

MANAGEMENT'S DISCUSSION AND ANALYSIS

Goldman Sachs is a leading global investment banking and securities firm that provides a wide range of services worldwide to a substantial and diversified client base. On May 7, 1999, we converted from a partnership to a corporation and completed our initial public offering.

Our activities are divided into two segments:

Global Capital Markets. This segment comprises Investment Banking, which includes Financial Advisory and Underwriting, and Trading and Principal Investments, which includes Fixed Income, Currency and Commodities (FICC), Equities and Principal Investments (Principal Investments primarily represents net revenues from our merchant banking investments); and

Asset Management and Securities Services. This segment comprises Asset Management, Securities Services and Commissions.

All references to 2000, 1999 and 1998 refer to our fiscal year ended, or the date, as the context requires, November 24, 2000, November 26, 1999 and November 27, 1998, respectively.

When we use the terms "Goldman Sachs," "we" and "our," we mean, after our conversion to corporate form, The Goldman Sachs Group, Inc., a Delaware corporation, and its consolidated subsidiaries and, prior to our conversion to corporate form, The Goldman Sachs Group, L.P., a Delaware limited partnership, and its consolidated subsidiaries.

In this discussion, we have included statements that may constitute "forward-looking statements" within the meaning of the safe harbor provisions of The Private Securities Litigation Reform Act of 1995. These forward-looking statements are not historical facts but instead represent only our belief regarding future events, many of which, by their nature, are inherently uncertain and beyond our control. These statements relate to our future plans and objectives, among other things. By identifying these statements for you in this manner, we are alerting you to the possibility that our actual results may differ, possibly materially, from the results indicated in these forward-looking statements. The factors noted below under "—Results of Operations—Certain Factors That May Affect Our Results of Operations," among others, could cause actual results to differ from those in our forward-looking statements.

Business Environment

In the first half of fiscal 2000, the global economy grew at a strong rate, reflecting low unemployment levels, low inflation and increased productivity. This expansionary economic environment provided a positive climate for all of our businesses, particularly Investment Banking and Equities, which benefited from higher levels of mergers and acquisitions activity, an increase in new issue offerings and record volumes in global equity markets. The pace of economic growth slowed in the second half of the year as increases in interest rates led to market uncertainty.

The economic expansion in the United States continued during the first half of 2000. In an attempt to alleviate possible inflationary pressures, the Federal Reserve gradually raised overnight interest rates by 100 basis points to 6.50%, the highest rate since the first quarter of 1991. The pace of growth in the second half of 2000 declined as consumer spending and corporate investment slowed. U.S. equity markets achieved record highs earlier in the year but declined markedly toward the end of the year amid market uncertainty about prospects for gross domestic product and corporate earnings growth. In particular, the Nasdaq declined 42% from its record high posted in March 2000. Fixed income markets were also affected as rising interest rates, widening credit spreads and reduced new issue activity led to a decrease in secondary market activity.

The European economy continued to grow at a steady pace during 2000 primarily due to increases in foreign demand, consumer spending and corporate investment. European equity markets were particularly active, reaching record levels during the first half of the year but suffering declines as the year came to a close. The European Central Bank raised rates throughout the year in response to rising inflation and the weakness of the euro.

Economic growth in Japan remained subdued, despite increased investment in information technology. Doubts concerning the recovery of private consumption and concerns about corporate and government debt led to declines in the Japanese equity market during the year. The Bank of Japan's zero-interest-rate policy was terminated and interest rates were raised for the first time in a decade.

Other Asian economies benefited from stronger exports and corporate investment throughout the region. However, by year end, a slowdown in Asian electronic exports to the United States led to a marked decline in gross domestic product growth.

Results of Operations

The composition of our net revenues has varied over time as financial markets and the scope of our operations have changed. The composition of net revenues can also vary over the shorter term due to fluctuations in U.S. and global economic and market conditions. As a result, period-to-period comparisons may not be meaningful.

In addition, Goldman Sachs' conversion to corporate form in 1999 has affected, and will continue to affect, our operating results in several significant ways. As a corporation, payments for services rendered by managing directors who, prior to our conversion to corporate form, were profit participating limited partners are included in compensation and benefits expense instead of being accounted for as distributions of partners' capital. In addition, restricted stock units and other forms of stock-based compensation can be awarded to employees as part of compensation. We also record a noncash expense related to the amortization of certain restricted stock units awarded to employees in connection with our initial public offering. Furthermore, as a corporation, our operating results are now subject to U.S. federal, state and local corporate income taxes, and therefore, to a higher tax rate than we incurred as a partnership.

Certain Factors That May Affect Our Results of Operations

As an investment banking and securities firm, our businesses are materially affected by conditions in the financial markets and economic conditions generally, both in the United States and elsewhere around the world. Over the last year, the financial markets in the United States and elsewhere have exhibited increased volatility and a number of financial indices have declined substantially from their record levels. Also, it is unclear how much longer the U.S. economic expansion will continue. Uncertain or unfavorable economic and market conditions may adversely affect our businesses and profitability in many ways, including the following:

- Market fluctuations and volatility may adversely affect the value of our trading, specialist and investment posi-

tions, including our merchant banking and real estate investments, and our fixed income, currency, commodity and equity positions.

- The number and size of transactions in which we provide underwriting, mergers and acquisitions advisory, and other services may decline. In particular, a decline in the investment banking services we provide to the technology and related sectors, including communications, media and entertainment, may adversely affect our results of operations.
- The volume of transactions that we execute for our customers and as a specialist may decline, which would reduce the revenues we receive from commissions and spreads. We may also suffer a decline in the fees we earn for managing assets. Moreover, even in the absence of uncertain or unfavorable economic or market conditions, investment performance by our asset management business below the performance of benchmarks or competitors could result in a decline in assets under management and therefore in the fees we receive.
- Concentration of risk in the past has increased the losses that we have incurred in our arbitrage, market making, block trading, merchant banking, underwriting and lending businesses and may continue to do so in the future.
- In our specialist business, we may be obligated by stock exchange rules to maintain an orderly market by purchasing shares in a declining market.
- A prolonged period of uncertain or unfavorable economic or market conditions could impair our operating results for a long period of time. In such a case, our revenues may decline and, if we were unable to reduce expenses at the same pace, our profit margins would erode.

If any of the variety of instruments and strategies we utilize to hedge or otherwise manage our exposure to various types of risk are not effective, we may incur losses. Our hedging strategies and other risk management techniques may not be fully effective in mitigating our risk exposure in all market environments or against all types of risk, including risks that are unidentified or unanticipated.

Liquidity, i.e., ready access to funds, is essential to our businesses. Our liquidity could be impaired by an inability to access the long-term or short-term debt capital markets,

an inability to access the repurchase and securities lending markets, or an impairment of our ability to sell assets. Our ability to sell assets may be impaired if other market participants are seeking to sell similar assets at the same time. In addition, a reduction in our credit ratings could adversely affect our liquidity and our competitive position and could increase our borrowing costs.

We are exposed to the risk that third parties that owe us money, securities or other assets will not perform their obligations. These parties may default on their obligations to us due to bankruptcy, lack of liquidity, operational failure or other reasons. The amount and duration of our credit exposures have been increasing over the past several years. In addition, we have also experienced, due to competitive factors, pressure to extend credit against less liquid collateral and price more aggressively the credit risks we take. As a clearing member firm, we finance our customer positions and we could be held responsible for the defaults or misconduct of our customers. Although we regularly review credit exposures to specific clients and counterparties and to specific industries, countries and regions that we believe may present credit concerns, default risk may arise from events or circumstances that are difficult to detect or foresee. In addition, concerns about, or a default by, one institution could lead to significant liquidity problems, losses or defaults by other institutions, which in turn could adversely affect Goldman Sachs.

Spear, Leeds & Kellogg

On October 31, 2000, we completed our combination with SLK LLC (SLK), a leader in securities clearing and execution, floor-based market making and off-floor market making.

The combination was accounted for under the purchase method of accounting for business combinations. In exchange for the membership interests in SLK and subordinated debt of certain retired members, we issued 35.3 million shares of common stock valued at \$3.5 billion, issued \$149 million in debentures and paid \$2.1 billion in cash. The purchase price has been preliminarily allocated to tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values as of the effective date of the combination. The excess of consideration paid over the estimated fair value of net assets acquired has been recorded as goodwill. Goodwill and identifiable intangible assets of approximately \$4.0 billion will be amortized as a charge to earnings over a weighted average life of approximately 20 years. The final allocation of the purchase price will be determined after appraisals and a comprehensive evaluation of the fair value of the SLK assets acquired and liabilities assumed are completed. We do not expect the change in amortization expense to be material.

As part of the combination with SLK, we established a \$702 million retention pool of restricted stock units for all SLK employees. A charge of \$290 million (\$180 million after taxes) related to restricted stock units for which future service was not required as a condition to the delivery of the underlying shares of common stock was included in our operating results in the fourth quarter of 2000. The remaining restricted stock units, for which future service is required, will be amortized over the five-year service period following the date of the consummation of the combination as follows: 25%, 25%, 25%, 18% and 7% in years one, two, three, four and five, respectively.

Overview

The following table sets forth a summary of our financial results:

Financial Overview

| (in millions, except per share amounts) | Year Ended November | | | |
|---|---------------------|---------------------|---------------------|-------------------------------|
| | 2000 ⁽¹⁾ | 1999 ⁽²⁾ | 1998 ⁽³⁾ | Pro Forma 1999 ⁽⁴⁾ |
| Net revenues | \$16,590 | \$13,345 | \$8,520 | \$13,338 |
| Pre-tax earnings | 5,020 | 1,992 | 2,921 | 4,250 |
| Net earnings | 3,067 | 2,708 | 2,428 | 2,550 |
| Diluted earnings per share | 6.00 | 5.57 | — | 5.27 |

⁽¹⁾ In 2000, our pre-tax earnings and net earnings included a charge of \$290 million and \$180 million, respectively, related to our combination with SLK. Excluding this charge, our diluted earnings per share were \$6.35.

⁽²⁾ In 1999, our pre-tax earnings and net earnings were reduced by nonrecurring items recognized in connection with our conversion to corporate form. For a further discussion of these nonrecurring items, see “—Operating Expenses” and “—Provision for Taxes” below.

⁽³⁾ As a partnership, payments for services rendered by profit participating limited partners were accounted for as distributions of partners’ capital rather than as compensation and benefits expense. In addition, we were generally not subject to U.S. federal or state income taxes. As a result, pre-tax earnings and net earnings in 1998 are not comparable with 2000 or 1999.

⁽⁴⁾ On May 7, 1999, we converted from a partnership to a corporation and completed our initial public offering. Pro forma net earnings reflect the results of Goldman Sachs as if our conversion to corporate form and related transactions had taken place at the beginning of 1999.

Pro forma results do not give effect to the following items due to their nonrecurring nature:

- the employee initial public offering awards of restricted stock units, for which future service was not required as a condition to the delivery of the underlying shares of common stock;
- the initial irrevocable contribution of shares of common stock to the defined contribution plan;
- the recognition of certain net tax assets; and
- a contribution to The Goldman Sachs Foundation, a charitable foundation.

Pro forma results give effect to the following items:

- interest expense on junior subordinated debentures issued to retired limited partners in exchange for their partnership interests;
- the amortization of the restricted stock units awarded to employees in connection with our initial public offering, for which future service was required as a condition to the delivery of the underlying shares of common stock; and
- the provision for income taxes in corporate form.

For the purpose of calculating pro forma diluted average common shares outstanding for the year ended November 1999, we used the initial public offering price of \$53 per share from the beginning of fiscal 1999 until May 4, 1999, the day trading in our common stock commenced.

Pro forma results are not necessarily indicative of the results of operations that might have occurred had our conversion to corporate form and related transactions actually taken place at the beginning of 1999.

2000 versus 1999. Net revenues were \$16.59 billion, an increase of 24% compared with 1999. Net revenue growth was strong in both our Asset Management and Securities Services and Global Capital Markets segments, which grew 43% and 18%, respectively. Net earnings were \$3.07 billion, or \$6.00 per diluted share. Excluding the charge related to our combination with SLK, net earnings in 2000 were \$3.25 billion, or \$6.35 per diluted share, and return on average shareholders’ equity was 27%.

1999 versus 1998. Net revenues were \$13.35 billion, an increase of 57% compared with 1998. Global Capital

Markets net revenues grew significantly over 1998, as substantially all businesses recovered from the market turmoil of 1998, and Asset Management and Securities Services increased 16% compared with 1998. Our net earnings of \$2.71 billion, or \$5.57 per diluted share, in 1999 were reduced by \$672 million, or \$1.38 per diluted share, due to nonrecurring items recognized in connection with our conversion to corporate form. For a further discussion of the nonrecurring charges and benefits affecting our operating results in 1999, see “—Operating Expenses” and “—Provision for Taxes” below.

The following table sets forth the net revenues, operating expenses and pre-tax earnings of our segments:

Results by Segment

| (in millions) | | Year Ended November | | |
|--|--------------------|-----------------------|-----------------------|---------|
| | | 2000 | 1999 | 1998 |
| Global Capital Markets | Net revenues | \$11,998 | \$10,132 | \$5,747 |
| | Operating expenses | 7,844 | 6,232 | 3,978 |
| | Pre-tax earnings | \$ 4,154 | \$ 3,900 | \$1,769 |
| Asset Management and Securities Services | Net revenues | \$ 4,592 | \$ 3,213 | \$2,773 |
| | Operating expenses | 3,008 | 2,396 | 1,621 |
| | Pre-tax earnings | \$ 1,584 | \$ 817 | \$1,152 |
| Total | Net revenues | \$16,590 | \$13,345 | \$8,520 |
| | Operating expenses | 11,570 ⁽¹⁾ | 11,353 ⁽²⁾ | 5,599 |
| | Pre-tax earnings | \$ 5,020 | \$ 1,992 | \$2,921 |

⁽¹⁾ Includes the following expenses that have not been allocated to our segments: (i) the ongoing amortization of employee initial public offering and acquisition awards of \$428 million and (ii) the acquisition awards of \$290 million related to our combination with SLK.

⁽²⁾ Includes the following expenses that have not been allocated to our segments: (i) nonrecurring employee initial public offering awards of \$2.26 billion, (ii) the ongoing amortization of employee initial public offering awards of \$268 million and (iii) the charitable contribution to The Goldman Sachs Foundation of \$200 million made at the time of our initial public offering.

Net revenues in our segments include allocations of interest income and interest expense to specific securities, commodities and other positions in relation to the cash generated by, or funding requirements of, the underlying positions. See Note 14 to the consolidated financial statements for further information regarding our segments.

Global Capital Markets

The components of the Global Capital Markets segment are set forth below:

Investment Banking. Goldman Sachs provides a broad range of investment banking services to a diverse group of corporations, financial institutions, governments and individuals. Our investment banking activities are divided into two categories:

- **Financial Advisory.** Financial Advisory includes advisory assignments with respect to mergers and acquisitions, divestitures, corporate defense activities, restructurings and spin-offs; and
- **Underwriting.** Underwriting includes public offerings and private placements of equity and debt securities.

Trading and Principal Investments. Our Trading and Principal Investments business facilitates transactions with a diverse group of corporations, financial institutions, governments and individuals and takes proprietary positions through market making in and trading of fixed income and

equity products, currencies, commodities, and swaps and other derivatives. In addition, we engage in floor-based market making as a specialist on U.S. equities and options exchanges. Trading and Principal Investments is divided into three categories:

- **FICC.** We make markets in and trade fixed income products, currencies and commodities, structure and enter into a wide variety of derivative transactions, and engage in proprietary trading and arbitrage activities;
- **Equities.** We make markets in, act as a specialist for, and trade equities and equity-related products, structure and enter into equity derivative transactions, and engage in proprietary trading and equity arbitrage; and
- **Principal Investments.** Principal Investments primarily represents net revenues from our merchant banking investments.

Net revenues from Principal Investments do not include management fees and the increased share of the income and gains from our merchant banking funds to which Goldman Sachs is entitled when the return on investments exceeds certain threshold returns to fund investors. These management fees and increased shares of income and gains are included in the net revenues of Asset Management and Securities Services.

Substantially all of our inventory is marked-to-market daily and, therefore, its value and our net revenues are subject

to fluctuations based on market movements. In addition, net revenues derived from our principal investments in privately held concerns and in real estate may fluctuate signif-

icantly depending on the revaluation or sale of these investments in any given period.

The following table sets forth the net revenues of our Global Capital Markets segment:

Global Capital Markets Net Revenues

| (in millions) | Year Ended November | | |
|-----------------------------------|---------------------|----------|---------|
| | 2000 | 1999 | 1998 |
| Financial Advisory | \$ 2,592 | \$ 2,270 | \$1,774 |
| Underwriting | 2,779 | 2,089 | 1,594 |
| Investment Banking | 5,371 | 4,359 | 3,368 |
| FICC | 3,004 | 2,862 | 1,438 |
| Equities | 3,489 | 1,961 | 795 |
| Principal Investments | 134 | 950 | 146 |
| Trading and Principal Investments | 6,627 | 5,773 | 2,379 |
| Total | \$11,998 | \$10,132 | \$5,747 |

2000 versus 1999. Net revenues in Global Capital Markets increased 18% to \$12.0 billion, reflecting strong performances in both Investment Banking and Trading and Principal Investments. Operating expenses increased 26% principally due to higher levels of compensation commensurate with growth in net revenues, and increased costs associated with global expansion, higher employment levels and increased business activity. Pre-tax earnings were \$4.15 billion compared with \$3.90 billion in 1999.

Investment Banking. Investment Banking generated net revenues of \$5.37 billion, a 23% increase over 1999. We maintained our leadership position in the mergers and acquisitions and new issues markets, and benefited from increased levels of activity worldwide. Net revenue growth was strong in all major regions, particularly in the high technology and communications, media and entertainment sectors.

Net revenues in Financial Advisory increased 14% over 1999. We capitalized on increased worldwide mergers and acquisitions activity, which rose 8% to a record \$3.3 trillion for transactions announced during the period from January 1, 2000 to November 30, 2000.⁽¹⁾ Underwriting net revenues rose 33% over 1999, reflecting strong investor demand for equities, particularly in the high technology and telecommunications sectors. The global equity underwriting market rose to record levels with over \$320 billion in proceeds raised during our fiscal year, including record amounts in initial public offerings.⁽¹⁾ Debt underwriting net revenues were also up slightly due to increased market activity in the earlier part of the year.

⁽¹⁾ Source: Thomson Financial Securities Data.

Trading and Principal Investments. Net revenues in Trading and Principal Investments were \$6.63 billion for the year, an increase of 15% compared with 1999, as significant net revenue growth in Equities was partially offset by a decline in Principal Investments.

Net revenues in FICC increased 5% compared with 1999, primarily due to increased activity in fixed income derivatives and currencies, partially offset by lower net revenues in our credit-sensitive businesses (which include high-yield debt, bank loans and investment-grade corporate debt). Fixed income derivatives and currencies benefited from an increase in customer activity, while the credit-sensitive businesses were negatively affected by market uncertainty and wider credit spreads. Additionally, net revenues declined in government bonds due to increased volatility and in commodities due to reduced deal flow in metals.

Equities net revenues rose 78% compared with 1999, primarily due to significant growth in equity derivatives and our global shares businesses. Equity derivatives benefited from favorable market conditions and increased customer flow. Our European and U.S. shares businesses also grew due to record transaction volumes and increased market volatility.

Principal Investments net revenues decreased substantially, as market declines in the high technology and telecommunications sectors led to unrealized losses on many of our merchant banking investments. Realized gains,

primarily in our real estate portfolio, were substantially offset by these unrealized losses.

1999 versus 1998. Net revenues in Global Capital Markets were \$10.13 billion, an increase of 76% compared with 1998, reflecting substantial growth in all major components of the business. Operating expenses increased 57%, principally due to the inclusion of compensation expense related to services rendered by managing directors who, prior to our conversion to corporate form, were profit participating limited partners, higher levels of compensation commensurate with growth in net revenues, and increased costs associated with global expansion and higher levels of business activity. Pre-tax earnings were \$3.90 billion in 1999 compared with \$1.77 billion in 1998.

Investment Banking. Investment Banking generated net revenues of \$4.36 billion for the full year, a 29% increase over 1998. Net revenue growth was strong in both Financial Advisory and Underwriting as our global presence and strong client base enabled us to capitalize on record levels of global mergers and acquisitions and new issue activity. Net revenue growth was driven by strong performances across all regions, particularly in the communications, media and entertainment, high technology, energy and power, and healthcare sectors.

Financial Advisory revenues increased 28% compared with 1998. Goldman Sachs maintained its leading position in the advisory business and benefited from an increase in mergers and acquisitions activity across many industry sectors in both Europe and the United States. Worldwide mergers and acquisitions activity rose to record levels with transactions valued at over \$3 trillion announced during the period from January 1, 1999 to November 30, 1999.⁽¹⁾ Underwriting revenues increased 31% compared with 1998. Equity underwriting revenues benefited from favorable global economic conditions, which led major equity market indices higher and new issue activity to record levels. Our debt underwriting business generally benefited from a more stable economic environment in 1999.

Trading and Principal Investments. Net revenues in Trading and Principal Investments were \$5.77 billion, compared with \$2.38 billion in 1998, as substantially all components of the business recovered from the global market turmoil of the second half of 1998.

⁽¹⁾ Source: Thomson Financial Securities Data.

Net revenues in FICC nearly doubled compared with 1998, primarily due to growth in our credit-sensitive businesses and commodities that was partially offset by lower net revenues in currencies. The credit-sensitive businesses benefited from improved economic conditions as credit spreads and market liquidity returned to more normal levels following the dislocation experienced during the second half of 1998. Net revenue growth in commodities benefited from increased customer activity, while reduced activity and volatility in the global foreign exchange markets contributed to a decline in net revenues from currencies.

The significant net revenue growth in Equities was primarily due to strength in arbitrage and convertibles and increased customer flow in derivatives and global shares. Net revenue growth in arbitrage and convertibles was driven by improved market conditions following the turmoil in global markets during the second half of 1998 and by increased mergers and acquisitions and other corporate activity. Equity derivatives net revenues were substantially higher primarily as a result of increased customer activity worldwide. Increased transaction volumes in global equity markets contributed to the net revenue growth in our global shares businesses.

Net revenues from Principal Investments increased dramatically due to unrealized gains on certain merchant banking investments, particularly in the high technology and telecommunications sectors.

Asset Management and Securities Services

The components of the Asset Management and Securities Services segment are set forth below:

- **Asset Management.** Asset Management generates management fees by providing investment advisory services to a diverse client base of institutions and individuals;
- **Securities Services.** Securities Services includes prime brokerage, financing services and securities lending, and our matched book businesses, all of which generate revenues primarily in the form of fees or interest rate spreads; and
- **Commissions.** Commissions include clearing and agency transactions for clients on major stock, options and futures exchanges and revenues from the increased share of the income and gains derived from our merchant banking funds.

The following table sets forth the net revenues of our Asset Management and Securities Services segment:

Asset Management and Securities Services Net Revenues

| (in millions) | Year Ended November | | |
|---------------------|---------------------|---------|---------|
| | 2000 | 1999 | 1998 |
| Asset Management | \$1,345 | \$ 919 | \$ 675 |
| Securities Services | 940 | 772 | 730 |
| Commissions | 2,307 | 1,522 | 1,368 |
| Total | \$4,592 | \$3,213 | \$2,773 |

Our assets under supervision consist of assets under management and other client assets. Assets under management typically generate fees based on a percentage of their value and include our mutual funds, separate accounts managed for institutional and individual investors, our merchant

banking funds and other alternative investment funds. Other client assets consist of assets in brokerage accounts of primarily high-net-worth individuals, on which we earn commissions. Substantially all assets under supervision are valued as of calendar month-end.

The following table sets forth our assets under supervision:

Assets Under Supervision

| (in millions) | As of November 30 | | |
|-------------------------|-------------------|-----------|-----------|
| | 2000 | 1999 | 1998 |
| Assets under management | \$293,842 | \$258,045 | \$194,821 |
| Other client assets | 197,876 | 227,424 | 142,018 |
| Total | \$491,718 | \$485,469 | \$336,839 |

2000 versus 1999. Asset Management and Securities Services net revenues were \$4.59 billion, an increase of 43% compared with 1999. Operating expenses rose 26% compared with 1999, primarily due to higher levels of compensation commensurate with growth in net revenues, and increased costs associated with global expansion, higher employment levels and increased business activity. Pre-tax earnings in Asset Management and Securities Services increased to \$1.58 billion in 2000 compared with \$817 million in 1999.

Asset Management net revenues were 46% higher than last year, primarily reflecting a 31% increase in average assets under management as well as favorable changes in the composition of assets managed. Assets under management grew 14% over 1999, with net inflows of \$40 billion, partially offset by market depreciation of \$4 billion. Performance fees also contributed to the increase in net revenues. The decline in other client assets in 2000 principally reflects market depreciation in the value of our client assets. Securities Services net revenues increased 22% over 1999, primarily due to growth in our securities lending

and margin lending, partially offset by reduced spreads in the fixed income matched book. Commissions increased 52% compared with 1999 due to record transaction volumes in global equity markets and our increased share of income and gains from our merchant banking funds.

1999 versus 1998. Net revenues in Asset Management and Securities Services were \$3.21 billion, an increase of 16% compared with 1998. All major components of the business contributed to the net revenue growth in 1999. Operating expenses increased, principally due to the inclusion of compensation expense related to services rendered by managing directors who, prior to our conversion to corporate form, were profit participating limited partners and increased costs associated with the continuing expansion of the business. Pre-tax earnings in Asset Management and Securities Services were \$817 million in 1999 compared with \$1.15 billion in 1998.

Asset Management net revenues increased 36%, primarily reflecting a 32% increase in average assets under management as well as favorable changes in the composition of

assets managed. In 1999, approximately 55% of the increase in assets under management was attributable to net asset inflows, with the remaining 45% reflecting market appreciation. Securities Services net revenues increased 6%, due to higher average customer balances in our securities lending and margin lending, partially offset by reduced spreads in our fixed income matched book. Commissions rose by 11% as fees earned on higher transaction volumes in global equity markets were partially offset by a reduction in our increased share of gains from our merchant banking funds.

Operating Expenses

In recent years, our operating expenses have increased as a result of numerous factors, including higher levels of employment and compensation, increased worldwide activities, greater levels of business complexity, and additional systems and consulting costs relating to various technology initiatives.

The following table sets forth our operating expenses and number of employees:

Operating Expenses and Employees

| (\$ in millions) | Year Ended November | | |
|---|-----------------------|----------|---------|
| | 2000 | 1999 | 1998 |
| Compensation and benefits | \$ 7,773 | \$ 6,459 | \$3,838 |
| Nonrecurring employee initial public offering and acquisition awards | 290 | 2,257 | — |
| Amortization of employee initial public offering and acquisition awards | 428 | 268 | — |
| Brokerage, clearing and exchange fees | 573 | 446 | 424 |
| Market development | 506 | 364 | 287 |
| Communications and technology | 435 | 306 | 265 |
| Depreciation and amortization | 486 | 337 | 242 |
| Occupancy | 440 | 314 | 207 |
| Professional services and other | 639 | 402 | 336 |
| Charitable contribution | — | 200 | — |
| Total operating expenses | \$11,570 | \$11,353 | \$5,599 |
| Employees at year end ⁽¹⁾ | 22,627 ⁽²⁾ | 15,361 | 13,033 |

⁽¹⁾ Excludes employees of Goldman Sachs' property management subsidiaries. Substantially all of the costs of these employees are reimbursed to Goldman Sachs by the real estate investment funds to which these companies provide property management services.

⁽²⁾ Includes 2,600 employees related to the combination with SLK.

2000 versus 1999. Operating expenses in 2000 were \$11.57 billion compared with \$11.35 billion in 1999. Excluding the charge related to our combination with SLK in 2000 and the nonrecurring charges associated with our initial public offering in 1999, operating expenses increased 27%. This growth was primarily due to increased compensation commensurate with higher net revenues as well as the incremental costs associated with global expansion, higher employment levels and increased business activity.

Compensation and benefits expense was \$7.77 billion, an increase of 20% over 1999, primarily due to higher headcount and compensation. While total compensation and benefits increased compared with 1999, the ratio of compensation

and benefits to net revenues decreased to 47% from 48% in 1999. Employee compensation for 2000 included both restricted stock units and stock options. Employment levels increased during the year due to growth in our core businesses and our combination with SLK. Expenses associated with our temporary staff and consultants were \$680 million in 2000, an increase of 58% compared with 1999, reflecting greater business activity, global expansion and consulting costs associated with various technology initiatives.

Brokerage, clearing and exchange fees increased 28%, primarily due to higher transaction volumes in equity derivatives and U.S. and European equities. Market development expenses increased 39%, reflecting higher travel and

entertainment costs associated with growth in employment levels and business activity, and increased advertising costs. Communications and technology expenses increased 42%, reflecting higher telecommunications and market data costs associated with increased headcount. Depreciation and amortization increased 44%, principally due to goodwill related to business acquisitions, leasehold improvements related to expanded offices, and capital expenditures on telecommunications and technology-related equipment. Occupancy expenses increased 40% due to new office space needed to accommodate higher employment levels globally. Professional services and other expenses increased 59%, reflecting higher professional fees related to technology initiatives and global expansion.

1999 versus 1998. Operating expenses were \$11.35 billion in 1999, a substantial increase over 1998, primarily due to nonrecurring charges associated with Goldman Sachs' conversion to corporate form and related transactions, the inclusion of compensation expense related to services rendered by managing directors who were profit participating limited partners, higher levels of compensation commensurate with higher net revenues and amortization of employee initial public offering awards. The nonrecurring charges included \$2.26 billion for employee initial public offering awards and \$200 million for the initial charitable contribution to The Goldman Sachs Foundation made at the time of our initial public offering.

Compensation and benefits expense was \$6.46 billion, an increase of 68% compared with 1998. The ratio of compensation and benefits to net revenues was 48% in 1999. Employment levels increased 18% during the year, reflecting growth in our core businesses. Expenses associated with our temporary staff and consultants were \$430 million in 1999, an increase of 30% compared with 1998, reflecting increased global expansion and consulting costs associated with technology initiatives, including preparations for the Year 2000.

Brokerage, clearing and exchange fees increased 5%, primarily due to higher transaction volumes in equity derivatives, U.S. and European equities, and commodities. Market development expenses increased 27%, principally due to higher levels of business activity and increased spending on advertising. Communications and technology expenses increased 15%, reflecting higher telecommunications and

market data costs associated with growth in employment levels and additional spending on technology initiatives, including preparations for the Year 2000. Depreciation and amortization increased 39%, due to additional capital expenditures on leasehold improvements and technology-related and telecommunications equipment in support of higher levels of business activity. Occupancy expenses increased 52%, reflecting additional office space needed to accommodate growth in employment levels. Professional services and other expenses increased 20% due to Goldman Sachs' increased business activity.

Provision for Taxes

Our provision for taxes in 2000 was \$1.95 billion compared with a net tax benefit of \$716 million in 1999.

The net tax benefit of \$716 million in 1999 included nonrecurring net benefits of \$1.78 billion. These nonrecurring net benefits included \$825 million related to our conversion to corporate form, \$880 million related to the granting of employee initial public offering awards and \$80 million related to a contribution of \$200 million to The Goldman Sachs Foundation made at the time of our initial public offering. Goldman Sachs' effective tax rate for the period from May 7, 1999 to the end of 1999, excluding the effect of these nonrecurring items, was 40.0%. Prior to our conversion to corporate form, we generally were not subject to U.S. federal and state income taxes. As a partnership, we were primarily subject to local unincorporated business taxes and taxes in non-U.S. jurisdictions on certain of our operations.

The effective tax rate for 2000 was 38.9% compared with 40.0%, excluding the effect of the nonrecurring tax benefits in 1999. The decline in the effective tax rate was primarily due to lower state and local taxes. Our effective tax rate can vary from year to year depending on, among other factors, the geographic and business mix of our earnings. See Note 12 to the consolidated financial statements for further information regarding our provision for taxes.

Geographic Data

For a summary of the net revenues, pre-tax earnings and identifiable assets of Goldman Sachs by geographic region, see Note 14 to the consolidated financial statements.

Cash Flows

Our cash flows are primarily related to the operating and financing activities undertaken in connection with our trading and market-making transactions.

Year Ended November 2000. Cash and cash equivalents increased to \$3.87 billion in 2000. Operating activities provided cash of \$11.14 billion. Cash of \$3.66 billion was used for investing activities, primarily for our combination with SLK and purchases of technology-related equipment. Cash of \$6.66 billion was used for financing activities as decreases in short-term borrowings and net repurchase agreements were partially offset by proceeds from the net issuances of long-term borrowings.

Year Ended November 1999. Cash and cash equivalents increased to \$3.06 billion in 1999. Cash of \$12.59 billion was used for operating activities, primarily to fund higher net trading assets due to increased levels of business activity. Cash of \$654 million was used for investing activities, primarily for the purchase of telecommunications and technology-related equipment, leasehold improvements and the acquisition of The Hull Group in September 1999. Financing activities provided \$13.46 billion of cash, reflecting an increase in long-term borrowings and repurchase agreements, and proceeds from the issuance of common stock.

Year Ended November 1998. Cash and cash equivalents increased to \$2.84 billion in 1998. Cash of \$62 million was provided by operating activities. Cash of \$656 million was used for investing activities, primarily for leasehold improvements and the purchase of telecommunications and technology-related equipment and certain financial instruments. Financing activities provided \$2.10 billion of cash, reflecting an increase in the net issuance of long-term and short-term borrowings, partially offset by a decrease in net repurchase agreements, distributions to partners, cash outflows related to partners' capital allocated for income taxes and potential withdrawals, and the termination of our profit participation plans.

Liquidity

Management Oversight of Liquidity

Management believes that one of the most important issues for a company in the financial services sector is access to liquidity. Accordingly, Goldman Sachs has established

a comprehensive structure to oversee its liquidity and funding policies.

The Finance Committee has responsibility for establishing and assuring compliance with our asset and liability management policies and has oversight responsibility for managing liquidity risk, the size and composition of our balance sheet, and our credit ratings. See “—Risk Management—Risk Management Structure” below for a further description of the committees that participate in our risk management process. The Finance Committee meets monthly, and more often when necessary, to evaluate our liquidity position and funding requirements.

Our Corporate Treasury Department manages the capital structure, funding, liquidity, and relationships with creditors and rating agencies on a global basis. The Corporate Treasury Department works jointly with our global funding desk in managing our borrowings. The global funding desk is primarily responsible for our transactional short-term funding activity.

Liquidity Policies

In order to maintain an appropriate level of liquidity, management has implemented several liquidity policies as outlined below.

Diversification of Funding Sources and Liquidity Planning.

Goldman Sachs seeks to maintain broad and diversified funding sources globally. These diversified funding sources include insurance companies, mutual funds, banks, bank trust departments, corporations, individuals and other asset managers. Management believes that Goldman Sachs' relationships with its lenders are critical to its liquidity.

We access liquidity in a variety of markets in the United States, Europe and Asia. We make extensive use of the repurchase agreement and securities lending markets and have raised debt publicly as well as in the private placement and commercial paper markets, and through Eurobonds, money broker loans, commodity-based financings, letters of credit and promissory notes. We seek to structure our liabilities to avoid significant amounts of debt coming due on any one day or during any single week or year.

Asset Liquidity. Goldman Sachs maintains a highly liquid balance sheet. Many of our assets are readily funded in the repurchase agreement and securities lending markets, which generally have proven to be a consistent source of

funding, even in periods of market stress. A substantial portion of our inventory turns over rapidly and is marked-to-market daily. We maintain long-term borrowings and shareholders' equity substantially in excess of our less liquid assets.

Excess Liquidity. In addition to maintaining a highly liquid balance sheet and a significant amount of longer term liabilities to assure liquidity even during adverse conditions, we seek to maintain a liquidity cushion that consists principally of unencumbered U.S. government and agency obligations that may be sold or pledged to provide immediate liquidity. This pool of highly liquid assets averaged \$18.19 billion during 2000 and \$17.99 billion during 1999.

Dynamic Liquidity Management. Goldman Sachs seeks to manage the composition of its asset base and the maturity profile of its funding such that it should be able to liquidate its assets prior to its liabilities coming due, even in times of liquidity stress. We have traditionally been able to fund our liquidity needs through security-based and collateralized funding, such as repurchase transactions and securities lending, as well as short-term and long-term borrowings and equity capital. To further evaluate the adequacy of our liquidity management policies and guidelines, we perform weekly "stress funding" simulations of disruptions to our access to unsecured credit.

Liquidity Ratio Maintenance. It is Goldman Sachs' policy to further manage its liquidity by maintaining a "liquidity ratio" of at least 100%. Under this policy, we seek to maintain unencumbered assets in an amount that, if pledged or sold, would provide the funds necessary to replace unsecured obligations that are scheduled to mature (or where holders have the option to redeem) within the coming year. The maintenance of this liquidity ratio is intended to permit us to fund our positions on a fully secured basis in the event that we were unable to replace our unsecured debt maturing within one year.

Intercompany Funding. Most of the liquidity of Goldman Sachs is raised by the parent company, The Goldman Sachs Group, Inc. The parent company then lends the necessary funds to its subsidiaries and affiliates. We carefully manage our intercompany exposure by generally requiring intercompany loans to have maturities equal to or shorter than the maturities of the aggregate borrowings of the parent company. This policy ensures that the subsidiaries' obligations to the parent company will generally mature in

advance of the parent company's third-party long-term borrowings. In addition, many of our subsidiaries and affiliates generally pledge collateral to cover their intercompany borrowings. We generally fund our equity investments in subsidiaries with equity capital.

The Balance Sheet

Goldman Sachs maintains a highly liquid balance sheet that fluctuates significantly between financial statement dates. The following table sets forth our total assets, adjusted assets, leverage ratios and book value per share:

| (\$ in billions, except per share amounts) | As of November | |
|--|----------------|---------|
| | 2000 | 1999 |
| Total assets | \$ 290 | \$ 250 |
| Adjusted assets ⁽¹⁾ | 217 | 188 |
| Leverage ratio ⁽²⁾ | 17.5x | 24.7x |
| Adjusted leverage ratio ⁽³⁾ | 13.1x | 18.5x |
| Book value per share ⁽⁴⁾ | \$32.18 | \$20.94 |

⁽¹⁾ Adjusted assets represent total assets less securities purchased under agreements to resell, certain securities borrowed transactions and the increase in total assets related to certain provisions of Statement of Financial Accounting Standards No. 125.

⁽²⁾ Leverage ratio equals total assets divided by shareholders' equity.

⁽³⁾ Adjusted leverage ratio equals adjusted assets divided by shareholders' equity.

⁽⁴⁾ Book value per share is based on common shares outstanding, including restricted stock units granted to employees with no future service requirements, of 513.7 million as of November 2000 and 484.6 million as of November 1999.

As of November 2000 and 1999, we held approximately \$2.74 billion and \$2.62 billion, respectively, in high-yield debt and emerging market securities and \$2.83 billion and \$1.80 billion, respectively, in bank loans. These assets may be relatively illiquid during times of market stress. We seek to diversify our holdings of these assets by industry and by geographic location.

As of November 2000 and 1999, the aggregate carrying value of our principal investments held directly or through our merchant banking funds was approximately \$3.52 billion and \$2.88 billion, respectively. These carrying values were comprised of corporate principal investments with an aggregate carrying value of approximately \$2.51 billion and \$1.95 billion, respectively, and real estate investments with an aggregate carrying value of approximately \$1.01 billion and \$928 million, respectively.

Credit Ratings

Goldman Sachs relies upon the debt capital markets to fund a significant portion of its day-to-day operations. The cost and availability of debt financing is influenced by our credit ratings. Credit ratings are also important to us when competing in certain markets and when seeking to engage in longer term transactions, including over-the-counter derivatives. A reduction in our credit ratings could increase our borrowing costs and limit our access to the capital markets. This, in turn, could reduce our earnings and adversely affect our liquidity.

The following table sets forth our credit ratings as of November 2000:

| | Short-Term Debt | Long-Term Debt |
|---------------------------|-----------------|----------------|
| Fitch | F1+ | AA- |
| Moody's Investors Service | P-1 | A1 |
| Standard & Poor's | A-1+ | A+ |

Thomson Financial BankWatch was acquired by Fitch on December 1, 2000. The most recent ratings we received from Thomson Financial BankWatch were TBW-1 for short-term debt and AA for long-term debt.

Long-Term Debt

As of November 2000, our consolidated long-term borrowings were \$31.40 billion. Substantially all of these borrowings were unsecured and consisted principally of senior borrowings with maturities extending to 2024. The weighted average maturity of our long-term borrowings as of November 2000 was approximately 4.25 years. A substantial portion of our long-term borrowings are swapped into U.S. dollar obligations with short-term floating rates of interest in order to minimize our exposure to interest rates and foreign exchange movements. See Note 6 to the consolidated financial statements for further information regarding our long-term borrowings.

Regulated Subsidiaries

Many of our principal subsidiaries are subject to extensive regulation in the United States and elsewhere. Goldman, Sachs & Co. and Spear, Leeds & Kellogg, L.P. are registered U.S. broker-dealers and futures commissions merchants, and are regulated by the Securities and Exchange Commission, the Commodity Futures Trading Commission, the Chicago Board of Trade, the New York Stock Exchange and The National Association of Securities Dealers, Inc.

Goldman Sachs International, a registered U.K. broker-dealer, is subject to regulation by the Securities and Futures Authority Limited and the Financial Services Authority. Goldman Sachs (Japan) Ltd., a Tokyo-based broker-dealer, is subject to regulation by the Financial Services Agency, the Tokyo Stock Exchange, the Tokyo International Financial Futures Exchange and the Japan Securities Dealers Association. Several other subsidiaries of Goldman Sachs are regulated by securities, investment advisory, banking, and other regulators and authorities around the world, such as the Bundesbank of Germany. Compliance with the rules of these regulators may prevent us from receiving distributions, advances or repayment of liabilities from these subsidiaries. See Note 13 to the consolidated financial statements for further information regarding our regulated subsidiaries.

Risk Management

Goldman Sachs has a comprehensive risk management process to monitor, evaluate and manage the principal risks assumed in conducting its activities. These risks include market, credit, liquidity, operational, legal and reputational exposures.

Risk Management Structure

Goldman Sachs seeks to monitor and control its risk exposure through a variety of separate but complementary financial, credit, operational and legal reporting systems. We believe that we have effective procedures for evaluating and managing the market, credit and other risks to which we are exposed. Nonetheless, the effectiveness of our policies and procedures for managing risk exposure can never be completely or accurately predicted or fully assured. For example, unexpectedly large or rapid movements or disruptions in one or more markets or other unforeseen developments can have a material adverse effect on our results of operations and financial condition. The consequences of these developments can include losses due to adverse changes in inventory values, decreases in the liquidity of trading positions, higher volatility in our earnings, increases in our credit exposure to customers and counterparties, and increases in general systemic risk.

Goldman Sachs has established risk control procedures at several levels throughout the organization. Trading desk managers have the first line of responsibility for managing risk within prescribed limits. These managers have in-depth

knowledge of the primary sources of risk in their individual markets and the instruments available to hedge our exposures.

In addition, a number of committees are responsible for establishing trading limits, for monitoring adherence to these limits and for general oversight of our risk management process. These committees, which are described below, meet regularly and consist of senior members of both our revenue-producing units and departments that are independent of our revenue-producing units.

Management Committee. All risk control functions ultimately report to the Management Committee. Through both direct and delegated authority, the Management Committee approves all of Goldman Sachs' operating activities, trading risk parameters and customer review guidelines.

Risk Committees. The Firmwide Risk Committee:

- reviews the activities of existing businesses;
- approves new businesses and products;
- approves divisional market risk limits and reviews business unit market risk limits;
- approves inventory position limits for selected country exposures and business units;
- approves sovereign credit risk limits and credit risk limits by ratings group; and
- reviews scenario analyses based on abnormal or "catastrophic" market movements.

The FICC and Equities Risk Committees set market risk limits for their respective product lines based on a number of measures including Value at Risk (VaR), scenario analyses and inventory levels. The Asset Management Control Oversight and the Asset Management Risk Committees oversee various operational, credit, pricing and business practice issues.

Global Compliance and Control Committee. The Global Compliance and Control Committee provides oversight of our compliance and control functions, including internal audit; reviews our legal, reputational, operational and control risks; and periodically reviews the activities of existing businesses.

Commitments Committee. The Commitments Committee approves equity and non-investment-grade debt under-

writing commitments, loans extended by Goldman Sachs, and unusual financing structures and transactions that involve significant capital exposure. The Commitments Committee has delegated to the Credit Department the authority to approve underwriting commitments for investment-grade debt and certain other products.

Credit Policy Committee. The Credit Policy Committee establishes and reviews broad credit policies and parameters that are implemented by the Credit Department.

Operational Risk Committee. The Operational Risk Committee, created in fiscal year 2000, provides oversight of our ongoing development and implementation of operational risk policies, framework and methodologies and monitors the effectiveness of operational risk management.

Finance Committee. The Finance Committee is responsible for oversight of our capital, liquidity and funding needs and for setting certain inventory position limits.

Segregation of duties and management oversight are fundamental elements of our risk management process. In addition to the committees described above, departments that are independent of the revenue-producing units, such as the Firmwide Risk, Credit, Controllers, Global Operations, Central Compliance, Management Controls and Legal departments, in part perform risk management functions, which include monitoring, analyzing and evaluating risk. Furthermore, the Controllers Department, in conjunction with the Firmwide Risk Department, independently reviews, on a regular basis, internal valuation models and the pricing of positions determined by individual business units.

Risk Limits

Business unit risk limits are established by the various risk committees and may be further allocated by the business unit managers to individual trading desks.

Market risk limits are monitored on a daily basis by the Firmwide Risk Department, and are reviewed regularly by the appropriate risk committee. Limit violations are reported to the appropriate risk committee and the appropriate business unit managers.

Inventory position limits are monitored by the Controllers Department and position limit violations are reported to the appropriate business unit managers, the Finance Committee and the appropriate risk committee.

Market Risk

The potential for changes in the market value of our trading positions is referred to as “market risk.” Our trading positions result from underwriting, market making, specialist and proprietary trading activities.

Categories of market risk include exposures to interest rates, currency rates, equity prices and commodity prices. A description of each market risk category is set forth below:

- Interest rate risks primarily result from exposures to changes in the level, slope and curvature of the yield curve, the volatility of interest rates, mortgage prepayment speeds and credit spreads.
- Currency rate risks result from exposures to changes in spot prices, forward prices and volatilities of currency rates.
- Equity price risks result from exposures to changes in prices and volatilities of individual equities, equity baskets and equity indices.
- Commodity price risks result from exposures to changes in spot prices, forward prices and volatilities of commodities, such as electricity, natural gas, crude oil, petroleum products and precious and base metals.

We seek to manage these risk exposures through diversifying exposures, controlling position sizes and establishing hedges in related securities or derivatives. For example, we may hedge a portfolio of common stock by taking an offsetting position in a related equity-index futures contract. The ability to manage an exposure may, however, be limited by adverse changes in the liquidity of the security or the related hedge instrument and in the correlation of price movements between the security and related hedge instrument.

In addition to applying business judgment, senior management uses a number of quantitative tools to manage our exposure to market risk. These tools include:

- risk limits based on a summary measure of market risk exposure referred to as VaR;
- risk limits based on scenario analyses that measure the potential effects on our trading net revenues of various market events, including a large widening of credit spreads, a substantial decline in equity markets and significant moves in emerging markets; and

- inventory position limits for selected business units and country exposures.

We also estimate the broader potential impact of abnormal market movements and certain macroeconomic scenarios on our investment banking, merchant banking, asset management and security services activities as well as our trading revenues.

VaR. VaR is the potential loss in value of Goldman Sachs’ trading positions due to adverse market movements over a defined time horizon with a specified confidence level.

For the VaR numbers reported below, a one-day time horizon and a 95% confidence level were used. This means that there is a one in 20 chance that daily trading net revenues will fall below the expected daily trading net revenues by an amount at least as large as the reported VaR. Thus, shortfalls from expected trading net revenues on a single trading day greater than the reported VaR would be anticipated to occur, on average, about once a month. Shortfalls on a single day can exceed reported VaR by significant amounts. Shortfalls can also accumulate over a longer time horizon such as a number of consecutive trading days.

The VaR numbers below are shown separately for interest rate, currency, equity and commodity products, as well as for our overall trading positions. These VaR numbers include the underlying product positions and related hedges, which may include positions in other product areas. For example, the hedge of a foreign exchange forward may include an interest rate futures position and the hedge of a long corporate bond position may include a short position in the related equity.

The modeling of the risk characteristics of our trading positions involves a number of assumptions and approximations. While management believes that these assumptions and approximations are reasonable, there is no uniform industry methodology for estimating VaR, and different assumptions and/or approximations could produce materially different VaR estimates.

We use historical data to estimate our VaR and, to better reflect current asset volatilities, these historical data are weighted to give greater importance to more recent observations. Given its reliance on historical data, VaR is most effective in estimating risk exposures in markets in which there are no sudden fundamental changes or shifts in mar-

ket conditions. An inherent limitation of VaR is that past changes in market risk factors, even when weighted toward more recent observations, may not produce accurate predictions of future market risk. Moreover, VaR calculated for a one-day time horizon does not fully capture the market risk of positions that cannot be liquidated or offset with hedges within one day. VaR also should be evaluated in

light of the methodology's other limitations. For example, when calculating the VaR numbers shown below, we assume that asset returns are normally distributed. Nonlinear risk exposures on options and the potentially mitigating impact of intraday changes in related hedges would likely produce nonnormal asset returns. Different distributional assumptions could produce a materially different VaR.

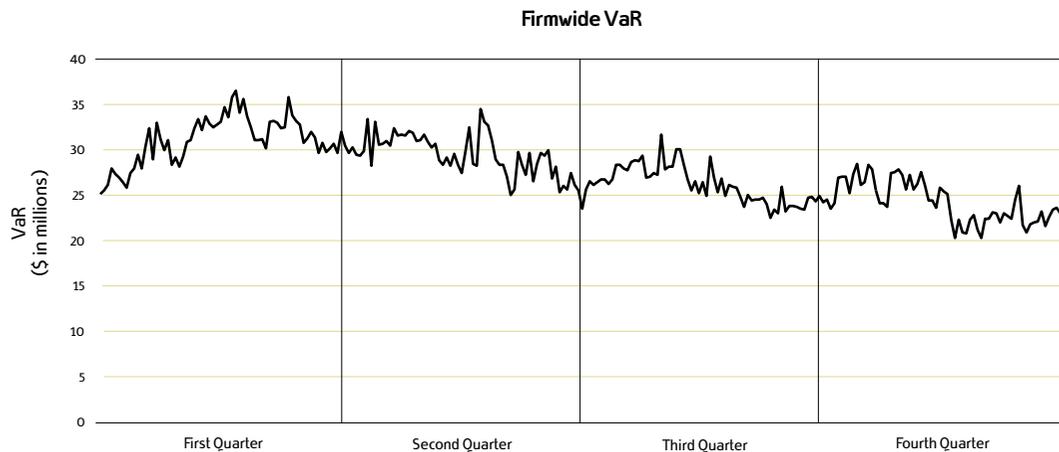
The following table sets forth the daily VaR for substantially all of our trading positions:

Daily VaR

| (in millions) | As of November | | Year Ended November 2000 | | |
|---------------------------------------|----------------|--------------|--------------------------|-----------|-----------|
| | 2000 | 1999 | Average | High | Low |
| Risk Categories | | | | | |
| Interest rates | \$ 11 | \$ 13 | \$ 13 | \$19 | \$ 9 |
| Currency rates | 11 | 4 | 6 | 11 | 3 |
| Equity prices | 17 | 18 | 21 | 30 | 13 |
| Commodity prices | 7 | 12 | 8 | 16 | 5 |
| Diversification effect ⁽¹⁾ | (21) | (22) | (20) | — | — |
| Firmwide | \$ 25 | \$ 25 | \$ 28 | 37 | 20 |

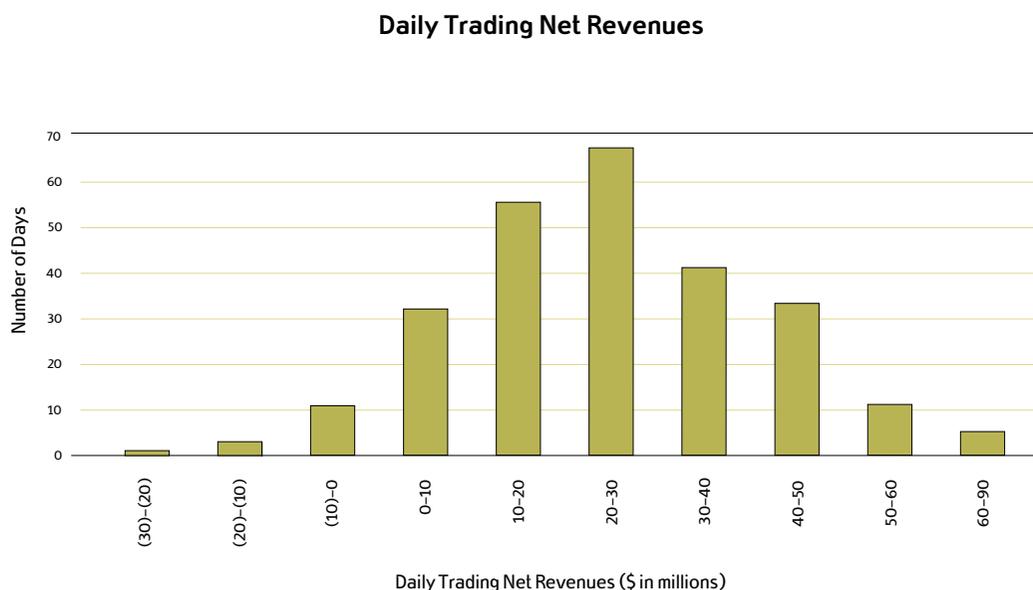
⁽¹⁾ Equals the difference between firmwide daily VaR and the sum of the daily VaRs for the four risk categories. This effect arises because the four market risk categories are not perfectly correlated.

The following chart presents the daily VaR for substantially all of our trading positions during 2000:



Trading Net Revenues Distribution

Substantially all of our inventory positions are marked-to-market on a daily basis and changes are recorded in net revenues. The following chart sets forth the frequency distribution for substantially all of our daily trading net revenues for the year ended November 2000:



As part of our overall risk control process, daily trading net revenues are compared with VaR calculated as of the end of the prior business day. Trading losses incurred on a single day did not exceed our 95% one-day VaR during 2000.

Nontrading Risk

The market risk on our nontrading financial instruments, including our merchant banking investments, is measured using a sensitivity analysis that estimates the potential reduction in our net revenues associated with a 10% decline in the S&P 500. This sensitivity analysis is based on certain assumptions regarding the relationship between changes in the S&P 500 and changes in the fair value of the individual nontrading financial instruments. Different assumptions could produce materially different risk estimates. As of November 2000, our nontrading market risk was approximately \$240 million.

Credit Risk

Credit risk represents the loss that we would incur if a counterparty, or an issuer of securities or other instruments we hold, fails to perform under its contractual obligations to us. To reduce our credit exposures, we seek to enter into net-

ting agreements with counterparties that permit us to offset receivables and payables with such counterparties. In addition, we attempt to further reduce credit risk with certain counterparties by entering into agreements that enable us to obtain collateral from a counterparty or to terminate or reset the terms of transactions after specified time periods or upon the occurrence of credit-related events, by seeking third-party guarantees of the counterparty's obligations, through the use of credit derivatives and through other structures and techniques.

For most businesses, counterparty credit limits are established by the Credit Department, which is independent of the revenue-producing departments, based on guidelines set by the Firmwide Risk and Credit Policy committees. For most products, we measure and limit credit exposures by reference to both current and potential exposure. We typically measure potential exposure based on projected worst-case market movements over the life of a transaction within a 95% confidence interval. For collateralized transactions we also evaluate potential exposure over a shorter collection period, and give effect to the value of received collateral. We further seek to measure credit exposure through the use of scenario analyses and other quantitative tools. Our global credit management systems monitor current and

potential credit exposure to individual counterparties and on an aggregate basis to counterparties and their affiliates. The systems also provide management, including the Firmwide Risk and Credit Policy committees, with information regarding overall credit risk by product, industry sector, country and region.

Derivative Contracts

Derivative contracts are financial instruments, such as futures, forwards, swaps or option contracts, that derive their value from underlying assets, indices, reference rates or a combination of these factors. Derivative instruments may be entered into by Goldman Sachs in privately negotiated contracts, which are often referred to as over-the-counter derivatives, or they may be listed and traded on an exchange.

Most of our derivative transactions are entered into for trading purposes. We use derivatives in our trading activi-

ties to facilitate customer transactions, to take proprietary positions and as a means of risk management. We also enter into nontrading derivative contracts to manage the interest rate and currency exposure on our long-term borrowings.

Derivatives are used in many of our businesses, and we believe that the associated market risk can only be understood relative to the underlying assets or risks being hedged, or as part of a broader trading strategy. Accordingly, the market risk of derivative positions is managed with all of our other nonderivative risk.

Derivative contracts are reported on a net-by-counterparty basis on our consolidated statements of financial condition where management believes a legal right of setoff exists under an enforceable netting agreement. For an over-the-counter derivative, our credit exposure is directly with our counterparty and continues until the maturity or termination of such contract.

The following table sets forth the distribution, by credit rating, of substantially all of our exposure with respect to over-the-counter derivatives as of November 2000, after taking into consideration the effect of netting agreements. The categories shown reflect our internally determined public rating agency equivalents.

Over-the-Counter Derivative Credit Exposure

(\$ in millions)

| Credit Rating Equivalent | Exposure | Collateral Held ⁽²⁾ | Exposure Net of Collateral | Percentage of Exposure Net of Collateral |
|--------------------------|----------|--------------------------------|----------------------------|--|
| AAA/Aaa | \$ 2,842 | \$ 436 | \$ 2,406 | 11% |
| AA/Aa2 | 5,423 | 1,122 | 4,301 | 19 |
| A/A2 | 9,417 | 1,304 | 8,113 | 36 |
| BBB/Baa2 | 5,298 | 1,102 | 4,196 | 19 |
| BB/Ba2 or lower | 4,271 | 977 | 3,294 | 14 |
| Unrated ⁽¹⁾ | 1,098 | 933 | 165 | 1 |
| | \$28,349 | \$5,874 | \$22,475 | 100% |

Over-the-counter derivative credit exposure, net of collateral, by maturity is set forth below:

| Credit Rating Equivalent | 0 – 6 Months | 6 – 12 Months | 1 – 5 Years | 5 Years or Greater | Exposure Net of Collateral |
|--------------------------|--------------|---------------|-------------|--------------------|----------------------------|
| AAA/Aaa | \$ 119 | \$ 112 | \$ 547 | \$1,628 | \$ 2,406 |
| AA/Aa2 | 2,079 | 275 | 846 | 1,101 | 4,301 |
| A/A2 | 3,138 | 981 | 2,414 | 1,580 | 8,113 |
| BBB/Baa2 | 1,946 | 608 | 978 | 664 | 4,196 |
| BB/Ba2 or lower | 2,285 | 239 | 499 | 271 | 3,294 |
| Unrated ⁽¹⁾ | 76 | 26 | 41 | 22 | 165 |
| | \$9,643 | \$2,241 | \$5,325 | \$5,266 | \$22,475 |

⁽¹⁾ In lieu of making an individual assessment of the credit of unrated counterparties, we make a determination that the collateral held in respect of such obligations is sufficient to cover a substantial portion of our exposure. In making this determination, we take into account various factors, including legal uncertainties and market volatility.

⁽²⁾ Collateral consists predominantly of cash and U.S. government and agency securities and is usually received under agreements entitling Goldman Sachs to require additional collateral upon specified increases in exposure or the occurrence of adverse credit events.

Derivatives transactions may also involve the legal risk that they are not authorized or appropriate for a counterparty, that documentation has not been properly executed or that executed agreements may not be enforceable against the counterparty. We attempt to minimize these risks by obtaining advice of counsel on the enforceability of agreements as well as on the authority of a counterparty to effect the derivative transaction.

Operational Risks

Goldman Sachs may face reputational damage, financial loss or regulatory risk as a result of inadequate or failed internal

processes, people and systems. A systems failure or failure to enter a trade properly into our records may result in an inability to settle transactions in a timely manner or a breach of regulatory requirements. Settlement errors or delays may cause losses due to damages owed to counterparties or movements in prices. These operational and systems risks may arise in connection with our own systems or as a result of the failure of an agent acting on our behalf.

The Global Operations Department is responsible for establishing, maintaining and approving policies and controls with respect to the accurate inputting and processing of transactions, clearance and settlement of transactions,

the custody of securities and other instruments, and the detection and prevention of employee errors or improper or fraudulent activities. Its personnel work closely with Information Technology in creating systems to enable appropriate supervision and management of its policies. The Global Operations Department is also responsible, together with other areas of Goldman Sachs, including the Legal and Compliance departments, for ensuring compliance with applicable regulations with respect to the clearance and settlement of transactions and the margining of positions. The Network Management Department oversees our relationships with our clearance and settlement agents, regularly reviews agents' performance and meets with these agents to review operational issues. The Operational Risk Department, created in fiscal year 2000, is responsible for establishing, maintaining and approving our operational risk management framework and policies for the overall effective management of operational risk.

Accounting Developments

In September 2000, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities—a replacement of FASB Statement No. 125," which revises the standards for accounting for securitizations and other transfers of financial assets and collateral. In addition, specific implementation guidelines have been established to further distinguish transfers of financial assets that are sales from transfers that are secured bor-

rowings. SFAS No. 140 is effective for transfers occurring after March 31, 2001 and for disclosures relating to securitization transactions and collateral for fiscal years ended after December 15, 2000. We intend to adopt the provisions of SFAS No. 140 in 2001 and are currently assessing their effect.

In June 2000, the FASB issued SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities," which is an amendment of SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." The Statement is effective concurrently with SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date of FASB Statement No. 133—an amendment of FASB Statement No. 133," which deferred to fiscal years beginning after June 15, 2000 the effective date of the accounting and reporting requirements of SFAS No. 133. These statements establish accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts (collectively, referred to as "derivatives"), and for hedging activities. These statements require that an entity recognize all derivatives as either assets or liabilities in the statement of financial condition and measure those instruments at fair value. The accounting for changes in the fair value of a derivative instrument depends on its intended use and the resulting designation. We adopted the provisions of these statements on November 25, 2000, the first day of our 2001 fiscal year. The effect of this adoption was not material to our financial condition or the results of our operations.