

## 5 PENSION BENEFITS

GE and its affiliates sponsor a number of pension plans. Principal pension plans are discussed below; other pension plans are not significant individually or in the aggregate.

The GE Pension Plan provides benefits to certain U.S. employees based on the greater of a formula recognizing career earnings or a formula recognizing length of service and final average earnings. Benefit provisions are subject to collective bargaining. At the end of 1999, the GE Pension Plan covered approximately 470,000 participants, including 124,000 employees, 153,000 former employees with vested rights to future benefits, and 193,000 retirees and beneficiaries receiving benefits.

### EFFECT ON OPERATIONS (In millions)

	1999	1998	1997
Expected return on plan assets	\$ 3,407	\$ 3,024	\$ 2,721
Service cost for benefits earned	(693)	(625)	(596)
Interest cost on benefit obligation	(1,804)	(1,749)	(1,686)
Prior service cost	(151)	(153)	(145)
SFAS No. 87 transition gain	154	154	154
Net actuarial gain recognized	467	365	295
Special early retirement cost	--	--	(412)
Total pension plan income	<u>\$ 1,380</u>	<u>\$ 1,016</u>	<u>\$ 331</u>

FUNDING POLICY for the GE Pension Plan is to contribute amounts sufficient to meet minimum funding requirements as set forth in employee benefit and tax laws plus such additional amounts as GE may determine to be appropriate. GE has not made contributions since 1987 because the fully funded status of the GE Pension Plan precludes current tax deduction and because any GE contribution would require payment of excise taxes.

## PROJECTED BENEFIT OBLIGATION

December 31 (In millions)	<u>1999</u>	<u>1998</u>
Balance at January 1	\$ 27,572	\$ 25,874
Service cost for benefits earned	693	625
Interest cost on benefit obligation	1,804	1,749
Participant contributions	122	112
Actuarial (gain)/loss	(2,790)	1,050
Benefits paid	<u>(1,879)</u>	<u>(1,838)</u>
Balance at December 31	<u>\$ 25,522</u>	<u>\$ 27,572</u>

## FAIR VALUE OF ASSETS

December 31 (In millions)	<u>1999</u>	<u>1998</u>
Balance at January 1	\$ 43,447	\$ 38,742
Actual return on plan assets	8,472	6,363
Employer contributions	81	68
Participant contributions	122	112
Benefits paid	<u>(1,879)</u>	<u>(1,838)</u>
Balance at December 31	<u>\$ 50,243</u>	<u>\$ 43,447</u>

Plan assets are held in trust and consist mainly of common stock and fixed-income investments. GE common stock represented 9.8% and 7.5% of trust assets at year-end 1999 and 1998, respectively.

## PREPAID PENSION ASSET

December 31 (In millions)	<u>1999</u>	<u>1998</u>
Fair value of plan assets	\$ 50,243	\$ 43,447
Add (deduct) unrecognized balances		
Prior service cost	699	850
SFAS No. 87 transition gain	(154)	(308)
Net actuarial gain	(16,850)	(9,462)
Projected benefit obligation	(25,522)	(27,572)
Pension liability	<u>981</u>	<u>797</u>
Prepaid pension asset	<u>\$ 9,397</u>	<u>\$ 7,752</u>

Actuarial assumptions used to determine costs and benefit obligations for principal pension plans follow.

#### ACTUARIAL ASSUMPTIONS

	<u>1999</u>	<u>1998</u>	<u>1997</u>
Discount rate	7.75%	6.75%	7.0%
Compensation increases	5.0	5.0	4.5
Return on assets for the year	9.5	9.5	9.5

Experience gains and losses, as well as the effects of changes in actuarial assumptions and plan provisions, are amortized over the average future service period of employees.

# Strange but True Stories of Executive Compensation

The following is an excerpt from the 1997 Proxy Statement of Walt Disney Co.

*The Company entered into a five-year employment agreement with Michael Ovitz, commencing October 1, 1995, providing that Mr. Ovitz, who was a founder, chairman and majority owner of Creative Artists Agency ("CAA") and a leading entrepreneur in the entertainment industry, would serve as President of the Company for an annual salary of \$1,000,000 and an annual discretionary bonus. Prior to entering into the agreement, the Company negotiated with Mr. Ovitz extensively regarding its terms, with particular emphasis on establishing a total compensation package which would, within the framework of the established policies of the Company, induce Mr. Ovitz to relinquish his significant earning power and the substantial value of his ownership interest in CAA. In those negotiations, the Company declined to pay Mr. Ovitz any signing bonus or to grant him any restricted stock or other form of compensation not dependent solely upon future growth of the Company. Instead, in order to induce Mr. Ovitz to relinquish his ownership position at CAA, the agreement included a number of provisions (described further below) concerning compensation payable to Mr. Ovitz in the event of certain types of early termination of his employment by the Company.*

*Pursuant to the agreement, Mr. Ovitz was granted a stock option on October 16, 1995 to purchase 3,000,000 shares of the Company's common stock at an exercise price of \$57.00, the fair market value of the common stock on the date of grant. The option provided for vesting in increments of 1,000,000 shares on September 30 of each year commencing September 30, 1998. A second stock option was also granted to Mr. Ovitz on the same date and at the same exercise price for the purchase of 2,000,000 shares, vesting in two equal installments on September 30, 2001 and 2002. The option for 3,000,000 shares provided for accelerated vesting if Mr. Ovitz's employment was terminated as a result of his death or disability or by the Company for any reason other than good cause (defined in the employment agreement as "gross negligence or malfeasance" or his resignation without the Company's consent). Such accelerated vesting was also provided for if Mr. Ovitz terminated the employment agreement on the ground that the Company had assigned him duties materially inconsistent with the position of President or failed to continue him in the position of President or to nominate him as a director of the Company. Upon any such termination, the period of exercisability would be extended until the later of September 30, 2002 or 24 months after the date of termination. The second option grant contained no acceleration provision and expired by its terms if Mr. Ovitz was not employed by the Company after September 30, 2000. However, in the event that Mr. Ovitz's employment was not extended beyond September 30, 2000 (or terminated prior thereto by the Company), so that he would not receive the benefit of the second grant of options, the Company agreed to pay Mr. Ovitz a termination payment of \$10,000,000.*

*Further, in the event of termination of employment as referred to above, the agreement provided for an additional payment equal to the present value (calculated as provided in the agreement) of (i) the remaining salary payments under the agreement through September 30, 2000, and (ii) the product of \$7.5 million multiplied by the number of fiscal years of the Company remaining under the agreement.*

*Mr. Ovitz's employment with the Company was terminated as of December 27, 1996, and on that date he resigned from the Board of Directors of the Company. Pursuant to the terms of the employment agreement, Mr. Ovitz's total payment upon such termination amounted to \$38,869,000, and his stock option for 3,000,000 shares vested and became exercisable as provided in the agreement.*

## Employee Stock Options

A stock option is the right to buy a share of stock at a fixed price. For example, assume that the option provides you with the right to buy a share of stock at \$30 per share. If the current price of the stock is \$45 you could buy the share for \$30, sell it for \$45 and receive a \$15 profit.

The accounting for ESOs is now governed by SFAS #123. This standard was issued after a very contentious and controversial process. The central issue was the amount of expense a firm should recognize for distributing the option to the employee. In other words, determining the "value" of the option.

Normally, we would use the fair market value to determine the economic value. But these options are restricted, i.e. they cannot be traded. Hence, there is no market and no market value.

According to APB #25, the value of an option is equal to the difference between the exercise price and the fair market value of the underlying stock on the grant date.

If an option has an exercise price of \$30 per share and the current fair market value of the stock is also \$30, according to APB #25, what is the value of that option? Is that value equal to the “economic” value of the option?

SFAS #123 allows firms to choose whether to follow APB #25, or to determine the cost of the option using an accepted model and allocate that cost over the employee’s service period. If firms follow APB #25, they are required to disclose the pro-forma results from an option valuation model in a footnote.

The following examples relate to 1999 earnings: (\$000s)

	<u>Yahoo</u>	<u>Ebay</u>	<u>Amazon</u>
Reported	61,133	10,828	(719,968)
Pro Forma	(256,023)	(60,190)	(1,031,925)

# How Do You Calculate the Pro-Forma Earnings?

Although other models, such as the binomial model, can be used, the Black-Scholes model is the most common valuation model. In the simplified case where the exercise price is equal to the fair market value of the underlying stock on the date of grant, the model

$$S e^{-\delta T} N(d_1) - S e^{-rT} N(d_2)$$

Where,

$$d_1 = \frac{[r - \delta + .5 \sigma^2]T}{\sqrt{T}}$$

$$d_2 = d_1 - \sqrt{T}$$

$N()$  is the cumulative normal density function.

$\delta$  is the annual dividend yield

$T$  is the time remaining to exercise

$r$  is the risk-free interest rate

$S$  is the strike price = fair market value on date of grant

$\sigma^2$  is the variance of returns (volatility) of the underlying stock.

# Why is the Black-Scholes Model an Imperfect Measure of the Fair Value of an Employee Stock Option?

- **Theoretical Problem:** Because the option holder (employee) cannot sell the option, the only way the employee can convert the option to cash is to exercise the option. Because the desire to convert is based upon individual risk preferences and liquidity needs, it cannot be effectively hedged, and the risk-free interest rate cannot be used.
- **Practical Problem:** The option parameters are difficult to estimate.

## Summary of Main Points:

- A stock option is the right to purchase stock at a future date at a fixed price (exercise price).
- The options are granted to employees in order to provide incentives to increase firm value.
- GAAP states that the value of the options should be charged to expense over the employee's service period.
- According to APB#25, the value is equal to the excess of the fair market value of the underlying stock above the exercise price.
- According to SFAS#123, firms have a choice of following APB#25, or charging the "fair value of options" to expense. If the firm chooses to follow APB#25, then they must report the pro-forma results in a footnote.
- The Black-Scholes Option Pricing Model is generally used to derive the fair value of an option.
- According to the model, the value of the option is a function of the exercise price, fair value of the underlying stock, volatility, dividend yield, risk-free rate and time to maturity.

## Parameter Estimates

The Black-Scholes value is a mathematical formula. For a given set of parameters, it yields a value. Therefore, the value is determined by the estimated parameters. These parameter estimates can vary considerable across firms.

	Volatility	Dividend Yield	RF Rate	Time
General Motors	27.9%	2.3%	4.8%	5.0
Merck	24.0%	1.4%	5.1%	6.7
Gillette	30.4%	1.3%	6.1%	4.7
Intel	38.0%	0.2%	5.2%	6.5
Microsoft	32.0%	0.0%	6.5%	5.0
Kellogg	23.2%	3.0%	4.8%	3.8
Weyerhaeuser	28.2%	2.9%	5.0%	4.5
Nike	34.0%	1.0%	5.5%	5.0

# How Do the Parameter Estimates Affect Value?

Recall that the Black-Scholes Option Pricing Model takes the estimated parameters and translates them into an option's value. Therefore, the reliability (accuracy) of the estimate is determined by the reliability of the parameter estimates.

The two crucial estimates are volatility and time to exercise.

- How are these two estimates related to value? Do increases in the estimates increase, or decrease value?
- Explain why these parameters might be difficult to estimate.

## So What Are the Journal Entries?

Keep in mind that most firms follow APB#25 and do not record any entries until the options are exercised.

However, they need to maintain a separate set of records that allows firms to determine the income statement effect for their footnotes.

- Estimate the fair value of options granted.
- Adjust the estimate for expected forfeitures.
- Allocate the remaining cost over the vesting period.

## Example: P 21-9

On 1/1/97, 1,000 employees were each granted options to acquire 2,000 shares (par value \$5) for a price of \$30 per share. The fair value of each option is \$12. The options vest in four years and management expects a forfeiture rate of 4% per year. A total of 840 employees vested.

Cost Before Forfeitures =  $1,000 \times 2,000 \times \$12 = \$24,000,000$

Cost After Forfeit. =  $\$24,000,000 \times (1 - 0.04)^4 = \$20,384,317.$

Annual Expense =  $\$20,384,317 / 4 = \$5,096,079,$

Entry (12/31/97, 12/31/98, 12/31/99):

Dr. Compensation Expense    \$5,096,079

Cr. Addl. Paid In Capital – Stock Options    \$5,096,079

Note that at 12/31/00, we know that the total number of vested options is  $840 \times 2,000 = 1,680,000$  with an ex-ante value of  $1,680,000 \times \$12 = \$20,160,000$ . The amount of expense recognized to date is  $\$5,096,079 \times 3 = \$15,288,238.$

Therefore, the additional expense that needs to be recorded in 2000 is  $\$20,160,000 - \$15,288,238 = \$4,871,762$ .

Thus, the entry for 12/31/00 is:

Dr. Compensation Expense	\$4,871,762
Cr. APIC – Stock Options	\$4,871,762

Assume that all of the options are exercised on 12/31/01.

Dr Cash (1,680,000 x \$30)	\$50,400,000
Dr. APIC – Stock Options	\$20,160,000
Cr. Common Stock (1,680,000 x \$5)	\$8,400,000
Cr. APIC – Common Stock	\$62,160,000

If the firm chooses to follow APB #25, and assuming that the exercise price is equal to the fair market value of the underlying stock on the date of grant, no entry is recorded until exercise (12/31/01).

Dr. Cash	\$50,400,000
Cr. Common Stock	\$8,400,000
Cr. APIC – Common Stock	\$42,000,000

# Example of Footnote Disclosure

## Intel Corporation's 1999 Annual Report

Stock option plans. Intel has a stock option plan under which officers, key employees and non-employee directors may be granted options to purchase shares of the company's authorized but unissued common stock. The company also has a stock option plan under which stock options may be granted to employees other than officers and directors. The company's Executive Long-Term Stock Option

Plan, under which certain key employees, including officers, have been granted stock options, terminated in September 1998.

Although this termination will not affect options granted prior to this date, no further grants may be made under this plan. Under all of the plans, the option exercise price is equal to the fair market value of Intel common stock at the date of grant. During 1999, Intel also assumed the stock option plans and the outstanding options of certain acquired companies. No additional options will be granted under these assumed plans.

Options granted by Intel currently expire no later than 10 years from the grant date and generally vest within 5 years. Proceeds received by the company from exercises are credited to common stock and capital in excess of par value.

Additional information with respect to stock option plan activity was as follows:

## Outstanding options (Shares in millions)

	Shares Available for options	Number of shares	Weighted average exercise price
-----			
DECEMBER 28, 1996	130.6	337.8	\$ 7.49
Additional shares reserved	260.0	--	--
Grants	(63.0)	63.0	\$36.23
Exercises	--	(47.2)	\$ 3.06
Cancellations	<u>8.8</u>	<u>(8.8)</u>	<u>\$16.38</u>
DECEMBER 27, 1997	336.4	344.8	\$13.12
Grants	(48.0)	48.0	\$38.35
Exercises	--	(63.0)	\$ 4.59
Cancellations	17.3	(17.3)	\$23.64
Lapsed under terminated plans	<u>(38.5)</u>	=	=
DECEMBER 26, 1998	267.2	312.5	\$18.13
Grants	(40.6)	40.6	\$63.91
Options assumed in acquisitions	--	12.8	\$25.74
Exercises	--	(48.0)	\$ 6.64
Cancellations	<u>12.3</u>	<u>(12.3)</u>	<u>\$32.85</u>
DECEMBER 25, 1999	<u>238.9</u>	<u>305.6</u>	<u>\$25.73</u>
Options exercisable at:			
December 27, 1997		115.2	\$ 3.66
December 26, 1998		103.8	\$ 6.11
December 25, 1999		103.2	\$ 9.42

The range of option exercise prices for options outstanding at December 25, 1999 was \$0.15 to \$84.97. The range of exercise prices for options is wide due primarily to the increasing price of the company's stock over the period in which the option grants were awarded, in addition to the impact of assumed options of acquired companies that had experienced even greater price appreciation.

These options will expire if not exercised at specific dates through December 2009. Option exercise prices for options exercised during the three-year period ended December 25, 1999 ranged from \$0.15 to \$61.41.

Pro forma information. The company has elected to follow APB Opinion No. 25, "Accounting for Stock Issued to Employees," in accounting for its employee stock options because, as discussed below, the alternative fair value accounting provided for under SFAS No. 123, "Accounting for Stock-Based Compensation," requires the use of option valuation models that were not developed for use in valuing employee stock options. Under APB No. 25, because the exercise price of the company's employee stock options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized in the company's financial statements. Pro forma information regarding net income and earnings per share is required by SFAS No. 123. This information is required to be determined as if the company had accounted for its employee stock options (including shares issued under the Stock Participation Plan, collectively called "options") granted subsequent to December 31, 1994 under the fair value method of that statement. The fair value of options granted in 1999, 1998 and 1997 reported below has been estimated at the date of grant using a Black-Scholes option pricing model with the following weighted average assumptions:

Employee stock options	<u>1999</u>	<u>1998</u>	<u>1997</u>
-----			
Expected life (in years)	6.5	6.5	6.5
Risk-free interest rate	5.2%	5.3%	6.6%
Volatility	.38	.36	.36
Dividend yield	.2%	.2%	.1%

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the company's options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in the opinion of management, the existing models do not necessarily provide a reliable single measure of the fair value of its options. The weighted average estimated fair value of employee stock options granted during 1999, 1998 and 1997 was \$29.53, \$17.91 and \$17.67 per share, respectively, excluding options assumed through acquired companies.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting periods. The company's pro forma information follows:

<u>(In millions - except per share amounts)</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
Pro forma net income	\$ 6,860	\$ 5,755	\$ 6,735
Pro forma basic earnings per share	\$ 2.06	\$ 1.73	\$ 2.06
Pro forma diluted earnings per share	\$ 1.98	\$ 1.66	\$ 1.88