# H

## 1. Haircut

The collateral, over and above the market value of the security, required by the lender when a security is borrowed.

## 2. Hazard Rate

Measures probability of default in a short period of time conditional on no earlier default.

## 3. HDD

Heating degree days (HDD). The maximum of zero and the amount by which the daily average temperature is less than 65° Fahrenheit. The average temperature is the average of the highest and lowest temperatures (midnight to midnight). The Chicago Mercantile Exchange began trading weather futures and European options on weather futures in September 1999. The contracts are on the cumulative HDD and cooling degree days (CDD) for a month observed at a weather station.

## 4. Hedge

The forward markets allow users to hedge, or reduce the risk of, adverse currency fluctuations. Hedging is taking a position in two or more securities that are negatively correlated (taking opposite trading positions) to reduce risk.

## 5. Hedge Fund

Hedge funds are a type of investment pool that solicits funds from (wealthy) individuals and other investors (e.g., commercial banks) and invests these funds on their behalf. Hedge funds, however, are not technically mutual funds in that they are sub-jected to virtually no regulatory oversight (e.g., by the SEC under the Securities Act and Investment Advisors Act) and generally take significant risk.

## 6. Hedge Ratio (for An Option)

The number of stocks required to hedge against the price risk of holding on potion. Also called the option's delta. [See also **Delta**]

## 7. Hedge Ratio (for Futures)

The ratio of the size of a position in a hedging instrument to the size of the position being hedged as:

$$\text{Hedge ratio} = \frac{\text{cov}(\Delta S, \Delta F)}{\text{var}(\Delta F)},$$

where $\Delta S$(Change of spot) $= S_t - S_{t-1}$; $\Delta F$ (Change of future) $= F_t - F_{t-1}$.

## 8. Hedger

A market participant who has or will have a position in the cash commodity and who attempts to eliminate or reduce risk exposure by taking an offsetting position in the futures or forward market.

## 9. Hedging

Investing in an asset to reduce the overall risk of a portfolio.

## 10. Hedging Demands

Demands for securities to hedge particular sources of consumption risk, beyond the usual mean-variance diversification motivation.

## 11. Heston Model

An option pricing model in which the instantaneous variance of the stock return follows a mean-reverting square root process.

## 12. Highly Leveraged Transaction (HLT)

Transaction in which borrower's debt increases sharply after the asset exchange, such as an LBO.

## 13. High-Yield Bonds

[See **Junk bonds**]

## 14. Historical Cost

The value for certain balance sheet items reflecting the original cost or amortized cost.

## 15. Historical Simulation

A simulation based on historical data.

## 16. Historical Volatility

The standard deviation of the continuously compounded return on an asset, measured using historical prices.

## 17. Holder-of-Record Date

The date on which holders of record in a firm's stock ledger are designated as the recipients of either dividends or stock rights. Also called date of record.

## 18. Holding Company

Besides negotiating terms or making a tender offer, parties to a business combination may form a holding company. A holding company is a corporation that owns sufficient voting stock of another firm (or several firms) to have effective control. This form of organization is quite common in the financial services and banking industries. Typically, the combination forms a new corporation and the shareholders of the firms to be combined exchange their old shares for shares of the new holding company. This type of transaction is ad-

vantageous because it can provide effective control with as little as 10 or 20 percent of the outstanding stock, so a smaller investment is required. The holding company differs from other business combinations in that it can take advantage of legal loopholes in state and federal laws, including tax laws.

## 19. Holding Period

Length of time that an individual holds a security.

## 20. Holding-Period Rate of Return

The annualized rate of return expected or realized from holding a security over a specific period of time.

## 21. Holding-Period Yield

Holding-period yield ($HPY$) is a measurement of investment performance related to holding period rate of return (HPPR). The $HPY$ is the ratio of the change in the market value of the investment plus cash distributions received during the period divided by the original value of the investment. This is represented as:

$$HPY_t = (r_t) = \frac{(P_t - P_{t-1}) + C_t}{P_{t-1}} = \frac{P_t + C_t}{P_{t-1}} - 1$$
$$= HPRR.$$

From this expression it is easy to see that $HPY$ is equal to $HPR - 1$. The $HPY$ defined in the equation is a discrete type of $HPY$. It assumes that the cash flows and investments occur at specific points in time.

The frequency of compounding influences the $HPR$ and $HPY$ calculations as:

$$HPY_t^c = \ln\left(\frac{P_t + C_t}{P_{t-1}}\right),$$

where $HPY_t^c$ is the holding-period rate of return with continuous compounding, and ln is the natural logarithm.

More generally, the rate of return with continuous compounding for a given period is expressed by:

$$HPR_t^d = 1 + HPY^d = \exp(HPY^c),$$

where $HPR_t^d$ is the discrete holding-period rate of return and exp(e) is 2.718, the base of natural logarithms. By taking the natural log of both sides of the equation:

$$\ln(1 + HPY^d) = HPY^c.$$

In every case except $HPY^d = 0$, the continuously compounded rate of return is always less than the discrete rate of return

On the other hand, given a continuous rate of return, the discrete rate return can be calculated using:

$$HPY^d = \exp(HPY^c) - 1.$$

## 22. Holiday Calendar

Calendar defining when days are holidays for the purposes of determining payment dates in a swap.

## 23. Home Banking

Actions involving the conduct of banking business taking place in customer's homes, including telephone and computer transactions.

## 24. Home Currency Approach

The home currency approach is a method for evaluating overseas projects. This technique converts foreign currency cash flows to the home currency of the parent firm. Assuming that the home currency is the US dollar, it then discounts the US dollar cash flows at the project's US minimum required return to find the net present value.

The financial analyst can rely on forecasting services that analyze relative economic and political trends to predict future spot rates. Once the foreign cash flows are converted to dollars, the NPV calculation using the project's US required return is straightforward.

The steps in the home currency approach are summarized as:

1. Estimate foreign currency cash flows.
2. Predict future spot exchange rates using forecasts.
3. Convert foreign currency cash flows to home currency cash flows.
4. Compute project NPV using the project's required return.

## 25. Home Debit

A check drawn on a bank that is presented to the same bank for deposit or payment.

## 26. Home Equity Loan

Loan secured by an individual's equity in a home.

## 27. Homemade Dividends

An individual investor can undo corporate dividend policy by reinvesting excess dividends or selling off shares of stock to receive a desired cash flow.

## 28. Homemade Leverage

Idea that as long as individuals borrow (and lend) on the same terms as the firm. They can duplicate the effects of corporate leverage on their own. Thus, if levered firms are priced too high. Rational investors will simply borrow on personal accounts to buy shares in unlevered firms. [See also **Modigliani & Miller (M&M) proposition I**]

## 29. Homogeneous Expectations

The assumption that all investors use the same expected returns and covariance matrix or security returns as inputs in security analysis.

## 30. Horizon Analysis

Interest rate forecasting that uses a forecast yield curve to predict bond prices. Yield curve is a two dimension graph to present the relationship between yield to maturity and maturity. See also **Yield to maturity**]

## 31. Horizontal Acquisition

Merger between two companies producing similar goods or service. For example, a steel company buys another steel company.

## 32. Horizontal Combination

If two firms had performed similar functions in the production or sale of goods and services, then the business combination is said to be *horizontal*. Before a horizontal combination, the firms were, or at least had the potential to be, competitors.

## 33. Horizontal Spread

See **Calendar spread**]

## 34. Hot Money

Funds that move between institutions quickly in search of higher yields or greater safety. The hot money can cause a county's financial crises.

## 35. Howard-D'Antonio Strategy

Using a mean-variance framework, the Howard-D'Antonio strategy (Howard and D'Antonio, 1984) assumes that the "agent" is out to maximize the expected return for a given level of portfolio risk. A hedge ratio and measure of hedging effectiveness are derived in which the hedger's risk and return are both explicitly taken into account. The strategy can be expressed as:

Hedge ratio $H = \dfrac{(\lambda - \rho)}{\gamma \pi (1 - \lambda \rho)}$,

and hedging effectiveness

$$HE = \sqrt{\frac{1 - 2\lambda\rho + \lambda^2}{1 - \rho^2}},$$

where $\pi = \sigma_f / \sigma_s$ = relative variability of futures and spot returns; $\alpha = \overline{r_f} / (\overline{r_s} - i)$ = relative excess return on futures to that of spot' $\gamma = p_f / p_s$ = current price ration of futures to spot; $\lambda = \alpha / \pi = (\overline{r_f} / \sigma_f) / [\overline{r_s} - i) / \sigma_s]$ = risk-to-excess-return relative of futures versus the spot position; $P_s, P_f$ = the current price per unit for the spot and futures, respectively; $\rho$ = simple correlation coefficient between the spot and futures returns; $\sigma_s$ = standard deviation of spot returns; $\sigma_f$ = standard deviation of futures returns; $\overline{r_s}$ = mean return on the spot over some recent past interval; $\overline{r_f}$ = mean return on the futures over some recent past interval; and $i$ = risk-free rate.

## 36. Hung Convertibles

Convertible bonds that have no chance of being converted are called hung convertibles. The idea here is that if the investors don't wish to convert their bonds into the firm's equity, the conversion process is hung up. The bond is worth more as a bond than it is worth converted into equity. APB No. 15 and FASB No. 55 require a firm to provide EPS information under either circumstance and let the market participant choose which measure is more meaningful.

## 37. Hybrid Security

A hybrid security is a security which has characteristics of both debt and equity. For example, convertible bond are securities that can be exchanged for a stipulated number of shares of common stock during a specific period.

## 38. Hypothecation

In a contract, committing property to secure a loan.

## 39. Hypothesis Testing

Hypotheses are assumptions about a population parameter. Hypothesis testing involves judging the correctness of the hypotheses. In fact, we often rely heavily on sample data in decision making. For example, the results of public opinion polls may actually dictate whether a presidential candidate decides to keep running or to drop out of the primary race.