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1. Ladder Option

If the barrier $L > K$ is reached over the life of the option, a ladder option at expiration pays $\max(0, L - K, S_t - K)$. If the barrier is not reached, the option pays $\max(0, S_t - K)$.

Ladder options are “more path-dependent” than barrier options. Normally, there are several prespecified ladders or rungs in a ladder option. Whenever the underlying asset price reaches a prespecified higher level in a series of prespecified rungs, the intrinsic value of the option is locked. [See also **Barrier Option**]

2. Ladder Strategy

When investing bonds, allocating roughly equivalent amounts (portions) to different maturities.

3. Lagged Reserve Accounting

System of reserve requirements based on deposits outstanding prior to the reserve maintenance period.

4. Lagging Indicators

[See **Business cycle**]

5. Lambda

Another name for *vega*. [See **Vega**]

6. Lattice

A binomial tree in which an up move followed by a down move leads to the same price as a down move followed by an up move. Also called a *recombining* binomial tree.

7. Law of One Price (LOP)

A commodity will cost the same regardless of what currency is used to purchase it. The LOP is also the guiding principle behind the Miller & Modigliani arbitrage argument.

8. LBO

[See **Leveraged buyout**]

9. Leading Economic Indicators

Economic series that tend to rise or fall in advance of the rest of the economy. [See also **Business cycle**]

10. Leakage

Release of information to some persons before official public announcement.

11. LEAPS

Long-term Equity Anticipation Securities. These are relatively long term options on individual stocks or stock indices.

12. Lease

A contractual arrangement to grant the use of specific fixed assets for a specified time in exchange for payment, usually in the form of rent. An operating lease is generally a short-term cancelable arrangement, whereas a financial, or capital, lease is a long-term non-cancelable agreement.

13. Lease Rate

The annualized payment required to borrow an asset, or equivalently, the annualized payment received in exchange for lending an asset.

14. Ledger Balances

Dollar value of deposit balances appearing on a bank's books.

15. Ledger Cash

A firm's cash balance as reported in its financial statements. Also called book cash.

16. Legal Insolvency

Legal insolvency is a more serious financial problem than **technical insolvency**. [See also **Technical insolvency**] Legal insolvency exists when a firm's recorded assets amount to less than its recorded liabilities. This condition arises when successive losses create a deficit in the owners' equity account, rendering it incapable of supporting the firm's legal liabilities. The firm may be legally insolvent even when it is liquid and has plenty of cash to pay its current bills. Outsiders may not be aware of the insolvency as long as the liquidity of the firm enables it to meet its cash obligations. A protracted period of legal insolvency usually leads to bankruptcy.

17. Legal Lending Limit

The maximum amount that can be loaned to any one borrower or any group or related borrowers.

18. Lender Liability

Circumstances in which the courts have found lenders liable to their borrowers for fraud, deception, breached fiduciary activities, broken promises, and good faith negotiations.

19. Lending Portfolio

Investors invest in both market portfolio and risk-free asset. When they invest in risk-free asset, it means that they lend money to somebody else. Therefore, this kind of portfolio is called lending portfolio.

20. Leptokurtosis (Fat Tails)

The property of a statistical distribution to have more occurrences far away from the mean than

would be predicted by a normal distribution. Since a normal distribution has a kurtosis measure of 3, excess kurtosis (K_x) is defined as $K_x > 3$.

A credit portfolio distribution will typically be leptokurtotic given positive obligor correlations or coarse granularity in the size number of exposures. This means that a downside confidence interval will be further away from the mean than would be expected given the standard deviation and skewness. [See also **Kurtosis**]

21. Lessee

One that receives the use of assets under a lease. A long term capital or financial lease obligates the lessee to make a series of fixed payments over time.

22. Lessor

One that conveys the use of assets under a lease. If the lessee fails to make payments as scheduled, the lessor, or the owner, can take possession of the leased asset.

23. Letter of Comment

A communication to the firm from the Securities and Exchange Commission that suggests changes to a registration statement. After the changes are made, the 20-day waiting period starts anew.

24. Letter of Credit

Time drafts increase the risk involved in foreign trade. To minimize this risk, an exporter may require the buyer to obtain a letter of credit (LC) from a specified bank. Sometimes, buyers seek letters of credit themselves to obtain more favorable treatment by exporters. A letter of credit is a guarantee by the buyer's bank to honor the seller's drafts that are drawn on the bank, provided that the drafts comply with the terms specified in the letter of credit and are accompanied by the necessary documents.

A letter of credit affects a trade transaction in the following way. First, the buyer asks the bank to create the letter of credit in favor of the seller. Second, the bank creates the letter of credit and informs its foreign correspondent bank in the seller's country that it has done so. The correspondent bank in the seller's country then notifies the seller about the credit. Next, the seller ships the goods to the buyer and receives a **bill of lading (B/L)** from the shipper. [See also **Bill of lading**] Finally, the buyer sends the bill of lading to the shipper and receives the merchandise in return.

A letter of credit provides three important benefits to an importer:

1. An importer is safer if it deposits required prepayments with its own bank rather than with the seller in a foreign country. If the seller fails to ship the goods, it is relatively easy for the buyer to recover the deposit from its own bank.
2. If no prepayment is required, the buyer still can finance the purchase through its own bank at a relatively low cost.
3. The buyer can bargain for a lower price and better terms from the seller because it has substituted the bank's credit for its own. Since buyers who obtain letters of credit have eliminated most of the risk for the seller, they are justified in asking for lower prices and better terms.

A letter of credit also offers substantial advantages to the exporter. The exporter receives payment immediately after shipping the merchandise if the letter of credit specifies a sight draft. If the letter of credit calls for a time draft, the exporter receives a note from the bank (a **banker's acceptance**) rather than a note from the buyer; this bank note is virtually risk-free. [See also **Banker's acceptance**] Another advantage to a letter of credit comes from a reduction of the seller's risk of foreign exchange rate fluctuations due to the quick payment schedule.

There are three different types of letters of credit. (a) A *financial* letter of credit (also termed as stand-by letter of credit) is used to assure access to funding

without the immediate need for funds and is triggered at the obligor's discretion. (b) A *project* letter of credit is secured by a specific asset or project income. (c) A *trade* letter of credit is typically triggered by a non-credit related (an infrequent) event. Item (c) is the above-mentioned trade LC.

25. Level-Coupon Bond

Bond with a stream of coupon payments that are the same throughout the life the bond. The coupon payments are equal to coupon rate times face value of a bond.

26. Leverage Ratio

Ratio of debt to total capitalization of a firm. [See also **Capital structure ratios**]

27. Leveraged Buyout

A method of business combination is the leveraged buyout (LBO). In a leveraged buyout, the buyers borrow a major proportion of the purchase price, pledging the purchased assets as collateral for the loan. The buyers may be an outside group of investors, another company, or the manager of the firm or division that is being sold. Typically, the leverage arises from the payment of the purchase price to the seller (or alternatively, to a lender) using some of the actual earnings of the acquired firm. Once the assets are purchased, the cash flow from their operations is used to pay the principal and interest of the loan. In some cases, an LBO can be used to take a firm out of public ownership and into private ownership, in a technique called **going private**. Any kind of LBO can create an agency problem between the firm's managers and public shareholders, in that the managers usually have more and better information about the value of the firm than do the shareholders.

The LBO or merger method usually requires the target firm be either cash-rich (generate an abundant cash flow) or sell for less than the separate value of its assets. Additionally, forecasts of future

cash flows for the target firm are necessary to estimate the riskiness of the deal over time.

28. Leveraged Equity

Stock in a firm that relies on financial leverage. Holders of leveraged equity face the benefits and cost of using debt. The required rates of return for a leveraged equity is higher than those of un-leveraged equity. [See **Modigliani and Miller (M&M) proposition II**]

29. Leveraged Lease

In a leveraged lease, the lessor borrows money to purchase the asset and the leases out the asset. It is a tax-oriented leasing arrangement that involves one or more third-party lenders. This type of lease is often used in situations where large capital outlay is necessary for the purchase of assets.

30. Liabilities

Debts of the firm in the form of financial claims on a firm's assets. It can be classified as current liability and long-term liability.

31. Liability Management Theory

A theory that focuses in banks issuing liabilities to meet liquidity needs. Liquidity and liability management are closely related. One aspect of liquidity risk control is the buildup of a prudential level of liquid assets. Another aspect is the management of the Deposit institution's (DI) liability structure to reduce the need for large amounts of liquid assets to meet liability withdrawals. However, excessive use of purchased funds in the liability structure can result in a liquidity crisis if investors lose confidence in the DI and refuse to roll over such funds.

32. Liability Sensitive

A bank is classified as liability sensitive if its GAP is negative.

33. LIBID

London Interbank Bid Rate. The rate bid by banks on Eurocurrency deposits (i.e., the rate at which a bank is willing to lend to other banks).

34. LIBOR

London Interbank Offer Rate. A measure of the borrowing rate for large international banks. The British Banker's Association determines LIBOR daily for different currencies by surveying at least eight banks, asking at what rate they could borrow, dropping the top and bottom quartiles of the responses, and computing an arithmetic average of the remaining quotes. Since LIBOR is an average, there may be no actual transactions at that rate. Confusingly, LIBOR is also sometimes referred to as a lending rate. This is because a bank serving as a market maker in the interbank market will offer to lend money at a high interest rate (LIBOR) and borrow money at a low interest rate (LIBID). (The difference between LIBOR and LIBID is the bid-ask spread in the interbank market.) A bank needing to borrow will thus pay LIBOR, and a bank with excess funds will receive LIBID. [See also **LIBID**]

35. LIBOR Curve

LIBOR zero-coupon interest rates as a function of maturity.

36. LIBOR-in-Arrears Swap

Swap where the interest paid on a date is determined by the interest rate observed on that date (not by the interest rate observed on the previous payment date).

37. Lien

Legal right granted by court to attach property until a legal claim is paid.

38. LIFO

The last-in first-out accounting method of valuing inventories. In inflation period, the cost of inventory is higher than that calculated by the first-in-first-out method.

39. Limit Move

The maximum price move permitted by the exchange in a single trading session. There are both upper and lower limit.

40. Limit Order

An order that can be executed only at a specified price or one more favorable to the investor.

41. Limited Branching

Provisions that restrict branching to a geographic area smaller than an entire state.

42. Limited Liability

The fact that shareholders have no personal liability to the creditors of the corporation in the event of bankruptcy.

43. Limited Liability Company

A limited liability company (LLC) is one of two special forms of corporate organizations in the US that allow dividends to escape double taxation. A limited liability company (LLC) organization form has been authorized by the laws of more than 35 states as of the end of 2005. Similar to a **Subchapter S corporation**, it offers owners limited liability and its income is taxed only once as personal income of the shareholder. [See also **Subchapter S corporation**] Unlike a Subchapter S corporation, however, an LLC can have an unlimited number of shareholders, including other corporations. The LLC can sell shares without completing the costly and time-consuming process

of registering them with the SEC, which is a requirement for standard corporations that sell their securities to the public. The LLC structure has drawbacks in that, should an owner leave, all others must formally agree to continue the firm. Also, all of the LLC's owners must take active roles in managing the company. To protect partners from unlimited liability, some partnerships, including large accounting firms such as Price-waterhouseCoopers, have changed their organizational forms to LLC.

44. Limited Partnership

Form of business organization that permits the liability of some partners to be limited by the amount of cash contributed to the partnership. [See also **General partnership**]

45. Limited-Liability Instrument

A security, such as a call option, in which all the holder can lose is the initial amount put into it.

46. Line of Credit

A line of credit is an agreement that specifies the maximum amount of unsecured credit the bank will extend to the firm at any time during the life of the agreement. In the past, banks gave lines of credit only to larger, more secure companies. This, too, appears to be changing, however, and some commercial banks now provide lines of credit to small, newly formed companies in which they see good growth potential.

In granting a line of credit, a bank is saying, in effect, "It looks as though your position is sufficiently sound to justify a loan, but when the time comes for you to start borrowing, we shall probably want to talk to you again to make sure that everything is going as expected." For example, a company that expects a rapid increase in sales may arrange a line of credit to finance increases in inventory and receivables. Before allowing the

company to begin drawing on the line, however, the bank will want to verify that sales actually have increased. If the company has suffered a drop in sales, the bank is unlikely to allow it to use the line of credit to get out of the resulting financial crisis.

Of course, a line of credit has a cost to the borrower. When the loan actually is used, the borrower must pay interest on the funds borrowed. Even before actually accepting any funds, however, the borrower will probably incur a cost. Most banks require borrowers to keep a specified minimum compensating balance in exchange for being granted a line of credit. The compensating balance essentially compensates the bank for the service it provides. Instead of charging a fee for an additional interest rate, however, the bank obliges the borrower to keep an agree-upon sum in its demand deposit account at all times. Since banks pay no interest on commercial demand deposits, they may then invest the compensating balance in marketable securities or lend them to another borrower; any return the bank earns on these funds is clear profit. In practice, the use of compensating balances has been dwindling. This is especially true for larger firms, which would rather pay fees than hold compensating balances.

47. Linear Programming Approach to Portfolio Analysis

Sharpe (1967) developed a simplified portfolio-analysis model designed to be formulated as a linear-programming (LP) problem. Sharpe approaches the problem of capturing the essence of mean-variance portfolio selection in a linear-programming formulation by:

1. making a diagonal transformation of the variables that will convert the problem into a diagonal form, and
2. using a piecewise linear approximation for each of the terms of variance.

The LP that results from the use of market responsiveness as the risk measure and the imposition of an upper on investment in each security is:

$$MAX P = \lambda \left[\sum_{i=1}^n x_i E(R_i) \right] - (1 - \lambda) \left[\sum_{i=1}^n x_i \beta_i \right],$$

subject to

$$\sum_{i=1}^n x_i = 1 \quad (0 \leq x_i \leq U),$$

where x_i = the fraction of the portfolio invested in security i ; $E(R_i)$ = the expected returns on security i ; β_i = the beta coefficient of security i ; U = the maximum fraction of the portfolio that may be held in any one security; and λ = a parameter reflecting the degree of risk aversion.

48. Linear-Optimization Model

A linear-optimization model is a method of maximizing or minimizing an objective function that is subject to a number of linear constraints. The general form of the problem can be written as:

$$Max (\alpha_1 x_1 + \alpha_2 x_2),$$

subject to

$$\begin{aligned} -x_1 + 4x_2 &\geq 0, \\ x_1 + x_2 &= 1, \\ x_1, x_2 &\geq 0, \end{aligned}$$

where α_1, α_2 are the percentages of a portfolio invested in securities 1 and 2, respectively; x_1 and x_2 are average rates of return for securities 1 and 2, respectively.

The problem is to maximize the return on the portfolio. As shown by the objective function, with the restriction stated above, the investment in security 2 should be at least 20 percent ($-x_1 + 4x_2 \geq 0$); and, as stated in ($x_1 + x_2 = 1$), the funds of the portfolio should be 100 percent invested. Further, the nonnegative conditions ($x_1, x_2 \geq 0$) preclude the short selling of either security 1 or 2.

49. Lintner's Model

Lintner's model, sometimes referred to as the *partial-adjustment model*, assumes that firms adjust

their dividend payouts slowly over time and provides another explanation for a firm's dividend policy. In Lintner's model, a firm is assumed to have a desired level of dividends that is based on its expected earnings. When earnings vary, the firm will adjust its dividend payment to reflect the new level of earnings. However, rather than doing so immediately, a firm will choose to spread (or partially adjust) these variations in earnings over a number of time periods

Lintner (1956) was the first to investigate the partial-adjustment model of dividend behavior. Using this model, Lintner demonstrated how dividend policy decisions can be made by using the following three steps:

Step 1: Compare last period's dividend with the desired level of dividends and adjust the deviation accordingly the next period.

Step 2: Assume the desirable dividend level is $D_t^* = PT_t$, where P is the long-run payout ratio for dividends and E_t is the earnings level for that period.

Step 3: Combining steps 1 and 2, we obtain a dividend decision model:

$$D_t = D_{t-1} + \delta(D_t^* - D_{t-1}) \quad (\text{A})$$

or,

$$D_t = D_{t-1} + (PE_t - D_{t-1}). \quad (\text{B})$$

To solve for the variable δ , the partial adjustment coefficient, we use a regression model:

$$D_t = b_0 + b_1E_t + b_2D_{t-1} + e_t, \quad (\text{C})$$

where $b_1 = P\delta$, and $b_2 = (1 - \delta)$. From the estimated b_1 and b_2 , we can estimate δ and P as:

$$\delta = 1 - \hat{b}_2 \quad (\text{D})$$

$$P = \hat{b}_1 / (1 - \hat{b}_2). \quad (\text{E})$$

Here we use the desired dividend payment, D_t , as a function of earnings, whereas with ratio analysis the desired ratio is a function of the industry average.

From this model, we can conclude that firms set their dividend in accordance with their level of

current earnings. We can also conclude that changes in dividends over time do not correspond exactly with changes in earnings in the immediate time period, but rather are spread out over several time periods.

Another explanation for the δ coefficient is that it is the average speed of adjustment. We can interpret the quantity $(1 - \delta)$ as a safety factor that management uses to avoid increasing the dividend payment to levels that cannot be maintained.

Equation (C) shows the changes in dividend levels between periods rather than the absolute levels themselves. This allows us to investigate changes in the firm's dividend policy. Of the 28 firms Lintner studied, 26 appeared to have and follow a predetermined target payout ratio, P . On the whole, most of these firms updated their dividend policies annually.

50. Lintner's Observations

Lintner's (1956) work suggested the dividend policy is related to a target level of dividends and the speed of adjustment of change in dividends. [See also **Lintner's model**]

51. Liquid Yield Option Note

First issued in 1985 after its development by Merrill Lynch, a LYON is a Liquid Yield Option Note. In less fancy terms, LYONs are zero coupon, convertible, callable, puttable bonds.

They work this way: prior to maturity, an investor can convert the LYON into a specified number of common shares. As the value of the zero coupon bond approaches par over time, the conversion price increases according to a schedule set in the indenture. On designated dates prior to maturity, an investor can put the bond to the issuer and receive specific prices that increase as the value of the zero coupon bond approaches par over time. Finally, the issuer can call the bonds and pay investors an indenture-specified price that rises over time as the bond value accrues to par.

52. Liquidating Dividend

Payment by a firm to its owners from capital rather than from earnings.

53. Liquidation

Bankruptcy law favors reorganization through **Chapter 11**, but if the firm cannot be preserved as a going concern, the law requires liquidation. [See also **Chapter 11**] Liquidation involves selling the firm's assets and distributing the proceeds to the creditors in order of the priority of their claims. Chapter 7 of the Bankruptcy Reform Act of 1978 deals with "straight" liquidation.

In determining whether or not to liquidate a firm, the law asks: Is the firm worth more dead or alive? In other words, is the net present value of the liquidate parts of an enterprise greater than the present value of the firm as a going concern? If the answer is *yes*, the firm's assets are sold and the creditors are paid off. If the answer is *no*, then Chapter 11 proceeding usually are followed.

Once the liquidation of assets has begun, it usually becomes painfully clear that few, if any, assets except cash bring the balance sheet values. Indeed, a significant reduction in asset values is to be expected. Because of this, not all claims on these assets will be satisfied in full; no liquidation generates enough cash to cover all claims.

In this even, available cash must be allocated to the various claims according to a rule called the **absolute priority of claims**. [See also **Absolute priority of claims**]

54. Liquidation Value

Net amount that could be realized by selling the assets of a firm after paying the debt.

55. Liquidity

Refers to the ease and quickness of converting assets to cash. Also called marketability. Current

assets have higher liquidity than fixed assets. There are two separate meanings:

- (a) At the enterprise level, the ability to meet current liabilities as they fall due; often measures as the ratio of current assets to current liabilities.
- (b) At the security level, the ability to trade in volume without directly moving the market price; often measured as bid-ask spread and daily turnover.

56. Liquidity Preference Hypothesis

The liquidity preference hypothesis argues that long-term rates typically are higher than short-term rates because longer term securities are inherently riskier than shorter term securities; thus, long-term interest rates should incorporate a risk premium over and above the rates predicted by the expectations hypothesis.

Long-term bonds appear to be riskier than short-term bonds for several reasons. First, long-term bonds have greater interest rate risk; their prices change by larger percentages than short-term bond prices for the same change in market interest rates. Second, long-term bonds expose investors to more uncertainty about future inflation and interest rates.

Combining this risk premium perspective with the expectations hypothesis explains the term structure behavior better than the expectations hypothesis alone. [See also **Expectations hypothesis**] The term structure typically should slope upward, presumably due to the liquidity preference-risk premium effect. The term structure may become downward sloping, however, with long-term rates below short-term rates, if substantial declines in future rates are expected.

57. Liquidity Preference Theory

A theory leading to the conclusion that forward interest rates are above expected future spot interest rates.

58. Liquidity Premium

The premium included in longer-term interest rates to compensate investors for price risk associated with volatile interest rates. This premium is due to the belief that most investors find long-term securities to be riskier than short-term securities. This hypothesis is called as liquidity premium hypotheses.

59. Liquidity Ratios

Liquidity ratios measure the ability of a firm to meet its maturing financial obligations and recurring operating expenses. In general, these are short-term obligations, normally due within one year. Several ratios provide evidence of liquidity.

The **current ratio** is defined as current assets (cash, marketable securities, accounts receivable, inventories, and prepaid expenses) divided by current liabilities (typically, accounts payable and short-term bank loans).

Some current assets, such as inventories and prepaid expenses, may not be very liquid. To assess liquidity without these questionable items, another liquidity measure called the **quick**, or **acid-test, ratio** may be used. [See also **Quick (acid-test) ratio**] The numerator of the quick ratio includes only cash, short-term marketable securities, and accounts receivable. The quick ratio is computed as current assets minus inventories and prepaid expenses divided by current liabilities. These two ratios are written as:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}},$$

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}.$$

Higher values for the liquidity ratios do not always imply greater liquidity and safety for short-term creditors. The current ratio would increase from one year to the next if the firm undertook an inventory buildup in anticipation of consumer demand that never occurred. The quick ratio helps to control for this distortion.

Still, an increase in accounts receivable could result from either a poor credit check system or slow customer payment on accounts; either scenario could deceive analysts into representing the firm as more liquid than it really was.

A firm is liquid if it has the ability to raise sufficient funds quickly. The statement of cash flows can provide additional insight into the financial flexibility of a company and supplement liquidity ratio analysis.

60. Liquidity Risk

The variation in net income and market value of bank equity caused by a bank's difficulty in obtaining immediately available funds, either by borrowing or selling assets. It also refers the risk that a sudden surge in liability withdrawals may leave a financial institution in a position of having to liquidate assets in a very short period of time and at low prices.

61. Load Fund

A mutual fund with a sales commission, or load.

62. Loan Amortization

Individuals often borrow funds through amortized loans, including car loans and home mortgages. Under loan amortization, a loan is repaid by making equal or annuity payments over time. Each payment pays interest and repays some of the principal. The present value interest factor for annuities (PVIFA), which determine annuity payments, aid the analysis of amortized loans.

Interest is a tax-deductible expense for home mortgages and business loans. For tax purposes, it is important to determine how much of each loan payment covers interest and how much constitutes return of principal. A tool to assist this process is a loan amortization schedule, which offers a year-by-year (or period-by-period) summary of the be-

ginning loan balance, the annuity payment, the interest paid, the principal repaid, and the ending balance. The interest paid always equals the beginning periodic balance multiplied by the periodic interest rate. The principal repaid is always the difference between the total payment and the interest paid. The ending balance represents the outstanding principal; it is computed by subtracting the principal repaid from the beginning balance of the period.

63. Loan Commitment

Formal agreement between a bank and borrower to provide a fixed amount of credit for a specified period.

64. Loan Exposure

The face amount of any loan outstanding plus accrued interest plus. [See also **Dirty price**]

65. Loan Participation

Credit extended to a borrower in which members of a group of lenders, each provide a fraction of the total financing; typically arises because individual banks are limited in the amount of credit they can extend to a single customer.

66. Loan Syndication

An arrangement where several lenders make a loan jointly to a borrower.

67. Loan-to-Value Ratio

The loan amount divided by the appraised value of the underlying collateral.

68. Locals

Individuals on the floor of an exchange who trade for their own count rather than for someone else.

69. Location Risk

This is one of the components of the basis risk. The hedger requires delivery of the futures contract in location Y, but the only futures contracts available are for delivery in location X. Hence, the hedger cannot form a perfect hedge because of the transportation costs from X to Y; this may cause the basis to change.

70. Lockbox System

The primary distinguishing feature of a lockbox system is that the firm pays the local bank to take on the administrative chores. Instead of customers mailing their payments to one of the company's offices, they send all payments directly to a post-office box. One or more times a day, the bank collects the checks from the box and deposits them for collection. Among the advantages of a lockbox arrangement is the potential reduction in mail float and a significant reduction in processing float. In some more sophisticated arrangements, banks capture daily invoice data on magnetic tape and forward this data to the company's central office, thereby reducing the burden on the firm's accounts receivable staff.

71. Lock-in Options

A lock-in option is an option that allows its holder to settle the option payoff at a time before the contracted option maturity, but transactions take place only at the expiration date. There are European lock-in options and American lock-in options. Whereas the lock-in time is prespecified in a European lock-in option, it is not contracted *ex ante* but can be chosen by the option holder at any time until the payment date in an American lock-in option.

While European lock-in options are less costly than vanilla options because of smaller time values and delayed payment of option payoffs, American lock-in options permit an investor to fix the option payoff at a more favorable time than merely waiting until the option expires.

72. Lock-up Provisions

IPOs usually contain lock-up provisions that forbid investors (such as corporate officers and directors, or investors such as venture capitalists who own large amounts of the newly public firms' shares) from selling their shares until a certain time after the IPO. By law, insiders must retain their shares for 90 days after the IPO, although some prospectuses required them to hold the shares even longer. The main reason for the lock-up provision is to prevent insiders from selling what may turn out to be overpriced stock immediately after the offering. Insiders can sell their shares as part of the IPO, but this information must be disclosed in the prospectus. Such selling typically is discouraged by the investment bank, however, as insider selling at the IPO sends a bad signal to the market about the insiders' optimism for the firm's future.

73. Lognormal Distribution

A variable has a lognormal distribution when the logarithm of the variable has a normal distribution.

74. London Interbank Offered Rate (LIBOR)

Rate the most creditworthy banks charge one another for large loans of Eurodollars overnight in the London market.

75 Long

A position is long with respect to a price if the position profits from an increase in that price. An owner of a stock profits from an increase in the stock price and, hence, is long the stock. An owner of an option profits from an increase in volatility and, hence, is long volatility.

76. Long Forward

The party to a forward contract who has an obligation to buy the underlying asset.

77. Long Hedge

Protecting the future cost of a purchase by purchasing a futures contract to protect against changes in the price of an asset.

78. Long Position

The purchase of futures contract in anticipation of taking eventual delivery of the commodity (or financial instrument) or an expected increase in the underlying asset's price.

79. Long Run

A period of time in which all costs are variable. It is an economics concept instead of an accounting concept.

80. Long Straddle

A straddle is a simultaneous position in both a call and a put on the same underlying asset. A long straddle involves purchasing both the call and the put. By combining these two seemingly opposing options an investor can get the best risk-return combination that each offers. For a long straddle position. The profit potential is unlimited on upside, limited on downside. The loss potential is limited to the cost of call and put premiums. The effect of time decay is negative. The market sentiment is bullish or bearish. Thus a long straddle is an effective strategy for someone expecting the volatility of the underlying asset to increase in the future.

81. Long Vertical Spread

A spread is a combination of any two or more of the same type of options (two calls or two puts, for instance) on same underlying asset. A vertical spread specifies that the options have the same maturity month. Finally, a long vertical spread designates a position for which one has bought a low-exercise-price call (or a low-exercise put) that

both mature in the same month. A long vertical spread is also known as a bull spread because of the bullish market expectation of the investor who enters into it. The investor limits the profit potential in selling the high-exercise-price call (or put). It is a popular position when it is expected that the market will more likely go up than down. The profit potential is limited up to the higher exercise price. The loss potential is limited down to the lower exercise price. The effect of time decay is mixed. And the market expectation is cautiously bullish.

82. Long-Term Debt

An obligation having a maturity of more than one year from the date it was issued. Also called funded debt.

83. Long-Term Securities

Securities with maturities in excess of one year.

84. Lookback Call

[See **Lookback option**]

85. Lookback Option

An option that, at maturity, pays off based on the maximum (\bar{S}_T) or minimum (\underline{S}_T) stock price over the life of the option. A lookback call has the payoff $S_t - \underline{S}_T$, and a lookback put has the payoff $\bar{S}_T - S_t$, where S_t is the sales price of the stock at time t .

86. Lookback Put

[See **Lookback option**]

87. Loss Given Default (LGD)

The loss severity of individual loan. It should take into account any collateral or guarantees. Both LGD and the probability of default (PD) are needed for a two-dimensional internal rating system.

88. Loss Reserve

Both life and property and liability insure estimate expected future claims on the existing policies. These estimates are called loss reserve.

89. Low Discrepancy Sequence

[See **Quasi-random sequence**]

90. Lower-of-Cost-or-Market Value Method

One of the two methods used to report an investment in another company. This method is used if no evidence of significant control exists. These securities are handled in the same way as marketable security. [See also **Equity method**]

91. Low-Grade Bond

Junk bond.