscal year is the calendar year such as SAP AG.

To claim the refund of amounts withheld in excess of the Treaty rate, a U.S. Holder must submit (either directly or, as described below, through the Depository) a claim for refund to the German tax authorities, with, in the case of a direct claim, the original bank voucher (or certified copy thereof) issued by the paying entity documenting the tax withheld, within four years from the end of the calendar year in which the dividend is received. Claims for refund are made on a special German claim for refund form, which must be filed with the German tax authorities: Bundesamt für Finanzen, 53221 Bonn, Germany. The German claim for refund form may be obtained from the German tax authorities at the same address where applications are filed, or from the Embassy of the Federal Republic of Germany, 4645 Reservoir Road, N.W., Washington, D.C. 20007-1998.

U.S. Holders must also submit to the German tax authorities certification of their most recently filed U.S. federal income tax return (IRS Form 6166). Certification is obtained from the office of the Director of the Internal Revenue Service Center by filing a request for certification with the Internal Revenue Service (IRS), Philadelphia Service Center Foreign Certification Request, P.O. Box 16347, Philadelphia, PA 19114-0447. Requests for certification are to be made in writing and must include the U.S. Holder's name, social security number or employer identification number, tax return form number, and tax period for which certification is requested. This certification is valid for three years and need only be resubmitted in a fourth year in the event of a subsequent application for refund.

In accordance with arrangements under the Deposit Agreement, the Depository (or a custodian as its designated agent) holds the ordinary shares and receives and distributes dividends to the U.S. Holders. The Depository has agreed, to the extent practicable, to perform administrative functions necessary to obtain the refund of amounts withheld in excess of the Treaty rate for the benefit of U.S. Holders who supply the necessary documentation.

Under the Deposit Agreement, the Depository has agreed to send to the U.S. Holders of ADSs a notice explaining how to claim a refund, the form required to obtain the IRS Form 6166 certification and the German claim for refund form. The notice will describe how to obtain the certification on IRS Form 6166. In order to claim a refund, the U.S. Holder should deliver the certification provided to it by the IRS to the Depository along with the completed claim for refund form. In the case of ADSs held through a broker or other financial

intermediary, the required documentation should be delivered to such broker or financial intermediary for forwarding to the Depository. In all other cases, the U.S. Holders should deliver the required documentation directly to the Depository. The Depository will file the required documentation with the German tax authorities on behalf of the U.S. Holders.

The German tax authorities will issue the refunds, which will be denominated in euros, in the name of the Depository. The Depository will convert the refunds into Dollars and issue corresponding refund checks to the U.S. Holders or their brokers.

#### *Refund of German Tax to Holders of ADSs or Ordinary Shares in Other Countries*

A holder of ADSs or ordinary shares resident in a country other than Germany or the United States that has a double taxation convention with Germany may obtain a full or partial refund of German withholding taxes. Rates and procedures may vary according to the applicable treaty. For details, such holders are urged to consult their own tax advisors.

#### *Taxation of Capital Gains*

Half of a capital gain derived from the sale or other disposition by an individual holder resident in Germany of ADSs or ordinary shares is subject to income tax if the ADSs or ordinary shares are held as part of his or her trade or business or if the ADSs or ordinary shares held as part of his or her private assets are sold within a period of one year after acquisition.

Under the draft of the Tax Subsidies Reduction Act (*Steuervergünstigungsabbaugesetz*) it is envisaged to abolish the one year period. If the draft becomes law, half of a capital gain from the sale of privately held shares would be subject to income tax at a special rate of 15%. For shares acquired before the date of the legislative resolution, it is envisaged that the capital gain in principle amounts to 10% of the sales price.

A capital gain derived from the sale or other disposition by a corporate holder domiciled in Germany of ADSs or ordinary shares in general is exempt from corporation tax. These rules have some exceptions, which especially apply to financial institutions.

Special rules apply for individual and corporate holders resident in Germany if the shares have been received in the course of a tax-exempt reorganization.

For holders subject to German trade tax, such tax is imposed in general only on the portion of the capital gain, which is subject to income tax. Special rules may apply for shares held indirectly via trading partnerships.

The above mentioned half-income system therefore does apply to the taxation of dividends and capital gains.

A holder resident or domiciled in a country other than Germany is not subject to German income or corporation tax on the capital gain derived from the sale or other disposition of ADSs or ordinary shares.

#### *Other German Taxes*

There are no German net worth, transfer, stamp or similar taxes on the holding, purchase or sale of ADSs or ordinary shares.

#### *German Estate and Gift Taxes*

A transfer of ADSs or ordinary shares by gift or by reason of death of a holder will be subject to German gift or inheritance tax, respectively, if one of the following persons is resident in Germany: the donor or transferor or his or her heir, or the donee or other beneficiary. If one of the aforementioned persons is resident in Germany and another is resident in a country having a treaty with Germany, regarding gift or inheritance taxes, different rules may apply. If none of the aforementioned persons is resident in Germany, the transfer is not subject to German gift or inheritance tax. For persons giving up German residence, special rules apply during the first five years, and under specific circumstances, during the first ten years, after the end of the year in which the person left Germany. In general, in the case of a U.S. Holder, a transfer of ADSs or ordinary shares by gift or by reason

of death that would otherwise be subject to German gift or inheritance tax, respectively, will not be subject to such German tax by reason of the U.S.-German estate tax treaty (Convention between the Federal Republic of Germany and the United States of America for the Avoidance of Double Taxation with respect to Estate, Gift and Inheritance Taxes, German Federal Law Gazette 1982 II page 847, amended by the Protocol of September 15, 2000, German Federal Law Gazette 2000 II, page 1170 and as published on December 21, 2000, German Federal Law Gazette 2001 II, page 65) (the Estate Tax Treaty ) unless the donor or transferor, or the heir, donee or other beneficiary, is domiciled in Germany for purposes of the Estate Tax Treaty between the United States and Germany at the time of the making of the gift or at the time of the donor's or transferor's death.

In general, the Estate Tax Treaty provides a credit against U.S. federal estate and gift tax liability for the amount of inheritance and gift tax paid in Germany, subject to certain limitations, in a case where the ADSs or ordinary shares are subject to German inheritance or gift tax and U.S. federal estate or gift tax.

#### ***U.S. Taxation of U.S. Holders of Ordinary Shares or ADSs***

The following discussion generally summarizes certain U.S. federal income tax consequences of the acquisition, ownership and disposition of ADSs or ordinary shares to a beneficial owner: (i) who is an individual citizen or resident of the United States or a corporation organized under the laws of the United States or any political subdivision thereof, an estate whose income is subject to U.S. federal income tax regardless of its source or a trust, if a U.S. court can exercise primary supervision over its administration and one or more United States persons are authorized to control all substantial decisions of the trust; (ii) who is not resident in Germany for German tax purposes; (iii) whose holding of ADSs or ordinary shares does not form part of the business property or assets of a permanent establishment or fixed base in Germany; and (iv) who is fully entitled to the benefits of the Treaty in respect of such ADSs or ordinary shares (a U.S. Holder ).

This summary deals only with ADSs and ordinary shares that are held as capital assets and does not address tax considerations applicable to U.S. Holders that may be subject to special tax rules, such as dealers or traders in securities, financial institutions, insurance companies, tax-exempt entities, regulated investment companies, U.S. Holders that hold ordinary shares or ADSs as a part of a straddle, conversion transaction or other arrangement involving more than one position, U.S. Holders that own (or are deemed for U.S. tax purposes to own) 10% or more of the total combined voting power of all classes of voting stock of SAP AG, U.S. Holders that have a principal place of business or tax home outside the United States or U.S. Holders whose functional currency is not the Dollar and U.S. Holders that hold ADSs or ordinary shares through partnerships or other pass-through entities.

The discussion below is based upon the U.S. Internal Revenue Code of 1986, as amended (the Code ), the Treaty and regulations, rulings and judicial decisions there under at the date of this Annual Report on Form 20-F. Any such authority may be repealed, revoked or modified, perhaps with retroactive effect, so as to result in U.S. federal income tax consequences different from those discussed below. No assurance can be given that the conclusions set out below would be sustained by a court if challenged by the IRS. The discussion below is based, in part, on representations of the Depositary, and assumes that each obligation in the Deposit Agreement and any related agreements will be performed in accordance with its terms.

For changes caused by the German Tax Reduction Act and the Act on Further Development of Company Taxation especially with regard to withholding taxes on dividends and the taxation of capital gains and foreign tax credits, please refer to the statements above in the section Taxation German Taxation of Holders of ADSs or ordinary shares. As mentioned, in the case of SAP AG the new rules in principle will be effective from the tax year 2002.

THE DISCUSSION SET OUT BELOW IS INTENDED ONLY AS A SUMMARY OF CERTAIN U.S. FEDERAL INCOME TAX CONSEQUENCES OF AN INVESTMENT IN ADSs OR ORDINARY SHARES. PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE APPLICATION TO THEIR PARTICULAR SITUATION OF THE TAX CONSIDERATIONS DISCUSSED BELOW, AS WELL AS THE APPLICATION OF STATE, LOCAL OR FOREIGN TAX LAW. THE STATEMENTS OF U.S. TAX LAW SET OUT BELOW ARE BASED ON THE LAWS IN FORCE AND

INTERPRETATIONS THEREOF AT THE DATE OF THIS ANNUAL REPORT ON FORM 20-F AND ARE SUBJECT TO ANY CHANGES OCCURRING AFTER THAT DATE.

For U.S. federal income tax purposes, a U.S. Holder of ADSs will be considered to own the ordinary shares represented thereby. Accordingly, unless the context otherwise requires, all references in this section to ordinary shares are deemed to refer likewise to ADSs representing an ownership interest in ordinary shares.

#### *Distributions*

Subject to the discussion below under *Passive Foreign Investment Company Considerations*, distributions made by SAP AG with respect to ordinary shares (other than distributions in liquidation and certain distributions in redemption of stock), including the amount of German tax deemed to have been withheld in respect of such distributions, will be taxed to U.S. Holders as ordinary dividend income to the extent that such distributions do not exceed the current and accumulated earnings and profits of SAP AG as computed for U.S. federal income tax purposes. As discussed above, a U.S. Holder may obtain a refund of German withholding tax to the extent that the German withholding tax exceeds 15% of the amount of the associated distribution. For example, if SAP AG distributes a cash dividend equal to U.S.\$ 100 to a U.S. Holder, the distribution currently will be subject to German withholding tax of U.S.\$ 20 plus U.S.\$ 1.10 surtax, and the U.S. Holder will receive U.S.\$ 78.90. If the U.S. Holder obtains the Treaty refund, he will receive an additional U.S.\$ 6.10 from the German tax authorities. For U.S. tax purposes, such U.S. Holder will be considered to have received a total distribution of U.S.\$ 100, which will be deemed to have been subject to German withholding tax of U.S.\$ 15 (15% of U.S.\$100) resulting in the net receipt of U.S.\$ 85. Distributions, if any, in excess of SAP AG's current and accumulated earnings and profits will constitute a non-taxable return of capital to a U.S. Holder and will be applied against and reduce the U.S. Holder's tax basis in his or her ordinary shares. To the extent that such distributions exceed the tax basis of the U.S. Holder in his or her ordinary shares, the excess generally will be treated as capital gain.

In the case of a distribution in euros, the amount of the distribution generally will equal the Dollar value of the euros distributed (determined by reference to the spot currency exchange rate on the date of receipt of the distribution (receipt by the Depository in the case of a distribution on ADSs)), regardless of whether the holder in fact converts the euro into Dollars, and the U.S. Holder will not realize any separate foreign currency gain or loss (except to the extent that such gain or loss arises on the actual disposition of foreign currency received).

Dividends paid by SAP AG generally will constitute *portfolio income* for purposes of the limitations on the use of passive activity losses (and, therefore, generally may not be offset by passive activity losses) and as *investment income* for purposes of the limitation on the deduction of investment interest expense. Dividends paid by SAP AG will not be eligible for the dividends received deduction generally allowed to U.S. corporations under Section 243 of the Code.

Under certain circumstances, a U.S. Holder may be deemed to have received a distribution for U.S. federal income tax purposes upon an adjustment, or the failure to make an adjustment, to the conversion price of the 1994 Bonds.

#### *Sale or Exchange*

In general, assuming that SAP AG at no time is a passive foreign investment company, upon a sale or exchange of ordinary shares to a person other than SAP AG, a U.S. Holder will recognize gain or loss in an amount equal to the difference between the amount realized on the sale or exchange and the U.S. Holder's adjusted tax basis in the ordinary shares. Such gain or loss will be capital gain or loss and will be long-term capital gain (taxable at a reduced rate for individuals) if the ordinary shares were held for more than one year. A further reduced tax rate may apply if an individual holds ordinary shares for more than five years. The deductibility of capital losses is subject to significant limitations. Upon a sale of ordinary shares to SAP AG, a U.S. Holder may recognize capital gain or loss or, alternatively, may be considered to have received a distribution with respect to the ordinary shares, in each case depending upon the application to such sale of the rules of Section 302 of the Code.

Deposit and withdrawal of ordinary shares in exchange for ADSs by a U.S. Holder will not result in its realization of gain or loss for U.S. federal income tax purposes.

#### *Foreign Tax Credit*

In general, in computing its U.S. federal income tax liability, a U.S. Holder may elect for each taxable year to claim a deduction or, subject to the limitations on foreign tax credits generally, a credit for foreign income taxes paid or accrued by it. For U.S. foreign tax credit purposes, subject to the applicable limitations under the foreign tax credit rules, the 15% German tax that is treated as having been withheld from dividends paid to a U.S. Holder will be eligible for credit against the U.S. Holder's federal income tax liability. Thus, in the numerical example set out above, a U.S. Holder who receives a cash distribution of U.S.\$ 85 from SAP AG (U.S.\$ 100 of the initial distribution net of U.S.\$ 20 of German withholding tax and U.S.\$ 1.10 of surtax plus the Treaty refund of U.S.\$ 6.10) will be treated as having been subject to German withholding tax in the amount of U.S.\$ 15 (15% of U.S.\$ 100) and will be able to claim the U.S. foreign tax credit, subject to applicable foreign tax credit limitations, in the amount of U.S.\$ 15.

For U.S. foreign tax credit purposes, dividends paid by SAP AG generally will be treated as foreign-source income and as passive income (or in the case of certain holders, as financial services income). Gains or losses realized by a U.S. Holder on the sale or exchange of ordinary shares generally will be treated as U.S.-source gain or loss.

The availability of foreign tax credits depends on the particular circumstances of each U.S. Holder. U.S. Holders are advised to consult their own tax advisors.

#### *Foreign Personal Holding Company Considerations*

SAP AG does not believe that it or any of its subsidiaries currently is a foreign personal holding company (an FPHC) for U.S. federal income tax purposes. SAP AG is not aware of any changes that would affect this conclusion in the foreseeable future. A foreign corporation is an FPHC for a taxable year if (i) at any time, more than 50% of its stock (by vote or by value) is owned (directly, indirectly or by attribution) by or for not more than five individuals who are citizens or residents of the United States (the ownership requirement) and (ii) at least 60% (50% in certain cases) of its gross income is FPHC income, which generally includes dividends, interest, royalties (except certain active business computer software royalties) and other types of investment income (the income requirement). If SAP AG or one of its subsidiaries were treated as an FPHC, then each U.S. Holder owning ADSs or ordinary shares on the last day in the taxable year on which the ownership requirement with respect to SAP AG or its subsidiary is met would be required to include currently in taxable income as a dividend, a *pro rata* share of SAP AG's or the subsidiary's undistributed FPHC income, which is, generally, SAP AG's or the subsidiary's taxable income with certain adjustments and after reduction for certain dividend payments.

SAP AG does not believe that the ownership requirement is met at the date hereof with respect to SAP AG or any of its subsidiaries. However, there can be no assurance that the ownership requirement will not be met at some later time. Whether the income requirement would be met with respect to SAP AG or any of its subsidiaries at any such later date would depend on the nature and sources of SAP AG's and each subsidiary's income at that time.

#### *Passive Foreign Investment Company Considerations*

*Classification as a PFIC.* Special and adverse U.S. tax rules apply to a U.S. Holder that holds an interest in a passive foreign investment company (a PFIC). In general, a PFIC is any non-U.S. corporation, if (i) 75% or more of the gross income of such corporation for the taxable year is passive income (the income test) or (ii) the average percentage of assets (by value) held by such corporation during the taxable year that produce passive income (e.g., dividends, interest, royalties, rents and annuities) or that are held for the production of passive income is at least 50% (the asset test). A corporation that owns, directly or indirectly, at least 25% by value of the stock of a second corporation must take into account its proportionate share of the second corporation's income and assets in applying the income test and the asset test.

Based on current projections concerning the composition of SAP AG's income and assets, SAP AG does not believe that it will be treated as a PFIC for its current or future taxable years. However, because this conclusion is based on our current projections and expectations as to its future business activity, SAP AG can provide no assurance that it will not be treated as a PFIC in respect of its current or any future taxable years.

*Consequences of PFIC Status.* If SAP AG is treated as a PFIC for any taxable year during which a U.S. Holder holds ordinary shares, then, subject to the discussion of the qualified electing fund ( QEF ) and mark-to-market rules below, such U.S. Holder generally will be subject to a special and adverse tax regime with respect to any gain realized on the disposition of the ordinary shares and with respect to certain excess distributions made to it by SAP AG. The adverse tax consequences include taxation of such gain or excess distribution at ordinary-income rates and payment of an interest charge on tax, which is deemed to have been deferred with respect to such gain or excess distributions. Under the PFIC rules, excess distributions include dividends or other distributions received with respect to the ordinary shares, if the aggregate amount of such distributions in any taxable year exceeds 125% of the average amount of distributions from SAP AG made during a specified base period.

In some circumstances, a U.S. Holder may avoid certain of the unfavorable consequences of the PFIC rules by making a QEF election in respect of SAP AG. A QEF election effectively would require an electing U.S. Holder to include in income currently its *pro rata* share of the ordinary earnings and net capital gain of SAP AG. However, a U.S. Holder cannot elect QEF status with respect to SAP AG unless SAP AG complies with certain reporting requirements and there can be no assurance that SAP AG will provide such information.

A U.S. Holder that holds marketable stock in a PFIC may, in lieu of making a QEF election, also avoid certain unfavorable consequences of the PFIC rules by electing to mark the PFIC stock to market at the close of each taxable year. SAP AG expects that the ordinary shares will be marketable for this purpose. A U.S. Holder that makes the mark-to-market election will be required to include in income each year as ordinary income an amount equal to the excess, if any, of the fair market value of the stock at the close of the year over the U.S. Holder's adjusted tax basis in the stock. If, at the close of the year, the U.S. Holder's adjusted tax basis exceeds the fair market value of the stock, then the U.S. Holder may deduct any such excess from ordinary income, but only to the extent of net mark-to-market gains previously included in income. Any gain from the actual sale of the PFIC stock will be treated as ordinary income, and any loss will be treated as ordinary loss to the extent of net mark-to-market gains previously included in income.

#### ***Taxation of Holders of ADSs or Ordinary Shares in Other Countries***

HOLDERS OR POTENTIAL HOLDERS OF ADSs OR ORDINARY SHARES WHO ARE RESIDENT OR OTHERWISE TAXABLE IN COUNTRIES OTHER THAN GERMANY AND THE UNITED STATES ARE URGED TO CONSULT THEIR OWN TAX ADVISORS CONCERNING THE OVERALL TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF ADSs OR ORDINARY SHARES.

#### **Documents on Display**

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file reports and other information as a foreign private issuer with the SEC. These materials, including this Annual Report on Form 20-F and the exhibits thereto, may be inspected and copied at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of the materials may be obtained from the Public Reference Room of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549 at prescribed rates. The public may obtain information on the operation of the SEC's Public Reference Room by calling the SEC in the United States at 1-800-SEC-0330. The SEC also maintains a Web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy statements and other information regarding registrants that file electronically with the SEC. Our annual report and some of the other information submitted by us to the SEC may be accessed through this Web site. In addition, material filed by SAP can be inspected at the offices of the New York Stock Exchange at 20 Broad Street, New York, New York 10005.

**Item 11. *Quantitative and Qualitative Disclosures About Market Risk***

To ensure the adequacy and effectiveness of our foreign exchange hedge positions, and to monitor the risks and opportunities of our non-hedge portfolios, we continually monitor our foreign forward and option positions. In addition, we monitor our interest rate exposure, if any, both on a stand-alone basis and in conjunction with our underlying foreign currency risk, from an economic and an accounting perspective. However, there can be no assurance that the programs described below with respect to the management of currency exchange and interest rate risk will offset more than a portion of the adverse financial impact resulting from unfavorable movements in either the foreign exchange rates or interest rates. In addition, we have entered into in the past, and expect to enter into in the future, derivative instruments to hedge all or a portion of the anticipated cash flows in connection with the SARs in the event cash payments to participants are required as a result of an increase in the market price of the ordinary shares. There can be no assurance that the benefits achieved from hedging our STAR Plans exceed the related costs.

**Foreign Currency Risk**

Most of SAP AG's subsidiaries have entered into license agreements with SAP AG pursuant to which the subsidiary has acquired the right to sublicense SAP software products to customers within a specific territory. Under these license agreements, the subsidiaries generally are required to pay SAP AG a royalty equivalent to a percentage of the product fees charged by them to their customers within 30 days following the end of the month in which the subsidiary recognizes the revenue. These intercompany royalties payable to SAP AG are generally denominated in the respective subsidiary's local currency in order to centralize foreign currency risk with SAP AG in Germany. In certain countries, subsidiaries submit royalties to SAP AG in U.S.\$.. Because these royalties are denominated in the local currencies of the various subsidiaries or U.S.\$., whereas the functional currency of SAP AG is the euro, SAP AG's anticipated cash flows are subjected to foreign currency exchange risks. In addition, the delay between the date when the subsidiary records revenue and the date when the subsidiary remits payment to SAP AG also exposes us to foreign exchange risk. See Item 5. Operating and Financial Review and Prospects Exchange Rate Exposure.

We enter into derivative instruments, primarily foreign exchange forward contracts, to protect anticipated cash flows from foreign subsidiaries from foreign currency exchange fluctuations. Specifically, these foreign exchange contracts offset risks associated with fluctuations in anticipated cash flows and existing intercompany receivables relating to subsidiaries in countries with significant operations, including the United States, Japan, the United Kingdom, Switzerland, Australia and Canada. We use foreign exchange forwards that generally have maturities of twelve months or less, which are rolled over if necessary to provide continuing coverage until the applicable royalties are received.

Generally, anticipated cash flows represent expected intercompany amounts resulting from revenue generated within the next twelve months from the purchase date of the derivative instrument. However, management infrequently extends the future periods being hedged for a period of up to two years from the purchase date of the derivative instrument based on our forecasts and anticipated exchange rate fluctuations in various currencies.



The table below provides information about the derivative financial instruments we have entered into that are sensitive to foreign currency exchange rates. The table presents fair values, notional amounts (at the contract exchange rates) and the respective weighted average contractual foreign currency exchange rates. The fair values do not reflect any foreign exchange gains or losses on the underlying intercompany receivables and payables. In addition, the table below does not include foreign currency risks associated with third-party receivables and payables denominated in currencies other than the functional currency of the reporting subsidiary. See our consolidated financial statements included in Item 18. Financial Statements for further information on our foreign exchange derivative instruments.

Foreign Currency Risk	(000), except for exchange rate data	
	Contract Notional Amounts	Fair Value December 31, 2002 <sup>(1)</sup>
	Expected Maturity Date 2003	
<b>Derivatives used to manage firm commitments</b>		
<b>Foreign Currency Forward Contracts</b>		
(Receive Local Currency, Sell euros)		
U.S. Dollars	391,125	(9,478)
Weighted Average Contractual Exchange Rate	1.0227	
Japanese Yen	44,391	(125)
Weighted Average Contractual Exchange Rate	123.90	
Swiss Franks	44,621	290
Weighted Average Contractual Exchange Rate	1.4567	
British Pounds	4,919	(96)
Weighted Average Contractual Exchange Rate	0.6404	
<b>Foreign Currency Forward Contracts</b>		
(Receive Japanese Yen, Sell U.S. Dollars)		
U.S. Dollars	492	17
Weighted Average Contractual Exchange Rate	122.60	
<b>Foreign Currency Forward Contracts</b>		
(Receive U.S. Dollars, Sell Brazilian Real)		
U.S. Dollars	1,400	(12)
Weighted Average Contractual Exchange Rate	3.5560	
<b>Foreign Currency Forward Contracts</b>		
(Receive British Pounds, Sell U.S. Dollars)		
U.S. Dollars	10,661	306
Weighted Average Contractual Exchange Rate	1.5537	
<b>Foreign Currency Options</b>		
British Pounds	15,873	31
Weighted Average Contractual Exchange Rate	0.6300	

Foreign Currency Risk	(000), except for exchange rate data	
	Contract Notional Amounts	Fair Value December 31, 2002 <sup>(1)</sup>
	<b>Expected Maturity Date 2003</b>	
<b>Derivatives Used to Manage Anticipated Cash Flows</b>		
<b>Foreign Currency Forward Contracts</b>		
(Receive euros, Sell Local Currency)		
Canadian Dollars	22,099	926
Weighted Average Contractual Exchange Rate	1.5838	
Australian Dollars	11,970	224
Weighted Average Contractual Exchange Rate	1.8379	
Swiss Franks	27,797	(46)
Weighted Average Contractual Exchange Rate	1.4390	
Polish Zloty	281	(6)
Weighted Average Contractual Exchange Rate	4.1559	
U.S. Dollars	8,786	197
Weighted Average Contractual Exchange Rate	1.0130	
<b>Foreign Currency Options</b>		
(Receive euros, Sell Local Currency) U.S. Dollars	67,499	1,075
Weighted Average Contractual Exchange Rate	1.0371	
	<b>Expected Maturity Date 2004</b>	
<b>Derivatives used to manage firm commitments</b>		
<b>(Receive euros, Sell Local Currency)</b>		
<b>Foreign Currency Forward Contracts</b>		
U.S. Dollars	715,161	36,118
Weighted Average Contractual Exchange Rate	0.9788	

(1) Amounts included on SAP's consolidated balance sheet.

#### Interest Rate Risk

We invest cash primarily in bank time deposits, marketable equity securities and fixed and variable rate marketable debt securities. See Item 5. Operating and Financial Review and Prospects Interest Rate Exposure. In 2002, 2001 and 2000, we invested in funds (the Funds) created by three creditworthy financial institutions in which such financial institutions independently trade securities, subject to guidelines prescribed by us. Such guidelines limited investments in equity securities to 20% of the total value with remaining amounts in interest bearing securities. The quoted market prices of time deposits or fixed rate securities held within the Funds had no material effect on results of operations or cash flows. We liquidated these funds in 2002. We have in the past entered into, and in the future may enter into, interest rate swaps to better manage the interest income on our cash equivalents and marketable securities and to partially mitigate the impact of EMU interest rate fluctuations on these investments. We hold such derivative instruments for purposes other than trading. No swaps were outstanding at December 31, 2002.

The table below presents principal (or notional) amounts (in thousands of euros unless otherwise indicated), respective fair values at December 31, 2002 and related weighted average interest rates by year of maturity for SAP's investment portfolio.

Marketable debt securities	Expected Maturity Date (000), unless otherwise indicated						Total	Fair Value December 31, 2002
	2003	2004	2005	2006	2007	Thereafter		
Fixed rate		51,129					51,129	53,266
Average interest rate		6.12%						
Variable rate	7,283						7,283	7,302
Total investments	7,283	51,129					58,412	60,568

We have lines of credit available that allow us to borrow in the local currency. Interest under these lines of credit is determined at the time of borrowing based on current market rates. The table below presents principal amounts outstanding at December 31, 2002 (in thousands of euros unless otherwise indicated), and related weighted average interest rates by year of maturity for the bank loans outstanding under lines of credit and overdrafts. Because the maturities are short term and the amounts borrowed are rolled over as necessary at current market rates of interest at such time, fair values of bank loans and overdrafts approximate carrying values.

Bank loans and overdrafts	2002
Fixed rate ( 000)	24,307
Average interest rate	5.01%

### Equity Price Risk

We are exposed to equity price risks on the marketable portion of our equity securities. Our available for sale securities consist of investments in the high-technology industry, which historically have experienced high volatility. We typically do not attempt to reduce or eliminate market exposure on these securities.

We hold such equity securities purchased through our venture operations and strategic global partnering programs. The purpose of venture investments is to provide funding to companies that, in the opinion of our management, have promising technologies. The venture funding represents an equity investment, and/or loans, and does not represent a commitment of further business development initiatives by us. Investments made in conjunction with strategic global partnering differ from those of the venture operations since such investments are made in software and service partners who are expected to complement our existing or future product and/or service offerings. Frequently, SAP and our partners may also enter into development or sublicense agreements to further align the strategies of SAP and the partner.

In many instances, we invest in privately held companies in which an initial public offering is planned. Such investments are recorded at cost and therefore do not expose us to equity price risk as long as they are privately owned. We recognized in financial income, net gains from the sale of marketable equity securities of approximately 3 million in 2002 and 24 million in 2001. In 2002 we further recorded approximately 389.6 million of losses from associated companies related to our investment in Commerce One, of which 297.6 million is due to an other-than-temporary impairment charge. In addition we recorded an impairment charge of approximately 133.1 million, primarily for venture capital investments. In 2001 the impairment charge was approximately 75.6 million. There can be no assurance that changes in market conditions, the performance of companies in which we hold investments or other factors will not negatively impact our ability to recognize gains from the sale of marketable equity securities on conditions similar to those existing in 2002, or result in the loss of amounts invested.

### Item 12. Description of Securities Other than Equity Securities

Not Applicable.

## PART II

### Item 13. *Defaults, Dividend Arrearages and Delinquencies*

Not Applicable

### Item 14. *Material Modifications to the Rights of Security Holders and Use of Proceeds*

Not Applicable

### Item 15. *Controls and Procedures*

Within 90 days prior to the date of this report, SAP performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures. Disclosure controls and procedures are designed to ensure that the material financial and non-financial information required to be disclosed in Form 20-F and filed with the Securities and Exchange Commission is recorded, processed, summarized and reported in a timely manner. The evaluation was performed with the participation of our key corporate senior management, senior management of each business group, and under the supervision of our Chief Executive Officers ( CEOs ), Prof. Dr. h.c. Hasso Plattner and Prof. Dr. Henning Kagermann, and our Chief Financial Officer ( CFO ), Dr. Werner Brandt. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable, rather than absolute, assurances of achieving the desired control objectives, and management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the foregoing, SAP's management, including the CEOs and CFO, concluded that SAP's disclosure controls and procedures were effective.

There have been no significant changes in SAP's internal controls or in other factors that could significantly affect internal controls subsequent to the date of the evaluation. Therefore, no corrective actions were taken.

### Item 16. *[Reserved]*

## PART III

### Item 17. *Financial Statements*

Not Applicable

### Item 18. *Financial Statements*

Reference is made to pages F-1 through F-60, incorporated herein by reference.

The following consolidated financial statements are filed as part of this Annual Report on Form 20-F:

Reports of Independent Auditors.

Consolidated Statements of Income for the years ended 2002, 2001 and 2000.

Consolidated Balance Sheets as of December 31, 2002 and 2001.

Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2002, 2001 and 2000.

Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000.

Notes to the Consolidated Financial Statements.

Schedule for the years ended December 31, 2002, 2001 and 2000:

Schedule II Valuation and Qualifying Accounts and Reserves.

Separate financial statements for Commerce One will be filed as an amendment to this Form 20-F in accordance with Rule 3-09 of Regulation S-X. SAP expects to file the separate financial statements of Commerce

One no later than May 31, 2002. The amendment will be available through the Securities and Exchange Commission's web site at [www.sec.gov](http://www.sec.gov) or SAP's web site at [www.sap.com](http://www.sap.com) shortly after its filing with the Commission. Summarized financial information for Commerce One is set forth in note 16 to the consolidated financial statements.

**Item 19. Exhibits**

The following documents are filed as exhibits to this Annual Report on Form 20-F:

- 1 Articles of Incorporation (Satzung) of SAP AG, as amended to date (English translation).
- 2.1 Form of global share certificate for ordinary shares (English translation).<sup>(1)</sup>
- 2.2 Form of American Depositary Receipt.<sup>(2)</sup>
- 4.1 Form of Amended and Restated Deposit Agreement among SAP AG, The Bank of New York, as Depositary, and all owners and holders from time to time of American Depositary Receipts issued thereunder, including the form of American Depositary Receipts.<sup>(3)</sup>
- 4.2 Share Purchase Agreement by and among Commerce One, Inc., New Commerce One Holding Inc. and SAP AG, dated as of June 28, 2001.<sup>(4)</sup>
- 4.3 Amended and Restated Standstill and Stock Restriction Agreement by and among Commerce One, Inc., New Commerce One Holding, Inc. and SAP AG, dated as of June 28, 2001.<sup>(5)</sup>
- 4.4 Investor Rights Agreement by and among Commerce One, Inc., New Commerce One Holding, Inc. and SAP AG, dated as of June 28, 2001.<sup>(6)</sup>
- 4.5 Strategic Alliance Agreement by and among Commerce One, Inc., SAPMarkets, Inc. and SAP AG, dated as of September 18, 2000.<sup>(7)</sup>
- 4.6 Strategic Alliance Agreement Amendment No. 2 by and among Commerce One, Inc., SAPMarkets, Inc. and SAP AG, dated as of June 29, 2001.<sup>(8)</sup>
- 4.7 Strategic Alliance Agreement Amendment No. 3 by and among Commerce One, Inc., SAPMarkets, Inc. and SAP AG, dated as of June 29, 2001.<sup>(8)</sup>
- 8 Subsidiaries, Associated Companies and Other Investments of SAP AG.
- 10.1 Independent Auditors' Consent.
- 10.2 Statement regarding Auditors' Consent.
- 99 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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(1) Incorporated by reference to Form 8-A12B of SAP AG, filed on May 3, 2001.

(2) Incorporated by reference to Form 8-A12B of SAP AG, filed on May 3, 2001.

(3) Incorporated by reference to Form 8-A12B of SAP AG, filed on May 3, 2001.

(4) Incorporated by reference to the Current Report on Form 8-K of Commerce One, Inc., filed on July 10, 2001.

(5) Incorporated by reference to the Current Report on Form 8-K of Commerce One, Inc., filed on July 10, 2001.

(6) Incorporated by reference to the Current Report on Form 8-K of Commerce One, Inc., filed on July 10, 2001.

(7) Incorporated by reference to the Quarterly Report on Form 10-Q of Commerce One, Inc., filed on November 14, 2000.

(8) Incorporated by reference to the Quarterly Report on Form 10-Q of Commerce One, Inc., filed on August 14, 2001.

**SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant certifies that it meets all of the requirements for filing this Annual Report on Form 20-F and has duly caused this Annual Report to be signed on our behalf by the undersigned, thereunto duly authorized.

SAP AKTIENGESELLSCHAFT SYSTEME,  
ANWENDUNGEN, PRODUKTE IN DER  
DATENVERARBEITUNG  
(Registrant)

By: /s/ HASSO PLATTNER

---

Name: Prof. Dr. h.c. Hasso Plattner  
Title: Co-Chairman and CEO

By: /s/ HENNING KAGERMANN

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Name: Prof. Dr. Henning Kagermann  
Title: Co-Chairman and CEO

Dated: March 21, 2003

By: /s/ WERNER BRANDT

---

Name: Dr. Werner Brandt  
Title: CFO



**Section 302 Certifications**

I, Prof. Dr. h.c. Hasso Plattner, certify that:

1. I have reviewed this annual report on Form 20-F of SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung;
2. Based on my knowledge, this annual 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 annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the Evaluation Date); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 21, 2003

By: /s/ HASSO PLATTNER

---

Name: Prof. Dr. h.c. Hasso Plattner

Title: Co-Chairman and CEO

I, Prof. Dr. Henning Kagermann, certify that:

1. I have reviewed this annual report on Form 20-F of SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung;
2. Based on my knowledge, this annual 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 annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the Evaluation Date); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 21, 2003

/s/ HENNING KAGERMANN

By: -----

\_\_\_\_\_  
Name: Prof. Dr. Henning Kagermann

Title: Co-Chairman and CEO

I, Dr. Werner Brandt, certify that:

1. I have reviewed this annual report on Form 20-F of SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung;
2. Based on my knowledge, this annual 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 annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the Evaluation Date); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 21, 2003

/s/ WERNER BRANDT

By: -----

\_\_\_\_\_  
Name: Dr. Werner Brandt

Title: CEO

**SAP AKTIENGESELLSCHAFT AND SUBSIDIARIES**

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**INDEPENDENT AUDITORS REPORT**

The Supervisory Board

SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung:

We have audited the 2002 consolidated financial statements of SAP Aktiengesellschaft and subsidiaries ( SAP AG or the Company ) as listed in the accompanying index. In connection with our audit of the 2002 consolidated financial statements, we also have audited the 2002 financial statement schedule as listed in the accompanying index. These financial statements and financial statement schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audit. The 2001 and 2000 consolidated financial statements and financial statement schedule of SAP AG as listed in the accompanying index were audited by other auditors who have ceased operations. Those auditors report, dated January 21, 2002, on those financial statements and financial statement schedule was unqualified, before the revisions described in Note 14 and 21 to the consolidated financial statements, and included an explanatory paragraph that described the retroactive effect to the year ended December 31, 2000, for the change in accounting related to an investment that qualified for the equity method of accounting during the year ended December 31, 2001, as described in Note 2 to the consolidated financial statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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 audit provides a reasonable basis for our opinion.

In our opinion, the 2002 consolidated financial statements referred to above present fairly, in all material respects, the financial position of SAP AG as of December 31, 2002, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the related 2002 financial statement schedule, when considered in relation to the basic 2002 consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

As described in Note 3 to the consolidated financial statements, the Company changed its method of accounting for goodwill and intangible assets in 2002.

As discussed above, the 2001 and 2000 consolidated financial statements of SAP AG as listed in the accompanying index were audited by other auditors who have ceased operations. As described in Note 14, these financial statements have been revised to include the transitional disclosures required by Statement of Financial Accounting Standards No. 142 (SFAS 142), Goodwill and Other Intangible Assets, which was adopted by the Company as of January 1, 2002. In our opinion, the disclosures for 2001 and 2000 in Note 14 as it pertains to the adoption of SFAS 142 are appropriate. As described in Note 21, the Company adjusted the amounts reported in 2001 and 2000 for cash and cash equivalents to exclude restricted cash. We audited the adjustments described in Note 21 that were applied to revise the 2001 and 2000 consolidated financial statements. In our opinion such adjustments are appropriate and have been properly applied. However, we were not engaged to audit, review, or apply any procedures to the 2001 and 2000 consolidated financial statements and financial statement schedules of SAP AG other than with respect to such disclosures and adjustments and, accordingly, we do not express an opinion or any other form of assurance on the 2001 and 2000 consolidated financial statements and financial statement schedules taken as a whole.

Mannheim, Germany

February 21, 2003

KPMG Deutsche Treuhand-Gesellschaft

Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

/s/ Schmid  
Wirtschaftsprüfer

/s/ Walter  
Wirtschaftsprüfer



This is a copy of the audit report previously issued by Arthur Andersen Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft mbH in connection with SAP's filing on Form 20-F for the year ended December 31, 2001. This audit report has not been reissued by Arthur Andersen Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft mbH in connection with this filing on Form 20-F. See Exhibit 10.2 for further discussion. The consolidated balance sheet as of December 31, 2000, the consolidated statements of operations, stockholders' equity and cash flows for the year ended December 31, 1999 and the information in the schedule for 1999 referred to in this report have not been included in the accompanying financial statements or schedule.

#### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

We have audited the accompanying consolidated balance sheets of SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of income, changes in shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 2001. 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 auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

As explained in Note 2 to the financial statements, the Company has given retroactive effect to the year ended December 31, 2000, for the change in accounting related to an investment that qualifies for the equity method of accounting during the year ended December 31, 2001.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed in the index of financial statements is presented for the purpose of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

Eschborn/ Frankfurt am Main

January 21, 2002

#### ARTHUR ANDERSEN

Wirtschaftsprüfungsgesellschaft  
Steuerberatungsgesellschaft mbH

/s/ Gross  
Wirtschaftsprüfer

/s/ Turowski  
Wirtschaftsprüfer

## SAP AKTIENGESELLSCHAFT AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF INCOME

for the years ended December 31,  
(in thousands except for per share and exchange rate data)

	Note	2002 <sup>(1)</sup>	2002	2001	2000
		US\$			
Software revenue		2,401,940	2,290,834	2,580,518	2,458,725
Maintenance revenue		2,540,291	2,422,786	2,121,250	1,670,364
Product revenue		4,942,231	4,713,620	4,701,768	4,129,089
Consulting revenue		2,311,094	2,204,191	2,082,855	1,645,198
Training revenue		433,979	413,904	466,224	400,566
Service revenue		2,745,073	2,618,095	2,549,079	2,045,764
Other revenue		85,057	81,123	89,957	89,742
Total revenue	(5)	7,772,361	7,412,838	7,340,804	6,264,595
Cost of product		(902,101)	(860,373)	(887,429)	(721,556)
Cost of service		(2,050,641)	(1,955,785)	(1,965,000)	(1,750,487)
Research and development		(953,495)	(909,390)	(898,251)	(969,377)
Sales and marketing	(6)	(1,706,156)	(1,627,235)	(1,797,546)	(1,577,330)
General and administration		(418,633)	(399,269)	(385,990)	(417,570)
Other operating expense, net	(7)	(36,811)	(35,108)	(94,214)	(25,617)
Total operating expenses	(8)	(6,067,837)	(5,787,160)	(6,028,430)	(5,461,937)
Operating income		1,704,524	1,625,678	1,312,374	802,658
Other non-operating income/expense, net	(9)	39,128	37,319	(10,643)	(55,340)
Financial income/expense, net	(10)	(582,231)	(555,299)	(232,974)	265,551
Income before income taxes and extraordinary gain		1,161,421	1,107,698	1,068,757	1,012,869
Income taxes	(11)	(627,742)	(598,705)	(476,293)	(391,807)
Minority interest		(6,453)	(6,155)	(11,328)	(5,330)
Income before extraordinary gain		527,226	502,838	581,136	615,732
Extraordinary gain, net of tax	(12)	6,056	5,776		
Net income		533,282	508,614	581,136	615,732
Earnings per share basic	(13)	1.70	1.62	1.85	1.96
Earnings per share diluted	(13)	1.70	1.62	1.85	1.95

(1) The 2002 figures have been translated solely for the convenience of the reader at an exchange rate of 1.00 to US\$ 1,0485, the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2002.



See Notes to Consolidated Financial Statements.

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## SAP AKTIENGESELLSCHAFT AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

as of December 31,  
(in thousands except for exchange rate data)

## Assets

	Note	2002 <sup>(2)</sup>	2002	2001
		US\$		
Intangible assets	(14)	462,142	440,765	499,352
Property, plant and equipment	(15)	1,084,376	1,034,217	997,052
Financial assets	(16)	171,515	163,581	707,083
Fixed assets		1,718,033	1,638,563	2,203,487
Inventories	(17)	11,249	10,729	4,593
Accounts receivable, net	(18)	2,062,512	1,967,107	2,210,913
Accounts due from related parties				723
Other assets	(19)	276,705	263,906	177,624
Accounts receivable and other assets		2,339,217	2,231,013	2,389,260
Marketable securities	(20)	1,415	1,349	98,143
Liquid assets	(21)	1,297,935	1,237,897	866,050
Non fixed assets		3,649,816	3,480,988	3,358,046
Deferred taxes		421,801	402,290	479,747
Prepaid expenses and deferred charges	(22)	92,175	87,911	154,324
Total assets		5,881,825	5,609,752	6,195,604
<i>(thereof total current assets)<sup>(3)</sup></i>		3,683,675	3,513,281	3,540,349
<b>Shareholders Equity and Liabilities</b>				
Subscribed capital <sup>(1)</sup>		330,239	314,963	314,826
Treasury stock		(391,591)	(373,477)	(94,212)
Additional paid-in capital		194,161	185,180	162,719
Retained earnings		3,010,355	2,871,106	2,547,419
Accumulated other comprehensive income/loss		(131,777)	(125,681)	178,761
Shareholders equity	(23)	3,011,387	2,872,091	3,109,513
Minority interests		58,904	56,179	62,805
Pension liabilities and similar obligations	(25)	87,626	83,573	51,823
Other reserves and accrued liabilities	(26)	1,549,706	1,478,022	1,376,547
Reserves and accrued liabilities		1,637,332	1,561,595	1,428,370
Bonds		10,137	9,668	7,296

Other liabilities	(27)	785,077	748,762	1,210,214
		<u>          </u>	<u>          </u>	<u>          </u>
Other liabilities		795,214	758,430	1,217,510
		<u>          </u>	<u>          </u>	<u>          </u>
Deferred income	(28)	378,988	361,457	377,406
		<u>          </u>	<u>          </u>	<u>          </u>
Total shareholders' equity and liabilities		5,881,825	5,609,752	6,195,604
		<u>          </u>	<u>          </u>	<u>          </u>
<u>(thereof current liabilities)</u>		2,544,651	2,426,944	2,797,833

(1) Contingent capital 56,271 thousand (2001: 43,276 thousand)

(2) The 2002 figures have been translated solely for the convenience of the reader at an exchange rate of 1.00 to US\$ 1.0485 the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2002.

(3) See note 21.

See Notes to Consolidated Financial Statements.

## SAP AKTIENGESELLSCHAFT AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY

for the years ended December 31,

(in thousands of )

	Number of shares issued and outstanding (000)	Comprehensive income	Accumulated other comprehensive income/loss	Retained earnings	Additional paid-in capital	Treasury stock	Subscribed capital	Total
December 31, 1999	104,756		343,957	1,698,229	249,364		267,805	2,559,355
Effect of 3-for-1 stock split	209,512				(46,463)		46,463	
Net income		615,732		615,732				615,732
Other comprehensive income/loss, net of tax								
Unrealized losses on marketable securities		(233,868)						
Currency translation adjustment		45,207						
Additional minimum pension liability		(3,780)						
Unrealized gains on cash flow hedges		39,059						
Other comprehensive loss		(153,382)	(153,382)					(153,382)
Comprehensive income		462,350						
Convertible bonds exercised	447				7,160		447	7,607
Dividends				(165,780)				(165,780)
Effect of put option				(170,232)	(209,699)			(379,931)
Other				(1,361)	34,841			33,480
December 31, 2000	314,715		190,575	1,976,588	35,203		314,715	2,517,081
Net income		581,136		581,136				581,136
Other comprehensive income/loss, net of tax								
Unrealized losses on marketable securities		(24,241)						
Currency translation adjustment		41,098						
Additional minimum pension liability		(3,142)						
Unrealized losses on cash flow hedges		(25,529)						
Other comprehensive loss		(11,814)	(11,814)					(11,814)
Comprehensive income		569,322						
Convertible bonds exercised	111				1,781		111	1,892
Dividends				(180,414)				(180,414)
Share repurchase						(94,212)		(94,212)
Effect of put option				170,232	152,177			322,409

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Other			(123)	(26,442)			(26,565)
December 31, 2001	<u>314,826</u>	<u>178,761</u>	<u>2,547,419</u>	<u>162,719</u>	<u>(94,212)</u>	<u>314,826</u>	<u>3,109,513</u>
Net income	508,614		508,614				508,614
Other comprehensive income/loss, net of tax							
Unrealized losses on marketable securities	(3,946)						
Currency translation adjustment	(289,750)						
Additional minimum pension liability	(11,458)						
Unrealized gains on cash flow hedges	712						
Other comprehensive loss	(304,442)	(304,442)					(304,442)
Comprehensive income	<u>204,172</u>						
Convertible bonds and stock options exercised	137			29,709		137	29,846
Dividends			(182,319)				(182,319)
Share repurchase					(279,265)		(279,265)
Effect of put option				4,342			4,342
Other			(2,608)	(11,590)			(14,198)
December 31, 2002	<u>314,963</u>	<u>(125,681)</u>	<u>2,871,106</u>	<u>185,180</u>	<u>(373,477)</u>	<u>314,963</u>	<u>2,872,091</u>

See Notes to Consolidated Financial Statements.

## SAP AKTIENGESELLSCHAFT AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended December 31,  
(in thousands except exchange rate data)

	Note	2002 <sup>(1)</sup>	2002	2001 <sup>(2)</sup>	2000 <sup>(2)</sup>
		US\$			
Net income		533,282	508,614	581,136	615,732
Minority interest		6,453	6,155	11,328	5,330
Extraordinary gain		(6,056)	(5,776)		
		533,679	508,993	592,464	621,062
Income from operations		533,679	508,993	592,464	621,062
Adjustments to reconcile income from operations to net cash provided by operating activities:					
Dilution gain from initial public offering of a subsidiary					(44,234)
Depreciation and amortization		231,943	221,214	279,792	223,308
Losses from equity investments, net		413,727	394,589	165,499	96,943
In-process research and development				5,596	
Gains on disposal of property, plant and equipment and marketable equity securities, net		(4,092)	(3,903)	(22,678)	(348,692)
Write-downs of financial assets, net		132,538	126,407	71,332	19,137
Impacts of hedging		61,766	58,909	82,279	29,436
Change in accounts receivables and other assets		150,048	143,107	(18,892)	(202,275)
Changes in deferred stock compensation		25,111	23,949	(11,641)	
Change in reserves and liabilities		68,515	65,346	15,377	553,776
Change in deferred taxes		108,793	103,761	(144,642)	(132,001)
Change in other non-fixed assets		63,201	60,278	(37,590)	(65,744)
Change in deferred income		(16,723)	(15,949)	11,950	(10,743)
		1,768,506	1,686,701	988,846	739,973
<b>Net cash provided by operating activities</b>	(29)	1,768,506	1,686,701	988,846	739,973
Purchase of intangible assets and property, plant and equipment		(323,721)	(308,747)	(377,844)	(285,435)
Purchase of financial assets		(46,027)	(43,898)	(76,716)	(216,975)
Change in the scope of consolidation		1,690	1,612	(4,591)	(4,129)
Proceeds from disposal of fixed assets		39,633	37,800	65,572	370,367
Investment in Commerce One		(2,013)	(1,920)	(304,037)	(270,442)
Purchase of Top Tier, net of cash acquired				(378,993)	
Change in liquid assets (maturities greater than 90 days) and marketable securities		96,151	91,703	10,678	(119,103)
		(234,287)	(223,450)	(1,065,931)	(525,717)
<b>Net cash used in investing activities</b>		(234,287)	(223,450)	(1,065,931)	(525,717)
Dividends paid		(191,161)	(182,319)	(180,414)	(165,780)
Purchase of treasury stock		(292,809)	(279,265)	(94,212)	
Change in bonds, net		7,182	6,850	4,776	10,756
Other changes to additional paid-in-capital		(11,003)	(10,494)	(4,682)	8,537
Proceeds from line of credit and long-term debt		1,647	1,571	338,663	100,000
Principal payments made on line of credit and long-term debt		(449,697)	(428,896)	(2,052)	(29,519)
Effect of 2000 STAR hedge, net				(119,931)	29,569
Effect of 2001 STAR hedge				(68,440)	
Effect of 2002 STAR hedge		(45,433)	(43,331)		

Proceeds from initial public offering of a subsidiary				87,324
<b>Net cash provided by/used in financing activities</b>				
	(981,274)	(935,884)	(126,292)	40,887
Effect of foreign exchange rates on cash	(168,400)	(160,610)	(4,117)	(2,159)
<b>Net increase/decrease in cash and cash equivalents</b>	384,545	366,757	(207,494)	252,984
<b>Cash and cash equivalents at the beginning of the year</b>	791,566	754,951	962,445	709,461
<b>Cash and cash equivalents at the end of the year</b> (21)	1,176,111	1,121,708	754,951	962,445

(1) The 2002 figures have been translated solely for the convenience of the reader at an exchange rate of 1.00 to US\$ 1.0485, the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2002.

(2) See note 21.

See Notes to Consolidated Financial Statements.

## SAP AKTIENGESELLSCHAFT AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## A. BASIS OF PRESENTATION

## (1) General

The consolidated financial statements of the SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung (SAP AG), together with its subsidiaries (collectively, SAP, the Group, or the Company), have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). Certain amounts reported in previous years have been reclassified to conform to the 2002 presentation.

Amounts included in the consolidated financial statements are reported in euro (€) unless otherwise stated. All euro financial data that is presented in U.S. dollars (US\$) has been converted, for the convenience of the reader, at the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2002, which was 1.00 per \$1.0485. Financial data that has been presented in U.S. dollars is unaudited and presented solely for the convenience of the reader.

SAP operates in a dynamic and rapidly changing environment that involves numerous risks and uncertainties, many of which are beyond the Company's control. The Company derives a substantial portion of its revenue from software licenses and services sold to customers in Germany, the United States, and Japan (see note 34). SAP's future revenue and results of operations may be significantly adversely affected by a prolonged economic slow-down in these countries. Further, a significant portion of the Company's business is conducted in currencies other than the euro. SAP continually monitors its exposure to foreign currency exchange risk and has a Company-wide foreign currency exchange risk policy and may hedge such risks with certain financial instruments. However, fluctuations in foreign currency exchange rates, especially the value of the U.S. dollar, Japanese yen, British pound, Swiss franc, Canadian dollar, Brazilian real, and Australian dollar could significantly impact the Company's reported results of operations.

## (2) Scope of Consolidation

The consolidated financial statements include SAP AG and all of its material majority-owned subsidiaries. All significant intercompany transactions and balances relating to these majority-owned entities have been eliminated.

The following table summarizes the change in the number of companies included in the consolidated financial statements:

Number of companies consolidated in the financial statements	German	Foreign	Total
December 31, 2001	20	71	91
Additions	2	4	6
Disposals	4	2	6
	—	—	—
December 31, 2002	18	73	91

The impact of changes in the scope of companies included in the consolidated financial statements during 2002 has an immaterial effect on the comparability of the consolidated financial statements presented. All disposals are due to mergers within the Group.

Five companies, in which SAP directly holds between 20% and 50% of the voting rights or has the ability to exercise significant influence over the operating and financial policies (associated companies), are accounted for using the equity method.

In August 2001, SAP retroactively applied the equity method as a result of surpassing the 20% ownership threshold in Commerce One, Inc. (Commerce One) and obtaining the ability to exercise significant influence.





U.S. GAAP requires retroactive restatement when an investment in common stock previously accounted for under the cost method of accounting qualifies for use of the equity method. Prior to August 2001, the investment in Commerce One was accounted for in accordance with Statement of Financial Accounting Standard ( SFAS ) 115 Accounting for Certain Investments in Debt and Equity Securities ( SFAS 115 ). This retroactive restatement resulted in a 18,593 thousand reduction of 2000 net income ( 0.06 reduction in basic earnings per share). Financial assets and certain amounts within the consolidated statements of changes in shareholders' equity previously reported in 2000 were also impacted.

### (3) Summary of Significant Accounting Policies

#### Business Combinations

The Company accounts for its business combinations using the purchase method. As of the date of acquisition, the purchase price is allocated to the fair market value of the net assets acquired. The fair value of any identifiable in-process research and development ( in-process R&D ), which represents functions that have not reached technological feasibility, and research and development having no alternative future uses, is expensed immediately. Any excess purchase price over the fair value of the net assets acquired is capitalized as goodwill.

#### Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. In making estimates, the Company may use historical and forecast information. Changes in regional and industry economic conditions in which the Company and/or its customers participate may negatively impact the estimates made by management, in particular assessing the valuation and recoverability of investments and other assets. Actual results could differ from those estimates.

#### Foreign Currency Translation and Transactions

The assets and liabilities of foreign operations where the functional currency is not the euro are generally translated using period-end exchange rates while the statements of income are translated using average exchange rates during the respective periods. The resulting foreign currency translation adjustments are included in other comprehensive income in the consolidated statements of changes in shareholders' equity.

Assets and liabilities that are denominated in foreign currencies other than the functional currency are translated at the period-end closing rate with resulting gains and losses reflected in income.

The exchange rates of key currencies affecting the Group are as follows:

Exchange Rates	Closing rate at December 31, to 1.00		Annual average exchange rate to 1.00			
	2002	2001	2002	2001	2000	
U.S. dollar	US\$	1.0494	0.8823	0.9499	0.8929	0.9162
Japanese yen	JPY	124.49	115.69	118.83	108.85	99.071
British pound	GBP	0.6509	0.6091	0.6305	0.6207	0.6087
Canadian dollar	CAD	1.6536	1.4101	1.4906	1.3871	1.3716
Australian dollar	AUD	1.8600	1.7310	1.7425	1.7297	1.5932

#### Revenue Recognition

Substantially all of the Company's revenues are derived from the license of the Company's software products and the sale of related maintenance, consulting, and training services. The Company's standard license agreement provides a perpetual license to use the Company's products based on the number of licensed users. The Company may license its software in multiple element arrangements if the customer purchases any combination of maintenance, consulting, or training services in conjunction with the license.



The Company recognizes revenue pursuant to the requirements of AICPA Statement of Position ( SOP ) 97-2 Software Revenue Recognition ( SOP 97-2 ), as amended by SOP 98-9 Software Revenue Recognition, With Respect to Certain Transactions . Revenue is recognized using the residual method when Company-specific objective evidence of fair value exists for all of the undelivered elements in the arrangement, but does not exist for one or more delivered elements. The Company allocates revenue to each undelivered element based on its respective fair value determined by the price charged when that element is sold separately. The Company defers revenue for the undelivered elements and recognizes the residual amount of the arrangement fee, if any, when the basic criteria in SOP 97-2 have been met.

Under SOP 97-2, provided that the arrangement does not require significant production, modification, or customization of the software, revenue is recognized when the following four criteria have been met:

1. Persuasive evidence of an arrangement exists
2. Delivery has occurred
3. The fee is fixed or determinable, and
4. Collectibility is probable.

If at the outset of an arrangement the Company determines that the arrangement fee is not fixed or determinable, revenue is deferred until the arrangement fee becomes due. If at the outset of an arrangement the Company determines that collectibility is not probable, revenue is deferred until payment is received. If an arrangement allows for customer acceptance of the software or services, the Company defers revenue recognition until the earlier of customer acceptance or when the acceptance right lapses.

The Company recognizes revenue from resellers when the software is licensed to the end-user based upon the terms and conditions provided by the reseller.

Maintenance revenues are recognized ratably over the term of the maintenance contract.

In situations when the services are deemed not to be essential to the functionality of the software, consulting and training revenues are accounted for separately from the license revenues. Consulting and training revenues are recognized as the services are performed, generally on a time and materials basis. Consulting revenues attributed to fixed price arrangements are recognized using the percentage of completion method based on direct labor costs incurred to date as a percentage of total estimated costs to complete the project. Consulting services primarily comprise implementation support related to the installation and configuration of the Company's products and do not typically require significant production, modification, or customization of the software. Arrangements that require significant production, modification, or customization of the software, where services are not available from third party vendors, are recognized, depending on the fee structure, on a time and materials basis or using the percentage of completion method. When total cost estimates exceed revenues in a fixed price arrangement, the estimated losses are recognized immediately based upon an average fully burdened daily rate applicable to the consulting organization delivering the services.

The assumptions, risks, and uncertainties inherent with the application of the percentage of completion method affect the amounts of revenue and related expenses reported. Numerous internal and external factors can affect estimates, including direct labor rates, utilization, and efficiency variances.

The Company accounts for out-of-pocket expenses rebilled to customers as maintenance, consulting, and training revenues.

## **Research and Development**

Research and development costs are generally expensed as incurred. SFAS 86, Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed, requires the capitalization of research and development costs incurred upon achieving technological feasibility until such product is available for sale. Historically, such costs have not been material and consequently have not been capitalized.

The Company has entered into several joint development agreements with certain customers in order to leverage their industry expertise in an effort to provide standard software solutions for selected vertical markets. These customers generally contribute cash, resources, and industry expertise in exchange for license rights of the future solution. The Company recognizes software revenue in conjunction with these arrangements based upon the percentage of completion method.

### Advertising Costs

Advertising costs are generally expensed as incurred.

### Sales of Newly Issued Subsidiary Shares

Gains resulting from the issuance of stock by a Group subsidiary, which reduces SAP's percentage ownership (dilution gains) are recorded in the consolidated statements of income.

### Earnings per Share

Basic earnings per share are computed by dividing consolidated net income by the weighted average number of ordinary shares outstanding. Diluted earnings per share reflect the potential dilution that would occur if all in the money securities and other contracts to issue ordinary shares were exercised or converted.

### Intangible Assets and Property, Plant, and Equipment

Purchased intangible assets, other than goodwill, are recorded at cost and amortized on a straight-line basis over their estimated useful life, generally three to five years. All of SAP's intangible assets, other than goodwill, have definite useful lives and are therefore subject to amortization.

With the adoption of SFAS 142, Goodwill and Other Intangible Assets (SFAS 142) on January 1, 2002, goodwill arising from business combinations consummated prior to July 1, 2001 is no longer amortized (see New Accounting Pronouncements). Goodwill is now subject to an assessment for impairment at least annually or when significant events occur or there are changes in circumstances that indicate the fair value of a reporting unit of the Group is less than its carrying value. In 2001, goodwill arising from business combinations consummated prior to July 1, 2001 was amortized through December 31, 2001, using the straight-line method over its estimated useful life, which did not exceed five years. Goodwill resulting from business combinations after June 30, 2001, was accounted for in accordance with SFAS 142.

Property, plant, and equipment is valued at cost less accumulated depreciation, where appropriate, based on its expected useful life. Interest incurred during the construction of qualifying assets is capitalized and amortized over the related assets' estimated useful lives.

	Useful lives of property, plant and equipment
Buildings	25 to 50 years
Leasehold improvements	Based upon the lease contract
Information technology equipment	3 to 5 years
Office furniture	4 to 20 years
Automobiles	5 years

Generally, property, plant, and equipment are depreciated using the straight-line method. Certain assets with expected useful lives in excess of three years are depreciated using the declining balance method.

SAP evaluates its long-lived assets (which consists of property, plant, equipment and intangible assets, excluding goodwill) in accordance with the provisions of SFAS 144, Accounting for the Impairment or Disposal of Long-Lived Assets (SFAS 144) (see New Accounting Pronouncements). This statement requires that these long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or group of assets may not be recoverable. Recoverability of assets to be held and used is assessed by comparing their carrying amount to the expected future undiscounted net cash flows they are



expected to generate. If an asset or group of assets is considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the asset or group of assets exceeds fair value. Long-lived assets meeting the criteria to be considered as held for sale are reported at the lower of their carrying amount or fair value less anticipated disposal costs. In the years presented, the Company recognized no impairment charges on long-lived assets.

### **Financial Assets**

In accordance with SFAS 115, marketable debt and equity securities, other than investments accounted for by the equity method, are categorized as either trading, available for sale, or held to maturity, depending on management's intent with respect to holding such investments. The Company's marketable securities within financial assets are considered to be available for sale and, therefore, are valued at fair market value at the balance sheet date. Unrealized gains and losses are excluded from earnings and reported net of tax as a component of other comprehensive income within shareholders' equity. Investments in privately held companies for which the Company does not have the ability to exercise significant influence are accounted for under the cost method of accounting. An impairment charge is recorded in financial income as expense, if a decline in realizable value below carrying value is deemed to be other than temporary. Gains or losses realized on sales of securities are based on the average-cost method.

Investments in associated companies are accounted for under the equity method. Such investments are initially recorded at cost, are adjusted for the Company's share of the investees' net income or loss, and reduced for amortization of any step up in the value of acquired assets over the investees' book value. With the adoption of SFAS 142, goodwill related to associated companies is no longer subject to amortization. An impairment loss on SAP's total investment in an associated company is recognized when the carrying value exceeds the realizable value on an other-than-temporary basis.

Non-interest-bearing or below market rate loans to employees and to third parties are discounted to their present value.

### **Non fixed Assets**

Inventories are shown at the lower of purchase/production cost or market value. Production costs consist of direct salaries, materials, and production overhead. No write-downs of inventory were necessary for the periods presented.

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Included in accounts receivable are unbilled receivables related to fixed fee consulting arrangements. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable. The Company determines the allowance for doubtful accounts after giving consideration to specific customer past due amounts based on due dates and regional economic risks. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Non-interest-bearing receivables with a term exceeding one year are discounted to their present value using local interest rates.

Other assets are shown at their historical cost, which approximates fair value.

Marketable securities within non-fixed assets are considered as trading. Accordingly, these securities are valued at fair market value at the balance sheet date with realized and unrealized gains/losses included in earnings. Recognized gains or losses are based on the average-cost method.

Liquid assets are comprised of cash and cash equivalents, time deposits with original maturities exceeding 90 days, and restricted cash. Cash and cash equivalents for purposes of the consolidated statements of cash flows consist of cash at banks and highly liquid investments with original maturities of 90 days or less.

### **Income Taxes**

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences 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 carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Deferred tax assets are reduced by a valuation allowance to the extent that it is more likely than not that some portion or all of the deferred tax assets will not be realized.

### **Prepaid Expenses and Deferred Charges**

Prepaid expenses and deferred charges are primarily composed of prepayments of software royalties, operating leases, and maintenance contracts which will be charged to expense in the future periods as such costs are incurred.

### **Pension Benefit Liabilities**

The measurement of pension-benefit liabilities is based on actuarial computations using the projected-unit-credit method. The assumptions used to calculate pension liabilities and costs are shown in note 25. Changes in the amount of the projected benefit obligation or plan assets resulting from experience different from that assumed and from changes in assumptions can result in gains or losses not yet recognized in the Group's consolidated financial statements. Amortization of an unrecognized net gain or loss is included as a component of the Group's net periodic benefit plan cost for a year if, as of the beginning of the year, that unrecognized net gain or loss exceeds 10% of the greater of the projected benefit obligation or the fair value of that plan's assets. In that case, the amount of amortization recognized by the Group is the resulting excess divided by the average remaining service period of the active employees expected to receive benefits under the plan.

In addition, the Company records a liability for amounts payable under the provisions of its various defined contribution plans.

### **Accounting for Stock-Based Compensation**

The Company applies the intrinsic-value-based method prescribed by Accounting Principles Board Opinion ( APB ) 25, Accounting for Stock Issued to Employees ( APB 25 ) and related interpretations. Under this method, compensation expense is recorded on the date of grant only if the current market price of the underlying stock exceeds the exercise price or the exercise price is not fixed at the grant date.

SFAS 123 Accounting for Stock-Based Compensation, established accounting and disclosure requirements using a fair-value-based method of accounting for stock-based employee compensation plans. As allowed by SFAS 123, the Company has elected to continue to apply the intrinsic-value-based method of accounting described above, and has adopted only the disclosure requirements of SFAS 123. As required by SFAS 148, Accounting for Stock-Based Compensation Transition and Disclosure an amendment of FASB Statement No. 123 ( SFAS 148 ), the following table illustrates the effect on net income if the fair-value-based method had been applied to all outstanding and unvested awards in each period.



	<u>2002</u>	<u>2001</u>	<u>2000</u>
<b>Net income (in thousands of €)</b>			
As reported	508,614	581,136	615,732
Add: Expense for stock-based compensation, net of tax according to APB25	5,600	40,357	286,604
Deduct: Expense for stock based compensation, net of tax according to FAS 123	138,203	131,272	360,428
Pro forma	<u>376,011</u>	<u>490,221</u>	<u>541,908</u>
<b>Earnings per share (in €)</b>			
Basic as reported	1.62	1.85	1.96
Diluted as reported	1.62	1.85	1.95
Basic pro forma	1.20	1.56	1.72
Diluted pro forma	1.20	1.56	1.72

### Derivative Financial Instruments

The Company primarily uses forward exchange derivative financial instruments to reduce the foreign currency exchange risk of anticipated cash flows from transactions with subsidiaries denominated in currencies other than the euro. As discussed in note 33, the Company uses call options to hedge its anticipated cash flow exposure attributable to changes in the market value of stock appreciation rights under various plans.

The Company accounts for derivative financial instruments based on the provisions of SFAS 133, Accounting for Derivative Instruments and Hedging Activities, as amended by SFAS 137 and 138. SFAS 133 requires that all derivative financial instruments be recorded on the balance sheet at their fair value, regardless of purpose or intent for holding them. The effective portion of the realized and unrealized gain or loss on derivatives designated as cash flow hedges is reported net of tax, as a component of other comprehensive income. The portion of gains or losses on derivatives is reclassified from other comprehensive income into earnings in the same period or periods during which the hedged forecasted transaction affects earnings. The ineffective portion of gains or losses on derivatives designated as cash-flow hedges are reported in earnings when the ineffectiveness occurs. In measuring the effectiveness of foreign currency related cash flow hedges, the Company excludes differences resulting from time value (that is, spot rates versus forward rates for forward contracts). Changes in value resulting from the excluded component are recognized in earnings immediately. Foreign exchange derivatives entered into by the Company to offset exposure to anticipated cash flows that do not meet the requirements for applying hedge accounting are marked to market each reporting period with unrealized gains and losses recognized in income.

### Comprehensive Income

Comprehensive income is comprised of net income and other comprehensive income (loss). Other comprehensive income/loss includes foreign currency translation adjustments, changes in additional minimum pension liabilities, unrealized gains and losses from derivatives designated as cash flow hedges, and unrealized gains and losses from marketable debt and equity securities considered available for sale. Both other comprehensive income and comprehensive income are disclosed in the consolidated statements of changes in shareholders' equity.

### Cash Flows

The consolidated statements of cash flows illustrate the effect of inflows and outflows during the course of the fiscal year on the Group's cash and cash equivalents, and have been prepared in accordance with SFAS 95, Statement of Cash Flows. The consolidated statements of cash flows distinguish between cash flows from operating activities, investing activities, and financing activities. The statement of cash flows is reconciled to cash and cash equivalents, which are reconciled to liquid assets in note 21.

## New Accounting Pronouncements

In July 2001, the Financial Accounting Standards Board ( FASB ) issued SFAS 141, Business Combinations ( SFAS 141 ) and SFAS 142. SFAS 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001. SFAS 141 also specifies the types of acquired intangible assets that are required to be recognized and reported separately from goodwill and those acquired intangible assets that are required to be included in goodwill. SFAS 142 requires that goodwill no longer be amortized, but instead tested for impairment at least annually. SFAS 142 also requires recognized intangible assets with a definite useful life to be amortized over their respective estimated useful lives and reviewed for impairment in accordance with SFAS 144 (see below).

SAP adopted the provisions of SFAS 141 and SFAS 142 as of July 1, 2001, and January 1, 2002 respectively. These Statements require that goodwill acquired in a business combination completed after June 30, 2001 should not be amortized. Goodwill acquired in business combinations completed before July 1, 2001 was amortized until December 31, 2001.

SFAS 142 required the Group to evaluate its existing intangible assets and goodwill and to make any necessary reclassifications in order to conform to the new separation requirements at the date of adoption. Accordingly, at January 1, 2002, the Group reclassified intangible assets for assembled workforce with a net carrying value of 8,735 thousand into goodwill. The Group reassessed the estimated useful lives and residual values of all intangible assets other than goodwill and determined that no adjustments regarding amortization periods were necessary.

In connection with the transitional impairment evaluation, SFAS 142 required SAP to perform an assessment of whether there is an indication that goodwill is impaired as of January 1, 2002. To accomplish this, SAP (1) identified its reporting units, (2) determined the carrying value of each reporting unit by assigning the assets and liabilities, including the existing goodwill and intangible assets, to those reporting units, and (3) determined the fair value of each reporting unit. SAP completed this first step of the transitional assessment for all of the Group's reporting units, and determined there was no indication that goodwill had been impaired as of January 1, 2002. Accordingly, no transitional goodwill impairment charge was necessary.

In June 2001, the FASB issued SFAS 143, Accounting for Asset Retirement Obligations ( SFAS 143 ). The statement applies to legal obligations associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development, and/or the normal operation of a long-lived asset, except for certain obligations of lessees. SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset and subsequently allocated to expense over the asset's useful life. SAP adopted SFAS 143 on January 1, 2003 and it did not have a material impact on SAP's consolidated financial statements.

In August 2001, the FASB issued SFAS 144. This Statement supersedes SFAS 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of, and APB 30, Reporting the Results of Operations-Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions, for the disposal of a segment of a business. SFAS 144 establishes a single accounting model based on SFAS 121 for long-lived assets to be disposed of by sale, including discontinued operations. It retains the previous requirement to recognize an impairment loss only if the carrying amounts of long-lived assets to be held and used are not recoverable from their expected undiscounted future cash flows. Major changes include additional criteria for long-lived assets to qualify as held for sale and the requirement that long-lived assets to be disposed of other than by sale be classified as held and used until the disposal transaction occurs. SFAS 144 retains the current requirement to report separately discontinued operations but expands that reporting to include a component of an entity (rather than only a segment of a business) that either has been disposed of or is classified as held for sale. The new rules require long-lived assets to be disposed of by sale to be recorded at the lower of carrying amount or fair value less costs to sell and to cease depreciation. Therefore, discontinued operations are no longer measured at net realizable value. As a result, expected future operating losses are no longer recognized before they are actually incurred. SAP adopted SFAS

144 on January 1, 2002. The adoption of SFAS 144 compared to previous requirements, except for goodwill, did not have an impact on SAP's consolidated financial statements.

In July 2002, the FASB issued SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities* (SFAS 146), superseding Emerging Issues Task Force (EITF) Issue 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*. The Statement requires that a liability for costs associated with exit or disposal activities be recognized in the period in which the costs are incurred if a reasonable estimate of fair value can be made. Under current accounting guidance, a liability can be recognized when management has committed to an exit plan. The requirements under SFAS 146 are effective prospectively for exit or disposal activities initiated after December 31, 2002. Previously issued financial statements cannot be restated for the effect of the provisions of SFAS 146, and liabilities previously recorded under EITF 94-3 are grandfathered. The adoption of this Statement will affect SAP's accounting for exit and disposal activities initiated after December 31, 2002.

In November 2002, the EITF reached a final consensus on EITF 00-21, *Revenue Arrangements with Multiple Deliverables*. EITF 00-21 addresses certain aspects of the accounting of revenue arrangements with multiple deliverables by a vendor. EITF 00-21 outlines an approach to determine when a revenue arrangement for multiple deliverables should be divided into separate units of accounting and, if separation is appropriate, how the arrangement consideration should be allocated to the identified accounting units. The consensus reached in the Issue will be effective for SAP in its financial statements beginning July 1, 2003. SAP is determining the impact of the adoption of EITF 00-21, although SAP believes that the adoption will not have a material impact on its consolidated financial statements.

Also in November 2002, the FASB issued FASB Interpretation No. (FIN) 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*—an interpretation of FASB statements 5, 57, and 107 and rescission of FASB Interpretation 34 (FIN 45). This Interpretation elaborates on the disclosure to be made by a guarantor in its financial statements regarding obligations under certain guarantees that it has issued. FIN 45 also clarifies that a guarantor is required to recognize, at inception of a guarantee, a liability for the fair value of the obligation due to the issuance of the guarantee. The initial recognition and initial measurement provisions apply on a prospective basis to guarantees issued or modified after December 31, 2002. The disclosures of guarantees required by FIN 45 are included in notes 26 and 30. SAP occasionally grants function and/or performance guarantees in routine consulting contracts and/or customer development arrangements, standard guarantee provisions and other items. Currently, the Company has several such agreements in place with various expiration dates. Based on historical experience and evaluation, SAP does not believe that any material loss is likely, and therefore no related liability has been recorded. The Company also provides a six to 12 month warranty period on its software.

In December 2002, the FASB issued SFAS 148, which amends SFAS 123 to provide alternative methods of transition for a voluntary change to the fair-value-based method of accounting for stock-based employee compensation. In addition, SFAS 148 requires more prominent disclosures in both interim and annual financial statements about the method of accounting used for stock-based employee compensation and the effect of the method used on reported results. As described above, SAP applies APB 25, which uses an intrinsic-value-based approach to measure compensation expense. Under SFAS 123, compensation expense of stock option plans is measured at the grant date based on the fair value of the award using an option-pricing model. Compensation expense is recognized over the service period with an offsetting credit to equity (paid-in capital). If adopted, the additional compensation expense in the statements of income will be dependent upon the number, price, and other significant terms of the stock options granted.

In January 2003, the FASB issued FIN 46, *Consolidation of Variable Interest Entities*—an interpretation of ARB No. 51 (FIN 46), which clarifies the application of the consolidation rules to certain variable interest entities. In general, a variable interest entity is a corporation, partnership, trust, or any other legal structure used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors that do not provide sufficient financial resources for the entity to support its activities. FIN 46 requires a variable interest entity to be consolidated by a company if that company is subject to a majority of the risk of loss from the variable interest entity's activities or entitled to receive a majority of the entity's residual returns, or both. The

consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003. The consolidation requirements apply to variable interest entities created before February 1, 2003, in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply in all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. The adoption of FIN 46 will have no impact on SAP's consolidated financial position or results of operations because SAP currently holds no significant variable interests in any variable interest entities.

#### **(4) Acquisitions**

During the year ended December 31, 2002, SAP completed certain acquisitions, which are immaterial individually and in the aggregate. These acquisitions have been accounted for using the purchase method and are included in SAP's consolidated financial statements since the date of acquisition. The aggregate purchase price of these acquisitions in 2002 was 36.8 million, of which 5.4 million was assigned to identifiable intangible assets and 20.5 million was recorded as goodwill.

In April 2001, SAP acquired 100% of the outstanding shares of TopTier Inc. (TopTier), for approximately \$379 million in cash excluding cash acquired. TopTier, renamed SAP Portals Inc., specialized in technologies and know-how for creating enterprise portals. The acquisition was accounted for using the purchase method and accordingly the operating results have been included in the Company's consolidated results of operations from the date of acquisition.

Based on their respective fair values, approximately 138 million of the purchase price was allocated to identifiable intangible assets including technology, workforce, and trade names. In addition, approximately 6 million of purchase price was allocated to acquired in-process R&D, which was expensed as of the acquisition date. Goodwill resulting from the purchase price allocation was approximately 278 million. Amounts paid to settle the portion of TopTier's outstanding vested stock options are included in the purchase price. SAP agreed to compensate former TopTier employees for the unvested portion of such outstanding options based upon the original vesting schedule provided such employees remain continuously employed by the Company. These amounts are included as deferred compensation within shareholders' equity and are recorded as compensation expense over the remaining vesting period.

In the second quarter of 2000, SAP acquired 2.4% and 0.6% respectively of the outstanding voting shares of Commerce One, for approximately 270 million. The investment was accounted for as an available for sale security to the extent the underlying shares were not restricted. Restricted shares were recorded at cost until considered available for sale, 12 months prior to the date they were no longer restricted. SAP made additional investments in Commerce One during the second quarter of 2001, resulting in a cumulative ownership interest of slightly less than 5%. In August 2001, SAP acquired approximately 17% of the outstanding voting stock of Commerce One resulting in SAP obtaining significant influence. Amounts invested in 2001 approximated 304 million. See note 2 for a description of the retroactive application of the equity method of accounting relating to acquisitions of Commerce One shares. SAP allocated the purchase price for each step in the acquisition based on the ownership percentage of Commerce One's recorded net equity at such time. The purchase price allocation resulted in acquired intangibles totaling approximately 44 million including primarily software and technology, 11 million for in-process R&D, and 300 million of goodwill.

## **B. NOTES TO THE CONSOLIDATED INCOME STATEMENTS**

### **(5) Revenue**

Revenue information by segment and geographic region is disclosed in note 34. Other revenue is derived mainly from marketing events.

### **(6) Sales and Marketing**

Sales and marketing expense includes advertising costs, which amounted to 151,300 thousand, 188,546 thousand, and 197,070 thousand in 2002, 2001, and 2000 respectively.

**(7) Other Operating Expense, Net**

Other operating income/expense for the years ended December 31 are as follows:

	2002 (000)	2001 (000)	2000 (000)
Restructuring costs	(46,107)	(13,636)	
Expenses to obtain rental income	(4,989)	(7,737)	(5,308)
Amortization of goodwill		(62,884)	(33,485)
General bad debt expense		(14,706)	
Other	(1,537)	(6,667)	(5,477)
	<u>(52,633)</u>	<u>(105,630)</u>	<u>(44,270)</u>
Rental income	9,228	9,774	6,988
Reductions of general bad debt allowance	5,288		5,792
Receipt of insurance proceeds	2,246	1,137	1,389
Other	763	505	4,484
	<u>17,525</u>	<u>11,416</u>	<u>18,653</u>
Other operating income	<u>(35,108)</u>	<u>(94,214)</u>	<u>(25,617)</u>

Restructuring costs primarily relate to severance packages for personnel located in the United States. The majority of the payments were made during 2002, whereas the remaining liability for those severance packages, in the amount of approximately 13 million, is expected to be made in the first quarter of 2003.

**(8) Functional Costs and Other Expenses**

The information provided below is classified based upon the type of expense. The consolidated statements of income include these amounts in various expenses based upon the applicable line of business.

**Cost of Services and Materials**

Cost of services and materials, which are included in various operating expense line items in the consolidated statements of income for the years ended December 31 are as follows:

	2002 (000)	2001 (000)	2000 (000)
Raw materials and supplies, purchased goods	23,515	22,033	18,444
Purchased services	824,752	806,550	725,097
	<u>848,267</u>	<u>828,583</u>	<u>743,541</u>

**Personnel Expenses/ Number of Employees**

Personnel expenses, which are included in various operating expenses in the consolidated statements of income for the years ended December 31 are as follows:

	2002 (000)	2001 (000)	2000 (000)
Salaries	2,519,054	2,497,261	2,450,329
Social costs	345,798	313,813	275,839
Pension expense	100,397	97,030	86,599
	<u>2,965,249</u>	<u>2,908,104</u>	<u>2,812,767</u>

Included in personnel expenses for the years ended December 31, 2002, 2001, and 2000, are expenses associated with the stock-based compensation as described in note 24.

The average number of employees was as follows:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Employees	29,598	27,452	23,335

**(9) Other Non-Operating Income/ Expense, Net**

Other non-operating income/expenses for the years ended December 31 are as follows:

	<u>2002 (000)</u>	<u>2001 (000)</u>	<u>2000 (000)</u>
Foreign currency losses	(201,097)	(145,318)	(176,785)
Losses on disposal of fixed assets	(3,850)	(4,419)	(9,192)
Other	(7,552)	(10,041)	(5,333)
Other non-operating expenses	(212,499)	(159,778)	(191,310)
Foreign currency gains	236,401	139,589	82,729
Gains on disposal of fixed assets	4,696	3,465	2,745
Gain from IPO of subsidiary			44,234
Other	8,721	6,081	6,262
Other non-operating income	249,818	149,135	135,970
	37,319	(10,643)	(55,340)

SAP Systems Integration AG ( SAP SI ) completed an initial public offering in September 2000, which resulted in the dilution of the Company's beneficial ownership of SAP SI voting shares from 62% to 54%. Net proceeds received by SAP SI from the offering, based on the offering price of \$19 per share, totaled \$87,324 thousand, resulting in a dilution gain of \$44,234 thousand, which is included in the Company's 2000 consolidated statement of income.

**(10) Financial Income/ Expense, Net**

Financial income/expense, net for the years ended December 31 is as follows:

	<u>2002 (000)</u>	<u>2001 (000)</u>	<u>2000 (000)</u>
Interest and similar income	38,311	55,910	69,658
Interest and similar expenses	(13,524)	(22,244)	(10,464)
<b>Interest income, net</b>	24,787	33,666	59,194
<b>Loss from investments, net</b>	(394,039)	(165,499)	(96,943)
thereof from associated companies	(394,589)	(165,499)	(96,943)
Income from marketable securities and loans of financial assets	2,647	1,771	1,071

Write-down of financial assets	(133,098)	(75,586)	(19,845)
Gains on sales of marketable equity securities	3,057	23,632	355,139
Unrealized loss on STAR hedge	(58,909)	(50,901)	(29,436)
Other net	256	(57)	(3,629)
	<u>          </u>	<u>          </u>	<u>          </u>
<b>Other financial income/loss, net</b>	(186,047)	(101,141)	303,300
	<u>          </u>	<u>          </u>	<u>          </u>
	<b>(555,299)</b>	<b>(232,974)</b>	<b>265,551</b>
	<u>          </u>	<u>          </u>	<u>          </u>

Interest income is derived primarily from cash and cash equivalents, long-term investments, and other assets.

The loss from associated companies in 2002 includes 389,630 thousand related to the Company's investment in Commerce One, of which 297,632 thousand is due to an other-than-temporary impairment charge.



See notes 16 and 24 regarding write-downs of financial assets and unrealized losses on STAR hedges respectively.

### (11) Income Taxes

Income tax expense for the years ended December 31 is comprised of the following components:

	2002 (000)	2001 (000)	2000 (000)
Current taxes Germany	302,533	461,890	235,679
Current taxes Foreign	221,452	170,878	279,342
	<u>523,985</u>	<u>632,768</u>	<u>515,021</u>
Deferred taxes Germany	56,155	(124,552)	(106,752)
Deferred taxes Foreign	18,565	(31,923)	(16,462)
	<u>74,720</u>	<u>(156,475)</u>	<u>(123,214)</u>
<b>Income tax expense</b>	<b><u>598,705</u></b>	<b><u>476,293</u></b>	<b><u>391,807</u></b>

In September 2002, the German government enacted new tax legislation ( Flutopfersolidaritätsgesetz ) effective January 1, 2003. The most significant change of the law consisted in the increase of the statutory corporate income tax rate from 25% to 26.5% for a limited period of one year. In the year 2002 the new law only had effects on deferred taxes. Deferred taxes have to be calculated with that tax rate which is effective, when the effect on which the deferred tax is based upon, reverses. Accordingly, that part of deferred taxes of German companies of the Group which reverses in the year 2003 has been calculated with a corporate income tax rate of 26.5%. As far as the reversal is deemed to take place after the year 2003, the respective tax has been calculated with the thus following corporate income tax rate of 25%. As effect of such increase in the tax rate on the deferred tax assets and liabilities of Group companies in Germany the consolidated statement of income in 2002 includes a net charge of 1,558 thousand.

Effects of prior tax law changes have been reflected in the above mentioned prior year figures as follows: New tax legislation enacted in October 2000 and effective beginning January 1, 2001 ( Steuersenkungsgesetz ) reduced the statutory corporate income tax rate from 40% on retained earnings and 30% on distributed earnings to a uniform rate of 25%. The other significant tax law change was the exemption from tax for certain gains or losses from the sale of shares in affiliated and unaffiliated companies. The effects of such tax law changes on the deferred tax assets and liabilities of Group companies in Germany have been considered as a tax reduction of 4,869 thousand in the consolidated statement of income for 2000. For the year 2001 no effects of tax law changes had to be considered.

Income before income taxes consists of the following:

	2002 (000)	2001 (000)	2000 (000)
Germany	450,864	802,375	288,827
Foreign	656,834	266,382	724,042
	<u>1,107,698</u>	<u>1,068,757</u>	<u>1,012,869</u>

In 2002 the company showed an extraordinary gain of 5,776 thousand. The income before income taxes after extraordinary gain therefore amounts to 1,113,474 thousand. The effective tax rate referring to this income before income taxes for the years ended December 31, 2002, 2001, and 2000 is 53.8%, 44.6%, and 38.7% respectively. The table below shows a reconciliation of expected income taxes to the actual income

tax expense determined using the Company's combined German corporate tax rate of 36.39% in 2002 (2001: 36.51%; 2000: 50.15%). This combined rate includes a corporate income tax rate (after the benefit of deductible trade tax) of 21.60% (2001: 21.56%; 2000: 34.50%) plus a solidarity surcharge of 5.5% thereon and trade taxes of 13.60% (2001: 13.77%; 2000: 13.76%).

	2002 (000)	2001 (000)	2000 (000)
Income before income taxes	1,107,698	1,068,757	1,012,869
Expected Income Taxes 36.39% in 2002 (36.51% in 2001, 50.15% in 2000)	403,091	390,203	507,954
Tax deduction for dividend payments			(28,014)
Foreign tax rate differential	(4,316)	30,993	(115,575)
Tax on non-deductible expenses	11,450	5,705	24,495
Tax effect on losses	(130)	3,611	588
Tax effect on equity investments and securities	177,639	54,766	
Other	10,971	(8,985)	2,359
<b>Income taxes</b>	<b>598,705</b>	<b>476,293</b>	<b>391,807</b>

Deferred income tax assets and liabilities at December 31 are summarized as follows:

	2002 (000)	2001 (000)
<b>Deferred tax assets</b>		
Property plant & equipment and intangibles	172,051	122,112
Financial assets	22,249	24,828
Accounts receivable	22,177	41,752
Net operating loss carryforwards	25,874	123,615
Pension liabilities	28,028	14,283
Other liabilities	86,004	100,936
Deferred income	48,156	46,990
Other	762	8,842
	405,301	483,358
Less: Valuation allowance	(3,011)	(3,611)
<b>Deferred tax assets</b>	<b>402,290</b>	<b>479,747</b>
<b>Deferred tax liabilities</b>		
Property plant & equipment and intangibles	35,417	55,045
Financial assets	5,774	21
Accounts receivable	35,918	1,583
Pension liabilities	5,537	2,695
Other liabilities	25,168	14,123
Deferred income	3,134	7,201
Other	147	282
<b>Deferred tax liabilities</b>	<b>111,095</b>	<b>80,950</b>
<b>Net deferred tax (liabilities)/assets</b>	<b>291,195</b>	<b>398,797</b>

With regard to their duration, deferred tax assets and liabilities at December 31, are classified as follows:

	2002 (000)	2001 (000)
<b>Deferred tax assets</b>		
Short-term	146,520	188,432
Long-term	255,770	291,315
	<u>402,290</u>	<u>479,747</u>
<b>Deferred tax liabilities</b>		
Short-term	63,678	21,643
Long-term	47,417	59,307
	<u>111,095</u>	<u>80,950</u>

On December 31, 2002, certain foreign subsidiaries of the Company had net operating loss carryforwards amounting to 140,452 thousand (2001: 343,623 thousand) which may be used to offset future taxable income. Net operating loss carryforwards principally exist in the United States (91,203 thousand). These are mainly only for US State tax purposes and can be utilized within 20 years. Further 28,357 thousand can be utilized within an unlimited period of time, the rest of 20,892 thousand with different expiration periods between three and seven years. Deferred tax assets relating to net operating loss carryforwards have been reduced by a valuation allowance to the extent that it is more likely than not that those carryforwards will not be realized.

The Company recorded tax liabilities of 3,816 thousand (2001: 3,805 thousand) for taxes on future dividend distributions from foreign subsidiaries. It considers 205,298 thousand (2001: 71,274 thousand) in cumulative undistributed earnings of foreign subsidiaries because such earnings are not intended to be permanently reinvested in those operations. The Company did not provide income taxes on 1,646,258 thousand (2001: 1,499,320 thousand) in cumulative earnings of foreign subsidiaries because the earnings are intended to be indefinitely reinvested in those operations. It is not practicable to estimate the amount of unrecognized tax liabilities for these undistributed foreign earnings.

Furthermore, there are deferred taxes not affecting earnings (charge or credit on other comprehensive income). Including those items charged or credited directly to related components of accumulated other comprehensive income/loss, the expense for income taxes was 593,219 thousand, 443,328 thousand and 275,189 thousand for the years ended December 31, 2002, 2001 and 2000, respectively (see note 23).

## (12) Extraordinary Gain

The Company recorded an extraordinary gain related to negative goodwill that resulted from the acquisition of the outstanding shares of an associated company, which was subsequently merged into SAP AG. The excess of the fair value of the net assets acquired over the purchase price (that is, negative goodwill) primarily relates to the recognition of deferred tax assets for acquired net operating loss carryforwards that SAP was able to utilize and realize immediately.

## (13) Earnings Per Share

Convertible bonds and stock options granted to employees under SAP's stock-based compensation programs are included in the diluted earnings per share calculations to the extent they have a dilutive effect. The dilutive impact is calculated using the treasury stock method. As their effect would have been antidilutive, all outstanding convertible bonds have not been included in the computation of earnings per share. The number of outstanding stock options and convertible bonds is presented in note 24.

	2002	2001	2000
	(In thousands except per share data)		
Net income before extraordinary gain ( )	502,838	581,136	615,732
Extraordinary gain, net of tax ( )	5,776		
Net income ( )	508,614	581,136	615,732
Weighted average shares basic	313,016	314,309	314,423
Convertible bonds and stock options	964	103	1,216
Put options			98
Weighted average shares diluted	313,980	314,412	315,737
Earnings per share basic ( )			
Net income before extraordinary gain ( )	1.60	1.85	1.96
Extraordinary gain, net of tax ( )	0.02		
Net income ( )	1.62	1.85	1.96
Earnings per share diluted ( )			
Net income before extraordinary gain ( )	1.60	1.85	1.95
Extraordinary gain, net of tax ( )	0.02		
Net income ( )	1.62	1.85	1.95

Prior year amounts are adjusted for the Company's one-for-one conversion of preference shares to ordinary shares in 2001 and the Company's three-for-one stock split in 2000.

## C. NOTES TO THE CONSOLIDATED BALANCE SHEET

### (14) Intangible Assets

	Trademarks, similar rights and other intangibles (000)	Goodwill (000)	Total (000)
<b>Purchase cost</b>			
<b>1/1/02</b>	258,007	452,584	710,591
Exchange rate differences	(24,263)	(46,045)	(70,308)
Changes in the scope of consolidation	207		207
Additions	28,758	20,491	49,249
Retirements/disposals	(20,664)	(3,560)	(24,224)
Reclassifications	(10,434)	13,791	3,357
<b>12/31/02</b>	231,611	437,261	668,872
<b>Accumulated amortization</b>			
<b>1/1/02</b>	100,956	110,283	211,239
Exchange rate differences	(7,056)	(6,822)	(13,878)

Changes in the scope of consolidation	69		69
Additions	49,408		49,408
Retirements/disposals	(19,698)		(19,698)
Reclassifications	(1,718)	2,685	967
	<u>        </u>	<u>        </u>	<u>        </u>
<b>12/31/02</b>	121,961	106,146	228,107
	<u>        </u>	<u>        </u>	<u>        </u>
<b>Book value 12/31/02</b>	109,650	331,115	440,765
	<u>        </u>	<u>        </u>	<u>        </u>
<b>Book value 12/31/01</b>	157,051	342,301	499,352
	<u>        </u>	<u>        </u>	<u>        </u>

Intangible assets, other than goodwill, as of December 31, 2002 include 77,310 thousand (2001: 124,893 thousand) of acquired technology. The related accumulated amortization totaled 40,822 thousand as of December 31, 2002 (2001: 20,535 thousand). The remaining weighted-average amortization period for this

asset class approximates three years. The estimated aggregate amortization expense for intangible assets, other than goodwill, for each of the five succeeding years is as follows:

	(000)
2003	41,004
2004	33,292
2005	24,505
2006	9,434
2007	1,381

The carrying amount of goodwill by reportable segment at December 31, 2002 is as follows (for further information see note 34):

	(000)	Thereof additions in 2002 (000)
Product	228,120	4,549
Consulting	95,779	15,761
Training	7,216	181
<b>Total</b>	<b>331,115</b>	<b>20,491</b>

With the adoption of SFAS 142 in 2002 goodwill is no longer amortized. Net income and earnings per share for 2001 and 2000 adjusted to exclude amortization expense, net of tax, is as follows:

	2001	2000
<b>Reported net income (in thousands of \$)</b>	581,136	615,732
Add back: Goodwill amortization	62,884	21,756
Add back: Goodwill amortization equity investments	1,069	11,729
Add back: Workforce amortization	2,025	—
<b>Adjusted net income</b>	<b>647,114</b>	<b>649,217</b>
<b>Basic earnings per share (in \$)</b>	1.85	1.96
Add back: Goodwill amortization	0.20	0.07
Add back: Goodwill amortization equity investments	—	0.04
Add back: Workforce amortization	0.01	—
<b>Adjusted basic earnings per share</b>	<b>2.06</b>	<b>2.07</b>
<b>Diluted earnings per share (in \$)</b>	1.85	1.95
Add back: Goodwill amortization	0.20	0.07
Add back: Goodwill amortization equity investments	—	0.04
Add back: Workforce amortization	0.01	—
<b>Adjusted diluted earnings per share</b>	<b>2.06</b>	<b>2.06</b>





**(15) Property, Plant and Equipment**

	Land, leasehold improvements and buildings, including buildings on third-party land (000)	Other property, plant and equipment (000)	Payments and construction in progress (000)	Total (000)
<b>Purchase cost</b>				
<b>1/1/02</b>	785,939	803,371	90,885	1,680,195
Exchange rate differences	(39,069)	(35,063)	(4,237)	(78,369)
Changes in the scope of consolidation	622	1,635		2,257
Additions	48,185	117,928	93,385	259,498
Retirements/disposals	(5,805)	(71,744)		(77,549)
Reclassifications	56,018	1,844	(57,954)	(92)
<b>12/31/02</b>	<u>845,890</u>	<u>817,971</u>	<u>122,079</u>	<u>1,785,940</u>
<b>Accumulated depreciation</b>				
<b>1/1/02</b>	174,027	509,116		683,143
Exchange rate differences	(11,431)	(24,770)		(36,201)
Changes in the scope of consolidation	243	826		1,069
Additions	42,276	129,530		171,806
Retirements/disposals	(4,911)	(63,110)		(68,021)
Reclassifications	(34)	(39)		(73)
<b>12/31/02</b>	<u>200,170</u>	<u>551,553</u>		<u>751,723</u>
<b>Book value 12/31/02</b>	<u>645,720</u>	<u>266,418</u>	<u>122,079</u>	<u>1,034,217</u>
<b>Book value 12/31/01</b>	<u>611,912</u>	<u>294,255</u>	<u>90,885</u>	<u>997,052</u>

The additions in other property, plant, and equipment relate primarily to the purchase of computer hardware acquired in the normal course of business. Payments and construction in progress increased in 2002 primarily due to the construction of facilities in Germany.

**(16) Financial Assets**

	<b>Investments in associated companies (000)</b>	<b>Equity securities (000)</b>	<b>Debt securities (000)</b>	<b>Other loans (000)</b>	<b>Total (000)</b>
<b>Cost</b>					
<b>1/1/02</b>	472,139	242,083	61,240	58,280	833,742
Exchange rate differences	(42,241)	(10,342)	(1,490)	(59)	(54,132)
Change in the scope of consolidation	(3,910)				(3,910)
Additions	12,476	13,110	493	25,743	51,822
Retirements	(94,429)	(12,366)	(1,831)	(6,983)	(115,609)
Reclassifications	(4,289)	980			(3,309)
<b>12/31/02</b>	<u>339,746</u>	<u>233,465</u>	<u>58,412</u>	<u>76,981</u>	<u>708,604</u>
<b>Changes in fair value of marketable securities</b>					
<b>1/1/02</b>		(2,727)	1,968		(759)
Exchange rate differences		231			231
Changes in unrealized gains/losses		(2,626)	194		(2,432)
<b>12/31/02</b>		<u>(5,122)</u>	<u>2,162</u>		<u>(2,960)</u>
<b>Accumulated write off</b>					
<b>1/1/02</b>	38,442	78,817	6	8,635	125,900
Exchange rate differences		(8,714)		11	(8,703)
Change in the scope of consolidation	(972)				(972)
Additions	302,963	113,648		12,223	428,834
Retirements				(1,340)	(1,340)
Reclassifications	(938)				(938)
Write-ups				(718)	(718)
<b>12/31/02</b>	<u>339,495</u>	<u>183,751</u>	<u>6</u>	<u>18,811</u>	<u>542,063</u>
<b>Book value 12/31/02</b>	<u>251</u>	<u>44,592</u>	<u>60,568</u>	<u>58,170</u>	<u>163,581</u>
<b>Book value 12/31/01</b>	<u>433,697</u>	<u>160,539</u>	<u>63,202</u>	<u>49,645</u>	<u>707,083</u>

Under US-GAAP, the write-off of financial assets establishes a new cost basis.

**Investment in Associated Companies**

As described in note 10, SAP recorded a loss of 389,630 thousand due to an impairment charge and losses attributable to the investment in Commerce One in 2002. The carrying value of the Company's investment in Commerce One was 425.2 million as of December 31, 2001.

The market value and the carrying value of the Company's investment in Commerce One at December 31, 2002 were 15.4 million (based on the quoted share price of US\$2.77) and 0 respectively. The following table presents summarized consolidated financial information for Commerce One for the years ended December 31, 2002, 2001, and 2000 respectively.

	2002		2001		2000	
	(000)	US\$(000)	US\$(000)	US\$(000)	US\$(000)	US\$(000)
Net revenues	100,648	105,529	408,569	401,796		
Loss from operations	(566,730)	(594,216)	(2,582,669)	(345,564)		
Net loss	(562,552)	(589,836)	(2,584,099)	(344,947)		
Current assets	119,398	125,189	343,792	512,768		
Non-current assets	32,650	34,233	485,149	2,557,787		
Total assets	152,048	159,422	828,941	3,070,555		
Current liabilities	61,784	64,781	149,121	266,805		
Non-current liabilities	44,970	47,151	56,005	4,339		
Shareholder s equity	45,294	47,490	623,815	2,799,411		
Total liabilities and equity	152,048	159,422	828,941	3,070,555		

(1)The 2002 figures have been translated for the convenience of the reader at an exchange rate of 1.00 to U.S. \$ 1.0485, the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2002.

#### Equity and Debt Securities

Amounts pertaining to equity and debt securities at December 31 are as follows:

	2002			
	Cost (000)	Gross unrealized gains (000)	Gross unrealized losses (000)	Carrying value (000)
Marketable equity securities available for sale	46,927	1,788	37,465	11,250
Other equity securities	186,538		153,196	33,342
Equity securities	233,465	1,788	190,661	44,592
Marketable debt securities available for sale	58,412	2,162	6	60,568
	291,877	3,950	190,667	105,160

	2001			
	Cost (000)	Gross unrealized gains (000)	Gross unrealized losses (000)	Carrying value (000)
Marketable equity securities available for sale	44,285	5,090	21,992	27,383
Other equity securities	197,798		64,642	133,156
Equity securities	242,083	5,090	86,634	160,539

Marketable debt securities available for sale	61,240	1,968	6	63,202
	<u>303,323</u>	<u>7,058</u>	<u>86,640</u>	<u>223,741</u>

Other equity securities include interests in privately held companies, primarily venture capital investments. As a market value for those securities is generally not readily obtainable, the cost method of accounting is applied. Impairments in value of cost method investments that are considered to be other than temporary are recognized immediately as expense.

Debt securities with a market value of 53,266 thousand (2001: 53,097 thousand) mature in 2004.

**Other Loans**

Other loans include interest-bearing and non interest-bearing or below-market-interest loans to employees and third parties.

**(17) Inventories**

Inventories consist of costs for office supplies and documentation and services for which revenues have been deferred.

**(18) Accounts Receivable, Net**

Accounts receivable included costs and estimated earnings in excess of billings on uncompleted contracts of 182,686 thousand and 223,578 thousand at December 31, 2002 and 2001, respectively.

Amounts shown on the consolidated balance sheets are net of allowance for bad debts of 92,511 thousand and 110,269 thousand at December 31, 2002 and 2001 respectively. Net accounts receivable based on due dates at December 31 are as follows:

	2002 (000)	2001 (000)
Due within one year	1,952,758	2,202,055
Due between one and five years	14,349	8,858
	<u>1,967,107</u>	<u>2,210,913</u>

Concentrations of credit risks are limited due to the Company's large customer base and its dispersion across many different industries and countries worldwide. No single customer accounted for 5% or more of total revenues in 2002, 2001, or 2000.

**(19) Other Assets**

	2002 (000)	2001 (000)
Income tax receivables	64,197	38,444
Assets held for employee financed benefit plans	60,664	29,679
Fair value of derivatives	41,850	20,162
Rent deposits	25,687	26,116
Others	71,508	63,223
	<u>263,906</u>	<u>177,624</u>
thereof with a remaining term greater than 1 year	<u>102,112</u>	<u>67,407</u>

Others include interest receivable and short-term loans.

**(20) Marketable Securities**

The decline in marketable securities held for trading purposes in 2002 is primarily due to the sale of certain investments that the Company previously made in 2000 with three creditworthy financial institutions.

Amounts pertaining to marketable securities held for trading purposes at December 31 are as follows:

	Amortized cost (000)	Unrealized gains (000)	Unrealized losses (000)	Carrying value (000)
2002	1,478		129	1,349
2001	95,193	2,950		98,143

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**(21) Liquid Assets**

Liquid assets at December 31 consist of the following:

	<b>2002 (000)</b>	<b>2001 (000)</b>
Cash at banks	279,920	296,285
Time deposits with original maturities of 3 months or less	841,788	458,666
<b>Cash and cash equivalents</b>	<b>1,121,708</b>	<b>754,951</b>
Time deposits which mature in less than 1 year	26,281	4,278
Time deposits with maturities exceeding 1 year	478	454
Restricted cash with maturity exceeding 1 year	89,430	106,367
	<b>1,237,897</b>	<b>866,050</b>

Restricted cash is used to collateralize the Company's obligation under an operating lease arrangement with a financial institution in conjunction with capital expenditures made for SAP Properties, Inc. (SAP Properties). Amounts collateralized increase as the Company incurs additional obligations under the lease arrangement. Interest earned on restricted funds is substantially equal to amounts accrued as rent expense under the terms of the lease. See note 31.

The Company eliminated restricted cash from cash and cash equivalents in the consolidated statements of cash flows for the years ended December 31, 2001 and 2000. The Company previously recorded these amounts as cash and cash equivalents and the effects of these adjustments are as follows for the years ended December 31, 2001 and 2000:

	<b>2001 (000)</b>	<b>2000 (000)</b>
Changes in liquid assets as previously reported	36,581	(38,639)
Adjustments	(25,903)	(80,464)
<b>Changes in liquid assets as adjusted</b>	<b>10,678</b>	<b>(119,103)</b>
Net cash used in investing activities as previously reported	(1,040,028)	(445,253)
Adjustments	(25,903)	(80,464)
<b>Net cash used in investing activities as adjusted</b>	<b>(1,065,931)</b>	<b>(525,717)</b>
Net increase (decrease) in cash and cash equivalents as previously reported	(181,591)	333,448
Adjustments	(25,903)	(80,464)
<b>Net increase (decrease) in cash and cash equivalents as adjusted</b>	<b>(207,494)</b>	<b>252,984</b>
Cash and cash equivalents at the beginning of the year as previously reported	1,042,909	709,461
Adjustments	(80,464)	
<b>Cash and cash equivalents at the beginning of the year as adjusted</b>	<b>962,445</b>	<b>709,461</b>

Cash and cash equivalents at the end of the year as previously reported	861,318	1,042,909
Adjustments	(106,367)	(80,464)
Cash and cash equivalents at the end of the year as adjusted	754,951	962,445

Further, the Company adjusted its consolidated balance sheet at December 31, 2001 by 106,367 thousand to reduce previously reported total current assets from 3,646,716 thousand to 3,540,349 thousand to eliminate restricted cash from total current assets.



**(22) Prepaid Expenses and Deferred Charges**

Prepaid expenses and deferred charges are mainly comprised of prepayments for software royalties, operating leases, and maintenance contracts.

**(23) Shareholders Equity**

By resolution of the Annual General Shareholders Meeting held on May 3, 2001, the Company's outstanding preference shares were converted on a one-for-one basis into fully voting ordinary shares, effective June 2001. Following the share conversion, special rights and provisions previously held by preference shareholders ceased to exist. SAP's American Depositary Receipts (ADRs), which trade on the New York Stock Exchange and previously were based on the preference share, are now based on the ordinary share.

Accordingly, the resolutions discussed below were modified through resolutions affected by the Annual General Shareholders Meeting held on May 3, 2001. References to preference shares have been replaced by ordinary shares as appropriate due to the conversion of preference shares to ordinary shares.

**Subscribed Capital**

At December 31, 2002, SAP AG had 314,962,606 no-par ordinary shares issued and outstanding with a calculated nominal value of 1 per share.

The number of ordinary shares increased by 136,921 (corresponding to 136,921) resulting from the conversion of 1994/2004 convertible bonds and the exercise of stock options granted under the LTI 2000 Plan.

The shareholdings in SAP AG at December 31, 2002 were as follows:

	2002		2001
	Number of shares (000)	% of subscribed capital	% of subscribed capital
Hasso Plattner GmbH&Co. Beteiligungs-KG	31,241	9.9	9.9
Dietmar Hopp Stiftung GmbH	28,017	8.9	8.9
Klaus Tschira Stiftung GmbH	21,155	6.7	6.7
Dr. h. c. Tschira Beteiligungs GmbH & Co. KG	15,833	5.0	5.0
Immediate family of Dietmar Hopp	9,721	3.1	2.8
Hasso Plattner Förderstiftung gemeinnützige GmbH	6,000	1.9	1.9
Golfplatz St. Leon-Rot GmbH & Co. Beteiligungs-KG	5,012	1.6	1.6
Immediate family of Dr. h. c. Klaus Tschira	4,134	1.3	1.3
Treasury Stock	3,516	1.1	0.2
Free float	190,334	60.5	61.7
	<b>314,963</b>	<b>100.0</b>	<b>100.0</b>

In 2001, all shares directly owned by Dietmar Hopp were transferred to Golfplatz St. Leon-Rot GmbH & Co. Beteiligungs-KG, which he wholly owns.

**Authorized Capital**

By resolution of the Annual General Shareholders Meeting held on May 3, 2001, the Executive Board of SAP AG (the Executive Board) was authorized, subject to consent of the Supervisory Board, to increase the subscribed capital on or before May 1, 2006, by up to a total amount

of 60 million through the issuance of new ordinary shares in return for contributions in cash ( Authorized Capital I ). The issuance of the additional ordinary shares is subject to the statutory subscription rights of existing shareholders. No such additional ordinary shares were issued during fiscal years 2002 or 2001.

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At the same Annual General Shareholders Meeting on May 3, 2001, the Executive Board was authorized, subject to the consent of the Supervisory Board, to increase the subscribed capital on or before May 1, 2006, up to a total amount of 60 million through the issuance of new ordinary shares in return for contributions in cash or in kind ( Authorized Capital II ). Subject to certain preconditions and the consent of the Supervisory Board, the Executive Board is authorized to exclude the shareholders statutory subscription rights. No additional ordinary shares were issued under Authorized Capital II in fiscal years 2002 or 2001.

The Annual General Shareholders Meeting held on May 3, 2002 authorized the Executive Board, subject to the consent of the Supervisory Board, to increase the capital stock on or before May 1, 2007 by up to an aggregate amount of 15 million against contribution in cash by issuing new ordinary shares ( Authorized Capital III ). The new shares may be subscribed by a credit institution only, and only to the extent that such credit institution, releasing SAP from its corresponding obligation, satisfies the conversion and subscription rights granted under the SAP AG 2000 Long Term Incentive Plan ( LTI 2000 Plan ) or SAP Stock Option Plan 2002 ( SAP SOP 2002 ) respectively. The Executive Board may exercise this authorization only to the extent that the capital stock attributable to the new shares issued from this Authorized Capital III together with new shares from contingent capital and treasury shares issued or transferred after the effectiveness of this authorization for the purposes of satisfying subscription rights under the German Stock Corporation Act does not amount to more than 10% of the capital stock at the time of adoption of the resolution by the General Meeting of Shareholders of May 3, 2002. The shareholders statutory subscription rights are excluded from this capital increase. No authorization to increase the capital stock was exercised in fiscal year 2002.

### Contingent Capital

Contingent capital represents shares that have been authorized in conjunction with a convertible bond or stock option program and that are not yet issued or outstanding.

Contingent Capital II, which was authorized by resolution of the Annual General Shareholders Meeting held on June 22, 1994 to satisfy conversion rights issued under the 1994/2004 Convertible Bond Program, was cancelled by the Annual General Shareholders Meeting held on May 3, 2002. To satisfy the remaining conversion rights issued under the 1994/2004 Convertible Bond Program, Contingent Capital IIa, which authorizes the Board to issue up to 1,032,495 new no-par ordinary shares, was established in 2001. On December 31, 2002, remaining Contingent Capital IIa was 811 thousand due to prior exercises by participants of the 1994/2004 Convertible Bond Program.

The Company received authorization by the Extraordinary General Shareholders Meeting on January 18, 2000, to issue a maximum of 6,250 thousand (18,750 thousand after 3-for-1 stock split which was resolved at the Annual General Shareholders Meeting held on May 5, 2000) ordinary shares ( Contingent Capital III ) to satisfy conversion rights from the LTI 2000 Plan. On or before March 16, 2001, 7,376,311 awards were granted under the LTI 2000 Plan carrying subscription rights in respect to preference shares. At the Annual General Shareholders Meeting on May 3, 2001, Contingent Capital IIIa was authorized to secure the conversion and subscription rights with respect to ordinary shares accruing to the holders of the convertible bonds and stock options issued on or before March 16, 2001 under the LTI 2000 Plan. As a precautionary measure, Contingent Capital III is maintained at the same level as Contingent Capital IIIa in case any participants insist on receiving preference shares upon exercise of the awards. As of December 31, 2002 Contingent Capital III and IIIa amount to 7,376 thousand each. The Annual General Shareholders Meeting held on May 3, 2002, resolved to reduce Contingent Capital III to 515 thousand and Contingent Capital IIIa to 6,564 thousand. To secure the conversion rights and subscription rights in respect of ordinary shares accruing to the holders of the convertible bonds and stock options under the LTI 2000 Plan issued subsequent to May 4, 2001, Contingent Capital V was authorized at the Annual General Shareholders Meeting on May 3, 2001, permitting the Board to issue a maximum of 9,978,199 ordinary shares. By resolution of the Annual Shareholders Meeting held on May 3, 2002 Contingent Capital V was reduced to 4,924 thousand. At the same time it was decided to combine the remaining amounts of Contingent Capital IIIa and Contingent Capital V to a new Contingent Capital IIIa of 11,488 thousand. After reductions due to exercises of rights of the LTI 2000 Plan, Contingent Capital IIIa amounted to 11,445 thousand at December 31, 2002. Increases of Contingent capital III and IIIa can only be effected to the extent that conversion rights and subscription rights issued under the LTI 2000 Plan are actually

exercised and the Company does not grant its own shares in satisfaction of the conversion rights or subscription rights.

The Annual General Shareholders Meeting held on May 3, 2001 authorized the Executive Board to issue bonds with detachable warrants and/or convertible bonds carrying warrant rights or convertible rights with respect to ordinary shares up to a maximum of 25 million on or before May 1, 2006 ( Contingent Capital IV ). No additional ordinary shares were issued under Contingent Capital IV in fiscal years 2002 or 2001.

The Company's capital stock is subject to a further contingent increase by 19,015 thousand by issuing up to 19,015,415 new ordinary shares ( Contingent Capital VI ). This contingent capital increase was authorized by the General Meeting of Shareholders of May 3, 2002 to satisfy the rights for stock options from the SAP SOP 2002 on or before April 30, 2007.

### **Treasury Stock**

By resolution of the Annual General Shareholders Meeting held on May 3, 2002, the Executive Board was authorized to acquire, on or before October 31, 2003, up to 30 million shares in the Company on the condition that such share purchases, together with any previously acquired shares, do not account for more than 10% of the Company's capital stock. This resolution supersedes the resolution of the Annual General Shareholders Meeting held on May 3, 2001, which authorized the Executive Board to acquire up to 30 million of SAP AG ordinary shares through October 31, 2002.

Although treasury stock is legally considered outstanding, SAP has no dividend or voting rights associated with treasury stock. SAP may redeem or resell shares held in treasury or may use treasury stock for the purpose of servicing subscription rights and conversion rights under the Company's stock-based compensation plans. Also, SAP may use the shares as consideration in connection with the acquisition of enterprises.

As of December 31, 2002, SAP had acquired 3,516 thousand of its own shares, representing 3,516 thousand or 1.12% of capital stock. In 2002, 3,016 thousand shares in aggregate were acquired under the buyback program at an average price of approximately 92.59 per share, representing 3,016 thousand or 0.96% of capital stock.

In order to settle stock options granted under the LTI 2000 Plan, SAP acquired an additional 48,967 of its own shares, representing 0.02% of the total shares outstanding at December 31, 2002, at an average market price of 140.06 per share. Such shares were transferred to employees during the year at an average price of 92.72 per share. See note 24 for further information.

In 2002, SAP AG acquired an additional 238,919 of its own ordinary shares, representing 0.08% of the total shares outstanding at December 31, 2002, at an average market price of 98.33 per share in conjunction with its Employee Discounted Stock Purchase Programs. Such shares were transferred to employees during the year at an average price of 76.43 per share. See note 24 for further information.

Certain of SAP AG's foreign subsidiaries purchased an additional 567,568 ADRs (each ADR represents one-fourth of an ordinary share), at an average price of \$24.54 per ADR. Such ADRs were distributed to employees during the year at an average price of \$21.62 per ADR by an administrator. The Company held no ADRs at December 31, 2002 or 2001.

**Accumulated Other Comprehensive Income/(Loss)**

Accumulated other comprehensive income/(loss) consists of the following at December 31:

	Unrealized gains/losses on securities (000)	Currency translation adjustment (000)	Additional minimum pension liability (000)	Cash flow hedges (000)	Total (000)
<b>December 31, 2002</b>					
Before tax	2,960	103,249	33,096	(1,117)	138,188
Tax impact	179		(13,091)	405	(12,507)
Net amount	<u>3,139</u>	<u>103,249</u>	<u>20,005</u>	<u>(712)</u>	<u>125,681</u>
<b>December 31, 2001</b>					
Before tax	759	(186,501)	14,002		(171,740)
Tax impact	(1,566)		(5,455)		(7,021)
Net amount	<u>(807)</u>	<u>(186,501)</u>	<u>8,547</u>		<u>(178,761)</u>
<b>December 31, 2000</b>					
Before tax	(42,628)	(145,403)	8,783	(37,271)	(216,519)
Tax impact	17,580		(3,378)	11,742	25,944
Net amount	<u>(25,048)</u>	<u>(145,403)</u>	<u>5,405</u>	<u>(25,529)</u>	<u>(190,575)</u>

In connection with sales of marketable equity securities, the Company reclassified 130 thousand of previously unrealized losses in 2002, 9,901 thousand of unrealized gains in 2001, and 174,827 thousand of unrealized gains in 2000, net of tax, from accumulated other comprehensive income to financial income/expense, net. The Company reclassified 12,483 thousand of net foreign exchange gains and 53,161 thousand of net foreign exchange losses, net of tax, relating to the Company's anticipated cash-flow hedges in 2001 and 2000, respectively, from accumulated other comprehensive income to other non-operating income/expenses, net.

**Miscellaneous**

Under the German Stock Corporation Act (Aktiengesetz), the amount of dividends available for distribution to shareholders is based upon the earnings of SAP AG as reported in its statutory financial statements determined in accordance with the German Commercial Code (Handelsgesetzbuch). For the year ended December 31, 2002, SAP management has proposed a distribution in 2003 of 0.60 per share relating to the 2002 earnings of SAP AG as a dividend to the shareholders. Dividends paid for 2001 and 2000 were as follows:

	2001	2000
Dividend per ordinary share	0.58	0.57
Dividend per preference share	n/a	0.58

**(24) Stock Based Compensation Plans****Employee Discounted Stock Purchase Programs**

The Company acquires SAP AG ordinary shares and ADRs under various employee stock purchase plans and transfers the shares to employees. Discounts provided to employees through such plans do not exceed 15% and are treated as a direct reduction of equity.

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**Stock Appreciation Right (STAR) Plans**

In February 2002 and 2001, the Company granted approximately 3.6 million and 3.4 million stock appreciation rights ( 2002 STARs and 2001 STARs respectively) to selected employees who are not participants in the LTI 2000 Plan. The 2002 and 2001 STAR grant values of 158.80 and 193.51, respectively, are based upon the average fair market value of one ordinary share over the 20 business days commencing the day after the announcement of the Company's preliminary results for the preceding fiscal year. The valuation of the STARs is calculated quarterly, over a period of two years. Each quarterly valuation is weighted as follows in determining the final valuation:

Quarter ended first year	Weighting factor	Quarter ended second year	Weighting factor
March 31	5%	March 31	10%
June 30	5%	June 30	10%
September 30	10%	September 30	10%
December 31	20%	December 31	30%

The valuations for the quarterly periods ending December 31 are based on the amount by which the grant price is exceeded by the average fair market value of one ordinary share as quoted on Xetra, the trading system of the Frankfurt Stock Exchange, over the 20 consecutive business days commencing on the day after the announcement of the Company's preliminary annual results. The other quarterly valuations are based on the amount by which the grant price is exceeded by the average fair market value of one ordinary share quoted on Xetra over the five consecutive business days commencing on the day after the announcement of the Company's quarterly results. Because each quarterly valuation is measured independently, it will be unaffected by any other quarterly valuation.

The cash payout value of each STAR will be calculated quarterly as follows: (i) 100% of the first 50 value appreciation for such quarter; (ii) 50% of the next 50 value appreciation; and (iii) 25% of any additional value appreciation. Participants will receive payments with respect to the 2002 STARs as follows: 50% each on both March 31, 2004, and January 31, 2005. Under the terms of the 2001 STAR Plan, participants were scheduled to receive an initial payment on June 30, 2002, equal to 50% of the first year measurement value and are scheduled to receive two installments on March 31, 2003 and January 31, 2004, each equal to 50% of the total payout amount minus the initial payment. Participants will receive STAR payments provided that, subject to certain exceptions, they continue to be actively employed by the Company on the payment dates.

As of December 31, 2002, no STAR expenses were accrued as the grant price of the 2002 and 2001 STARs exceeded the average fair market value for all quarters.

**STAR Hedges**

SAP purchased various call options from sophisticated financial institutions to hedge the anticipated cash-flow exposure resulting from the nonvested expense relating to the STAR Plans.

These call options have been structured to replicate the payouts required, if any, under the terms of the 2002 or 2001 STAR Plans. As a result of the Company's hedging strategy, expenses incurred in connection with the STAR Plans, if any, will be reduced by a corresponding gain on the hedging instruments. The premiums paid by the Company to purchase the derivative instruments will be recognized as financial expense over the lives of the derivatives.

As of December 31, 2002 and 2001, approximately 59 million and 51 million has been recorded as an expense in financial income/expense, net. These amounts represent fair market value changes attributable to time value, which on a cumulative basis through expiration are equal to the original cost of the option.

**Stock Option Plan 2002**

At the 2002 Annual General Meeting of Shareholders, the Company's shareholders approved the SAP SOP 2002. The SAP SOP 2002, which provides for the issuance of stock options to the members of the Executive Board as well as to eligible executives and other top performers of SAP AG and its subsidiaries, is designed to





replace the LTI 2000 Plan, described below. Under the SAP SOP 2002, the Executive Board is authorized to issue, on or before April 30, 2007, up to 19,015,415 stock options.

Each stock option granted under SAP SOP 2002 entitles its holder to subscribe to one share in the Company, against the payment of an exercise price, which is composed of a base price and a premium of 10% thereon. The base price is the average market price of the SAP share on the Frankfurt Stock Exchange during the five trading days preceding the issue of the respective stock option, calculated on the basis of the arithmetic mean of the closing auction prices of the SAP share in the Xetra trading system. These provisions notwithstanding, the exercise price should not be less than the closing auction price on the day before the issue date. The term of the stock options is five years. Subscription rights cannot be exercised until a vesting period has elapsed. The vesting period of an option holder's subscription rights ends two years after the issue date of that holder's options.

SAP SOP 2002 is considered a fixed plan under APB 25. Since the exercise price, which is fixed one day before grant, cannot exceed the share price on that date, no expenses are recorded for awards granted under SAP SOP 2002.

As of December 31, 2002, no stock options have been granted under SAP SOP 2002.

### **Long Term Incentive 2000 Plan**

On January 18, 2000, the Company's shareholders approved the LTI 2000 Plan. The LTI 2000 Plan is a stock-based compensation program providing members of the SAP AG Executive Board, members of subsidiaries' executive boards and selected employees a choice between convertible bonds, stock options, or a 50% mixture of each. If stock options are chosen, the participant receives 25% more stock options than convertible bonds. Under the LTI 2000 Plan, each convertible bond having a \$1 nominal value may be converted into one ordinary share over a maximum of 10 years subject to vesting requirements. The conversion price is equal to the market price of an ordinary share as quoted on the Xetra trading system the day immediately preceding the grant. Each stock option may be exercised in exchange for one ordinary share over a maximum of 10 years subject to the same vesting requirements. The exercise price varies based upon the outperformance of the ordinary share price appreciation versus the appreciation of the Goldman Sachs Technology Software Index from the day immediately preceding grant to the day on which the exercise price is being determined. Both the convertible bonds and stock options vest as follows: 33% after two years from date of grant, 33% after three years and 34% after four years. Forfeited convertible bonds or stock options are disqualified and may not be reissued.

Under APB 25, the Company records no expenses relating to the convertible bonds issued under its LTI 2000 Plan since the conversion price is equal to the market price of an SAP ordinary share on the date of grant. Because the exercise price for stock options issued under the LTI 2000 Plan is variable, an expense is recorded over the vesting period based upon the stock options' intrinsic value on the reporting date.

In total, 12,305,271 conversion and subscription rights have been issued under the LTI 2000 Plan through March 14, 2002. At the 2002 Annual General Meeting of Shareholders, the Company's shareholders revoked the authorization to issue further convertible bonds and stock options under the LTI 2000 Plan.

A summary of the LTI 2000 Plan activity for both convertible bonds and stock options is as follows:

	Stock Options			Convertible Bonds	
	Shares available for grant (000)	Number of options outstanding (000)	Weighted average exercise price per option	Number of bonds outstanding (000)	Weighted average exercise price per bond
January 1, 2000					
Additional shares authorized	18,750				
Granted	3,145	767	167.08	2,378	289.78
Reduction due to option/bond ratio (25% of bonds issued)	595				
Exercised					
Forfeited		111	168.07	216	293.25
December 31, 2000	15,010	656	166.91	2,162	289.43
Additional shares authorized					
Granted	4,352	1,075	142.37	3,277	190.43
Reduction due to option/bond ratio (25% of bonds issued)	819				
Exercised					
Forfeited		153	128.78	248	237.83
December 31, 2001	9,839	1,578	132.73	5,191	229.40
Additional shares authorized					
Granted	4,807	1,787	81.39	3,020	151.50
Reduction due to option/bond ratio (25% of bonds issued)	755				
Exercised		76	94.53		
Forfeited	4,277	222	72.81	408	200.78
December 31, 2002		3,067	72.51	7,803	200.74

In 2002, the Company recorded compensation expense for the LTI 2000 Plan in the amount of 8,418 thousand (2001: 13,776 thousand; 2000: 72 thousand).

The following tables summarize information about stock options and convertible bonds outstanding as of December 31, 2002:

Range of exercise prices	Outstanding Stock Options			Exercisable Stock Options	
	Number of options (000)	Weighted average remaining contractual life (in years)	Weighted average exercise price	Number of options (000)	Weighted average exercise price
40.31 - 50.90	14	7.32	46.37	5	46.37
54.22 - 65.8	8 1,353	7.74	61.75	159	54.22
73.54 - 81.3	9 1,700	9.08	81.30	0	n/a
<u>40.31 - 81.3</u>	<u>9 3,067</u>	<u>8.48</u>	<u>72.51</u>	<u>164</u>	<u>54.00</u>

  

Range of exercise prices	Outstanding Convertible Bonds			Exercisable Convertible Bonds	
	Number of bonds (000)	Weighted average remaining contractual life (in years)	Weighted average exercise price	Number of bonds (000)	Weighted average exercise price
131.81 - 183.67	2,970	9.08	151.67	3	183.67
191.25 - 247.00	2,946	8.08	192.00	16	238.46
290.32 - 334.67	1,887	7.09	291.61	629	291.61
<u>131.81 - 334.67</u>	<u>7,803</u>	<u>8.21</u>	<u>200.74</u>	<u>648</u>	<u>289.84</u>

See note 35 for stock options and convertible bonds awarded to members of the board.

#### Stock-Based Compensation Plan of SAP System Integrations AG ( SAP SI )

On August 16, 2000, by resolution of SAP SI's stockholders, SAP SI introduced an employee stock option plan in the form of convertible bonds, which allows SAP SI to issue up to 2 million convertible bonds to members of the Executive Board and other employees of SAP SI and its subsidiaries. As of December 31, 2002, a total of 1,209,647 (2001: 1,303,347) convertible bonds were outstanding.

Each participating employee can exchange his or her convertible bonds for an equal number of shares of SAP SI stock. The conversion price corresponds to the issue price of SAP SI stock on the date they are granted. The bonds have a term of eight years. The convertible bonds vest as follows: 33% after two years from date of grant, 33% after three years and 34% after four years.

#### Pro-Forma Information

SFAS 123 requires disclosure of pro-forma information regarding net income and earnings per share as if the Company had accounted for its stock-based awards granted to employees using the fair value method. The fair value of the Company's stock-based awards was estimated as of the date of grant using the Black-Scholes option-pricing model.

The fair value of the Company's stock-based awards granted under the LTI 2000 Plan was calculated using the following weighted average assumptions:

2002	2001	2000
------	------	------

Expected life (in years)	4.5	4.5	4.5
Risk free interest rate	4.68%	4.96%	5.36%
Expected volatility	50%	50%	50%
Expected dividends	0.38%	0.30%	0.25%

The weighted-average fair value of all stock options and convertible bonds granted under the LTI 2000 Plan during 2002 was 55.11 and 68.89, respectively (2001: 69.77 and 87.71; 2000: 96.33 and 120.95). As of December 31, 2002 no awards have been granted under SAP SOP 2002.

For pro-forma purposes, the estimated fair value of the Company's stock-based awards is amortized over the vesting period. The Company's pro-forma information is presented in note 3.

#### (25) Pension Liabilities and Similar Obligations

The Company maintains several defined benefit and defined contribution plans for its employees both in Germany and at its foreign subsidiaries, which provide for old age, disability, and survivors' benefits. Individual benefit plans have been established for members of the Executive Board. The accrued liabilities on the balance sheet for pension and other similar obligations at December 31 consists of the following:

	2002 (000)	2001 (000)
Domestic benefit plans	5,909	6,149
Foreign benefit plans	23,904	14,358
Employee financed plans	51,304	29,679
Other pension and similar obligations	2,456	1,637
	<u>83,573</u>	<u>51,823</u>

#### Domestic Benefit Plans

The defined benefit plans provide participants with pension benefits that are based on the length of service and compensation of employees.

The change of the pension obligation and the change in plan assets for the domestic plans are as follows:

	2002 (000)	2001 (000)
<b>Change in benefit obligation:</b>		
Benefit obligation at beginning of year	27,289	25,616
Service costs	561	590
Interest costs	1,631	1,657
Liability decreased due to settlement		(503)
Actuarial gain/loss	(908)	125
Benefits paid	(222)	(192)
Payments for settlement of deferred vested employees		(4)
	<u>28,351</u>	<u>27,289</u>
<b>Benefit obligation at end of year</b>		
<b>Change in plan assets:</b>		
Fair value of plan assets at beginning of year	20,449	17,391
Actual return on plan assets	1,078	1,474
Employer contributions	2,279	2,346
Life/disability insurance premiums and expenses	407	(372)
Benefits paid	(222)	(192)
Payments for settlement of deferred vested employees		(4)
Assets transferred to defined contribution plan	(333)	(194)
	<u>23,658</u>	<u>20,449</u>
<b>Fair value of plan assets at end of year</b>		
Funded status	4,693	6,840
Unrecognized net actuarial loss	(3,583)	(4,657)

Unrecognized prior service cost		(1)
Unrecognized transition assets	(574)	(616)
	<u>          </u>	<u>          </u>
<b>Net amount recognized</b>	<b>536</b>	<b>1,566</b>
	<b><u>          </u></b>	<b><u>          </u></b>

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	2002 (000)	2001 (000)
<b>Amounts recognized in the consolidated balance sheets:</b>		
Accrued benefit liability	5,909	6,149
Intangible asset	(33)	(37)
Accumulated other comprehensive income	(5,340)	(4,546)
<b>Net amount recognized</b>	<b>536</b>	<b>1,566</b>

The following assumptions were used to develop the changes in pension obligation and the changes in plan assets of the German plans:

	2002 %	2001 %	2000 %
Discount rate	5.8	6.6	6.5
Expected return on plan assets	6.3	6.5	6.5
Rate of compensation increase	3.6	4.0	4.0

The components of net periodic benefit cost are as follows for the years ended December 31:

	2002 (000)	2001 (000)	2000 (000)
Service cost	561	590	1,002
Interest cost	1,631	1,657	1,438
Expected return on plan assets	(1,399)	(1,303)	(1,096)
Net amortization	456	456	246
	<b>1,249</b>	<b>1,400</b>	<b>1,590</b>

### Foreign Benefit Plans

Defined benefit plans provide participants with pension benefits that are based upon compensation levels, age, and years of service.

The change of the pension obligation and the change in plan assets for the foreign plans are as follows:

	2002 (000)	2001 (000)
<b>Change in benefit obligation:</b>		
Benefit obligation at beginning of year	96,370	68,229
Service costs	31,100	24,466
Interest costs	8,146	5,446
Plan transfer	42,614	
Plan amendments	1,053	(4,065)
Curtailment	(5,772)	
Settlement	(4,594)	
Employee contributions	1,976	

Actuarial loss	10,176	1,952
Benefits paid	(6,187)	(2,404)
Foreign currency exchange rate changes	(15,480)	2,746
	<u>          </u>	<u>          </u>
<b>Benefit obligation at end of year</b>	<b>159,402</b>	<b>96,370</b>
	<b>—————</b>	<b>—————</b>

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	2002 (000)	2001 (000)
<b>Change in plan assets:</b>		
Fair value of plan assets at beginning of year	77,803	50,106
Actual return on plan assets	(6,417)	(3,444)
Plan transfer	40,343	
Settlement	(7,184)	
Employer contributions	41,704	30,043
Employee contributions	1,976	
Benefits paid	(5,758)	(1,855)
Foreign currency exchange rate changes	(12,276)	2,953
	<u>130,191</u>	<u>77,803</u>
<b>Fair value of plan assets at end of year</b>		
Funded status	29,211	18,567
Unrecognized transition assets	(2,619)	(526)
Unrecognized prior service cost	1,993	3,766
Unrecognized net actuarial loss	(35,424)	(16,905)
	<u>(6,839)</u>	<u>4,902</u>
<b>Net amount recognized</b>		
<b>Amounts recognized in the consolidated balance sheets:</b>		
Prepaid benefit cost	(2,987)	
Accrued benefit liability	23,904	14,358
Accumulated other comprehensive income	(27,756)	(9,456)
	<u>(6,839)</u>	<u>4,902</u>
<b>Net amount recognized</b>		

SAP (Schweiz) AG ( SAP Switzerland ) maintains a defined benefit pension plan covering the majority of its employees and retirees in Switzerland. Due to changes in legislation, SAP Switzerland founded a trust in January 2002 and transferred the plan's assets and liabilities from an insurance company to the trust. SAP increased the pension benefit obligation by 42,614 thousand and plan assets by 40,343 thousand, the fair value of the plan's assets as of the date of the transfer. In accordance with the provisions of SFAS 88, Employers' accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits, SAP Nederland B.V. implemented a defined contribution plan in 2002 which replaced the benefits of the existing defined benefit plan for certain eligible employees.

The following weighted average assumptions were used to develop the change in pension obligation and the change in plan assets of the foreign plans:

	2002 %	2001 %	2000 %
Discount rate	5.2	6.6	7.5
Expected return on plan assets	6.5	8.0	8.0
Rate of compensation increase	4.8	6.0	6.0

The components of net periodic benefit cost are as follows for the years ended December 31:

	2002 (000)	2001 (000)	2000 (000)
	<u>          </u>	<u>          </u>	<u>          </u>

Service cost	31,100	24,466	20,944
Interest cost	8,146	5,446	3,246
Expected return on plan assets	(8,020)	(4,975)	(3,358)
Net amortization	674	596	517
	<u>31,900</u>	<u>25,533</u>	<u>21,349</u>

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**Additional Information on Funded Status**

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the defined benefit pension plans with accumulated benefit obligations in excess of plan assets are as follows:

	12/31/2002 (000)			12/31/2001 (000)		
	Total	Domestic Plans	Foreign Plans	Total	Domestic Plans	Foreign Plans
Projected benefit obligation	134,767	27,581	107,186	122,885	26,515	96,370
Accumulated benefit obligation	127,569	26,690	100,879	117,039	24,960	92,079
Fair value of plan assets	99,773	22,620	77,153	97,566	19,763	77,803
Underfunding of accumulated benefit obligation	27,796	4,070	23,726	19,473	5,197	14,276

**Contribution Plans**

The Company also maintains domestic and foreign defined contribution plans. Amounts contributed by the Company under such plans are based upon a percentage of the employee's salary or the amount of contributions made by employees. The costs associated with defined contribution plans were 67,248 thousand, 70,097 thousand, and 63,660 thousand in 2002, 2001, and 2000 respectively.

Germany maintains an unqualified employee financed plan, whereby employees may contribute a limited portion of their salary. SAP purchases and holds guaranteed fixed rate insurance contracts, which are recorded in other assets and are equal to the obligations under the plan.

**(26) Other Reserves and Accrued Liabilities**

	2002 (000)	2001 (000)
Current and deferred taxes	594,042	476,700
Other reserves and accrued liabilities	883,980	899,847
	<u>1,478,022</u>	<u>1,376,547</u>

Accrued taxes include current and prior year tax obligations in the amount of 482,947 thousand and deferred tax liabilities in the amount of 111,095 thousand.

Other reserves and accrued liabilities at December 31 are as follows:

	2002 (000)	2001 (000)
Other obligations to employees	507,267	540,174
Obligations to suppliers	173,782	184,174
Vacation and other absences	126,765	120,560
Customer claims	41,159	29,873
Fair value of foreign exchange contracts	11,079	2,973
Auditing and reporting costs	4,905	4,803
Warranty and service costs	4,729	4,600

Contribution to employees	accident insurance account	4,019	3,150
Other		10,275	9,540
		<u>          </u>	<u>          </u>
		883,980	899,847
		<u>          </u>	<u>          </u>

Other reserves and accrued liabilities payable after one year as of December 31, 2002 are 9,146 thousand ( 5,557 thousand in 2001). Obligations to employees relate primarily to variable bonus payments tied to earnings performance, paid out after the balance sheet date. Other obligations to employees also includes termination

benefits required by law in certain foreign subsidiaries that constitute defined benefit plans under SFAS 87, Employers Accounting for Pensions. Such benefits are payable in a lump sum upon separation from the Company. The accrued liability for such plans amounts to 11,432 thousand as of December 31, 2002 (2001: 9,383 thousand).

Obligations to suppliers represent services received or goods purchased for which SAP has not yet been invoiced. Warranty and service cost accruals represent estimated future warranty obligations and other minor routine items provided under maintenance. SAP provides a six to 12 month warranty on its software. SAP determines the warranty accrual based on the historical average cost of fulfilling its obligations under these commitments. At December 31, 2002 and 2001, SAP accrued 4,729 thousand and 4,600 thousand respectively. The aggregate utilization of the warranty accrual in 2002 was 4,633 thousand and the aggregate warranty expense was 4,762 thousand in 2002.

### (27) Other Liabilities

Other liabilities based on due dates at December 31 are as follows:

	Term less than 1 year (000)	Term between 1 and 5 years (000)	Term more than 5 years (000)	Balance on 12/31/2002 (000)	Balance on 12/31/2001 (000)
Bank loans and overdrafts	22,657		1,650	24,307	458,345
Advanced payments received	44,011			44,011	34,213
Accounts payable	328,826	15		328,841	391,208
Taxes	166,056			166,056	160,288
Social security	35,824			35,824	38,439
Other liabilities	127,711	798	21,214	149,723	127,721
	<u>725,085</u>	<u>813</u>	<u>22,864</u>	<u>748,762</u>	<u>1,210,214</u>

Liabilities are unsecured, excluding retention of title and similar rights customary in the industry. The bank loans and overdrafts as of 2001 relate primarily to outstanding lines of credit in Germany. Effective interest rates of bank loans and overdrafts are 5.01% and 3.86% in 2002 and 2001 respectively.

In 2001, liabilities with a remaining term not exceeding one year amounted to 1,189,774 thousand and those with a remaining term exceeding five years amounted to 19,577 thousand.

As of December 31, 2002 and 2001, SAP AG had available lines of credit totaling 980,000 thousand and 1,016,000 thousand respectively. No borrowings were made under these lines of credit in 2002 (2001: 430 million).

As of December 31, 2002 and 2001, certain of SAP's subsidiaries had lines of credit available that allowed them to borrow in local currencies at prevailing interest rates up to 204,756 thousand and 200,386 thousand respectively. Total aggregate borrowings under these lines of credit, which are guaranteed by SAP AG, amounted to 24,307 thousand at December 31, 2002 and 28,345 thousand at December 31, 2001.

### (28) Deferred Income

Deferred income consists mainly of prepayments for maintenance and deferred software license revenues. Such amounts will be recognized as software, maintenance, or service revenue, depending upon the reasons for the deferral.

## D. ADDITIONAL INFORMATION

### (29) Supplemental Cash Flow Information

Interest paid included in net cash provided by operating activities in 2002, 2001, and 2000 was 12,858 thousand, 20,834 thousand, and 6,847 thousand respectively. Income taxes paid in fiscal years 2002,



2001, and 2000, net of refunds was 366,642 thousand, 500,098 thousand, and 459,629 thousand respectively.

See the reconciliation from cash and cash equivalents to liquid assets in note 21.

### (30) Contingent Liabilities

	2002 (000)	2001 (000)
Guarantees and other commitments to third parties	11,329	13,713
Liabilities from the extension of collateral securities for others	4,102	642
Notes receivable sold		11
Guarantees and endorsements		1,304
	<u>15,431</u>	<u>15,670</u>

Contingent liabilities listed above have not been accrued because the associated risk of loss is not probable.

### (31) Other Financial Commitments

Other financial commitments amounted to 786,562 thousand and 771,641 thousand as of December 31, 2002 and 2001, respectively, and are comprised primarily of commitments under rental and operating leases of 681,222 thousand and 660,936 thousand as of December 31, 2002 and 2001 respectively. Those commitments relate primarily to the lease of office space, cars, and office equipment. In addition, financial commitments exist in the form of purchase commitments totaling 83,277 thousand and 102,191 thousand as of December 31, 2002 and 2001 respectively. These commitments primarily relate to the construction of facilities in Germany, office equipment, and car purchase commitments. Historically, the majority of those purchase commitments have been utilized.

In October 2000, SAP Properties, a wholly owned subsidiary of SAP America, Inc. entered into a seven year lease arrangement with a sophisticated financial institution for office space and also agreed to serve as an agent to oversee the renovations of the office space. The operating lease agreement is between SAP Properties and the financial institution directly, with no involvement of any variable interest entity. Under the terms of the lease, SAP Properties is required to restrict cash equal to the amount spent by the financial institution on such renovations. See note 21. This lease is accounted for as an operating lease in accordance with SFAS 13, Accounting for Leases.

Commitments under rental and operating leasing contracts as of December 31, 2002:

	(000)
Due 2003	163,683
Due 2004	119,330
Due 2005	91,976
Due 2006	70,144
Due 2007	54,821
Due thereafter	181,268

Rent expense was 207,087 thousand, 208,908 thousand, and 209,172 thousand for the years ended December 31, 2002, 2001, and 2000 respectively.

### (32) Litigation and Claims

The bankruptcy trustee of the U.S. company FoxMeyer Corp. ( FoxMeyer ) instituted legal proceedings against SAP America, Inc. and SAP AG, in 1998. FoxMeyer was a pharmaceutical wholesaler that filed for bankruptcy protection in 1996. The discovery phase of the litigation is proceeding. While the ultimate outcome of this matter cannot be presently determined with certainty, the Company believes that FoxMeyer's

claims in this

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action are without merit. The Company is vigorously defending against the claims and believes that this action is not likely to have a material effect on its results of operations, financial condition, or cash flows.

SAP is subject to legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. Although the outcome of these proceedings and claims cannot be predicted with certainty, management does not believe that the outcome of any of these matters will have a material adverse effect on the Company's results of operations, financial condition, or cash flows.

### (33) Financial Instruments

#### *Fair Value of Financial Instruments*

The Company utilizes various types of financial instruments in the ordinary course of business. The carrying amounts and fair values of SAP's financial instruments are as follows:

	2002		2001	
	Carrying value (000)	Fair value (000)	Carrying value (000)	Fair value (000)
Marketable equity securities available for sale	11,250	11,250	27,383	27,383
Marketable debt securities available for sale	60,568	60,568	63,202	63,202
Marketable securities	1,349	1,349	98,143	98,143
Other loans	58,170	58,170	49,645	49,645
Bank loans and overdrafts	(24,307)	(24,307)	(458,345)	(458,345)
<b>Derivative financial instruments</b>				
Forward exchange contracts	28,315	28,315	(467)	(467)
Currency options	1,106	1,106		
Call options (STAR hedge)	1,350	1,350	17,656	17,656
	<u>137,801</u>	<u>137,801</u>	<u>(202,783)</u>	<u>(202,783)</u>

The market values of these financial instruments are determined as follows:

Marketable debt and equity securities: The fair values of marketable debt and equity securities are based upon available quoted market prices on December 31.

Other loans, bank loans, and overdrafts: The fair values of other loans, bank loans, and overdrafts approximate their carrying values.

Derivative financial instruments: The fair value of derivatives generally reflects the estimated amounts the Company would pay or receive to terminate the contracts at the reporting date.

Detailed information about the fair value of the Company's financial instruments is included in notes 16 and 20.

#### *Accounting and Use of Derivative Financial Instruments*

As an internationally active enterprise, the Company is subject to risks from currency fluctuations in its ordinary operations. The Company utilizes derivative financial instruments to reduce such risks as described below. The derivative financial instruments employed by the Company are exclusively marketable instruments with sufficient liquidity. The Company has established internal guidelines that govern the use of derivative financial instruments.

#### *Foreign Exchange Risk Management*

Most of SAP AG's subsidiaries have entered into license agreements with SAP AG pursuant to which each subsidiary has acquired the right to sublicense SAP AG software products to customers within a specific territory. Under these license agreements, the subsidiaries generally are required to pay SAP AG a royalty equivalent to a percentage of the product fees charged by them to their customers within 30 days following the end of the month

in which the subsidiary recognizes the revenue. These intercompany royalties payable to SAP AG are generally denominated in the respective subsidiary's local currency in order to centralize foreign currency risk with SAP AG in Germany. Because these royalties are denominated in the various subsidiaries' local currencies, whereas the functional currency of SAP AG is the euro, SAP AG's anticipated cash flows are subject to foreign exchange risks. In addition, the delay between the date when the subsidiary records product revenue and the date when the subsidiary remits payment to SAP AG exposes SAP AG to foreign exchange risk.

SAP enters into derivative instruments, primarily foreign exchange forward contracts and currency options, to hedge anticipated cash flows in foreign currencies from foreign subsidiaries. Specifically, these foreign exchange forward contracts offset anticipated cash flows and existing intercompany receivables relating to the countries with significant operations, including the United States, Japan, the United Kingdom, Switzerland, Canada and Australia. SAP uses foreign exchange derivatives that generally have maturities of 12 months or less, which may be rolled over to provide continuing coverage until the applicable royalties are received.

Generally, anticipated cash flows represent expected intercompany amounts resulting from revenues generated within the 12 months following the purchase date of the derivative instrument. However, management infrequently extends the future periods being hedged for a period of up to two years from the purchase date of the derivative instrument based on the Company's forecasts and anticipated exchange rate fluctuations in various currencies. Management believes the use of foreign currency derivative financial instruments reduces the aforementioned risks that arise from doing business in international markets and holds such instruments for purposes other than trading.

Foreign exchange derivatives are recorded at fair value in the consolidated balance sheets. Gains or losses on derivatives designated and qualifying as cashflow hedges are included in accumulated other comprehensive income, net of tax. When intercompany accounts receivables resulting from product revenue royalties are recorded, the applicable gain or loss is reclassified to other non-operating income/expense, net. Going forward, any additional gains or losses relating to that derivative are posted to other non-operating income/expense, net until the position is closed or the derivative expires.

Net gains of \$2,352 thousand are also included in earnings for the year ended December 31, 2002 (2001: net gains of \$468 thousand; 2000: net losses of \$4,885 thousand), reclassified from accumulated other comprehensive income as a result of the discontinuance of foreign currency cash flow hedges because it was probable that the original forecasted transaction would not occur. It is estimated that \$712 thousand of net gains included in accumulated other comprehensive income at December 31, 2002, will be reclassified into earnings during the next year. As of December 31, 2002, SAP held derivative financial instruments with a maximum term of 12 months to hedge its exposure to the variability in future cash flows for forecasted transactions.

Foreign exchange derivatives entered into by SAP to offset exposure to anticipated cash flows that do not meet the requirements for applying hedge accounting are marked to market at each reporting period with unrealized gains and losses recognized in earnings.

#### *Equity Derivatives*

SAP enters into call options with sophisticated financial institutions to hedge the anticipated cash flow exposure resulting from the non-vested expense relating to its various stock appreciation rights programs. The fair values recorded at December 31 represent the amount the Company would be required to pay in order to purchase a call option with those similar terms. See note 24 for additional information.

The notional values and fair values of the derivative financial instruments as of December 31 are as follows:

	2002		2001	
	Notional value (000)	Fair value (000)	Notional value (000)	Fair value (000)
Forward exchange contracts:				
Gains	836,772	38,105	403,164	2,506
Losses	446,930	(9,790)	194,503	(2,973)
	<u>1,283,702</u>	<u>28,315</u>	<u>597,667</u>	<u>(467)</u>
Currency options	83,372	1,106		
Call options (STAR hedge)	n/a	1,350	n/a	17,656

### Credit Risk

The Company is exposed to credit-related losses in the event of non-performance by counterparties to financial instruments. To avoid these counterparty risks, the Company conducts business exclusively with major financial institutions. SAP does not have a significant exposure to any individual counterparty.

### (34) Segment Information

SAP discloses segment information in accordance with SFAS 131, Disclosures about Segments of an Enterprise and Related Disclosures ( SFAS 131 ). SFAS 131 presents standards for reporting information about operating segments as well as for related disclosures about products and services and geographic areas.

SFAS 131 requires financial information about operating segments to be reported on the basis that is used internally for evaluating segment performance and deciding how to allocate resources to segments.

The Company's internal reporting system produces reports in which business activities are presented in a variety of ways. Based on these reports, the Executive Board, which has been identified as the chief operating decision-maker according to the criteria of SFAS 131, evaluates business activities in a number of different ways. Neither the line of business nor the geographic structure can be identified as primary. Therefore, in accordance with SFAS 131, the line of business structure is regarded as constituting the operating segments.

SAP has three operating segments: Product , Consulting , and Training . The Product segment is primarily engaged in marketing and licensing the Company's software products and performing maintenance services that include technical support for the Company's products, assistance in resolving problems, and provision of user documentation, updates for software products, and new releases, versions and support packages. The Consulting segment assists customers in the implementation of SAP software products. Consulting services also include customer support in project planning, feasibility studies, analyses, organizational consulting, system adaptation, system optimization, release change and interface setup. The Training segment provides educational services on the use of SAP software products and related topics.

Accounting policies for each segment are the same as those described in the summary of significant accounting policies as disclosed in note 3, except for differences in the currency translation and stock-based compensation expenses. Under management's view, certain deferred compensation charges for settlements of stock-based compensation plans are also considered stock-based compensation. Differences in the foreign currency translation result in minor deviations between the figures reported internally and the figures reported in the financial statements. Depending on the type of service provided, SAP accounts for internal sales and transfers either on a cost basis or at current market prices.

2002				
	Product (000)	Consulting (000)	Training (000)	Total (000)
External revenue	4,805,339	2,141,154	435,098	7,381,591
Internal revenue	464,669	513,064	83,860	1,061,593
<b>Total revenue</b>	<b>5,270,008</b>	<b>2,654,218</b>	<b>518,958</b>	<b>8,443,184</b>
Segment expenses	(2,584,305)	(2,128,383)	(376,378)	(5,089,066)
<b>Segment contribution</b>	<b>2,685,703</b>	<b>525,835</b>	<b>142,580</b>	<b>3,354,118</b>
<b>Segment profitability</b>	51.0%	19.8%	27.5%	
2001				
	Product (000)	Consulting (000)	Training (000)	Total (000)
External revenue	4,819,436	2,012,749	479,817	7,312,002
Internal revenue	480,457	445,589	118,451	1,044,497
<b>Total revenue</b>	<b>5,299,893</b>	<b>2,458,338</b>	<b>598,268</b>	<b>8,356,499</b>
Segment expenses	(2,875,836)	(2,034,119)	(419,008)	(5,328,963)
<b>Segment contribution</b>	<b>2,424,057</b>	<b>424,219</b>	<b>179,260</b>	<b>3,027,536</b>
<b>Segment profitability</b>	45.7%	17.3%	30.0%	
2000				
	Product (000)	Consulting (000)	Training (000)	Total (000)
External revenue	4,208,863	1,575,490	401,260	6,185,613
Internal revenue	118,024	379,587	67,322	564,933
<b>Total revenue</b>	<b>4,326,887</b>	<b>1,955,077</b>	<b>468,582</b>	<b>6,750,546</b>
Segment expenses	(2,070,409)	(1,663,082)	(338,910)	(4,072,401)
<b>Segment contribution</b>	<b>2,256,478</b>	<b>291,995</b>	<b>129,672</b>	<b>2,678,145</b>
<b>Segment profitability</b>	52.2%	14.9%	27.7%	

Revenues

The external revenue figures for the operating segments differ from the revenue figures disclosed in the consolidated statements of income because for internal reporting purposes revenue is generally allocated to the segment that is responsible for the related project, whereas in the consolidated statements of income, revenue is allocated based on the nature of the transaction regardless of the segment it was provided by. Internal revenues comprise revenues from transactions with other parts of the Company. In 2001, internal revenues increased mainly due to a change in the intercompany allocation of support and marketing expenses.

The following table presents a reconciliation of total segment revenues to total consolidated revenues as reported in the consolidated statements of income:

	2002 (000)	2001 (000)	2000 (000)
Total revenue for reportable segments	8,443,184	8,356,499	6,750,546
Elimination of internal revenues	(1,061,593)	(1,044,497)	(564,934)
Other external revenues	31,225	28,503	78,808
Other differences	22	299	175
	<u>7,412,838</u>	<u>7,340,804</u>	<u>6,264,595</u>

Other external revenues result from services provided from outside the reportable segments. Other differences primarily comprise currency translation differences.

#### *Segment Contribution*

The segment contributions reflect only expenses directly attributable to the segments and do not represent the actual margins for the operating segments. Indirect costs such as general and administrative, research and development and other corporate expenses, which are not allocated to the operating segments and therefore are not included in segment contribution. Charges for stock-based compensation, depreciation, and amortization of all long-lived assets are also not allocated to the operating segments. Other differences primarily relate to currency translation differences.

The following table presents a reconciliation of total segment contribution to income before income taxes and extraordinary gain as reported in the consolidated statements of income:

	2002 (000)	2001 (000)	2000 (000)
Total contribution for reportable segments	3,354,118	3,027,537	2,678,145
Contribution from activities outside the reportable segments	(1,692,548)	(1,616,697)	(1,440,777)
Stock based compensation expenses	(35,868)	(98,377)	(440,818)
Other differences	(24)	(89)	6,108
<b>Operating income</b>	<b>1,625,678</b>	<b>1,312,374</b>	<b>802,658</b>
Other non-operating income/expenses, net	37,319	(10,643)	(55,340)
Finance income, net	(555,299)	(232,974)	265,551
<b>Income before income taxes and extraordinary gain</b>	<b>1,107,698</b>	<b>1,068,757</b>	<b>1,012,869</b>

#### *Segment Profitability*

A segment's profitability is calculated as the ratio of segment contribution to segment total revenues.

#### *Segment Assets*

The Company does not currently track assets or capital expenditures by operating segments in its internal reporting system nor is such information used by the Executive Board.

*Geographic Information*

The following tables present a summary of operations by geographic region. The following amounts are based on consolidated data. Therefore, the total of each of the following categories reconciles to the consolidated financial statements.

Sales by destination are based upon the location of the customer whereas sales by operation reflect the location of the SAP subsidiary responsible for the sale.

	Sales by destination			Sales by operation		
	2002 (000)	2001 (000)	2000 (000)	2002 (000)	2001 (000)	2000 (000)
Germany	1,654,144	1,468,726	1,237,383	1,793,961	1,615,777	1,380,439
Rest of EMEA <sup>(1)</sup>	2,394,011	2,317,456	1,836,550	2,301,660	2,211,982	1,710,632
<b>Total EMEA</b>	<b>4,048,155</b>	<b>3,786,182</b>	<b>3,073,933</b>	<b>4,095,621</b>	<b>3,827,759</b>	<b>3,091,071</b>
United States	1,969,748	2,084,140	1,848,281	1,954,427	2,102,136	1,877,879
Rest of America	531,880	639,980	587,287	525,657	613,503	561,973
<b>Total America</b>	<b>2,501,628</b>	<b>2,724,120</b>	<b>2,435,568</b>	<b>2,480,084</b>	<b>2,715,639</b>	<b>2,439,852</b>
Japan	485,939	444,090	343,600	485,605	434,163	346,708
Rest of Asia-Pacific	377,116	386,412	411,494	351,528	363,243	386,964
<b>Total Asia-Pacific</b>	<b>863,055</b>	<b>830,502</b>	<b>755,094</b>	<b>837,133</b>	<b>797,406</b>	<b>733,672</b>
	<b>7,412,838</b>	<b>7,340,804</b>	<b>6,264,595</b>	<b>7,412,838</b>	<b>7,340,804</b>	<b>6,264,595</b>

(1) Europe/ Middle East/ Africa

	Income before income tax			Total assets		
	2002 (000)	2001 (000)	2000 (000)	2002 (000)	2001 (000)	2000 (000)
Germany	450,864	802,375	288,827	1,968,456	2,276,865	1,965,450
Rest of EMEA <sup>(1)</sup>	298,442	250,458	239,773	1,301,115	1,247,286	1,235,233
<b>Total EMEA</b>	<b>749,306</b>	<b>1,052,833</b>	<b>528,600</b>	<b>3,269,571</b>	<b>3,524,151</b>	<b>3,200,683</b>
United States	157,393	(128,792)	336,299	1,616,408	1,905,382	1,647,102
Rest of America	81,424	53,846	70,041	326,496	355,646	356,925
<b>Total America</b>	<b>238,817</b>	<b>(74,946)</b>	<b>406,340</b>	<b>1,942,904</b>	<b>2,261,028</b>	<b>2,004,027</b>
Japan	83,767	73,840	50,359	177,624	178,411	142,468
Rest of Asia-Pacific	35,808	17,030	27,570	219,653	232,014	271,793
<b>Total Asia-Pacific</b>	<b>119,575</b>	<b>90,870</b>	<b>77,929</b>	<b>397,277</b>	<b>410,425</b>	<b>414,261</b>



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<u>1,107,698</u>	<u>1,068,757</u>	<u>1,012,869</u>	<u>5,609,752</u>	<u>6,195,604</u>	<u>5,618,971</u>
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(1) Europe/ Middle East/ Africa

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	Property, plant and equipment			Capital expenditures		
	2002 (000)	2001 (000)	2000 (000)	2002 (000)	2001 (000)	2000 (000)
Germany	648,828	543,954	472,900	201,799	168,964	117,758
Rest of EMEA <sup>(1)</sup>	148,564	158,284	136,353	23,924	54,593	30,143
<b>Total EMEA</b>	<b>797,392</b>	<b>702,238</b>	<b>609,253</b>	<b>225,723</b>	<b>223,557</b>	<b>147,901</b>
United States	208,466	257,757	215,916	21,423	58,396	46,874
Rest of America	4,876	9,791	13,608	2,235	2,592	3,960
<b>Total America</b>	<b>213,342</b>	<b>267,548</b>	<b>229,524</b>	<b>23,658</b>	<b>60,988</b>	<b>50,834</b>
Japan	11,019	14,476	16,009	2,424	4,230	15,197
Rest of Asia-Pacific	12,464	12,790	15,890	7,693	6,521	8,018
<b>Total Asia-Pacific</b>	<b>23,483</b>	<b>27,266</b>	<b>31,899</b>	<b>10,117</b>	<b>10,751</b>	<b>23,215</b>
	<b>1,034,217</b>	<b>997,052</b>	<b>870,676</b>	<b>259,498</b>	<b>295,296</b>	<b>221,950</b>

(1) Europe/ Middle East/ Africa

	Depreciation			Employees as of December 31,		
	2002 (000)	2001 (000)	2000 (000)	2002	2001	2000
Germany	92,509	86,419	75,350	13,002	12,356	10,432
Rest of EMEA <sup>(1)</sup>	31,513	32,638	33,914	6,758	6,504	5,196
<b>Total EMEA</b>	<b>124,022</b>	<b>119,057</b>	<b>109,264</b>	<b>19,760</b>	<b>18,860</b>	<b>15,628</b>
United States	31,773	29,674	21,784	4,903	5,228	4,498
Rest of America	4,009	5,934	7,592	1,442	1,522	1,579
<b>Total America</b>	<b>35,782</b>	<b>35,608</b>	<b>29,376</b>	<b>6,345</b>	<b>6,750</b>	<b>6,077</b>
Japan	5,093	4,760	4,971	1,260	1,149	951
Rest of Asia-Pacific	6,909	9,636	11,307	2,009	2,119	1,824
<b>Asia-Pacific</b>	<b>12,002</b>	<b>14,396</b>	<b>16,278</b>	<b>3,269</b>	<b>3,268</b>	<b>2,775</b>
	<b>171,806</b>	<b>169,061</b>	<b>154,918</b>	<b>29,374</b>	<b>28,878</b>	<b>24,480</b>

(1) Europe/ Middle East/ Africa

The majority of research and development costs are occurred in Germany as SAP AG has title to the majority of internally developed software. As of December 31, 2002, approximately 69% of the research and development personnel are located in Germany, 8% in the rest of

EMEA, 14% in the United States and 9% in the Asia-Pacific region.

Six groups of industry sectors generated the following total sales revenues for the year ended December 31:

	<b>2002 (000)</b>	<b>2001 (000)</b>	<b>2000 (000)</b>
Process industries	1,537,033	1,524,330	1,342,149
Discrete industries	1,764,154	1,807,468	1,582,676
Consumer industries	1,299,694	1,186,839	999,299
Service industries	1,765,903	1,849,741	1,578,801
Financial services	514,760	448,229	336,028
Public services	531,294	524,197	425,642
	<u>7,412,838</u>	<u>7,340,804</u>	<u>6,264,595</u>

In 2001, the Company allocated software revenues to specific software solutions for the first time. These allocations include revenues from designated solution contracts, as well as figures from integrated solution contracts, which are allocated based on usage surveys:

	<b>2002</b> <b>(000)</b>	<b>2001</b> <b>(000)</b>
mySAP SCM	463,966	582,892
mySAP CRM	472,966	444,918
mySAP PLM	167,988	195,963
mySAP Business Intelligence/ mySAP Enterprise Portal/ mySAP SRM/ Marketplaces	258,981	415,922
mySAP Financials    mySAP Human Resources	926,933	940,823
	<u>2,290,834</u>	<u>2,580,518</u>

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**(35) Board of Directors**

**EXECUTIVE BOARD**

Membership of supervisory boards and other comparable governing bodies of enterprises, other than subsidiaries of the Company, in Germany and other countries, on December 31, 2002\*

**Prof. Dr. h. c. Hasso Plattner**

Co-Chairman and CEO  
Overall responsibility for SAP's strategy and business development, product and technology strategy, marketing, global communications

**Prof. Dr. Henning Kagermann**

Co-Chairman and CEO  
Overall responsibility for SAP's strategy and business development, consulting, customer development, industry solutions, strategic development projects

Supervisory Board, Deutsche Bank AG, Frankfurt am Main, Germany  
Supervisory Board, DaimlerChrysler Services (debis) AG, Berlin, Germany  
Supervisory Board, Münchener Rückversicherungs-Gesellschaft AG, Munich, Germany

**Shai Agassi**

Technology strategy  
(from April 17, 2002)

**Léo Apotheker**

Global Field Operations  
(from August 1, 2002)

Board of Directors, Enigma, Inc., Burlington, Mass., United States

**Dr. Werner Brandt**

Chief Financial Officer  
Finance and administration

Supervisory Board, LSG Lufthansa Service Holding AG, Kriftel, Germany

**Prof. Dr. Claus E. Heinrich**

Development of mySAP Business Suite, labor relations at SAP

**Gerhard Oswald**

Global support,  
IT infrastructure

**Dr. Peter Zencke**

Development of mySAP Business Suite, coordination of research groups and SAP Labs

Supervisory Board, SupplyOn AG, Hallbergmoos, Germany

\* Memberships of supervisory boards and comparable governing bodies of subsidiaries and changes in other membership that occurred during the year are shown in the financial statements of SAP AG, which can be obtained from the Company upon request.

**EXTENDED MANAGEMENT BOARD**

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**Léo Apotheker**

(up to July 31, 2002)

EMEA

(up to June 30, 2002)

Global Field Operations

(from July 1, 2002)

**Karl-Heinz Hess**

Basis technology development

**Wolfgang Kemna**

Americas (up to May 21, 2002)

Global Initiatives (from May 22, 2002)

**Klaus Kreplin**

(from February 12, 2003)

Development of integration platform components of SAP NetWeaver

**Leslie Hayman**

Asia-Pacific (up to June 30, 2002)

EMEA (from July 1, 2002 to February 4, 2003)

Head of Global SAP Human Resources and

Education (from February 5, 2003)

**Martin J. Homlish**

(from March 19, 2002)

Global Marketing

**Peter J. Kirschbauer**

(from September 13, 2002)

Strategic research and development projects

**SUPERVISORY BOARD**

Membership of other supervisory boards and comparable governing bodies of enterprises other than the Company, in Germany and other countries on December 31, 2002

**Dietmar Hopp**<sup>(2)(4)(7)</sup>

Chairperson  
Managing Director, Dietmar Hopp  
Stiftung GmbH, Walldorf, Germany

Supervisory Board, MLP AG, Heidelberg, Germany  
Supervisory Board, Actris AG, Frankfurt am  
Main, Germany

**Helga Classen**<sup>(1)(4)(7)</sup>

Deputy Chairperson  
Development architect

**Pekka Ala-Pietilä**<sup>(5)</sup>

President, Nokia Corporation,  
Espoo, Finland

**Willi Burbach**<sup>(1)(4)(5)</sup>

Developer

**Prof. Dr. Wilhelm Haarmann**<sup>(2)(3)(7)</sup>

Attorney-at-law, certified public auditor, certified tax  
advisor, Kronberg, Germany  
Managing Partner, Haarmann,  
Hemmelrath & Partner, Frankfurt am Main, Germany

Supervisory Board, Häussler AG, Stuttgart,  
Germany  
Supervisory Board, Aareon AG (formerly Depfa  
IT Services), Mainz, Germany  
Supervisory Board, Vodafone Holding GmbH  
(formerly Vodafone AG), Düsseldorf, Germany  
Supervisory Board, Vodafone Deutschland GmbH, Düsseldorf, Germany

**Bernhard Koller**<sup>(1)(3)</sup>

Manager of idea management

**Christiane Kuntz-Mayr**<sup>(1)(5)(7)</sup>

Development manager

**Klaus-Dieter Laidig**<sup>(6)</sup>

Business consultant  
Laidig Business Consulting GmbH,  
Böblingen, Germany

Supervisory Board, Heiler Software AG, Stuttgart,  
Germany  
Supervisory Board, Varetis AG, Munich,  
Germany  
Supervisory Board, Grau Data Storage AG, Schwäbisch Gmünd  
Germany  
Supervisory Board, ProSyst AG, Cologne,  
Germany  
Supervisory Board, Bauerfeind AG, Zeulenroda,  
Germany  
Supervisory Board, ProLeiT AG,  
Herzogenaurach, Germany  
Board of directors, Agile Software Corporation,  
San José, California, United States  
Board of Directors, Latitude Communications,  
Santa Clara, California, United States  
Board of Directors, Insevo Inc., Pleasanton,  
California, United States  
Board of Directors, TRADOS Inc.,  
Alexandria, Virginia, United States  
Advisory Management Council, Mach HiTECH  
AG, Zug, Switzerland

**Lars Lamadé**<sup>(1)(6)</sup>

SAP Alliance manager

**Dr. Gerhard Maier**<sup>(1)(2)(6)</sup>

Development manager

**Hartmut Mehdorn<sup>(4)</sup>**

Chairman of the Executive Board  
Deutsche Bahn AG, Berlin, Germany

Supervisory Board, Lufthansa Technik AG, Hamburg, Germany  
Supervisory Board, DB Station&Service AG,  
Frankfurt am Main, Germany  
Supervisory Board, DB Reise&Touristik AG,  
Frankfurt am Main, Germany  
Supervisory Board, DB Regio AG,  
Frankfurt am Main, Germany  
Supervisory Board, DB Cargo AG,  
Mainz, Germany  
Supervisory Board, Stinnes AG,  
Mülheim, Germany  
Supervisory Board, DB Netz AG,  
Frankfurt am Main, Germany  
Supervisory Board, S-Bahn München GmbH,  
Munich, Germany  
Supervisory Board, DEVK Deutsche Eisenbahn Versicherung  
Lebensversicherungsverein a.G.,  
Cologne, Germany  
Supervisory Board, DEVK Deutsche Eisenbahn  
Versicherung Sach-und HUK-Versicherungsverein a.G.,  
Cologne, Germany  
Supervisory Board, Vattenfall Europe AG,  
Berlin, Germany  
Supervisory Board, Bayerische  
Magnetbahnvorbereitungsgesellschaft mbH,  
Munich, Germany  
Advisory Council, Raillog GmbH,  
Kriftel, Germany  
Supervisory Board, IDS Scheer AG,  
Saarbrücken, Germany  
Supervisory Board, abaXX Technology AG,  
Stuttgart, Germany  
Supervisory Board, imc information multimedia  
communication AG, Saarbrücken, Germany  
Board of Trustees, Hasso Plattner Stiftung für  
Softwaresystemtechnik, Potsdam, Germany

**Prof. Dr. Dr. h. c. mult. August- Wilhelm Scheer<sup>(5)(6)</sup>**

Director of the Institute for Information Systems at the  
German Research Center of Artificial Intelligence  
(DFKI), Saarbrücken, Germany

**Dr. Barbara Schennerlein<sup>(1)(7)</sup>**

Consultant

**Stefan Schulz<sup>(1)(3)(5)</sup>**

Consultant

**Dr. Dieter Spoeri<sup>(7)</sup>**

Head of Corporate Representation Federal Affairs,  
DaimlerChrysler AG, Berlin, Germany

**Dr. h. c. Klaus Tschira<sup>(3)</sup>**

Managing Director, Klaus Tschira Foundation gGmbH,  
Heidelberg, Germany

Advisory Council, Contraf Nicotex Tobacco GmbH, Heilbronn, Germany

Supervisory Board, Lion bioscience AG, Heidelberg, Germany  
Supervisory Board, SRH Learnlife AG, Heidelberg, Germany  
Member of the Senate, Max-Planck-Gesellschaft  
zur Förderung der Wissenschaften e.V.,  
Munich, Germany

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(1) Elected by the employees

(2) Member of the Company's Compensation Committee

(3) Member of the Company's Audit Committee

(4) Member of the Company's Mediation Committee



(5) Member of the Company's Technology Committee

(6) Member of the Company's Finance and Investment Committee

(7) Member of Company's General Committee

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**Remuneration of the Supervisory Board**

Under SAP AG's articles of incorporation the members of the Supervisory Board shall, in addition to the reimbursement of their expenditures, receive remuneration composed of a fixed element and a variable element. The variable element is dependent upon the distributed dividends. Both the fixed and the variable remuneration are higher for the chairperson and the deputy chairperson than for the other members.

Subject to the adoption of the dividend resolution by the shareholders at the Annual General Shareholders Meeting on May 9, 2003, the total annual remunerations of the Supervisory Board members for the year ended December 31, 2002, are as follows:

	<b>2002</b>
	<b>(000)</b>
Dietmar Hopp (Chairperson)	105(1)
Helga Classen (Deputy Chairperson)	78
Willi Burbach	52
Prof. Dr. Wilhelm Haarmann	52
Bernhard Koller	52
Christiane Kuntz-Mayr (Member from May 3, 2002)	35
Klaus-Dieter Laidig	52
Lars Lamadé (Member from May 3, 2002)	35
Dr. Gerhard Maier	52
Hartmut Mehdorn	52
Pekka Ala-Pietilä (Member from May 3, 2002)	30
Prof. Dr. h. c. mult. August-Wilhelm Scheer (Member from May 3, 2002)	35
Dr. Barbara Schennerlein	52
Stefan Schulz (Member from May 3, 2002)	35
Alfred Simon (Member until May 3, 2002)	22
Dr. Dieter Spöri	52
Dr. h. c. Klaus Tschira	52
	<hr/>
	843
	<hr/>
thereof fixed remuneration	468
	<hr/>
thereof variable remuneration	375
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(1) Dietmar Hopp donated the fixed portion of his remuneration, which has already been paid out, to charity immediately on receiving it. He has announced that he will do the same with the variable portion of his remuneration.

The total annual remuneration of the Supervisory Board for the year ended December 31, 2001 amounted to 560 thousand. This amount includes 80 thousand fixed and 480 thousand variable remuneration. The difference between the total remuneration for 2002 and 2001 results from the increase in the number of members from 12 to 16 and from a change in the remuneration terms which was approved by the annual shareholders meeting on May 3, 2002.

The Supervisory Board members do not receive any stock based compensation for their services. As far as members who are employee representatives on the Supervisory Board receive stock-based compensation, such compensation is for their services as employees only and unrelated to their status as members of the Supervisory Board.

**Remuneration of the Executive Board**

The members of the Executive board receive for their services salaries, stock-based awards under SAP's stock based compensation plans and certain non-cash benefits. Details and amounts of the remuneration are determined by the Supervisory Board's compensation committee.



The Executive Board members' salaries consist of a fixed element and a variable bonus. The variable bonus depends on the achievement of the company's overall target operating income before stock based compensation and acquisition-related charges.

For the fiscal year 2002, the members of the Executive Board received the following remuneration (including salaries, cash value of non-cash benefits and insurance premiums):

	<b>2002</b> <b>(000)</b>
Prof. Dr. h. c. Hasso Plattner (Co-Chairman and CEO)	1,748
Prof. Dr. Henning Kagermann (Co-Chairman and CEO)	1,301
Shai Agassi (Member from April 17, 2002)	666
Léo Apotheker (Member from August 1, 2002)	379
Dr. Werner Brandt	722
Prof. Dr. Claus E. Heinrich	919
Gerhard Oswald	920
Dr. Peter Zencke	929
	<hr/>
	7,584
	<hr/>
thereof fixed remuneration	3,557
	<hr/>
thereof variable remuneration	4,027
	<hr/>

The amounts stated for members who joined the Executive Board in the course of 2002 do only represent their remuneration for the period since their nomination.

The total annual remuneration (including salaries, cash value of non-cash benefits and insurance premiums) of the Executive Board for the year ended December 31, 2001 amounted to 8,085 thousand. This amount includes 3,044 thousand fixed and 5,041 thousand variable remuneration. The difference between the total remuneration for 2002 and 2001 results, among other factors, from a lower variable remuneration. The 2002 figures are also impacted by the increase in the number of members from six to eight.

During the fiscal year 2002 the members of the Executive Board received the following awards granted under the LTI 2000 Plan:

	<b>Stock Options</b>	<b>Convertible Bonds</b>
Prof. Dr. h. c. Hasso Plattner (Co-Chairman and CEO)		
Prof. Dr. Henning Kagermann (Co-Chairman and CEO)		90,000
Shai Agassi (Member from April 17, 2002)		
Léo Apotheker (Member from August 1, 2002)		
Dr. Werner Brandt		30,000
Prof. Dr. Claus E. Heinrich		50,000
Gerhard Oswald	31,250	25,000
Dr. Peter Zencke		50,000
	<hr/>	<hr/>
	31,250	245,000
	<hr/>	<hr/>

For the members who joined the Executive Board during 2002 these figures do not include any stock options and convertible bonds that were granted before their appointment to the board.

The fair value at the granting date of the stock options and convertible bonds granted to the Executive Board members were 55.11 per option and 68.89 per bond. The contractual life of the stock options and convertible bonds is 10 years.

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During the fiscal year 2002, the members of the Executive Board exercised awards granted under the LTI 2000 Plan as follows:

	Stock Options		Convertible Bonds	
	Number of stock options	Weighted average exercise price per option (€)	Number of convertible bonds	Weighted average exercise price per bond (€)
Dr. Peter Zencke	6,775	81.72	—	—
	<u>6,775</u>	<u>81.72</u>	<u>—</u>	<u>—</u>

As of December 31, 2002, the members of the Executive Board held the following stock options granted under the LTI 2000 Plan:

	Exercise price	Exercisable as of December 31, 2002		Not exercisable as of December 31, 2002		Total	
		Number of options	Weighted average remaining contractual life (in years)	Number of options	Weighted average remaining contractual life (in years)	Number of options	Weighted average remaining contractual life (in years)
Prof. Dr. h. c. Hasso Plattner (Co-Chairman and CEO)							
Prof. Dr. Henning Kagermann (Co-Chairman and CEO)	54.22	9,250	7.14	18,782	7.14	28,032	7.14
	65.88			39,375	8.14	39,375	8.14
Shai Agassi (Member from April 17, 2002)							
Léo Apotheker (Member from August 1, 2002)	81.39			21,875	9.14	21,875	9.14
Dr. Werner Brandt	65.88			6,250	8.14	6,250	8.14
Prof. Dr. Claus E. Heinrich	54.22	6,775	7.14	13,757	7.14	20,532	7.14
	65.88			27,500	8.14	27,500	8.14
Gerhard Oswald	54.22	6,775	7.14	13,757	7.14	20,532	7.14
	65.88			27,500	8.14	27,500	8.14
	81.39			31,250	9.14	31,250	9.14
Dr. Peter Zencke	54.22			13,757	7.14	13,757	7.14
	65.88			27,500	8.14	27,500	8.14
		<u>22,800</u>	<u>—</u>	<u>241,303</u>	<u>—</u>	<u>264,103</u>	<u>—</u>

The strike prices for stock options listed above reflect the prices that an Executive Board member would have to pay for one SAP ordinary share upon exercising the stock option on December 31, 2002. The strike prices vary based upon the outperformance of the SAP ordinary share price appreciation versus the appreciation of the Goldman Sachs Technology Software Index.



As of December 31, 2002, the members of the Executive Board held the following convertible bonds granted under the LTI 2000 Plan:

	Exercisable as of December 31, 2002			Not exercisable as of December 31, 2002		Total	
	Exercise prices	Number of convertible bonds	Weighted average remaining contractual life (in years)	Number of convertible bonds	Weighted average remaining contractual life (in years)	Number of convertible bonds	Weighted average remaining contractual life (in years)
Prof. Dr. h. c. Hasso Plattner (Co-Chairman and CEO)							
Prof. Dr. Henning Kagermann (Co-Chairman and CEO)	290.32	7,400	7.14	15,025	7.14	22,425	7.14
	191.25			31,500	8.14	31,500	8.14
	151.50			90,000	9.14	90,000	9.14
Shai Agassi (Member from April 17, 2002)							
Léo Apotheker (Member from August 1, 2002)	290.32	7,870	7.14	15,980	7.14	23,850	7.14
	191.25			30,000	8.14	30,000	8.14
	151.50			17,500	9.14	17,500	9.14
Dr. Werner Brandt	191.25			5,000	8.14	5,000	8.14
	151.50			30,000	9.14	30,000	9.14
Prof. Dr. Claus E. Heinrich	290.32	5,420	7.14	11,005	7.14	16,425	7.14
	191.25			22,000	8.14	22,000	8.14
	151.50			50,000	9.14	50,000	9.14
Gerhard Oswald	290.32	5,420	7.14	11,005	7.14	16,425	7.14
	191.25			22,000	8.14	22,000	8.14
	151.50			25,000	9.14	25,000	9.14
Dr. Peter Zencke	290.32	5,420	7.14	11,005	7.14	16,425	7.14
	191.25			22,000	8.14	22,000	8.14
	151.50			50,000	9.14	50,000	9.14
		<u>31,530</u>	<u>—</u>	<u>459,020</u>	<u>—</u>	<u>490,550</u>	<u>—</u>

The strike prices for convertible bonds listed above reflect the prices that an Executive Board member would have to pay for one SAP ordinary share upon conversion of the bond. The strike prices are fixed and equal the market price of an ordinary share as quoted on the day immediately preceding the granting of the convertible bond.

As of December 31, 2002, 2001 and 2000, the Company did not provide any loans, warranties or guarantees to members of the Executive Board and Supervisory Board.

The projected benefit obligation as of December 31, 2002 for former Executive Board members was 1,507 thousand (2001: 1,396 thousand).

#### Shareholdings of members of the Supervisory Board and Executive Board

The number of SAP AG shares owned by Dietmar Hopp (Chairman of the Supervisory Board), Hasso Plattner (Co-Chairman of the Executive Board) and Klaus Tschira (Member of the Supervisory Board), their family members and related entities are disclosed in note 23. All other members of the Supervisory Board and the Executive Board own less than 1% of SAP AG shares.





In 2002 SAP received from members of the Supervisory Board and Executive Board and spouses, registered partners for life, parents, and children of board members the following notifications under section 15a of the German Securities Trade Act regarding acquisitions and sales of SAP shares (directors dealing):

<b>Acquisitions of SAP shares (WKN 716460/ISIN DE 0007 164 600)</b>			
<b>Notifying Party</b>	<b>Transaction Date</b>	<b>Number of shares</b>	<b>Price per share</b>
			( )
Oliver Hopp, Walldorf, Germany	July 22, 2002	64,700	72.11
	July 23, 2002	83,737	72.09
	July 24, 2002	263,763	71.30
	July 25, 2002	37,800	71.99
	July 26, 2002	50,000	70.41
Daniel Hopp, Walldorf, Germany	July 24, 2002	282,700	69.51
	July 25, 2002	90,700	71.98
	July 26, 2002	126,600	71.39

### **(36) Related Party Transactions**

Certain board members of SAP AG currently held or have held within the last year positions of significant responsibility with other entities as presented in note 35. The Company has relationships with certain of these entities in the ordinary course of business, whereby it buys and sells a wide variety of services and software at arm's length.

On May 2, 2002, SAP agreed to purchase the assets of Menahel Management Data and Business Accounting Ltd. ( Menahel ), seated in the State of Israel, including all business intellectual property, contracts, software and related know-how and substantially all of Menahel's workforce for U.S. \$7.5 million. Menahel has been renamed to SAP Manage Ltd.

Mr Reuven Agassi, father of SAP AG Executive Board Member Shai Agassi, was the managing director as well as the indirect owner of one of Menahel's largest shareholders.

Prof. Dr. Wilhelm Haarmann is a partner in Haarmann Hemmelrath & Partner, which serves infrequently as special German tax counsel and counsels SAP AG with regard to other legal matters.

At December 31, 2002 the Company held no note receivables from any member of the Executive Board and Supervisory Board. There were no significant transactions between the Company and the major shareholders as outlined in note 23.

### **(37) German Code of Corporate Governance**

The German federal government published the German Code of Corporate Governance in February 2002. The Code contains statutory requirements and a number of recommendations and suggestions. Only the legal requirements are binding for German companies. With regard to the recommendations, the German Stock Corporate Act, section 161, requires that listed companies publicly state every year the extent to which they comply with them. Companies can deviate from the suggestions without having to make any public statements.

In 2002 the Executive Boards and Supervisory Boards both of SAP AG and SAP's publicly traded subsidiary SAP Systems Integration AG issued the required compliance statements. These statements are available on the websites of the two companies.

Walldorf, February 21, 2003  
SAP Aktiengesellschaft

Systeme, Anwendungen, Produkte in der Datenverarbeitung

Walldorf/ Baden

Executive Board

Plattner Kagermann Agassi Apotheker Brandt Heinrich Oswald Zencke

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## SCHEDULE II

## Valuation and Qualifying Accounts and Reserves

Years Ended December 31, 2002, 2001 and 2000  
(000)

Description	Beginning Balance	Charged to Costs and Expenses	Write-offs	Other Deductions	Ending Balance
Allowances for doubtful accounts:					
Year ended December 31, 2000	96,734	25,135	(20,417)	(25,229)	76,223
Year ended December 31, 2001	76,223	63,192	(19,184)	(9,962)	110,269
Year ended December 31, 2002	110,269	39,013	(21,222)	(35,549)	92,511

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## EXHIBIT INDEX

Exhibit No.	Description
1	Articles of Incorporation (Satzung) of SAP AG, as amended to date (English translation).
2.1	Form of global share certificate for ordinary shares (English translation). <sup>(1)</sup>
2.2	Form of American Depositary Receipt. <sup>(2)</sup>
4.1	Form of Amended and Restated Deposit Agreement among SAP AG, The Bank of New York, as Depositary, and all owners and holders from time to time of American Depositary Receipts issued there under, including the form of American Depositary Receipts. <sup>(3)</sup>
4.2	Share Purchase Agreement by and among Commerce One, Inc., New Commerce One Holding Inc. and SAP AG, dated as of June 28, 2001. <sup>(4)</sup>
4.3	Amended and Restated Standstill and Stock Restriction Agreement by and among Commerce One, Inc., New Commerce One Holding, Inc. and SAP AG, dated as of June 28, 2001. <sup>(5)</sup>
4.4	Investor Rights Agreement by and among Commerce One, Inc., New Commerce One Holding, Inc. and SAP AG, dated as of June 28, 2001. <sup>(6)</sup>
4.5	Strategic Alliance Agreement by and among Commerce One, Inc., SAPMarkets, Inc. and SAP AG, dated as of September 18, 2000. <sup>(7)</sup>
4.6	Strategic Alliance Agreement Amendment No. 2 by and among Commerce One, Inc., SAPMarkets, Inc. and SAP AG, dated as of June 29, 2001. <sup>(8)</sup>
4.7	Strategic Alliance Agreement Amendment No. 3 by and among Commerce One, Inc., SAPMarkets, Inc. and SAP AG, dated as of June 29, 2001. <sup>(8)</sup>
8	Subsidiaries, Associated Companies and Other Investments of SAP AG.
10.1	Independent Auditors Consent.
10.2	Statement regarding Auditors Consent.
99	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(1) Incorporated by reference to Form 8-A12B of SAP AG, filed on May 3, 2001.

(2) Incorporated by reference to Form 8-A12B of SAP AG, filed on May 3, 2001.

(3) Incorporated by reference to Form 8-A12B of SAP AG, filed on May 3, 2001.

(4) Incorporated by reference to the Current Report on Form 8-K of Commerce One, Inc., filed on July 10, 2001.

(5) Incorporated by reference to the Current Report on Form 8-K of Commerce One, Inc., filed on July 10, 2001.

(6) Incorporated by reference to the Current Report on Form 8-K of Commerce One, Inc., filed on July 10, 2001.

(7) Incorporated by reference to the Quarterly Report on Form 10-Q of Commerce One, Inc., filed on November 14, 2000.

(8) Incorporated by reference to the Quarterly Report on Form 10-Q of Commerce One, Inc., filed on August 14, 2001.