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## 1. Obligor

A party who is in debt to another. It can be either (i) a loan borrower, (ii) a bond issuer, (iii) a trader who has not yet settled, (iv) a trade partner with accounts payable, or (v) a contractor with unfinished performance, etc. [See also **Counterparty**]

## 2. OCC

Options Clearing Corporation. [See also **Clearing-house**]

## 3. Odd Lot

Stock trading unit of less than 100 shares.

## 4. Odd-lot Theory

The odd-lot theory is one of several theories of contrary opinion. In essence, the theory assumes that the common man is usually wrong and that it is, therefore, advantageous to pursue strategies opposite to his thinking. In order to find out what the common man is doing, statistics on odd-lot trading are gathered. Most odd-lot purchases are made by amateur investors with limited resources – that is, by the common man, who is the small, unsophisticated investor.

## 5. Off-Balance Sheet Activities

Commitments, such as loan guarantees, that do not appear on a bank's balance sheet but represent actual contractual obligations. For example, the issuance of standby letter of credit guarantee is also an off-balance-sheet activity.

## 6. Off-Balance Sheet Financing

Financing that is not shown as a liability on a company's balance sheet. In leasing, lessees needed only to report information on leasing activities in the footnotes of their financial statements. Thus, leasing led to off-balance-sheet financing.

## 7. Off-Balance Sheet Risk

The risk incurred by a financial institution due to activities related to contingent assets and liabilities.

## 8. Offer Price

The price that a dealer is offering to sell an asset. It is an ask price.

## 9. Off-Market Swap

Swaps that have non-standard terms that require one party to compensate another. Relaxing a standardized swap can include special interest rate terms and indexes as well as allowing for varying notional values underlying the swap.

## 10. One Bank Holding Company

A holding company that owns or controls only one commercial bank.

## 11. One-Factor APT

A special case of the arbitrage pricing theory (APT) that is derived from the one-factor model by using diversification and arbitrage. It shows the expected return on any risky asset is a linear function of a single factor. The CAPM can be expressed as one-factor APT in which a single factor is the market portfolio.

## 12. On-the-Run Issue

The most recently issued US Treasury security. It is considered to be the actively traded issue.

**13. Open (Good-Till-Canceled) Order**

A buy or sell order remaining in force for up to six months unless canceled.

**14. Open Account**

A credit account for which the only formal instrument of credit is the invoice.

**15. Open Contracts**

Contracts that have been bought or sold without the transactions having been completed by subsequent sale or purchase, or by making or taking actual delivery of the financial instrument or physical commodity. Measured by “open interest,” as reported in the press.

**16. Open Interest**

The quantity of a derivatives contract that is outstanding at a point in time. (One long and one short position count as one unit outstanding.)

**17. Open Market Operation**

Open market operations are the Fed’s most frequently used monetary policy tool. The Fed buys and sells securities (usually Treasury bills) with other market participants. When it purchases government securities in the open market, the Fed trades dollars for securities. The seller deposits these dollars in a bank, thereby increasing the bank’s reserves from which it can make loans. Through a multiplier process, the open market purchase boosts deposits in the US banking system and the money supply rises. An open market sale of securities by the Fed has the opposite effect, reducing the level of loanable funds in the banking system, and therefore the money supply.

**18. Open Market Repurchase**

A firm can reacquire its stock through an open market repurchase. Acting through a broker,

the corporation purchases shares in the secondary market just like any other investor. A corporation usually announces its intention to engage in an open market repurchase in advance, although the exact amount of shares repurchased and the actual days of the transactions are not known.

**19. Open Outcry**

A system of trading in which buyers and sellers in one physical location convey offers to buy and sell by gesturing and shouting.

**20. Open-End (mutual) Fund**

A fund that issues or redeems its own shares at their net asset value (NAV). This kind of fund provides opportunities for small investors to invest in financial securities and diversify risk.

**21. Operating Activities**

Sequence of events and decisions that create the firm’s cash inflows and cash outflows. These activities include buying and paying for raw materials, manufacturing and selling a product, and collecting cash.

**22. Operating Cash Flow**

Earnings before interest and depreciation minus taxes. It measures the cash generated from operations not counting capital spending or working capital requirements.

**23. Operating Cycle**

When a firm is functioning efficiently, its operating cycle moves through four stages: (1) converting cash to inventory, (2) converting inventory to sales, (3) converting sales to accounts receivable, and (4) converting accounts receivable to cash.

This operating cycle can be very simple or quite complex. A cash flow timeline can depict the most complex as well as the simplest situation.

Two financial ratios, the receivable collection period and the inventory conversion period, help the manager to quantify the operating cycle. The average days of accounts receivable is defined as accounts receivable divided by sales per day as:

$$\text{Receivable collection period} = \frac{\text{Accounts receivable}}{\text{Sales}/365 \text{ days}}.$$

The inventory conversion period is defined as inventory divided by cost of goods sold per day as:

$$\begin{aligned} \text{Inventory conversion period} \\ = \frac{\text{Inventory}}{\text{Cost of goods sold}/365 \text{ days}}. \end{aligned}$$

Adding these two ratios together gives us the length of a firm's operating cycle:

$$\begin{aligned} \text{Operating cycle} &= \text{Receivables collection period} \\ &+ \text{Inventory conversion period.} \end{aligned}$$

The operating cycle measures conversion of current assets to cash. [See also **Cash conversion cycle**]

## 24. Operating Income

Sum of interest income and non-interest income for a financial institution. For a non-financial institution, it represents the net sale minus cost of good sold.

## 25. Operating Lease

An operating lease is a shorter-term lease than for instance, a leveraged lease or a sale and lease-back agreement, which may be cancelled at the lessee's option. An operating lease does not satisfy any of the four financial lease criteria. [See also **Capital lease**]The lessor typically must maintain and service the asset. Computers, photocopiers, and trucks often are acquired under the terms of an operating lease.

## 26. Operating Leverage

A firm's business risk is affected by its level of fixed costs, or in financial terminology, its operating leverage. Operating leverage magnifies the effect of changing sales to produce a percentage change in EBIT larger than the change in sales, assuming constant profit margins. It is a business risk measure. [See also **Degree of operating leverage**]

## 27. Opportunity Cost

From economics, we know than an opportunity cost is the cost of passing up the next best alternative. For example, the opportunity cost of a building is its market value. By deciding to continue to own it, the firm is foregoing the cash it could receive from selling it. Economics teaches the TIN-STAAFL principle: "There is no such thing as a free lunch." Capital budgeting analysis frequently applies this principle to existing assets.

If a firm is thinking about placing a new manufacturing plant in a building it already owns, the firm cannot assume that the building is free and assign it to the project at zero cost. The project's cash flow estimates should include the market value of the building as a cost of investing since this represents cash flows the firm will not receive from selling the building.

## 28. Opportunity Set

The possible expected returnstandard deviation pairs of all portfolios that can be constructed from a set of assets. Also called a feasible set.

## 29. Optimal Cash Balance

Based upon Baumol's economic order quantity (EOQ) model the total cost of cash balances can be defined as:

$$\begin{aligned} \text{Total costs} &= \text{Holding costs} + \text{Transaction costs} \\ &= \frac{C}{2}r + \frac{T}{C}F, \end{aligned}$$

where  $C$  = amount of cash raised by selling marketable securities or borrowing;  $\frac{C}{2}$  = average cash balance;  $r$  = opportunity cost of holding cash (the foregone rate of return on marketable securities);  $T$  = total amount of new cash needed for transaction over entire period (usually one year);  $\frac{T}{C}$  = number of transactions;  $F$  = fixed cost of making a securities trade or borrowing money.

The minimum total costs are obtained when  $C$  is set equal to  $C^*$ , the optimal cash balance.  $C^*$  is defined as:

$$C^* = \sqrt{\frac{2FT}{r}},$$

where  $C^*$  = optimal amount of cash to be raised by selling marketable securities or by borrowing. [See also **Baumal's economic order quantity model**]

### 30. Optimal Risky Portfolio

An investor's best combination of risky assets to be mixed with safe assets to form the complete portfolio. [See also **Appendix F**]

### 31. Option

A right – but not an obligation – to buy or sell underlying assets at a fixed price during a specified time period.

### 32. Option Class

All options of the same type (call or put) on a particular stock.

### 33. Option Elasticity

The percentage increase in an option's value given a 1 percent change in the value of the underlying security.

### 34. Option Overwriting

Selling a call option against a long position in the underlying asset.

### 35. Option Premium

The price of an option. [See also **Option pricing equation**]

### 36. Option Pricing Equation

An exact formula for the price of a call option. The formula requires five variables: the risk-free interest rate, the variance of the underlying stock, the exercise price, the price of the underlying stock and the time to expiration.

$$C = SN(d_1) - Xe^{-rt}N(d_2),$$

$$\text{where } d_1 = \frac{\ln(S/X) + (r + \sigma^2/2)T}{\sigma\sqrt{T}},$$

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

$C$  = current call option value;  $S$  = current stock price;  $N(d)$  = the probability that a random draw from a standard normal distribution will be less than  $d$ , in other words, it equals the area under the normal curve up to  $d$ ;  $X$  = exercise price;  $e = 2.71828$ , the base of the natural log function;  $r$  = risk-free interest rate;  $\ln$  = natural logarithm function;  $\sigma$  = standard deviation of the annualized continuously compounded rate of return of the stock.

Like all models, the Black-Scholes formula is based on some important underlying assumptions:

1. The stock will pay no dividends until after the option expiration date.
2. Both the interest rate,  $r$ , and variance rate,  $\sigma^2$ , of the stock are constant.
3. Stock prices are continuous, meaning that sudden extreme jumps such as those in the aftermath of an announcement of a takeover attempt are ruled out.

### 37. Option Series

All options of a certain class with the same strike price and expiration date.

### 38. Option Theoretic

An approach to estimating the expected default frequency of a particular firm. It applies Robert Merton's model-of-the-firm which states that debt can be valued as a put option of the underlying asset value of the firm. [See also *Credit Monitor Overview*, KMV Corporation, 1993, San Francisco]

### 39. Option Writer

The party with a short position in the option.

### 40. Option-Adjusted Spread (OAS)

A procedure for valuing prepayment risk associated with mortgage-backed securities that recognize the magnitude and timing of prepayments and required return to an investor. This kind of model uses option pricing theory to figure the fair yield on pass-throughs and, in particular, the fair yield spread of pass-throughs over treasuries. These so-called option-adjusted spread (OAS) models focus on the prepayment risk of pass-throughs as the essential determinant of the required yield spread of pass-through bonds over treasuries.

Stripped to its basics, the option model views the fair price on a pass-through such as a GNMA (Ginnie) bond as being decomposable into two parts;

$$P_{\text{GNMA}} = P_{\text{TBOND}} - P_{\text{PREPAYMENT\_OPTION}}$$

That is, the value on a GNMA bond to an investor ( $P_{\text{GNMA}}$ ) is equal to the value of a standard noncallable Treasury bond of the same duration ( $P_{\text{TBOND}}$ ) minus the value of the mortgage holder's prepayment call option ( $P_{\text{PREPAYMENT\_OPTION}}$ ). Specifically, the ability of the mortgage holder to prepay is equivalent to the bond investor writing a call option on the bond and the mortgagee owning or buying the option. If interest rates fall, the option becomes more valuable as it moves into the money and more mortgages are prepaid early by having the

bond called or the prepayment option exercised. This relationship can also be thought of in the yield dimension:

$$Y_{\text{GNMA}} = Y_{\text{TBOND}} + Y_{\text{OPTION}}$$

The investors' required yield on a GNMA ( $Y_{\text{GNMA}}$ ) should equal the yield on a similar duration T-bond ( $Y_{\text{TBOND}}$ ) plus an additional yield for writing the valuable call option ( $Y_{\text{OPTION}}$ ). That is, the fair yield spread or *option-adjusted spread (OAS)* between GNMA's and T-bond should reflect the value of this option.

### 41. Order Book Official

[See **Board broker**]

### 42. Order Statistics

The  $n$  draws of a random variable sorted in ascending order. They are nonparametric statistics.

### 43. Ordinal Utility

An ordinal utility implies that a consumer needs not be able to assign numbers that represent (in arbitrary unit) the degree or amount of utility associated with commodity or combination of commodity. The consumer can only rank and order the amount or degree of utility associated with commodity. [See also **Cardinal utility**]

### 44. Organized Exchanges

The organized exchanges have physical locations where brokers act as agents; they help their client buy and sell securities by matching orders. The New York Stock Exchange (NYSE) is the largest organized exchange in the US.

### 45. Original-Issue-Discount-Bond

A bond issued with a discount from par value. Also called a deep-discount or pure discount bond.

**46. Origination Fee**

Fee charged by a lender for accepting the initial loan application and processing the loan.

**47. Originator**

The financial institution that extends credit on a facility which may later be held by another institution through, for instance, a loan sale. Originator can change origination fee. [See also **Facility**]

**48. Out of The Money**

The owner of a put or call is not obligated to carry out the specified transaction, but has the *option* of doing so. If the transaction is carried out, it is said to have been *exercised*. If the call option is *out of the money* – that is, the stock is trading at a price below the exercise price – you certainly would not want to exercise the option, as it would be cheaper to purchase stock directly.

**49. Out Performance Option**

An option in which the payoff is determined by the extent to which one asset price is greater than another asset price, called the benchmark. It is also called exchange option. [See also **Exchange option**]

**50. Out-of-the-Money Option**

Either (a) a call option where the asset price is less than the strike price or (b) a put option where the asset price is greater than the strike price.

**51. Outsourcing**

Buying services from third-party vendor. For example, some banks might outsource their data processing.

**52. Overdraft**

Depositor writing a check for an amount greater than the deposit balance.

**53. Overhead**

Expenses that generally do not vary with the level of output.

**54. Oversubscribed Issue**

Investors are not able to buy all the shares they want, so underwriters must allocate the shares among investors. This occurs when a new issue is under priced.

**55. Oversubscription Privilege**

Allows shareholders to purchase unsubscribed shares in a rights offering at the subscription price. This kind of privilege makes it unlikely that the corporate issuer would need to turn to its underwriter for help.

**56. Over-the-Counter Market**

The over-the-counter (OTC) market is a telecommunications network of dealers who provide liquidity to investors by their willingness to “make markets” in particular securities. When an investor wants to purchase a security, a dealer firm will sell it (at a price equal to the “ask” price) from its own inventory of securities; if an investor wants to sell, the dealer will purchase the security (at the “bid” price) and hold it in inventory. A source of dealer profit is the spread, or difference between the bid and ask price.