A Layman's Guide to Financial Terms

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Preface

This guide provides easy-to-understand definition and explanation of financial terms arranged in alphabetical order.

The idea of writing a guide like this was conceived when I first taught an introductory finance course at the University of Saskatchewan in 1992. While lecturing on certain topics, I would occasionally observe puzzled faces upon mentioning some basic financial terms. My informal investigations revealed that students either do not know the terms, or have heard of the terms but never really understand their precise meaning. For those who are first exposed to finance, the textbook doesn't always help, given the sequential nature of knowledge. Those observations motivated me to produce what is in front of you. Another, perhaps less academic reason for me to compile this layman's guide is my encounters with financially curious friends on social occasions. I would get such basic questions as "Exactly what is a derivative security?" Of course, a technical explanation will most likely confuse the inquirer, the end result of which may be increased consumption of alcohol due to frustration, not to mention the inquirer's silent lament that the taxpayers' dollar is completely wasted on this abstract, irrelevant, and self-indulging professor! A ready repertoire of easy-to-understand financial terms, when put to use, may even enhance my popularity in the crowd, I figure.

I would like to thank all my students, previous and current, for their usage of the Guide. I especially thank those who have provided comments. Finally, I would like to express my appreciation to my colleague, Professor Melanie Cao at York University, who has shared the enthusiasm of such an endeavor and given detailed comments and inputs.

I strive to update this Guide on a regular basis. Your comments and suggestions are welcome!

List of Terms Included in this Guide

144A Bond
Accounts Payable
Accounts Receivable
Accrued Expenses
Accrued Taxes
Algorithmic Trading
All Ordinaries
American Depositary Receipt (ADR)
American Option
Amortization
Amortization Schedule
Amortized Loan
Annuity
Arbitrage / Arbitraging
Asian Option
Ask Price
Asset-backed Securities (ABS)
Asset Swap
At-the-money
Bank for International Settlements (BIS)
Bank of Canada
Bank Rate
Bankers' Acceptances
Basel Accords
Basis Points
Bear Spread
Behavioral Finance
Beta
Bid Price
Bid-ask Spread
Black-Scholes Option Pricing Model/Formula
Board of Directors
Bond
Bond Rating

Bull Spread
Bulldog Bond
Butterfly
Buyout
CAC 40
Call Option
Callable Bond
Canada Mortgage and Housing Corporation (CMHC)
Canada Pension Plan (CPP)
Canada Pension Plan Investment Board (CPPIB)
Canadian Deposit Insurance Corporation (CDIC)
Capital Asset Pricing Model (CAPM)
Capital Gain
Capital Loss
Capital Structure
Cash Flow
CDO (Collateralized Debt Obligation)
CDS (Credit Default Swap)
Central Bank
Circuit Breaker
Classified Board
Clean Price
Closed-end Fund
Commercial Banking
Commercial Paper
Commodity Swap
Common Shares
Compound Interest
Compounding
Compounding Frequency
Contingent Claims
Continuous Compounding
Convertible Bond
Coupon Payments
Credit Derivatives
Credit Rating
Crown Corporations
CSI 300 Index

Currency Appreciation
Currency Depreciation
Currency Devaluation
Currency Option
Currency Revaluation
Currency Swap
Current Assets
Current Liabilities
Current Ratio
Current Yield
Daily Compounding
DAX
Day Order
Debenture
Decimalization
Default
Depreciation
Derivative Securities
Dirty Price
Discount Bond
Discount Rate
Discounted Payback Period
Discounting
Diversifiable Risk
Diversification
Dividend
Dividend Reinvestment Plan (DRP or DRIP)
Dividend Yield
Dodd-Frank Act
Dollar Cost Averaging
Dotcom Bubble
Dow Jones Industrial Average (Dow)
Draft
Duration
Earnings per Share (EPS)
EBIT
EBITDA
Effective Annual Rate (EAR)

Equity
Equity Premium
Equity Swap
ETF (Exchange-traded Fund)
Euro
Euro Currency
Euro Stoxx 50
Eurodollar
Euronext
European Option
Ex-dividend Date
Exchange Rate
Executive Stock Option
Exercise Price
Extendable Bond
Face Value
Fannie Mae
Federal Deposit Insurance Corporation (FDIC)
Federal Reserve System
Financial Crisis (of 2007)
Financial Engineering
Fixed-income Securities
Fixed-rate Mortgage
Forward Contract
Forward Interest Rates
Forward Price
Freddie Mac
Front Running
FTSE 100
Fund of Hedge Funds
Fundamental Analysis
Futures Contract
GIC
Glamor Stock
Glass-Steagall Act
Going Public
Gold
Golden Parachute

Gross Working Capital
Growth Stock
Hang Seng Index
Hedge Fund
Hedging
High Frequency Trading (HFT)
Hostile Takeover
Idiosyncratic Risk
In-the-money
Income Trust
Index-linked GIC
Index Option
Initial Public Offering (IPO)
Inside Information (Trading)
Insider Trading
Interest Rate Parity
Interest Rate Swap
Internal Rate of Return (IRR)
International Monetary Fund (IMF)
Investment Banker
Investment Banking
Investment Dealer
Investment Grade Bonds
Junk Bonds
LEAPS
Leverage
Leveraged Buyout
LIBOR
Limit Order
Line of Credit
Liquidity
Long
Loss Aversion
Margin/Margin Investment
Margin Account
Margin Call
Market Capitalization
Market Efficiency

Market Maker
Market Order
Marketable Securities
Marking to Market
Mergers and Acquisitions (M&A)
Money Market Instruments
Money Market Mutual Funds
Monthly Compounding
Mortgage
Mortgage-backed Securities
Mutual Funds
NASDAQ (or Nasdaq)
Nasdaq Composite
Net Asset Value (NAV)
Net Income
Net Present Value (NPV)
Net Working Capital
Nikkei 225
No-Load Funds
Nominal Interest Rate
Non-diversifiable Risk
Nonsystematic Risk
NYSE
NYSE Euronext
OECD
Office of the Superintendent of Financial Institutions (OSFI)
Ontario Securities Commission (OSC)
Open-end Fund
Open Interest
Option
Out-of-the-money
Over-the-Counter (OTC) Market
Payback Period
Pension Fund/Plan
Poison Pill
Ponzi Scheme
Portfolio
Portfolio Insurance

Precious Metals
Preferred Shares
Price Earnings Ratio (P/E Ratio)
Prime Rate
Private Equity
Prospect Theory
Put Option
Put-Call Parity
Rate of Return
Real Interest Rate
Real Options
REIT
Repo (Repurchase Agreement)
Required Rate of Return
Retail Banking
Retained Earnings
Registered Retirement Savings Plan (RRSP)
Return on Assets (ROA)
Return on Equity (ROE)
Reverse Repo
Risk Aversion
Russell 2000
Russell 3000
Samurai Bond
Sarbanes-Oxley Act
S&P/TSX Composite
S&P 500
Securitization
Security
Securities and Exchange Commission (SEC)
Semi-annual Compounding
Shanghai Composite
Short/Short Selling
Simple Interest
Sinking Fund
South Sea Bubble
Speculation
Spot Interest Rates

Staggered Board
Stock Repurchase
Stock Split
Straddle
Strap
Strike Price
Strip
Strip Bond
Subprime Loans
Swap
Systematic Risk
T-bill
Takeover
Tax-Free Savings Account (TFSA)
Technical Analysis
Term Deposit
Term Structure of Interest Rates
Total Return Swap
Treasury Bonds
Treasury Stock
TSX
Tulipmania
Underwriter
Value at Risk (VaR)
Value Stock
Variable-rate Mortgage
Venture Capital
VIX
Volatility
Volcker Rule
Warrant
Wholesale Banking
Working Capital
World Bank
Yankee Bond
Yield Curve
Yield to Maturity
Yield Spread

Zero-coupon Bond

144A Bond

Bond issued in the U.S. without the formal approval of the Securities and Exchange Commission (SEC). Because of the absence of stringent disclosure requirements mandated for public issues, the 144A issuance is usually referred to as "private placement." Sometimes people also call this type of bonds as "Rule 114A Bond." This "Rule" was introduced in 1990 to help those high-risk companies to borrow money, and it has been available to both the U.S. and foreign companies. Not everyone can subscribe or buy bonds issued under Rule 144A. In fact, there are specific requirements (e.g., a minimum net worth of $25 million) that the bond buyers must satisfy. Collectively, those who meet the requirements are referred to "Qualified Institutional Buyers." Only these institutions can buy Rule 144A bonds. Because of the fact that issuers of 144A bonds are generally of lower credit quality, 144A bonds usually carry a higher yield than otherwise identical, public bonds.

See "Bond," "Coupon Payments" and "Face Value" for basic knowledge of bonds. Also see "Yankee Bond" and "SEC."

Accounts Payable

When firms make purchases on credit, the money owed is recorded as accounts payable. Accounts payable is a form of short-term financing. For example, if the purchase is for $500,000, and the firm is given 45 days to make the payment, then in effect, the firm has obtained an interest-free loan of $500,000 for a term of 45 days. As individuals, we typically also have a balance of accounts payable at any point in time. An obvious example is the credit card balance before the due date. Since it is a form of financing, no wonder we all prefer a longer due time for our credit card payment.

See also "Accounts Receivable."

Accounts Receivable

It is the opposite entry of accounts payable. For a firm, accounts receivable is the balance due from a customer. To continue the example in the entry of "Accounts Payable," the firm that makes the sales will record an accounts receivable of $500,000. In this case, the firm making the sale is the party that provides the free financing.

See also "Accounts Payable."

Accrued Expenses

Expenses already incurred but not yet paid. As such, they are an interest-free source of short-term financing. Typical examples include unpaid taxes, wages and interest. For individuals, when we charge the restaurant bill to our credit card, between the

time of eating out and the time we receive the credit card statement, the cost of the meal can be considered as an accrued expense.

Accrued Taxes

Taxes owed but not yet paid. Please see "Accrued Expenses."

Algorithmic Trading

Trading conducted by computers. Essentially it is computer-automated trading designed for a particular purpose. For instance, a large pension fund may employ algorithmic trading to offload a large position on a stock. Instead of submitting the large order at once which will depress the price a great deal, ultimately leading to a loss in the sale, the pension fund may program its computers such that they watch the price movements and squeeze in many small sell orders when the price is on an uptick. This way, the computers can accomplish offloading the entire holding bit by bit at good prices. Or, a hedge fund may program its computers to carry out automated trades on the spot and futures markets to exploit certain arbitrage conditions.

Needless to say, algorithmic trading is a relatively new phenomenon given that it requires a great deal of computing power. It is estimated that as much as (and sometimes more than) half of the trading on major exchanges (e.g., NYSE) is done through algorithmic trading.

Is algorithmic trading a good or bad thing? The jury is still out on this. But certain type of algorithmic trading might be beyond the comprehension of the average Joe. Please see "High Frequency Trading" as an example.

Also see "Arbitrage," "Futures Contract," "Hedge Fund" and "NYSE."

All Ordinaries

Also known as All Ordinaries Index. It is a widely watched stock market index in Australia. It is a value-weighted or capitalization-weighted average of stock prices of the 500 largest companies traded on the Australian Securities Exchange. "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. The name "All Ordinaries" came from the fact that the index contained almost all ordinary or common shares when first established in 1980. Later on (year 2000 to be precise), the index was restructured to include only the top 500 stocks by market capitalization.

See also "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

American Depositary Receipt (ADR)

A negotiable certificate issued by a U.S. bank, representing a specific number of foreign shares. The foreign shares are usually held by the bank's branch or its correspondent in the foreign country. ADR's are traded on a U.S. stock exchange (e.g., the NYSE) in U.S. dollars and can be bought or sold just like domestic shares. Therefore, ADR's are a convenient way for U.S. investors to invest in foreign shares.

American Option

An option that can be "exercised" anytime before a specific future date. Suppose you have a call option on a CIBC stock. The option matures on June 1, and it is now March 23. One such option allows you to buy one share at $80. Then, between now and June 1, you may exercise your right and purchase the stock at your will. Because an American option gives you more freedom, it is normally worth more than an otherwise identical European option. An American option can be a call or a put option.

Although the word "American" here does not convey any geographical connotation, it might be intended to signify the option-exercising flexibility in that the United States of America is usually considered as the dreamland of freedom. Notice that the counterparty of an American option is called "European option." The Europeans may very well question the notion that they enjoy less freedom compared with Americans!

See also "Options," "Call Option," "Put Option," "Asian Option," "European Option," and "Exercise Price," or "Strike Price."

Amortization

The process of amortizing a loan. Given the total loan amount, the interest rate, and the term (i.e., the number of years of borrowing), amortization is the process of finding the equal amount of payment per period and its breakdown between the interest and the principal repayment. Please see "Amortized Loan" and "Amortization Schedule."

Amortization Schedule

A table showing the precise breakdown between the interest and principal of each periodic payment for an amortized loan. Since an amortized loan is repaid in equal amounts, each periodic payment includes some interest and some principal. We need to know the precise breakdown for tax purposes, since for most businesses, the interest payments are tax deductible.

The making of the schedule is not too difficult. Let me walk you through a simple example. Suppose you take out a loan of $2,000, which is to be repaid annually in

three equal amounts. The interest rate is 8% p.a. First we need to find the annual payment, denoted by X. Since we will make three payments of X dollars each, the present value of them must be equal to the loan amount today. In other words,

$$2{,}000 = X/(1+0.08) + X/(1 + 0.08)^2 + X/(1 + 0.08)^3.$$

We can easily solve for X as \$776. To create the schedule, we start with year one. For the first year, we carry the full amount of the loan, so the interest amount is simply $\$2{,}000 \times 0.08 = \$160$. The principal repayment is then, $\$776 - \$160 = \$616$. Therefore, at the end of the first year, the remaining principal is $\$2{,}000 - \$616 = \$1{,}384$. This process is repeated for each year until the end of the loan. Of course, by the time you make the last payment, the loan is completely paid off and the balance is zero. For home mortgages, this is the time for a big celebration, since it is only then that you become the *bona fide* owner of the house! The bank owns it before the mortgage is paid off.

Year	Annual Payment	Interest Portion	Principal Portion	Balance
0				\$2,000
1	\$776	\$160	\$616	\$1,384
2	\$776	\$111	\$665	\$719
3	\$776	\$57	\$719	\$0

See also "Amortized Loan" and "Mortgage."

Amortized Loan

If a loan is to be repaid in equal periodical amounts (e.g., monthly, quarterly, annually), then the loan is called an "amortized loan." Examples include home mortgages and car loans.

Annuity

A series of payments of equal amount occurring at fixed intervals for a specified number of periods. Examples include mortgage payments and car loan payments. The term is also used in the insurance industry and other settings with more specific meanings.

Arbitrage/Arbitraging

The process of selling overvalued and buying undervalued assets to make money. If two identical iPads are selling at different prices at two locations of the same store (e.g., \$300 at the Yorkdale Mall and \$350 at the Scarborough Town Center), then an arbitrage opportunity exists. You could buy the iPad at the Yorkdale Mall, and return

it at the Scarborough Town Center, and pocket $50. (Of course, the amount you can net is going to be smaller than $50, since you have to spend a few bucks on bus fares.)

The above example may seem a bit contrived (and even unethical), but arbitrage transactions in financial markets are real and arbitragers rarely have ethical qualms. Take a look at the following illustration. If stock ABC is cross-listed on the Toronto Stock Exchange and the New York Stock Exchange, and if, at a particular moment, you observe two different prices (after adjusting for the exchange rate), then you can buy the stock at the exchange where the price is lower and sell it at the exchange where the price is higher to make "arbitrage profits." The foreign exchange markets are another place where traders frequently explore such opportunities. Investors executing this type of arbitrage transactions rarely feel embarrassed and/or shamed as those profiting from the iPad price misalignment. Go figure.

Asian Option

An Asian option is an option that is settled based on the average price (as opposed to the typical spot price) of the underlying asset. Suppose you have an Asian call option on a CIBC stock. The option matures on June 1, and it is now March 23. For a typical call option, you simply pay the exercise price and receive a share upon exercising. For an Asian call option, instead of paying the exercise price upon exercising and obtaining a share, you simply get the cash difference between the average stock price over a certain period and the exercise price. The averaging could be over the last segment of the maturity period (e.g., May 1 to June 1 in the above example) or any other period prior to the settlement date. An Asian option is typically worth less than its standard counterpart since the averaging tends to eliminate extreme payoffs.

The word "Asian" here does not convey any geographical connotation. However, insofar as an Asian option tends to eliminate *extreme* payoffs, the choice of the word might be motivated by the perception that Asian people tend to eschew extremes and favor moderation.

See also "Options," "Call Option," "Put Option," "American Option," "European Option," and "Exercise Price," or "Strike Price."

Ask Price

Price at which a seller is willing to sell something. If you offer to pay $15 for a used bike at a garage sale, then the $15 is a bid price. If the owner counters with a price of $16, then the $16 is an ask price. Similarly, if a market maker posts a price of $10.35 to sell a stock, then the $10.35 is an ask price.

See also “Bid Price,” “Bid-Ask Spread” and “Market Maker.”

Asset-backed Securities (ABS)

See “Securitization.”

Asset Swap

Please first look up “Swap” and “Total Return Swap.” Like a total return swap, an asset swap is also usually classified under “credit derivatives.” It also involves the exchange of LIBOR plus a spread with some bond returns. As a result, the two types of swaps can be easily confused with one another. However, an asset swap is quite different from a total return swap. To begin, it is not a financing vehicle. Instead, it allows one party of the swap to directly access/obtain the yield spread of a bond. Although an asset swap involves the exchange of floating rate and fixed rate payments as in an interest rate swap, the floating rate payments are actually determined by the credit risk of an actual asset, i.e., the bond. Hence the name “asset swap.”

The mechanics are better explained through an example. Suppose CPPIB holds some bonds issued by Canadian Tire. The bonds pay a coupon of 6.5% per year and currently trade at $109.50 per unit, corresponding to a yield of 5.8%. Suppose a comparable government bond currently yields 5%. Thus the yield spread on Canadian Tire’s bonds is 5.8% - 5% = 0.8%. If CPPIB is concerned about Canadian Tire’s credit risk in the next five years, yet would still like to hold the bond in the long run, then it can enter into an asset swap to offload the credit risk. Suppose RBC has agreed to be the counterparty of the swap. Then in the next five years, CPPIB will pay RBC the annual coupon of 6.5% while RBC pays CPPIB the LIBOR rate plus a spread which is simply the yield spread of 0.8%. During the five years, even if Canadian Tire defaults, the swap still stands. This is why an asset swap can protect CPPIB from default risk.

You may realize that something is missing in the above swap: the bond price. Indeed, it is. In fact, at the beginning of the swap, a one-time payment is made to reflect the difference between the bond price and the par. In the above example, before exchanging the agreed cash flows in the next five years, for each bond, RBC must pay CPPIB $9.5 (which is $109.5 − $100) upfront. Why? Because in the swap, CPPIB will pay RBC a coupon rate of 6.5%, much higher than market interest rate. RBC must make an upfront payment to deserve this high coupon rate.

See “CPPIB,” “Bond” and “LIBOR.” Also see “Commodity Swap,” “Interest Rate Swap,” “CDS (Credit Default Swap),” “Total Return Swap” and “Credit Derivatives.”

At-the-money

A term used to describe the relative magnitude between the current underlying asset price and the exercise price of an option. An option is "at-the-money" when the current underlying asset price is equal to the exercise price.

Please see "Exercise Price," "Option," "In-the-money," and "Out-of-the-money."

Bank for International Settlements (BIS)

Originally established in 1930 to deal with the issue of the reparation payments imposed on Germany following the First World War (hence the name), the BIS has since taken the role to promote central bank cooperation for the pursuit of global monetary and financial stability. With its headquarter in Basel, Switzerland, the BIS has 60 member central banks.

Apart from fostering monetary policy cooperation, the BIS also performs the following functions: 1) offering traditional banking services for the central bank community such as gold and foreign exchange transactions, 2) collecting, compiling and disseminating economic and financial statistics, and 3) putting in place global banking regulations such as capital requirements. In the recent past, BIS has taken the role of coordinating global bank regulations. Most noticeably, it is the originator of a series of bank regulations called the "Basel Accords." The BIS is sometimes called "the bank of central banks."

See also "Central Bank," and "Basel Accords."

Bank of Canada

Canada's central bank. Its responsibilities include supervising monetary policy, printing bank notes, and overseeing the financial system. The principal role, as defined in the Bank of Canada Act, is "to promote the economic and financial welfare of Canada."

Bank of Canada, like other central banks, is not a commercial bank and does not offer banking services to the public.

See also "Central Bank."

Bank Rate

It is a barometer of the general trend of interest rates in the economy. It is officially administered by the Bank of Canada. When chartered commercial banks and other financial institutions borrow from the central bank, i.e., the Bank of Canada, they are charged the bank rate.

Bank of Canada makes announcements of the rate on a regular basis, mostly on Tuesdays. The announcements do not always come at fixed intervals, but the announcement dates are always published well ahead of time. Usually, there are about eight announcements a year and all the dates are published on the central bank's home page at the beginning of the year.

The Bank can increase, decrease, or maintain the rate from the level established at the previous announcement. The central bank's decision depends on the economic situation. For example, if inflation is on its rise, then the central bank may increase the rate. A higher rate will suppress economic activities that will in turn dampen inflation.

Banks normally don't adjust their lending/deposit rates every time the bank rate changes. On the other hand, banks may adjust their borrowing/lending rate even though the bank rate hasn't changed.

See also "Bank of Canada" and "Central Bank."

Bankers' Acceptances

A bankers' acceptance is a promissory note drawn for payment by a corporation on a certain date. For example, a Canadian importer, Fashion Star, imports sweaters (worth $450,000) from South Korea. The Korean exporter demands that it receive the payment before shipments are made. But Fashion Star does not have the cash yet. In this case, Fashion Star can go to its bank, Royal Bank of Canada, to ask for a draft of $450,000. (What is a draft? Look up "Draft" in this guide.) The draft will then be sent to the Korean exporter, which in turn sends the draft to its Korean bank for money. The Korean bank will send the draft back to Royal Bank of Canada for acceptance. Upon receipt of the draft, Royal Bank of Canada stamps "accepted" on the draft. The Korean bank will then credit $450,000 to the Korean exporter's account.

Bankers' acceptances are short-term financing instruments that are guaranteed by the banks. Therefore they are less risky. Once "accepted," they represent real money and therefore can be bought and sold just like other securities such as stocks and bonds.

Basel Accords

It refers to the global bank regulations originated by the Bank for International Settlements (BIS) in Basel, Switzerland. As of the time of writing (October 2013), there have been three accords: Basel I (implemented in 1988), Basel II (implemented between 2007 and 2009), and Basel III (to be implemented between 2013 and 2019). Essentially, the accords stipulate how much capital a bank should

have in order to cover various risks the bank incurs (e.g., trading risk, credit risk from loans, and risks arising from such events as frauds and technical glitches).

Basis Points

A term frequently seen in financial press that is used to express interest rate. One basis point is one-hundredth of a percentage point. For example, 20 basis points is 0.2%, 125 basis points is 1.25%, and so on.

Bear Spread

An option investment strategy. It is a combination of two call options on the same stock with the same time-to-maturity but different exercise prices. Specifically, A bear spread takes a short position on a call option with a lower exercise price and a long position on a call with a higher exercise price. It is essentially a bet on a modestly bear market. When the stock price goes down, you get to keep the proceed from the short call since the option is not going to be exercised; when the stock price goes up substantially your gain from the long call will offset the loss from the short call so that you still get to keep the proceed from the short call (minus the purchase cost of the long call).

Why is this option strategy called a "bear spread"? "Bear" in that you are bearish; "spread" in that you have two call options in opposite directions (i.e., one short, one long).

See "Volatility," "Call Option," "Put Option," "Long," "Short" and related definitions for detail. Also see "Straddle," "Strip," "Strap," "Bull Spread" and "Butterfly."

Behavioral Finance

Pretty hard to define. Most people call it a new field in finance, but that is not quite accurate since the idea of behavioral finance permeates every finance field such as investments, asset pricing and corporate finance. The term was coined in reference to "conventional" or "classic" finance. The centerpiece of the classic finance theories is "rationality": agents are assumed to be rational and their financial decisions are made with a cool mind. Theories of this kind are usually quite elegant and easy to develop. However, they sometimes have a hard time explaining certain prevalent, seemingly irrational behaviors (e.g., investors' tendency to dump winner stocks too early and hang on to loser stocks for too long). "Behavioral economics" and "behavioral finance" were developed to explain such behaviors.

In a nutshell, "behavioral finance" seeks to understand individuals' financial decisions not only from a pure rational perspective, but also by taking into account individuals' psychological, cognitive as well as social dimensions. In other words, "behavioral finance" allows decision makers to be influenced by such things as

mood, peer pressure and fad. This appears to be a reasonable premise and should supposedly receive wide acceptance. Actually not. Although "behavioral finance" has gained a mainstream status in the academic sphere, the debate between the "classic" and the "behavioral" camps are far from being over. An in-depth treatment is way beyond the scope of this layman's guide. Suffice to say that progresses are being made in this new "field" called "behavioral finance."

As a matter of fact, the 2002 Nobel Prize in Economics (The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, to be precise) went to a prominent founder of the field: Daniel Kahneman from Princeton (his Nobel Prize co-winner, Vernon Smith from George Mason University made related contributions to experimental economics research).

Beta

Measure of a security's systematic risk. A security's return may change due to both firm specific events (such as re-shuffling of the management team) and market-wide events such as interest rate fluctuations. Beta measures the sensitivity of a security's return to the overall market's movements.

"Beta" is the English pronunciation of the second Greek alphabet, β. The authentic Greek sound of the alphabet is actually "veta." Who initiated the abuse is still a mystery.

See also "CAPM" and "Systematic Risk."

Bid Price

Price at which a buyer is willing to pay for something. If you offer to pay $15 for a used bike at a garage sale, then the $15 is a bid price. Similarly, if a market maker offers a price of $10.25 to buy a stock, then the $10.25 is a bid price.

See also "Ask Price," "Bid-Ask Spread" and "Market Maker."

Bid-ask Spread

You need to first look up "Bid Price" and "Ask Price." Bid-ask spread is simply the difference between ask and bid prices. If you offer to pay $15 (bid price) for a used bike at a garage sale, and the owner counters with a price of $16 (ask price), then the bid-ask spread is simply $16 − $15 = $1. Similarly, if a market maker posts a bid price of $10.25 and an ask price of $10.35 for a stock that he deals, then the bid-ask spread is simply $0.10. Bid-ask spread is sometimes also expressed in percentage terms. In the above example, the percentage bid-ask spread for the stock is $0.10/[($10.25 + $10.35)/2] = 0.97%.

See also "Market Maker."

Black-Scholes Option Pricing Model/Formula

An option pricing model developed by Fisher Black and Myron Scholes in 1973. Robert Merton from MIT independently developed the same model in the same year. The model allows users to value an option with only five inputs: the current value of the underlying asset, the exercise price, time to maturity, the risk-free rate, and the underlying asset's volatility.

Since its publication in 1973, the model has become an industry standard in basic option valuation. It should be noted that two of the authors, Robert Merton and Myron Scholes, were awarded the Nobel Prize (The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, to be precise) in 1997 for developing this pricing model. (Fisher Black died of lung cancer in 1995. The Nobel Prize is only awarded to people alive.)

See also "Option" and "Volatility."

Board of Directors

In the corporate setting, it refers to a group of members collectively overseeing the general operation of the company. Here, the word "general" is chosen judiciously to indicate the fact that the board of directors does not manage and supervise daily operations of the company. Instead, it oversees strategic matters such as appointing the Chief Executive Office (CEO) and approving the annual budget. A company's board holds the ultimate decision power on behalf of shareholders.

The number of directors and how they are chosen are all specified in a company's bylaw. Typically the entire board is re-elected each year at the shareholders annual meetings. Shareholders select a given number of directors (e.g. 12) from a pool of nominated candidates. The more shares a shareholder has, the more votes he/she can cast for each candidate.

In the recent several decades, a new type of boards have dotted the landscape of corporate governance, namely, "classified boards" or "staggered boards." A classified/staggered board is one whereby only a subset of board members are re-elected each year. Roughly, it works in the following way. First, the corporate bylaw specifies several classes (typically three) of board members, each of which having a different term. For instance, a company may have three classes of directors, with members of Classes I, II and III each serving a term of one, two and three years, respectively. Let's say each class has four members and Class II and III members are added gradually each year. So for Class III, some directors are just appointed (replacing those already serving for three years), some have served one year and some have served two years. At each shareholders annual meeting, only Class I

director positions and those newly vacated Class II and III positions need to be filled via election.

Classified or staggered boards emerged in the takeover wave in the 1980s, partly as an anti-takeover measure. A staggered board makes a hostile takeover difficult since it is impossible for the acquirer to replace the entire board in one year. Another obvious advantage of a staggered board is its continuity. Since only a fraction of directors are replaced each year, the chance of all members being rookies is simply eliminated (needless to say, a non-staggered board will not necessarily face the all-rookie problem since there are always some incumbent directors who get re-elected). Notwithstanding the apparent appeal of staggered boards, its popularity has been in the decline starting from the late 1990s. The main concern is, a staggered board could inadvertently encourage or induce management entrenchment (i.e., the management team cultivating the long-serving board members in favor of policies that benefit the management but not necessarily shareholders).

Board members can also be classified into independent and non-independent directors, regardless of whether the board is a staggered one or not. A non-independent board director is someone directly related to the company (e.g., the CEO). On the other hand, an independent director is someone who doesn't hold any position in the company, is not related to the management team, and doesn't have a pecuniary relationship with the company (other than receiving the director fee). Most companies have started appointing independent directors to their boards in a bid to enhance corporate governance.

Another trend is to name someone other than the CEO as the board chairman. Since one of the board's functions/responsibilities is to monitor and evaluate the CEO's performance, it is almost perverse to name the CEO as the chairman of the board. (Imagine this scene: The CEO-chairman announces to the board: "OK guys, the next item on the agenda is to evaluate my performance as CEO in the past year. So, what do you think of my performance?") The push for better corporate governance has led to remedies of this situation. However, there are still many companies whose boards are chaired by their CEOs. It should be noted that a board with a non-CEO chairman is not necessarily a more independent one. Very often, the chairman position is occupied by the original founder and/or the previous CEO who continues to wield tremendous amount of power. Bill Gates of Microsoft rings a bell.

See "Takeover."

Bond

A bond is a long-term debt instrument. There are government bonds and corporate bonds. Bonds are issued by governments or corporations in order to raise funds. A firm issues bonds and receives money in return. For example, a firm may sell a 5-

year bond and gets $1,000 right away (in reality, a firm will sell many bonds like this since the financing need is usually in the millions). After the issue, the firm must pay interest to the bondholder. This interest payment is called coupon payment. It is a percentage of the face value of the bond, which is normally $1,000 (so the face value of 10 bonds would be $10,000). The coupon payments are made either annually or semi-annually. At the end of year 5, the firm will have to return the original $1,000 to the bondholder.

There can be many variations of bonds in terms of interest payments, denomination currency, place of issue and special provisions. As a result, you may hear people talking about all kinds of "bonds": callable bond, convertible bond, Euro-bond, currency-bond, cocktail bond, discount bond, floating rate bond, to name a few. "James Bond" does not belong to this family though.

Bond Rating

It is a measure of the overall credit quality of a bond. The rated bonds could be issued by a sovereign government (e.g., Brazil), a municipal government (e.g., the provincial government of Ontario), or a corporation (e.g., IBM). The major bond rating services in Canada are Dominion Bond Rating Services and Canadian Bond Rating Services; those in the U.S. include Standard & Poor's, Moody's and Fitch. Each rating service employs its own rating categories, although they are quite similar. For example, Standard and Poor's employs 10 categories, ranging from the best quality to default: AAA, AA, A, BBB, BB, B, CCC, CC, C, and D.

Generally, ratings above and including BBB are considered as investment grade, meaning the bonds in question are less risky; bonds rated below BBB are more risky, and are usually referred to as "junk bonds." Insofar as bonds represent a form of borrowing, the higher the bond rating, the lower the borrowing cost, and vice versa.

The rating of a bond issue may change over time due to improvements or deterioration of the issuer's financial situation.

Judging who is the best actor for 007 or which of the 007 movies is the best is quite a different "Bond rating" exercise!

Also see "Bond."

Bull Spread

An option investment strategy. It is a combination of two call options on the same stock with the same time-to-maturity but different exercise prices. Specifically, A bull spread takes a long position on a call option with a lower exercise price and a short position on a call with a higher exercise price. It is essentially a bet on a

modestly bull market. When the stock price goes up, you make money on the long call option. Since you are only modestly bullish, you don't think the stock price will go beyond the exercise price of the short call option. So the proceed from the short call will just partially offset the cost of acquiring the long call.

Why is this option strategy called a "bull spread"? "Bull" in that you are bullish; "spread" in that you have two call options in opposite directions (i.e., one long, one short).

See "Volatility," "Call Option," "Put Option," "Long," "Short" and related definitions for detail. Also see "Straddle," "Strip," "Strap," "Bear Spread" and "Butterfly."

Bulldog Bond

Bond issued in Britain by foreign companies or agencies, denominated in pounds. For instance, if Sony issues bonds in London with a total par value of £200-million, then these bonds will be called bulldog bonds. Since the bonds are denominated in pounds, the coupons will also be paid in pounds.

See "Bond," "Coupon Payments" and "Face Value" for basic knowledge of bonds. Also see "Samurai Bond" and "Yankee Bond."

Butterfly

Most definitely not the colorful insect. Instead, it is an option investment strategy. It is also called a "butterfly spread." It is a combination of four call options on the same stock with the same time-to-maturity but different exercise prices. Specifically, A butterfly takes a long position on two call options with different exercise prices and a short position on two call options with an identical exercise price which is equal to the average of the exercise prices of the two long calls. The end result of all these positions is, you will have a modest gain if the stock price more or less stays put and incur a modest loss if the price moves either up or down.

Why is this option strategy called a "butterfly"? Because the payoff profile described above resembles the contour of a butterfly, albeit much less elegant.

See "Volatility," "Call Option," "Put Option," "Long," "Short" and related definitions for detail. Also see "Straddle," "Strip," "Strap," "Bear Spread" and "Bull Spread."

Buyout

Usually refers to a transaction whereby a public firm is being taken private by a small group of investors. In other words, the small group of investors "buy out" all the shares of the public firm and delist the firm from stock exchanges. Therefore, this is just one type of private equity investments. In buyouts, the buyers not only

acquire control through purchasing the equity shares, they must also assume all the debts of the firm, if any. Most of the time, a buyout is initiated by the management team of the firm in which case it is called a "management buyout." Private equity firms are often involved. A well-known example is Dell, the computer maker. On September 12, 2013, shareholders approved the proposal by the firm's founder, Michael Dell, to take the company private in a $24.9 billion buyout. Private equity firm Silver Lake Partners will buy out the firm alongside Michael Dell.

Most of the time, the buyout is financed with some debt, in which case it is called a "leveraged buyout."

See also "Private Equity."

CAC 40

It is a widely watched French stock market index. It is a value-weighted or capitalization-weighted average of stock prices of the 40 largest companies traded on the Paris Bourse. "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. The acronym CAC is derived from Cotation Assistée en Continu, the Paris Bourse's early version of the automated trading system.

See also "All Ordinaries," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Call Option

A call option is a derivative security whose value depends on an underlying asset. It is a highly leveraged investment instrument. Suppose you own a call option on Company ABC's stock that is trading at $90 per share now. The call option is the right for you to purchase a share at a specific price (say $90) on a specific future date (say three months from now). Three months later, if the ABC share is trading at a price below $90, then you would throw away the call option because you do not want to buy something for $90 which is worth less than $90. But if the price is higher than $90, you would exercise your right: buy the share at $90. Suppose the share is trading at $120, then you make a $30 profit. The purchase price of this option is perhaps only $4. Therefore, your return over the three-month period is a whooping (30 – 4)/4 = 650%! In contrast, the return on the stock is only (120 – 90)/90 = 33.33%.

See also "Put Option," "European Option," "American Option," "Index Option," and "Exercise Price," or "Strike Price."

Callable Bond

A bond that can be called back by the issuer beyond an initial period since issuance. The initial period (e.g., five years) is to ensure that buyers can at least hold the bond for some time without worrying about potentially losing it. Beyond this initial period, if the market interest rate is much lower than before, then the issuer could call back the bond and issue new ones with a lower coupon to save financing cost. Being able to call back the bond is obviously a nice option for the issuer, and investors are aware of this. So the issuer will have to pay for this option somehow. The issuer either offers a higher-than-otherwise coupon rate or offer a premium at the time of call (e.g., if an otherwise identical bond is trading at $950 then the issuer may offer $1,045 to buy it back). A callable bond is the opposite of an extendable bond whose maturity can be extended at the choice of the bondholder.

Also see "Bond," "Extendable Bond" and "Convertible Bond."

Canada Mortgage and Housing Corporation (CMHC)

A Canadian Crown corporation created in 1946. As a housing agency, CMHC's original mandate was to assist returning World War II veterans in establishing home ownership through low-cost financing. Over the years, the mandate has evolved and expanded. Today, CMHC provides insurance to mortgage lenders and provides financing for affordable housing projects and other urban renewal endeavors.

The insurance function is especially crucial since banks and other lenders won't hesitate too much in providing mortgages to those who are not able to make a sizeable down payment. Specifically, if the down payment is less than 20% of the purchase price, then mortgage insurance is mandatory in which case the home owner will pay an annual insurance premium to the bank (which in turn passes it on to CMHC). Suppose Peter takes out a mortgage of $850,000 on a house worth $1,000,000 - i.e., he makes a down payment of only $150,000. For the sake of illustration, suppose the house price drops to $800,000 due to a sharp correction in the real estate market. Further suppose that Peter loses his job and declares a personal bankruptcy. In this case, the bank seizes the house, and loses $50,000 if there is no mortgage insurance. Knowing this possibility, the bank will hesitate a great deal before making the loan. However, once the mortgage is ensured, the bank won't hesitate anymore, even if the down payment is zero, since CMHC will step in and make up any losses if default occurs. In a very limited way, CMHC is similar to Fannie Mae, Ginnie Mae and Freddie Mac in the U.S.

See "Crown Corporations." Also see "Fannie Mae," "Ginnie Mae" and "Freddie Mac."

Canada Pension Plan (CPP)

See "Pension Fund/Plan" and "Canada Pension Plan Investment Board."

Canada Pension Plan Investment Board (CPPIB)

Created in 1997 by the Canadian Parliament, CPPIB is an organization that manages, at arm's length from governments, the investment of the fund in the Canada Pension Plan (CPP). Previously, CPP was looked after by provincial and federal finance ministers and invested most of its fund in government bonds, with virtually no equity investments. Today, CPPIB, armed with almost 1,000 employees, manages the pension fund in a sophisticated manner with investments covering the entire spectrum of assets: from conventional vehicles such as fixed-income securities and equities to alternative investments such as real estates, infrastructures (e.g., tolled highways), private equities and hedge funds. The asset pool stands around $170 billion, making CPPIB the 10th largest pension fund in the world.

See "Equity," "Fixed-income Securities," "Private Equity" and "Hedge Fund."

Canadian Deposit Insurance Corporation (CDIC)

A Canadian federal Crown Corporation. It was established in 1967 to provide deposit insurance and contribute to the stability of Canadian financial systems. CDIC insures eligible deposits at member institutions for up to $100,000 per depositor and reimburses depositors for the amount of their insured deposits should the member institution go bankrupt. Notice that the $100,000 coverage is per institution, not per branch. For instance, if CIBC goes belly up (not that we are ill-wishing this bank) and you have deposits at three CIBC branches (one each in Toronto, Montreal and Vancouver) totaling $125,000, then you will only get back $100,000.

Capital Asset Pricing Model (CAPM)

A theory developed by William Sharpe, a finance professor at Stanford University. It asserts that the expected return on a financial asset is the sum of two components: the risk-free interest rate and a risk premium. The latter (also called "equity premium") in turn is the product of the asset's beta and the differential between the expected return on the market portfolio and the risk-free rate. Beta measures the systematic risk of the asset. Therefore, CAPM implies that only the systematic risk is priced.

The author of CAPM, Professor Sharpe, was awarded the Nobel Prize (The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, to be precise) in 1990 for this model and his other contributions to financial theories.

See also "Beta," "Systematic Risk" and "Equity Premium."

Capital Gain

Value or price appreciation on capital assets. For example, you purchased a share of Company XYZ's stock for $10, and you sold it subsequently for $12. Then you have realized a capital gain of $2. Likewise, if you sold a house for $1,200,000 that was acquired at $900,000, then you have a capital gain of $300,000 (assuming you did not have to pay commissions to your friendly real estate agent).

Capital Loss

The opposite of capital gain. Using the above example of stocks, if you subsequently sold the share for $7, then you incurred a capital loss of $3. (Only in this case, your spouse or partner may demand an explanation!)

Capital Structure

Refers to the composition of a firm's capital or financing package. For example, a firm's financing may consist of 20% debt and 80% common equity.

Cash Flow

Actual cash flowing into and out of a firm, an organization, a household, or any financial entity. For example, a firm purchases a machine for $100,000. This $100,000 is a cash outflow. After the purchase, the firm depreciates the machine at, say, 10% per year. The annual depreciation ($10,000) is not a cash flow, because it does not represent real cash. The total amount has been paid in full when the machine is purchased.

CDO (Collateralized Debt Obligation)

You need to first look up "Securitization" in order to better understand CDO. It is essentially a particular type of asset-backed securities. Usually, CDOs are packaged out of corporate bonds. To illustrate, suppose JPMorgan Chase collected numerous bonds issued by companies with various credit ratings. JPMorgan Chase then sorted these bonds into bunches according to their ratings. Let's say they created four tranches or bunches: AAA, BBB, B and equity (notice that the last tranche contains highly risky bonds and hence is called an equity tranche). Finally, JPMorgan Chase would sell units of these tranches to others. These units are then called CDOs. Of course, the buyers of CDOs would receive a return commensurate with the rating or risk level of the tranche. JPMorgan Chase would make some money in this process in the form of fees. Just like mortgage-backed securities, when properly constructed and marketed, CDOs can benefit the buyers since they can get exposure to a specific risk level with ease (the alternative would be to purchase bonds on their own, which could be costly in terms of searching efforts and commissions fees). However, CDOs and mortgage-backed securities are also subject to abuse. Many people believe that securities like CDOs facilitated the formation of the 2007 financial crisis.

See also "Bond," "Bond Rating," "Mortgage-backed Securities" and "Financial Crisis."

CDS (Credit Default Swap)

A type of credit derivative security. It is a swap for protection against default or credit rating changes. The two parties of the swap are called protection buyer and protection seller. The mechanics of a CDS are best described through an example. Suppose Canada Pension Plan Investment Board (CPPIB) enters into a 5-year CDS with JPMorgan Chase whereby CPPIB buys protection from JPMorgan Chase against possible default of a bond issued by IBM. Further suppose that the protection is for a total principal amount of $50 million. In this deal, JPMorgan Chase will make up the loss to CPPIB in the event that IBM defaults on its bond. Say, the post-default market value of the bond is $23 million, then JPMorgan Chase will pay CPPIB $27 million to make up the loss. In return, every six months, CPPIB will make a payment to JPMorgan Chase, much like we make payments to our insurance company for our house or car insurance. The periodic payments are made until the bond default or the end of year five, whichever comes first. The size of the payment is based on something called CDS spread. Suppose the CDS spread is 140 basis points p.a., then the payment every six months is 1.4%/2($50,000,000) = $350,000. Not surprisingly, the CDS spread is very close to the difference between the yield on the IBM bond and that on the same-maturity Treasury note.

Similar swaps can also be structured to protect against bond rating changes (e.g., going from A to BBB).

During the financial crisis, many financial institutions lost a huge amount of money from CDS bets. AIG (American International Group) lost so much money on their CDS bets that it would have gone belly up had the U.S. government not bailed it out. Insofar as CDS are zero-sum games just like other derivative securities, many winners were also created during or after the financial crisis. John Paulson, a well-known hedge fund manager in the U.S., made billions of dollars through CDS bets when he foresaw the demise of the subprime loan market.

See also "Derivative Securities," "Financial Crisis," "Default," "Swap," "Bond Rating" and "Basis Points."

Central Bank

A country's bank of banks or monetary authority. It is an institution whose operations are usually (or at least supposedly) independent of its government. A central bank's primary responsibility is to promote the country's economic and financial welfare. Specifically, a central bank usually makes the country's monetary policy, managing the currency circulation, and overseeing the financial system. Most countries' central banks are named after their countries. For instance, Bank of

Canada, Bank of England, Bank of Japan, to name a few. There are exceptions though. For instance, the central bank of the U.S. is the Federal Reserve System, and that of China is The People's Bank of China. Bank of China is actually a commercial bank and came into existence after The People's Bank of China.

Please see "Bank of Canada" and "Federal Reserve System."

Circuit Breaker

No, this is most definitely not the thing in your electrical panel installed somewhere in your basement. Instead, it is a trading halt triggered by precipitous falls of the market. Different countries have slightly different rules governing the temporary trading halts, but almost of them were installed after the so-called Black Monday on October 19, 1987 when the Dow plunged 23% on that day.

In the U.S., the trading halts are to be triggered by drastic declines in the S&P 500 index. After the most recent update in April 2013, the rules (Rule 80B, to be precise) more or less work in the following way.

First, three levels of market declines are defined: Level 1: 7%, Level 2: 13%, and Level 3: 20%. These are percentage movements of the S&P 500 index relative to the close of the previous trading day. Second, if at any time between 9:30am and 3:25pm, the index experiences a Level 1 or a Level 2 decline, then the entire market will be shut down for 15 minutes. In the case of a Level 3 decline, the market will be shut down for the rest of the day. Third, trading halts will not take place after 3:25pm if Level 1 or Level 2 declines occur (since the market is about to close anyway and investors will have a whole night to collect themselves).

As you can see, the first two levels more or less have the same consequence as far as triggering trading halts is concerned. Regardless, the whole point of having a halting mechanism is to prevent market freefalls due to snowballing effects. The halt allows investors to digest the event and cool themselves down.

See "Dow Jones Industrial Average" and "S&P 500."

Classified Board

See "Board of Directors."

Clean Price

The price of a bond that does not include the interest accrued since the last coupon payment. This is the price usually published in the financial press. When the bond is being bought or sold or when calculating the yield to maturity, the accrued interest needs to be added to the clean price. The adjusted price is called "dirty price."

See also “Dirty Price.”

Closed-end Fund

Legally known as “closed-end company.” The company issues shares like any other corporation and the shares are traded just like stocks on major exchanges such as the NYSE. The money raised is used to buy stocks of other companies, just like how a mutual fund operates. However, here is a key difference: closed-end fund shares generally are not redeemable; once the fund is created, it is “closed.” The fund itself does not issue new shares or redeem existing ones like an open-end fund or regular mutual fund does.

In addition, unlike mutual fund units, the market price of a closed-end fund’s shares is determined by demand and supply and thus may be different from its net asset value (NAV).

See also “Mutual Fund,” “Open-end Fund,” “NAV” and “NYSE.”

Commercial Banking

One of the main business activities carried out by banks and other financial institutions. Commercial banking involves taking deposits and making loans. Commercial banking activities are usually further classified into retail banking and wholesale banking, with the former dealing with individual customers like you and me and the latter dealing with corporations, various levels of governments, and other institutions and agencies (e.g., universities, charity organizations, etc). Banks and other financial institutions offering the service of commercial banking make their profit from the interest rate spread: the difference between the rate they charge on loans and the rate they pay on deposits. Typically, the spread is larger from retail banking, but the volume is lower per account. The opposite is true for wholesale banking.

Commercial banking is to be contrasted with investment banking which has nothing to do with deposit-taking and loan-making. See “Investment Banking” for details.

Commercial Paper

Commercial paper is a short-term promissory note issued under the general credit of a corporation. The note is often backed by the unused portion of a line of credit (from a bank) and/or a grantee of a parent corporation. It is used by corporations to raise short-term funds to finance such items as accounts receivable and inventories.

Not to confuse “commercial papers” with the ghost-penned articles on sale from those “term paper services” agents.

Commodity Swap

Please first look up "Swap." It is a swap involving a certain type of commodity, used by either a commodity producer or a commodity user to manage the price risk. Take an airline company as an example. Since the jet fuel price fluctuates almost on a daily basis yet the airline cannot constantly adjust its ticket price, the airline must manage the price risk of jet fuel to have a stable profit. One way of achieving this is to enter into commodity swaps with a counterparty. In the swap, the airline company would pay to the swap counterparty a fixed price for jet fuel for a specified quantity per period over a specific duration (e.g., $x per liter for 200 million liters per year for five years) and, in return, receive the market price of jet fuel for the same quantity and duration. This way, the variable payments received from the swap counterparty will exactly cover the purchasing costs charged by the jet fuel supplier, and the airline company will end up paying a fixed jet-fuel price in net.

A commodity producer (e.g., a gold mining company) can also enter into a commodity swap to manage the price risk, except that, in this case, the producer would agree to receive a fixed price.

An acute reader would now realize that a commodity swap is simply a series of forward contracts on the underlying commodity.

See "Forward Contract." Also see "Equity Swap," "CDS (Credit Default Swap)," "Asset Swap" and "Total Return Swap."

Common Shares

Shares issued by corporations that come with voting rights. Normally, one share comes with one vote. Suppose that firm ABC has a total of 500,000 shares held by 150 different investors. Also suppose you are one of the 150 investors, and you hold 100,000 shares. Then, when shareholders meet and elect a director, you can cast 100,000 votes. Anyone who owns more than 50% of the shares has an absolute control.

Like bonds, common shares are issued by companies to raise capital. Unlike bonds, common shares carry ownership with them. To make an analogy, you may borrow $10,000 from the bank and, together with your own savings of $25,000, set up a printing shop. Then you are the owner of the shop. The $10,000 is like bonds and the $25,000 is like common shares. As a shareholder, you are entitled to all the net earnings after interests and taxes. Of course, you must also bear the loss in case your company fails to produce a profit. There is no free lunch in this world.

See also "Bond" and "Dividends."

Compound Interest

Interest paid not only on the principal, but also on the interest earned so far. For example, for a deposit of $1,000 with a compound interest rate of 5% p.a., the balance at the end of the first year is $1,050, out of which $50 is interest earnings. In the case of compound interest, the $50 interest will also earn interest in the second year. So the total balance at the end of the second year will be, $1,000(1 + 0.05) + $50(1 + 0.05) = $1,102.5, or simply, $1,000$(1+ 0.05)^2$ = $1,102.50. In contrast, if we have simple interest, then the balance at the end of the first year is still $1,050; however, that at the end of the second year will be only $1,100, since we simply earn another $50 in the second year. In other words, if the interest is specified as simple interest as opposed to compound interest, then we earn interest only on the principal. As you can see, we definitely prefer compound interest as far as deposits are concerned.

Also see "Compounding" and "Compounding Frequency."

Compounding

The arithmetic process of finding the future value of a series of cash flows when the interest rate is specified as compound interest rate. For instance, with a compound interest rate of 10% p.a., the future value (at the end of year two) of $100 one year from now and $300 two years from now is 100(1+0.1) + 300 = $410. The reverse process (i.e., finding the present value of a series of cash flows) is called "discounting."

See also "Compounding Frequency."

Compounding Frequency

The frequency at which the interest is compounded. In the example of "compound interest," we show that, with an annual interest of 5% and an initial balance of $1,000, the balance at the end of year two will be $1,102.50. Here, the interest is compounded annually, meaning that we tally up the balance every 12 months and roll over the total balance. However, if the interest is compounded more frequently, then the balance would be higher. Suppose the interest is compounded semi-annually, i.e., we tally up the balance every 6 months. In this case, with a 5% annual rate, after 6 months, the total balance will be 1000(1+0.05/2) = $1,025. In the second half of the first year, we would earn interest on the $25 interest earned during the first half of the year. So the balance at the end of year one will be 1025(1+0.05/2) = $1,050.625. Compared with annual compounding, the amount of $0.625 is the extra interest earned during the second half of the year due to more frequent compounding.

In general, if the specified annual interest rate is *r* and the compounding frequency is *m* per year (e.g., *m* = 2 with semi-annual compounding), then the future value of $1 today *n* years from now is,

$$\left(1+\frac{r}{m}\right)^{mn}.$$

To continue the above example, the future value of $1,000 six years from now will be

$$1{,}000\left(1+\frac{0.05}{2}\right)^{2\times 6} = \$1344.89.$$

As you can see, the higher the compounding frequency, the higher the future value. More frequent compounding includes quarterly compounding, monthly compounding, weekly compounding, and daily compounding. There is even continuous compounding where the interest is compounded so frequently that the frequency *m* in the above formula is set to infinity! Don't get too excited though, since the extra gain is not that much, surprisingly. It turns out that when we set *m* to infinity, the above formula becomes e^{rn}. Therefore, with continuous compounding, the ending balance after six years will be $1000e^{0.05\times 6}$ = $1,349.86. The extra interest compared with the semi-annual compounding is only $1,349.86 – $1,344.89 = $4.97, just enough to buy a Big Mac at MacDonald's.

See also "Effective Annual Rate."

Contingent Claims

A term used interchangeably with "Derivative Securities."

Continuous Compounding

Please see "Compounding Frequency."

Convertible Bond

A bond that can be converted into common shares at a pre-specified conversion ratio. Conversion ratio is simply the number of shares each bond can exchange into. When the firm's stock is doing well, convertible bonds tend to get converted. Obviously, a convertible bond is more desirable than an otherwise identical straight bond, hence it tends to carry a lower coupon rate. Firms issue convertible bonds in order to save financing cost (i.e., lower coupons) and signal their confidence about its own future (i.e., higher stock prices). In this sense, the conversion feature is similar to warrants attached to regular bond issues.

Please see "Bond" and "Warrant."

Coupon Payments

See "Bond."

Credit Derivatives

A particular class of derivative securities. Specifically, they are securities whose payoff depends on the credit standing of one or more identities such as a bond, a company or even a country. CDOs and CDS are examples of credit derivatives. Credit derivatives can be used to either manage or speculate on credit risk. The market of credit derivatives first emerged in the late 90s and has undergone rapid growth ever since. The current market size is dozens of trillions of dollars. Credit derivatives played a critical (and negative?) role in the 2007 financial crisis.

See "Derivative Securities," "CDO," "CDS" and "Financial Crisis."

Credit Rating

Usually refers to the credit quality of a debt issuer. Please see "Bond Rating."

Crown Corporations

Corporations owned by a government. For example, Canada Post is a crown corporation owned by the Canadian federal government. The government may privatize the crown, in which case we say the corporation has gone public or is undertaking an initial public offering (IPO). One example is Canadian National (CN), which was privatized in November 1995.

As you can see, crown corporations are not firms making the elegant headwears worn by the royals.

See "IPO."

CSI 300 Index

Also called Hushen 300 or 沪深 300 in Chinese. It is a value-weighted or capitalization-weighted average of stock prices of 300 A-shares traded on the Shanghai Stock Exchange and the Shenzhen Stock Exchange (A-shares are those owned and traded by Chinese residents, while B-shares are owned by foreigners). "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. About 3/5 of the shares are traded on the Shanghai Stock Exchange and 2/5 on the Shenzhen Stock Exchange. Altogether they cover about 60% of the entire A-shares markets.

The index debuted on April 8, 2005 and was created by China Securities Index Company Ltd. (hence the name CSI 300 Index). Futures contracts are available on

this index. In fact, China Securities Index Company Ltd. also maintains 10 sector indices (e.g., CSI 300 Energy Index, CSI 300 Financial Index, CSI 300 Utilities Index). While the Shanghai Composite reflects the overall strength of the Shanghai market (both A-shares and B-shares), the CSI 300 Index reflects the overall strength of the A-shares markets in China.

See also "All Ordinaries," "CAC 40," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "Shanghai Composite," "S&P 500" and "S&P/TSX."

Currency Appreciation

It is a change in exchange rate. Specifically, it is the increase in one currency's value against that of another currency due to market conditions. For instance, if one Canadian dollar was worth 95 cents U.S. yesterday and it is worth 95.5 cents U.S. today, then we say the Canadian dollar has appreciated against the U.S. dollar. We speak of currency appreciation or depreciation when the currency in question is free to respond to market conditions.

See also "Currency Depreciation," "Currency Devaluation," "Currency Revaluation," and "Exchange Rate."

Currency Depreciation

It is a change in exchange rate. Specifically, it is the decrease in one currency's value against that of another currency due to market conditions. For instance, if one Canadian dollar was worth 95 cents U.S. yesterday and it is worth 94.3 cents U.S. today, then we say the Canadian dollar has depreciated against the U.S. dollar. We speak of currency depreciation or appreciation when the currency in question is free to respond to market conditions.

See also "Currency Appreciation," "Currency Devaluation," "Currency Revaluation" and "Exchange Rate."

Currency Devaluation

It is an adjustment in a controlled or government stipulated exchange rate. Specifically, it is the downward adjustment in one currency's value against that of the counterparty currency. For instance, the Chinese yuan used to be pegged to the U.S. dollars at 8.26 yuan per U.S. dollar. If the Chinese government adjusted the rate to 9.38 yuan per U.S. dollar, then we say the Chinese yuan had been devalued against the U.S. dollar. We speak of currency devaluation or revaluation when the exchange rate in question is officially controlled by the government. Incidentally, the Chinese yuan has become semi-free floating these days, i.e., it is now also subject to market forces.

See also “Currency Appreciation,” “Currency Depreciation,” “Currency Revaluation,” and “Exchange Rate.”

Currency Option

Option written on a foreign currency. It is the right to buy or sell a certain amount of foreign currency at a fixed change rate.

Please see “Option.”

Currency Revaluation

It is an adjustment in a controlled or government stipulated exchange rate. Specifically, it is the upward adjustment in one currency’s value against that of the counterparty currency. For instance, the Chinese yuan used to pegged to the U.S. dollars at 8.26 yuan per U.S. dollar. If the Chinese government adjusted the rate to 7.56 yuan per U.S. dollar, then we say the Chinese yuan had been revalued against the U.S. dollar. We speak of currency revaluation or devaluation when the exchange rate in question is officially controlled by the government. Incidentally, the Chinese yuan has become semi-free floating these days, i.e., it is now also subject to market forces.

See also “Currency Appreciation,” “Currency Depreciation,” “Currency Devaluation” and “Exchange Rate.”

Currency Swap

See “Swap.”

Current Assets

A firm’s investment in short-term assets such as cash, marketable securities, inventory, and accounts receivable. Here “current” means “ease of converting into cash.” It doesn’t mean that the firm also has “old” or “past” assets. The amount of current assets depends on the firm’s policy on working capital management.

See also “Accounts Receivable,” “Current Liabilities,” “Marketable Securities,” “Working Capital” and “Net Working Capital.”

Current Liabilities

A firm’s sources of short-term financing. They typically include accounts payable, short-term loans, maturing long-term loans, accrued taxes and other accrued

expenses such as wages. The amount of current liabilities depends on the firm's policy on working capital management.

See also "Accounts Payable," "Accrued Expenses," "Accrued Taxes," "Working Capital" and "Net Working Capital."

Current Ratio

It is the ratio of current assets over current liabilities. It measures a firm's ability to satisfy the claims of short-term creditors using exclusively current assets such as cash and marketable securities.

See also "Current Assets" and "Current Liabilities."

Current Yield

This is a concept pertaining to coupon paying bonds. It is the annual interest payment divided by the current price of the bond. For example, if a 9% coupon bond is selling for $968.32, then the current yield is 90/968.32 = 9.29%. Although frequently quoted by traders and brokers, current yield can be misleading if one doesn't fully understand the nature of bonds. As the name suggests, it only measures the current return from the bond. As time goes by, this number will change even if the interest rate remains constant. To continue the above example, the bond price will gradually revert to the par $1,000 as the maturity approaches. Therefore, the current yield on the bond will decline over time. But this will be offset by a capital gain due to the price appreciation. The opposite holds for a bond selling above par: the current yield will gradually increase, accompanied by a capital loss due to the price reverting to par. Regardless of the bond price, in net, the total return (i.e., the sum of current yield and the capital gain/loss) on the bond will be simply the market interest rate, and this return is more or less the same across different bonds.

See also "Capital Gain" and "Capital Loss."

Daily Compounding

Please see "Compounding Frequency."

DAX

It is a widely watched stock market index in Germany. Similar to Dow Jones Industrial Average in the U.S., DAX is based on only 30 major stocks listed on the Frankfurt Stock Exchange. As a result, just like the Dow, DAX provides a general indication of the German market, but doesn't necessarily represent the entire German equity market. Unlike the Dow which is a price-weighted average, DAX is essentially an average of market capitalization of the component stocks.

The name DAX comes from Deutscher Aktien Index which simply means German stock index.

See also "All Ordinaries," "CAC 40," "CSI 300," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P 500," "S&P/TSX" and "Shanghai Composite."

Day Order

A trading request submitted by a customer to either buy or sell stocks that is good for the day. By the end of the day, if the order is not canceled or still not executed, then it expires automatically. All orders are day orders unless otherwise specified.

See also "Limit Order" and "Market Order."

Debenture

A type of borrowing by corporations. They are bonds not backed or secured by any collateral.

Decimalization

We also speak of stock market decimalization. It refers to the quoting of stock prices accurate to the penny. The term is spoken mostly with respect to the history of the U.S. stock markets. Since the origin of the NYSE in 1792, stock prices had been quoted in 1/8th of a dollar (e.g., $23 3/8). In other words, the smallest possible price change was $0.125. The 1/8th quoting practice was in turn adopted from the old Spanish way of dividing their currencies: 2's, 4's and 8's. The quoting based on 1/8th lasted until 1997 when the American Stock Exchange first abolished the 1/8th and adopted 1/16th on March 13, 1997. Then NASDAQ followed suits on March 25. Under tremendous pressure from the regulators, the NYSE finally also adopted 1/16th quoting on June 24, 1997. The change from 1/8th to 1/16th paved the way for the eventual decimalization. The SEC decreed that all U.S. exchanges must quote prices in decimals (i.e., to the penny, e.g., $37.59) by April 9, 2001. So April 9, 2001 marked the official beginning of the decimal quoting era. However, most of the exchanges already adopted penny quoting before this deadline.

See "NYSE," "NASDAQ" and "SEC."

Default

Failure to fulfill a contract or an obligation. For example, a company may default on its bonds by not paying interest. In such a case, the company will be put under court protection so that it can undergo restructuring. (Students failing to hand in an

assignment may also be considered as a form of default. But the students in question are generally not eligible for court protection!)

Depreciation

It is the annual charge against accounting income that reflects the cost of capital equipments used up in production. For reporting purposes, a firm can choose its own method of depreciation (e.g., straight-line method); but for tax purposes, the firm must use the Capital Cost Allowance (CCA) schedule to calculate the allowable amount. It is important to stress that depreciation is an accounting number, not a cash flow. The firm already pays up the total price of the equipment when it acquires it; the firm no longer has to incur additional annual expenses (i.e., depreciation) down the road. The easiest way to understand depreciation is from the tax perspective. Generally, firms are allowed to deduct production costs from revenue when calculating taxable income. Investments in plants and equipments are of course part of the production costs. But since their economic life is much longer than a tax cycle (usually one year), the tax authorities do not allow firms to claim the entire capital investment as production costs in one year. They want firms to spread the costs over the years during which the equipments in question are in service. This is why depreciation shows up in income statements.

Derivative Securities

A general term for a special class of financial instruments. A derivative security is a financial instrument whose value is derived from a fundamental security such as a bond or a stock. For example, you can sell a piece of paper to another individual, which obliges you to sell one share of Air Canada's stock at $4 three months from now. This piece of paper is obviously a contract between you and the other party. For the other party, the contract is worth some money, because after three months, the Air Canada stock may be trading at $6, in which case the other party will have a net profit of $2. Today's value of the contract obviously depends on the future performance of the stock. In other words, its value is derived from the value of the Air Canada stock. This type of contract is actually called a "Call Option."

See "Call Option," and "Put Option."

Dirty Price

The price of a bond that includes the interest accrued since the last coupon payment. It is the sum of the bond's "clean price" and the accrued interest. This is the price a buyer pays when he/she buys the bond. To illustrate, suppose you are acquiring a bond that pays semi-annual coupons with an annual coupon rate of 8%. Two months have past since the last coupon payment, and suppose the clean price is $928. Since you will receive the next coupon but you only earn it for four months, so to speak, so you must also pay for the two months that have passed. The accrued

interest in this case is, [8%($1,000)/2](2/6) = $13.33. So the dirty price is $928 + $13.33 = $941.33.

See also "Clean Price."

Discount Bond

A bond that does not pay coupons. Investors purchase the bond at a "discount" and receive the par value at the end of the investment period. For example, Jack purchases a Government of Canada discount bond for $863.84. The bond matures three years from now, at which point he will get $1000 (par value) back. No coupon payments are made between now and maturity. In a sense, a discount bond is almost the same as a T-bill, except that a discount bond normally has a longer maturity. A discount bond is also like a GIC except that a GIC is guaranteed by the CDIC (Canadian Deposit Insurance Corporation) while a discount bond is not.

Note that the word "discount" has nothing to do with lowering prices to attract customers.

See also "Bond," "Strip Bond," "GIC," "T-bill," and "CDIC."

Discount Rate

Rate of return used to value future cash flows. It essentially measures the worth of tomorrow's money in today's terms. For example, if $1 one year from now is worth $0.83333 today, then the discount rate is 20%: $1/(1 + 0.2) = $0.83333. Of course, knowing the discount rate and future cash flows, we can also find their today's value. For example, with a discount rate of 10% per year, $100 one year from now plus $150 two years from now will be worth,

$$\$100/(1 + 0.1) + \$150/(1 + 0.1)^2 = \$214.88 \text{ today.}$$

Discount Rate is not to be confused with the percentage markdown in a merchandise sale.

Also see "Internal Rate of Return" and "Net Present Value."

Discounted Payback Period

See "Payback Period."

Discounting

The process of finding the present value of a series of cash flows. It is the reverse process of compounding. For example, if you are scheduled to receive $2,000 one year from now and $3,500 two years from now, and the interest rate is 10% p.a.,

then we discount the two payments to get the present value: $2000/(1+0.1) + 3500/(1+0.1)^2 = \$4{,}710.74$.

Please see "Compounding."

Diversifiable Risk

Synonym of "nonsystematic risk."

Diversification

It is an equivalent saying of "don't put all your eggs in one basket." If you invest all your money in only one stock, then your fortune will depend on the performance of this stock. If the stock takes off, you become rich; if the stock tanks, you become poor. However, if you spread your money over several stocks, which we call a portfolio, then your fortune will not take wild swings. This is because, although the individual stocks within the portfolio may still fluctuate a lot (some shooting up, while some other dropping like flies), the overall combined return will be stable thanks to the cancellation effect. In other words, by holding more stocks in one portfolio, we can hope the idiosyncratic movements to cancel each other and are left with the stable growth that is the market-wide return. The canceling of the idiosyncratic movements among individual stocks is called diversification. As a rule of thumb, holding 10 to 15 unrelated stocks will achieve almost complete diversification.

Please see "Portfolio."

Dividend

Income received from common stock investments. Just as you receive interest by holding bonds, you receive dividends by holding stocks. Dividends are paid by companies from which you purchased your shares. Normally, they are paid quarterly. As a rule of thumb, dividend yield is generally lower than the yield from investing in bonds.

See "Dividend Yield" and "Bond."

Dividend Reinvestment Plan (DRP or DRIP)

A plan that allows shareholders to automatically reinvest their cash dividends in additional shares. Many Canadian companies have DRP's or DRIP's. Examples include BCE and Canadian Tire. The main advantage of DRP's is the ability to acquire more shares without incurring commission fees. However, since shareholders in effect receive cash dividends first and then purchase company shares, they still have to pay taxes on the dividend amount.

Dividend Yield

The total amount of per-share dividends received during the year divided by the share price. The numerator is well defined while the denominator is up to certain choices. One may use the beginning-of-the-year price or some average of the stock prices during the year. For instance, suppose the total per-share dividends amount to $2.5 for a particular year, and the year-start and year-end stock prices are $95 and $105 respectively. Then the dividend yield is 2.5/95 = 2.63% using the year-start price and 2.5/100 = 2.5% using the average price. If the investor bought shares at the beginning of the year and held them until the year end, then 2.63% would be an appropriate measure of dividend yield.

Dodd-Frank Act

It is the shorthand name for "Dodd–Frank Wall Street Reform and Consumer Protection Act" signed into law by President Obama in July 2010. It was named after two members of Congress, Chris Dodd and Barney Frank, due to their active involvements in the formation and presentation of the Act.

The Dodd-Frank Act was in response to the fallouts of the 2007 Financial Crisis and the ensuing recession. It is a comprehensive and far-reaching legislation that touches almost every main aspect of the financial industry. Many rules were revised and/or introduced and many new regulatory bodies were established.

One of the most noticeable changes has to do with hedge funds. Previously, hedge funds were largely unregulated. Under the Dodd-Frank Act, hedge funds with assets more than $100 million must register with the Securities and Exchange Commission (SEC) and report their trading activities. Another is the so-called Volcker Rule which prohibits depositing taking institutions such as banks from engaging in proprietary trading. To ensure better management of counter-party credit risks, the Dodd-Frank Act also requires that standardized over-the-counter (OTC) products such as CDS be clearly by a central clearing party or an exchange.

Some of the newly established regulatory bodies include: the Bureau of Financial Protection, the Federal Insurance Office, the Financial Stability Oversight Council, the Office of Credit Ratings, and the Office of Financial Research.

See "Financial Crisis of 2007," "Hedge Fund," "Securities and Exchange Commission (SEC)," "Volcker Rule," "Over-the-Counter (OTC) Market" and "Credit Default Swap (CDS)."

Dollar Cost Averaging

An investment strategy where money is invested in installments at equal intervals. Suppose you would like to invest $12,000 per year in the stock market. You could either make the entire investment once, or spread over, say, 12 months by investing

$1,000 per month. The spreading strategy is the so-called dollar cost averaging. The advantage of this strategy is the avoidance of the negative effect of major market swings. In other words, because you are buying over a period of time, for a fixed investment amount (e.g., $1,000) you will acquire more shares when the market is low and fewer shares when the market is high, allowing you to average out the overall purchase cost.

Dotcom Bubble

Also known as the "tech bubble" or "internet bubble." It refers to the internet-venture frenzy in the period of 1997 to 2000. The talk of business revolutions due to the emergence of internets started in the early 1990s. Various e-commerce ventures started to sprout here and there. By the mid 1990s, large-scale ventures emerged which captured the attention of people from all walks of life, many of whom eventually became investors in the dotcom stocks (a well known example is eBay, founded in 1995). By 1997, the party had truly begun. Many ventures were started and almost all were embraced by investors with a great deal of enthusiasm. Any new company with a name prefixed by "e-" or involving ".com" would fly (needless to say, the moniker "dotcom" came from ".com").

In January 1997, the Nasdaq composite (dominated by technology stocks) stood at 1,300. Thanks to the unbridled optimism and speculative trading, the index was propelled to its peak at 5,048.62 on March 10, 2000. Along the way, many ordinary folks got quite rich which in turn inspired their neighbors, colleagues, friends and relatives. Everybody was scrambling for a seat in the express train with rich-paradise being its destination. Unfortunately, the train rudely jerked everyone onboard after March 10, 2000. By December 20, 2000, the Nasdaq composite fell to less than half of its peak at 2,332.78. The train continued to travel to the wrong destination with its devastated passengers until October 9, 2002 when the Nasdaq composite plummeted to 1,114.11, about 1/5 of its peak. Some of the newly minted rich quickly turned into paupers. In fact, quite a few were so devastated that they ended their own lives.

It goes without saying that not all e-commerce ventures went bust after the bubble had burst. Some emerged from the wreckage and are now thriving (hello, Amozon.com, eBay). Even some of the dead died with legacy (e.g., pets.com).

In any speculative bubbles, most players consider themselves as rational, though rarely admitting being greedy. They are keenly aware that the price is not sustainable and will fall eventually. But they can't bear observing people around them getting rich while they themselves are being left behind. They rush in and buy the stock (or tulip bulb, or whatever is being speculated on) and wait to sell it to the next fool. Rational? Apparently. Ethical? Nobody cares. Greedy? Absolutely.

See "Nasdaq Composite." Also see "South Sea Bubble" and "Tulipmania."

Dow Jones Industrial Average (Dow)

It is a widely watched U.S. stock market index. It is calculated out of the stock prices of the 30 largest U.S. companies. Thus it is sometimes also called the Dow 30 or simply the Dow. The index was first constructed at the end of the 19th century. As you might have guessed, "Dow" and "Jones" are two surnames: Charles Dow and Edward Jones, co-founders of Dow Jones & Company which owned the iconic *Wall Street Journal*. Believe or not, there was a third, equal co-founder named Charles Bergerstresser. Initially, they tossed around a few names including "Dow, Jones, and Bergerstresser" and "Berger, Dow and Jones," and didn't like any. In the end, they settled with Dow Jones & Company. Poor Charles Bergerstresser! Who says name doesn't matter?!

Incidentally, although widely watched, the Dow is rather different from other stock market indices such as S&P/TSX or S&P 500 in terms of construction. Instead of valued-weighted, the index is price-weighted, meaning that the higher the stock price, the bigger weight it enjoys in calculating the index.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "FTSE 100," "Euro Stoxx 50," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Draft

A draft is also called a "bill of exchange." It is a form signed by one party to request a sum of money from another party. It is used most often by importers and exporters. Once the draft is accepted or guaranteed by a bank or a company, it becomes a "Bankers' Acceptance." In finance, "draft" has nothing to do with snapping up good hockey players or going to the army.

Duration

The average, effective maturity of a coupon bond. We can think of a coupon bond as a series of discount bonds. Each coupon (and the par) can be thought of as a single discount bond. Since the current value of the bond is simply the sum of the present values of all the future coupons and the par (i.e., all the "discount bonds"), dividing the present value of each "discount bond" by the current value of the bond gives us the weight of each discount bond. The weighted average of the discount bond maturities is then duration. It turns out that duration also measures a bond's interest rate sensitivity. For example, if a 10-year bond's duration is 5.8 years, then for a one-percent change in interest rate, the bond price will change by 5.8 percent.

See also "Discount Bond."

Earnings per Share (EPS)

Total earnings divided by the total number of shares outstanding. If we divide the earnings per share by the share price, we will have something like earnings yield, which is the reverse of P/E ratio. Please see P/E ratio.

EBIT

Earnings Before Interest and Taxes. It is the total income (operating and non-operating) before deductions of interest and taxes.

EBITDA

Earnings Before Interest, Taxes, Depreciation and Amortization. It is the total income (operating and non-operating) before deductions of interest, taxes, depreciation and amortization. It is a measure of a company's profitability from business operations. In other words, it measures a company's performance before taking into account all other non-operating related factors such as financing decisions (interest expenses), jurisdictions (taxes), capital asset investments (depreciation), and the amount of goodwill (amortization). Evidently, EBITDA is a cleaner version of EBIT. Thus it is favored by those who do company valuations for such purposes as mergers and acquisitions.

Effective Annual Rate (EAR)

In order to understand EAR, you need to read up "compounding frequency" first. When the stated annual rate is compounded more than once a year, we are able to earn interest more frequently. As shown in the explanations of "compounding frequency," for the same annual rate, more frequent compounding will lead to a higher balance for the same initial amount of deposit. For example, with an annual rate of 12%, regular annual compounding will lead to a balance of \$1.12 after one year if the initial deposit is \$1. But with semi-annual compounding, the ending balance is $(1+0.12/2)^2$ = \$1.1236. In this case, we can say that the effective annual rate due to semi-annual compounding is 12.36%. In other words, an annual rate of 12% compounded semi-annually is equivalent to an annual rate of 12.36% compounded annually. In general, if the stated annual rate is *r* and the compounding frequency is *m* times a year, then the EAR is solved from

$$\left(1+\frac{r}{m}\right)^m = 1 + EAR, \text{ in other words, } EAR = \left(1+\frac{r}{m}\right)^m - 1.$$

To give another example, with an annual rate of 8% and daily compounding, the EAR is $(1+0.08/365)^{365} - 1 = 0.08328 = 8.328\%$.

Equity

This word can mean quite different things in different contexts. In the fields of finance and accounting, it means stock ownership or investment. When a firm goes out to raise funds, it may issue either debt or equity. In this context, "issuing equity" means issuing new shares. Since shareholders are the ultimate owners of the firm, the moment they purchase the new shares, they become new owners. The shares can be traded subsequently on stock exchanges. Those who sold the shares have relinquished their ownership while those who bought the shares have assumed ownership. In this case, we say that the buyers have made some equity investment. In investment jargons, "equity" is synonymous to stocks.

Equity Premium

Refers to the extra return (over and above the risk-free rate) investors demand from investing in equity. Since stocks or equity are risky, investors would require fair compensation for bearing that risk. That compensation is in the form of higher expected returns from investing in the stock. For instance, if the GIC rate is 3%, then an investor investing in a stock may require the stock to return 8% per year. The 5% differential in this case is the equity premium. Obviously, the risky the stock, the higher the equity premium. How do we measure a stock's risk level? One measure is the so-called "beta," which can be plugged into the CAPM to obtain an expected return. Please see "Equity," "Beta" and "Capital Asset Pricing Model (CAPM)" for details.

Equity Swap

Please first look up "Swap." It is a swap involving either a stock or a stock market index, with the preponderance being the latter. Simply put, an equity swap allows an investor to obtain the return on a particular equity without actually acquiring that asset. How does it work? Suppose Ontario Teachers Pension Plan (OTPP) would like to diversify into the Japanese market. A direct approach would be to purchase many Japanese stocks on the Tokyo Stock Exchange. This will be costly (e.g., paying commissions) and cumbersome. Instead, OTPP could enter into an equity swap with a counterparty whereby, within the next, say, five years, OTPP will receive the actual return on the Nikkei 225 index while paying LIBOR plus a spread every year (and the swap could be based on any principal amount desired, e.g., $100 million). The yearly payment based on the LIBOR can be thought of as the financing cost of the investment. Here, OTPP is able to diversify into the Japanese market without actually investing there. Obviously it also bypasses all the regulatory restrictions in both countries concerning cross-border investments.

Of course, there is no reason why the returns on two stock market indices cannot be exchanged directly. For instance, OTPP may enter into an equity swap with a Japanese pension fund whereby they each receive the other country's stock market return (Nikkei 225 versus S&P/TSX).

See “Nikkei 225” and “LIBOR.” Also see “Commodity Swap,” “CDS (Credit Default Swap),” “Asset Swap” and “Total Return Swap.”

ETF (Exchange-traded Fund)

A type of investment funds traded on stock exchanges such as the TSX and NYSE. Unlike mutual funds whose primary mandate is to deliver superior returns, ETFs typically track a well-known index, be it a stock market index or a commodity index or a bond index. This well-defined mandate means that trading is kept to the minimum, which necessitates a very low management fee. In fact, in many cases, the tracking is done via leveraged derivatives trading, which is an even cheaper form of trading. This is why ETFs usually have extremely low management fees (measured in basis points). Competition is another driving factor for low fees. The relatively low entry barrier enables many new players to join the foray. There are now hundreds of ETFs available covering the entire spectrum of investment choices (e.g., market index ETFs, sector ETFs, country ETFs, etc.)

Another advantage of ETFs over mutual funds is the ability for investors to short them just like stocks.

See also “Mutual Funds,” “Basis Point” and “Short/Short Selling.”

Euro

The name of the unified currency adopted by the European Union. The currency was launched on January 1, 1999 and the exchanges rates among the member countries were frozen irrevocably after that date. The new currency went into circulation from January 1, 2002.

Euro Currency

Any currency transacted outside of the country of issue. For example, if someone deposits ¥20 million into a bank account in Singapore, then the 20 million Japanese yen will be referred to as Euro yen.

Please see “Eurodollar.”

Euro Stoxx 50

A closely followed stock market index based on 50 stocks in the Eurozone. It was launched in 1998 by Stoxx Limited, an index provider headquartered in Switzerland. The 50 stocks are issued by blue-ship companies representing the main sectors of a dozen Eurozone countries including France, Germany and The Netherlands. There are liquid ETFs, futures and options on the index. As a matter of fact, Stoxx Limited

offers a host of other indices some of which also serve as the underlying for ETFs, futures and options. Please see the company's webpage for details.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Eurodollar

U.S. dollars transacted outside of the United States. Since this type of transactions originated in Europe (mostly in London) shortly after the Second World War (when Eastern European investors started shifting their U.S. dollar deposits out of the U.S. due to the cold war), the dollars were dubbed "Eurodollars." But the term has been generalized. Any currency that is transacted outside of the country of issue is generally referred to as Euro currency. Therefore the Japanese currency borrowed or lent in Canada will be called Euro yen, and so on. Confusion started to develop as the European Union rolled in its own new currency in 2002 that is called "Euro." But the confusion is now gone since the currency euro is already well known.

Euronext

Headquartered in Amsterdam, it is an electronic stock exchange owned by NYSE Euronext. It first came into existence in 2000 following the merger of Amsterdam Stock Exchange, Brussels Stock Exchange, and Paris Bourse. In 2001, it acquired the London International Financial Futures and Options Exchange (LIFFE), completing its dominance in Europe on listings of both equities and derivatives. Its clout got further enhanced in 2007 when it joined forces with NYSE Group, Inc. to become NYSE Euronext.

See also "NYSE Euronext," "Equity," and "Derivative Securities."

European Option

A European option is an option that can be "exercised" only on a specific future date. Suppose you have a call option on a stock. The option matures on June 1, and it is now March 23. One such option allows you to buy one share at $80. Then, before June 1, there is nothing you can do no matter how high the share price is. You can only buy the share on June 1, should its price be above $80.
A European option can be a call option or a put option. Here, the word "European" does not have any geographical connotation, but it may make the Europeans look bad though. To see why, please see "American Option."

See also "Options," "Call Option," "Put Option," "American Option," "Asian Option," and "Exercise Price," or "Strike Price."

Ex-dividend Date

The date on which the dividend leaves the share. Why does the financial industry create such a date? The purpose is to avoid confusion and ensure fairness with respect to dividend payments when the shares are being bought or sold around the time the dividend is paid. To illustrate, suppose the company announces that it will make a quarterly dividend payment of $0.5 per share to those shareholders who are on record as of Friday, June 10. Suppose Mary Smith buys 100 shares from John Turner on June 9 (Thursday). When the firm compiles its shareholders list, it has not received the notification from the broker who handled the transaction, and John Turner's name is still on the list. So the dividend goes to Mr. Turner. However, on June 10 when the dividend is paid, the share price will naturally drop by $0.5. Poor Ms. Smith suffers a loss of $0.5×100 = $50 for nothing! This is not fair! To avoid such a situation, the major exchanges in North America require two business days prior to the record date for recording ownership changes. The date two days prior to the record date is then called the ex-dividend date. The dividend leaves the share on this day. In our example, Mr. Turner will not receive the dividend since it has already left the share. Rather, Ms. Smith will receive it, which will make up the $0.5 loss per share on June 10.

See also "Dividend."

Exchange Rate

It is the units of a given currency that can be purchased with one unit of another currency. For example, in the first half of 2013, the exchange rate between the U.S. dollar and the Canadian dollar is about $0.97US/Cdn$. This means that one Canadian dollar can buy 0.97 U.S. dollars.

One wonders why some currencies (e.g., the British pound) are so big while some other currencies (e.g., the Japanese yen) are so small. A smaller currency doesn't mean the issuing country is poor; and a bigger currency doesn't indicate extra wealth either. There are two fundamental factors determining the general magnitude of the exchange rate between two currencies: the total wealth of each country and the quantity of currency each government chooses to circulate. The former is endowed and the latter is man-made. So, the magnitude of the exchange rate per se doesn't have any real consequence; but the change of exchange rate over time does have real consequences.

Executive Stock Options

Call options issued by the company to its Chief Executive Officer (CEO) and other major executives for incentive purposes. The call options are given to the executives for free, and each option allows the holder to purchase one share of the company's stock at a fixed price (usually the stock price at the time of issue) on a future date (usually 5 to 10 years from the date of issue). The executive will supposedly have

incentives to work harder in improving the stock price since he will personally benefit from the higher stock price through exercising the options. The executive is restricted from selling the options. In addition, companies typically lay out some specific conditions under which the options can be exercised. The conditions usually include a target earnings per share or ROE. Companies also issue stocks to their executives for incentive purposes.

See also "Call Option," "ROE."

Exercise Price

It pertains to an option. It is the price at which the owner of the option can buy or sell the security. Suppose you own a European call option on a stock that is trading at $45 now. If the exercise price is $47 and the maturity date of the option is three months from now. Then you have the right to purchase a share at $47 three months later should the stock price be above $47. For instance, if the stock price is $53, then you profit $53 – $47 = $6.

See also "Options," "Call Option," "Put Option," "American Option," "European Option," and "Asian Option."

Extendable Bond

A bond whose maturity can be extended at the choice of the bondholder. It is desirable to extend the maturity when the prevailing interest rate at maturity is lower than the coupon rate. Other things being equal, an extendable bond will sell more than a regular bond. An extendable bond is the opposite of a callable bond which can be retracted by the issuer when the interest rate goes up.

See also "Bond" and "Callable Bond."

Face Value

Par value of a bond, usually specified as $1,000. Not to be confused with how much money a movie star spends on her facial lifting.

See "Bond."

Fannie Mae

Nickname for Federal National Mortgage Association (FNMA). If you try to pronounce FNMA, it sounds like Fannie Mae. Just an easy name to pronounce and remember. No particular meaning behind the words "Fannie" and "Mae."

Fannie Mae was created in 1938 by the U.S. government to help ordinary Americans acquire home ownership in the Great Depression era. As a government agency, Fannie Mae basically operated a secondary mortgage market. What is a secondary mortgage market and how did that facilitate home ownership? Fannie Mae purchased mortgages from banks, savings and loans associations (similar to credit unions) and other mortgage providers, and securitized them as something called mortgage-backed securities. These mortgage-backed securities are then sold to the public. This process helped banks, savings and loans associations and other mortgage providers free up the funds tied up with the original mortgages so that they could make additional mortgages available to more home buyers.
In 1968, Fannie Mae was converted into a public company with shares listed on the NYSE. However, the core business stayed the same: operating in the secondary mortgage market. To maintain the governmental support to home ownership, part of the original Fannie Mae didn't go public and stayed as an government agency, which is today's Government National Mortgage Association (GNMA), nicked named "Ginnie Mae."

Shortly after privatizing Fannie Mae in 1968, the U.S. government created another public company to conduct exactly the same business as Fannie Mae for the sake of competition. That public company was Federal Home Loan Mortgage Corporation (FHLMC), nicknamed "Freddie Mac." Before long, the two public companies were of comparable size in terms of total assets, though Freddie Mac was a bit smaller.

Because of their heavy exposures to subprime mortgages, both companies were in deep trouble in the 2007 financial crisis. Since they were both quite large (too big to fail) and their downfall would shake the already shattered confidence in the housing market, the U.S. government swiftly nationalized the two companies in September 2008 (i.e. they were put into the so-called conservatorship). In June 2010, the stocks of both companies were delisted from the NYSE. To everyone's relief, both companies recovered subsequently. In 2013 along, Fannie Mae paid almost $100-billion dividends to the U.S. Treasury.

See "Securitization," "Mortgage-backed Securities," "Financial Crisis of 2007," "NYSE." Also see "Canada Mortgage and Housing Corporation (CMHC)."

Federal Deposit Insurance Corporation (FDIC)

The U.S. counterpart of CDIC. The coverage is $250,000U.S. per depositor.

See "CDIC."

Federal Reserve System

The monetary authority and central bank of the United States of America. The system includes 12 Federal Reserve Banks representing twelve geographic regions

of the U.S. and is authorized to regulate monetary policy in the U.S. and to supervise the commercial and savings banks of the entire country. It also sets the so-called "discount rate" which is the U.S. counterpart of the "bank rate" set by the Bank of Canada.

See also "Bank of Canada," "Central Bank" and "Bank Rate."

Financial Crisis (of 2007)

It refers to the crisis in the financial sector of the U.S. and its ripple effects throughout the world. Roughly speaking, it started in 2007 and ended in 2009. It is considered to be one of the worst financial crises in modern history. The pathology of the crisis is quite complex. In a nutshell, it was a result of an overheated housing market in the U.S. and the overuses and abuses of credit derivatives.

The U.S. housing market took an unprecedented bull run leading up to 2006, thanks to easy credit in the form of subprime loans. To compete for businesses, banks and other financial institutions offered mortgages to customers without stable income and almost zero wealth (what we call subprime loans). Things were good for everyone as the housing market continued to reach new highs: borrowers can use their houses as collateral and obtain easy loans; banks can earn handsome interest on their mortgage loans without worrying about default since they can always take over the house should the buyer default. All is well as long as the housing price keeps going up. Well, you know what we are hinting here. When the housing price took a nose-down, all hell broke loose. In most cases, it was actually in the interest of house owners to turn in the keys and declare bankruptcy since their mortgages were much more than the house values.

Parallel to the housing market boom, the trading of credit derivatives such as CDOs and CDS also reached to historical levels. In many cases, deals were struck purely for the purpose of betting (facilitated by things like CDS and CDOs). Since there were only a few big players out there (e.g., Lehman Brothers and Bear Stearns), the deals inevitably created a web which precariously linked everyone's wellbeing. When one bank coughed, all the others sneezed. Indeed, Wall Street icons such as Lehman Brothers, Bear Stearns, and Merrill Lynch all fell to their knees in the end.

The financial crisis spread to other parts of the world too, especially Europe (although the prolonged financial woes in Europe were, in large part, the European's own making).

See "CDS," "Subprime Loans" and "CDO."

Financial Engineering

A process in which financial securities are designed and packaged with innovative features. Typically, financial engineering involves creating certain type of derivative securities. House construction is to civil engineering as security packaging is to financial engineering. They both involve putting raw materials together to come up with something for a particular purpose.

Civil engineers wear hard hats and heavy boots for safety and protection while financial engineers "wrap" themselves in legal papers full of cryptic fine prints.

Fixed-income Securities

Securities that have a fixed claim on the firm's revenue or income. Bonds and preferred shares are examples of fixed-income securities. Bondholders receive fixed income in the form of coupon payments and holders of preferred shares receive fixed income in the form of dividends. In contrast, common shareholders receive variable income since dividends on common shares are not guaranteed and can vary over time depending on the performance of the firm.

It should be noted that "fixed-income securities" generally refer to debt securities, and the income can indeed vary on some types of debt securities. For example, a bond may have a variable coupon rate linked to, say, the inflation rate.

See also "Bond" and "Preferred Shares."

Fixed-rate Mortgage

A mortgage whereby the rate is fixed. Typically the rate is renegotiated every five years, meaning that every five years, the rate is fixed according to the market condition. Once the rate is fixed, the monthly payment will remain the same over the five-year period. Please see "Mortgage" and "Variable-rate Mortgage" for related information.

Forward Contract

A forward contract is an agreement to buy or sell an asset or commodity at a pre-specified price on a future date. For example, a farmer can enter a forward contract in June to sell his wheat in September. Suppose the contract is for 100,000 bushels at a price of $9 per bushel. Then in September, the farmer must deliver 100,000 bushels of wheat, and he will get 100,000*9 = $900,000, no matter what the prevailing market price of wheat is in September. If the price is lower than $9, then the contract will turn out to be beneficial. But if the price is higher than $9, the contract will have an adverse effect on the farmer's total profit, since he could have sold the wheat at a higher price. Using a forward contract to lock into a fixed price is called "hedging."

Obviously, a forward contract has two parties, both of which must honor the contract. Forward contracts are not formally traded on exchanges.

See also "Hedging."

Forward Interest Rates

To properly understand this term, you need to read up "Spot Interest Rates" first. Forward interest rates are rates applicable to future periods. Suppose the one-year, two-year and three-year spot rates are 2.50% p.a., 2.75% p.a. and 3.00% p.a., respectively. Those are the rates applicable if you want to deposit money right now. What if you like to arrange a two-year deposit one year from now, and you would like to fix the rate now? This rate is an example of forward rates. How do we work it out? We can arrive at the proper forward rate by commonsense. Let this forward rate be R. Then, we can compare two investment alternatives: 1) invest $1 today for three years at 3.00% p.a. to end up with $1(1+0.03)^3, and 2) invest $1 today for one year at 2.50% p.a. and roll it over for another two years at R to end up with $1(1+0.025)(1+R)^2. Since both investments are for $1 and a three-year period, they must lead to the same ending return if R is properly set. In other words, we must have $(1+0.03)^3 = (1+0.025)(1+R)^2$. We can solve R as R = 3.25%. We can use similar methods to solve for other forward rates.

See "Spot Interest Rates."

Forward Price

Please first look up "Forward Contract." It is a price of a security or commodity contracted today but applicable for a future transaction. In other words, it is the price agreed upon by both parties in a forward contract. For instance, suppose today's stock price is $100, and Mike agrees to sell Lisa the stock for $105 one year from now, then the price $105 is called the forward price of the stock. Clearly, a forward price is time and maturity specific. In other words, for the same current price, the forward prices are different for different future dates. Likewise, for the same future date, the forward price changes as we march along time since the current price changes. Naturally, the current price and forward price (of any maturity) are positively related.

The concept of forward price applies to almost any asset (e.g., stocks, stock indices, bonds, commodities, foreign currencies, and so on).

Freddie Mac

See "Fannie Mae."

Front Running

An illegal practice whereby a stockbroker, with privileged information about the direction of potential price movements, buys or sells stocks on his own account before executing orders from his customers. Front running can take many forms. For instance, a broker receives a very large order from his customer to buy Stock ABC. Knowing that the buying pressure from this large order will push the price up, the broker can purchase some shares on his own account, then execute the large buy order, and finally offload his own shares after the price is being pushed up. Likewise, if he receives a large sell order, he could short the stock first on his own account and purchase the shares back after the price is depressed. Stockbrokers can also profit from information unrelated to customer orders. For instance, Broker A learns from his analyst colleague B that the quarterly earnings of company XYZ will be much higher than expected. Broker A could then purchase XYZ shares and wait for the price to go up (upon the earnings announcement). Offloading the shares at the higher price will make a nice killing.

Front running is not just unethical, it is outright illegal.

See also "Short/Short Selling."

FTSE 100

It is a widely watched stock market index in the U.K. It is a value-weighted or capitalization-weighted average of stock prices of the 100 largest companies traded on the London Stock Exchange. "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. The acronym FTSE is derived from Financial Times and (London) Stock Exchange. FTSE Group, which maintains the FTSE 100 index, is a joint venture between Financial Times and the London Stock Exchange, hence the name.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Fund of Hedge Funds

Also called "fund of funds." A fund of hedge funds is a mutual fund of hedge funds. In other words, it is an investment company that invests in hedge funds (as opposed to individual securities). Although hedge funds themselves are subject to very little regulation, funds of hedge funds must file certain reports to concerned authorities.

See also "Hedge Fund" and "Mutual Fund."

Fundamental Analysis

A type of stock analysis with the ultimate goal of determining the intrinsic or true value of the stock. As the term suggests, the focus is on fundamentals. One may follow either a top-down approach or a bottom-up approach. In a top-down approach, one would look at the fundamentals of the economy, the industry and the company in question, in that order. In a bottom-up approach, the order is reversed and the analysis of the industry and the economy is only to supplement the company analysis. Of course, the flow of analysis is usually author-specific and there is no need to follow a rigid format.

The fundamental factors being analyzed include (but not limited to): overall economic state (interest rate, consumer confidence, etc.), industry state (competition, regulation, etc.), and all elements pertaining to the firm (sales, costs, earnings, etc.).

Ultimately, the author of a stock's fundamental analysis will provide either a range or a point estimate of the stock price and, in reference to the current trading price, make a buy, hold or sell recommendation. Some sort of valuation models might be utilized to come up with the price estimate.

In contrast to "technical analysis," fundamental analysis does not place much emphasis on things like trading patterns in price or volume.

See also "Technical Analysis."

Futures Contract

Exactly like a forward contract except that a futures contract is standardized and formally traded on major exchanges such as the Winnipeg Commodity Exchange and the Chicago Mercantile Exchange.

GIC

A GIC (Guaranteed Investment Certificate) is an investment instrument offered by banks, insurance companies and trust companies. The term of a GIC can range from six months to five years. "Term" means the length of time you would like to lock your money in. For example, a two-year, 5% GIC of $1,000 means you deposit $1,000 today, you will get $50 interest each year in the next two years, and you will also get the $1,000 back at the end of year two. The 5% interest rate is guaranteed. Normally, the longer the term, the higher the rate. Banks frequently require a minimum amount of deposit, usually $1,000. It should be noted that the rate on GIC's is normally much higher than the rate you can get from your savings or checking account.

A drawback of GIC's is that once you lock your money in, you cannot get it back before the term ends. For this reason, the rates on GIC's are usually higher than those on similar instruments such as term deposits.

GIC's are insured under the CDIC.

See also "Index-linked GIC" and "CDIC."

Glamor Stock

Another name for growth stock. See "Growth Stock" for details.

Glass-Steagall Act

Also known as the Banking Act of 1933, the Glass-Steagall Act was passed in the U.S. in response to the large number of bank runs immediately after the market crash of 1929. The Act was sponsored by Senator Carter Glass and Representative Henry B. Steagall, hence the name. Being a banking act, it naturally covered a wide range of initiatives. For instance, the Act mandated the creation of the Federal Deposit Insurance Corporation (FDIC) in a bid to shore up depositors confidence.

The better known element of the Galss-Steagall Act was the separation of commercial banking and security trading or investment banking in general. Prior to the 1929 market crash and the ensuing Great Depression, many commercial banks in the U.S. established investment banking affiliates that engaged in such activities as underwriting bonds and stocks. Since depositors of commercial banks expected their banks to engage in loan making businesses instead of dealing securities, a conflict of interest appeared to exist. The 1929 market crash and the large number of bank failures simply alerted people to this conflict. Hence the legislated separation of commercial banking and investment banking in the Glass-Steagall Act. Deposit taking institutions were not allowed to deal securities; institutions dealing/underwriting securities were not allowed to take deposits.

Despite its apparent appeal, the Act had been subject to some criticisms subsequently. For one, some argued that the deals underwritten by commercial banks actually fared better than those done by pure investment banks (perhaps due to commercial banks' wider networks?); for another, non-bank identities such as financing companies of an automaker, which were not subject to the same restrictions as banks, gradually chipped away commercial banks businesses, leaving the latter disadvantaged. Meanwhile, some commercial banks crept into investment banking activities de facto through innovative manoeuvres that got around the Glass-Steagall restrictions (e.g., in the late 1970s, Merrill Lynch offered something called Cash Management Account which accepted deposits but whose funds could be used to trade securities). Facing the pressure from the industry, the Reagan and Bush administrations actually approved several high-profile mergers between

commercial banks and investment banks in the 1980s and early 1990s (e.g., Bank of America acquired Charles Schwab in 1983). Now that the provisions of the Glass-Steagall Act concerning the separation of commercial banking and investment banking was defanged de facto, the Act was successfully repealed by the Clinton administration in 1999 through the so-called Gramm-Leach-Bliley Act.

Many believed that the repeal of the Glass-Steagall Act was partly responsible for the 2007 financial crisis. This belief gained political currency in that the Volcker Rule (which prohibits commercial banks from proprietary trading) was largely motivated by it.

See "Federal Deposit Insurance Corporation (FDIC)," "Commercial Banking," "Investment Banking," "Financial Crisis of 2007" and "Volker Rule."

Going Public

When a closely held company sells shares to the public at large for the first time, the company is said to "go public." The offer of shares to the public in this case is called "initial public offering." The common reason for going public is to access the capital market for more funds. Going public means the company must now satisfy certain conditions and regulations. For example, the company must report accounting information regularly to the exchange that lists its stock.

See also "IPO."

Gold

Does this require any explanation? It is simply the yellowish metal that is worth a lot of money! But believe or not, gold is not the champion in terms of being precious as an investment metal. See "Precious Metals" for details.

Golden Parachute

A term coined in the early 1960s and widely used and practiced in the wave of mergers and acquisitions in the 1980s. In its general form, a golden parachute is part of an employment contract (typically for upper executives) which stipulates a sizeable amount of compensation should the employee lose his/her job due to unforeseen events such as a takeover or an M&A (and this was why golden parachutes were popular during the M&A wave in the 1980s). Therefore, a golden parachute is a way of attracting and retaining top executives. When the compensation amount is large, a golden parachute can also become a deterrent to hostile takeovers just as a poison pill.

One of the well-known cases of golden parachute is the $40 million payout to Carly Fiorina in 2005 when she was fired by the HP's board of directors (the main reason

was the merger deal with Compaq in 2002 which was rammed through with a lot of opposition and which turned out to be a thud). Many people considered the severance pay to be too extravagant and some lawsuits ensued.

Golden parachutes have been under criticism since they first appeared partly because they were sometimes used to justify unreasonably large severance packages. The criticism culminated during the 2007 financial crisis when some CEOs received severance packages worth almost $100 million. The issue received so much attention that the 2010 Dodd-Frank Act stipulates that any future adoption of a golden parachute provision by public firms must be voted on by shareholders.

As for the term itself, the intended metaphor should be apparent by now: when an executive is ejected from his/her job, a nice golden parachute is provided so that he/she could land elsewhere, softly.

Also see "Mergers and Acquisitions (M&A)," "Takeover," "Hostile Takeover," "Poison Pill," "Financial Crisis of 2007" and "Dodd-Frank Act."

Gross Working Capital

It simply refers to the current assets on a firm's balance sheet. Please see the explanation of "Current Assets."

Growth Stock

Stock of a company that is not yet making money or barely making money but nevertheless has a great deal of potential. The P/E ratio of such stocks is either very high or not defined (when earnings is zero or negative). In the heydays of the dotcom craze, some stocks' P/E ratios were in hundreds or thousands, whereas the usual P/E ratio hovered at low two-digit numbers. Growth stocks usually don't pay dividends even if the companies are already making money. Instead, the earnings are plowed back for further growth. Most of the technology stocks, especially in their early stages, are considered growth stocks.

Since growth stocks are inherently more risky and exciting to play with, they are usually favored by day-traders and those who bet on higher returns.

See "Price Earnings Ratio (P/E)." Also see "Value Stock."

Hang Seng Index (恒生指数)

It is a widely watched stock market index in Asia. It is a value-weighted or capitalization-weighted average of stock prices of the largest companies traded on the Hong Kong Exchange. "Value-weighted" means the larger the company in market

capitalization, the higher the weight its stock enjoys in the index calculation. The number of stocks in the index has been increasing since its creation in 1969. At the time of writing (October 2013), the index contains 50 stocks. The Chinese meaning of the name "Hang Seng" (恒生) literally means "ever going-up." Unfortunately, the index doesn't always live up to its name!

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Hedge Fund

A fund that is allowed to use aggressive strategies unavailable to regular mutual funds, including selling short, leverage, and using derivatives. Hedge funds used to be exempt from the rules and regulations governing regular mutual funds. However, after the Dodd-Frank Act was enacted in 2010, hedge funds with assets more than $100 million must register with the Securities and Exchange Commission (SEC) and report their trading activities. By law, the number of investors within a hedge fund is restricted (usually 100), hence the minimum investment per account is usually high (ranging from $250,000 to over $1 million). Another difference between hedge funds and regular mutual funds is, the former usually collects a percentage of the profits, while the latter only charges a management fee. The common fee scheme for hedge funds is 2/20, meaning that the fund will collect 2% management fee per year on the total value of assets under management and charge 20% on the profit. Notice that the 20% is only a **profit** sharing plan: the management team doesn't share 20% of the loss, if any! Investors willingly accept this fee scheme because they hope to get superior returns.

Please note that the prefix "hedge" used to define the fund is almost ironic. Indeed, when hedge fund was first invented by Alfred Winslow Jones in 1949, he did use hedging strategies: taking long and short positions at the same time (the term "hedge fund" was coined by others later on when describing his investment fund). Nowadays since the mandate of most hedge funds is to get superior returns, we may as well call them "risky funds."

See also "Mutual Fund" and "Fund of Hedge Funds," and see "SEC," "Dodd-Frank Act," "long, " "short" and "hedging."

Hedging

A financial arrangement aimed at reducing or eliminating negative impacts on profits due to unexpected price changes. Forward contracts are the most typical instruments used for hedging. Since a forward contract has the effect of locking into a fixed price, hedging eliminates price risks in both ways. For example, if a farmer hedges against price risk by selling his crop forward, then his revenue is locked into

a fixed level. If the actual market price of crop is low, he will avoid a lower revenue; but if the market price is high, he will forgo an otherwise higher revenue. In other words, to eliminate downward risk, you must also forgo upward potential. There is no free lunch!

See also "Forward Contract" and "Speculation."

High Frequency Trading (HFT)

A particular type of "algorithmic trading." (Please look up "Algorithmic Trading" first.) As you can figure from the name, the trading is not only automated through computers, but also carried out in high frequency. What is the purpose of HFT? Making money, of course! But how? Essentially, the scheme is to get in and out of the market extremely swiftly (so swiftly that only powerful computers can accomplish) so that an information advantage of a nanosecond can be taken advantage of. Suppose you detect a large buy order is being routed to the exchange and you know the price will be pushed up after this order hits the floor. If you can get ahead of this large order and place a few small buy orders without affecting the price, then after that larger order is filled and the price is pushed up, you quietly offload your shares and making a tiny amount of profit. Tiny because the order size is small and the price difference is also small. But this is when the "high frequency" can help. When a fraction of a penny is being multiplied millions of times in a day, you get the picture.

Trouble is, others out there are no fools. Knowing that you may take advantage of their orders, they refuse to send large orders. In fact, everyone resorts to their powerful computers, the end result of which is computers trading against each other. When it comes to a duel between two computers in this case, only two things matter: computing power and physical distance to the stock exchange. Higher power allows the computer to process vast amount of information swiftly so that it knows which order to go after. This leads to multi-million dollar investments in supercomputers. Distance to the stock exchange is about getting ahead of your competitors in (literally) lightning speed. Electronic signals take time to travel between two locations. So, the closer your computers are physically located to the stock exchange, the quicker you can get ahead of others. How much more time you can gain by moving from say upper Manhattan to next door of NYSE (11 Wall Street, New York City)? We are talking about a really tiny fraction of a second. The competition has driven the time advantage from seconds to milliseconds (1/1,000 of a second) and now to microseconds (1/1,000,000 of a second). For real? Yes. Insane? Maybe.

Is HFT a good or bad thing? Depending on whom you ask. Opinion of yours truly? Quite frankly, the supercomputers can be used for much more noble causes (e.g., studying the climate?). Some may argue that this type of trading can make the stock market more efficient since information is being factored into prices in a fraction of second. OK, let's put things into proper perspectives. The average human reaction

speed is around 0.2 seconds (give or take a few 1/10's of a second), but we are now talking about competition at the 1/1,000,000 second level. Market efficiency at that level? Come on, give me a break!!!

For more detailed and lucid descriptions of and, related (shocking) stories about HFT, please read the book "Flash Boys" by Michael Lewis.

See "NYSE" and "Market Efficiency."

Hostile Takeover

A takeover accomplished by acquiring enough shares of the target company in the open market. Depending on how diffuse the company's shares are held, an ownership of less than 51% may enable total control. So, instead of going through the formal process of proposing a takeover and getting the approval of the target company's shareholders, the acquirer (who could be an existing shareholder or an outside identity) can just purchase shares in the stock market to consolidate his control. Since the eventual takeover is not with the formal consent of the target company's shareholders, it is called a hostile takeover.

See "Takeover." Also see "Poison Pill."

Idiosyncratic Risk

Synonym of "nonsystematic risk."

In-the-money

A term used to describe the relative magnitude between the current underlying asset price and the exercise price of an option. An option is "in-the-money" if the immediate exercise value is positive. So, a call option is "in-the-money" when the current underlying asset price is higher than the exercise price; a put option is "in-the-money" when the current underlying asset price is lower than the exercise price.

Please see "Call Option," "Put Option," "Exercise Price," "At-the-money," and "Out-of-the-money."

Income Trust

An income trust is a legal entity holding an underlying asset or a group of assets. The assets are usually from a subdivision of a firm. The income generated from these assets is distributed to unit-holders tax-free.

One can think of an income trust as a representative of shareholders having entitlement to the income of a designated group of assets. The trust offers units to the public much like an IPO and then uses the proceeds to purchase the equity and debt of the operating entity such as a subdivision of a firm. It is this structure that leads to the tax exemption of the income.

The first income trust appeared in the 1980s in the form of royalty trust (on gas and oil sectors) and REIT (real estate investment trust). Income trust used to represent a significant proportion of total listings on most exchanges in North America. Some exchanges even created a sector index for it. However, the popularity of income trusts in Canada faded a great deal since 2007. On October 31, 2006, Jim Flaherty (Finance Minister) announced a new 34% tax on income trust distributions in a bid to close a loophole that the Bay Street had been taking advantage of. The conversion of regular companies into income trusts literally stopped since then (except for REIT which continued to enjoy the tax-exemption treatment). Because of the timing coincidence, the announcement was subsequently dubbed as "Halloween Massacre."

See also "IPO."

Index-linked GIC

As the name suggests, the payoff of this type of GIC is linked to stock market indexes such as the S&P/TSX 60. Here is how a typical index-linked GIC works. Bank customers deposit money for a specified maturity, say three years, at a specified annual rate, say 1.5%. Suppose the GIC is linked to the S&P/TSX 60 whose current level is 750. At maturity, if the index is below 784.26 (which is 750 compounded at 1.5% per year for three years), then, the customer will simply get the 1.5% annual return as promised. But if the index at maturity is above 784.26, say 868.22, then the customer will get the actual index return, in this case it is 5% per year which is higher than the promised 1.5% per year.

Obviously, the good thing about an index-linked GIC is its unlimited upward potential. But there is no free lunch! The "price" a customer has to pay is the much lower promised annual rate. If the stock market stays flat or declines, then the customer will get a return much lower than that on an ordinary GIC.

In many cases, the banks only guarantee the principal, i.e., offer a zero guaranteed return. Also, some banks use the monthly average of the market index in the last year of the GIC contract to calculate the index return, which essentially has the effect of lowering the return they pay on the index-linked GIC. Moreover, some banks put a cap on the index return when calculating GIC returns. For example, if the cap is 15% p.a., then even if the market returns 23% that year, the return on the GIC is still 15%.

Index Option

An index option is an option whose value depends on a stock index such as the S&P/TSX 60, while a stock option depends on a particular stock. Because a stock index normally consists of many individual stocks, it is difficult to buy or sell the basket of stocks. As a result, most index options are settled in cash. See "Option."

Initial Public Offering (IPO)

Initial Public Offering refers to the first-time issuance of common shares by a corporation. In this case, we say the firm or corporation is going public in order to access the capital markets for funds. The corporation could be a privately owned firm initially such as a small family owned technology firm or a crown corporation such as Canada Post.

As an example, Canadian National (CN), established in 1919 as a crown corporation, was privatized in November 1995 through Canada's largest and most successful IPO to that date. 83.8 million shares were put into the market, which produced a total proceed of $2.2 billion. From that point on, CN became a public corporation.

Inside Information (Trading)

"Trading on inside information" refers to transactions based on privileged information. It is illegal and is the foremost target of crackdown by securities commissions such as the SEC in the U.S. and the Ontario Securities Commission in Canada. Stock exchanges (or any exchange for that matter) are established and operated on the premise that all players and participants are on equal footings. Anyone acting on privileged information has an unfair advantage and therefore should not be permitted. Trading on inside information is a crime and the perpetrator shall be prosecuted and punished (if caught, that is). Examples of profiting from inside information are too many to enumerate. A CEO could tip off his sister-in-law about a pending takeover deal, and both will be prosecuted if the sister-in-law is caught profiting from transactions related to the takeover announcement; a chief geologist of a gold mining company could tip off his cousin about a major find of gold deposit and both will be prosecuted if the cousin buys the company stock before the formal announcement and is caught; and so on and so forth.

Trading on inside information is obviously a white-collar crime. As a result (and perhaps unfairly), the punishment is usually rather light: short sentences coupled with fines.

To see the high drama of such kind of trading, watch the Oscar-winning 1987 film *Wall Street*. Charlie Sheen, in a desperate bid to impress Michael Douglas, tipped him off with some pretty valuable inside information. And yes, you bet, Michael Douglas made good use of it too!

See “SEC” and “Ontario Securities Commission.”

Insider Trading

The term “insider trading” can mean quite different things in different contexts. By and large, it means trading of stocks, options, bonds and the like by insiders. The confusion comes from the definition of “insider.” In the context of trading on inside information described in the previous entry, the insider is one who possesses privileged information and acts on it at the expense of others. In this case, the insider trading is the same as trading on inside information and is therefore illegal. This is how the term is usually understood by most people. However, in some other contexts, insider trading *is* legal. Who are the insiders in those cases? They are the CEOs and other executives of a company. As discussed under “Executive Stock Options,” CEOs and other executives are given company’s stock and options for incentive purposes. They of course are allowed to sell, e.g., their incentive stocks (after the usual vesting period). When to sell them is up to the executives themselves, as long as they don’t do it before a major announcement of negative news. Another condition is, unlike you and me who don’t have to report our stock trading to any authority, CEOs and other company executives must file with appropriate authorities (usually local securities commissions) within a period of time (no more than a month after their transactions). As long as they don’t act on privileged information and report their trades in a timely fashion, then their trades are legal, although we still call it insider trading.

Bottom line: don’t treat all insider trading as bad. Study the context and make sure you know what the term means.

Interest Rate Parity

It refers to the linkage between two countries’s interest rates and the exchange rates. Let’s take the U.S. and Japan as an example. Let $r_{\$}$ and $r_{¥}$ be the U.S. and Japanese interest rates respectively, and $S_{\$¥}$ and $F_{\$¥}$ be the spot and forward exchange rates in terms of dollars per Japanese yen. The interest rate parity is then expressed as

$$\frac{1+r_{\$}}{1+r_{¥}} = \frac{F_{\$¥}}{S_{\$¥}}, \text{ or equivalently, } 1+r_{\$} = \frac{F_{\$¥}}{S_{\$¥}}(1+r_{¥}).$$

How is this relationship arrived at? By using simple commonsense arguments. Let me walk you through. Suppose you have one dollar to invest. If you invest in the U.S., then your gross return is $\$(1+r_{\$})$. What about investing in Japan? First, you need to convert the one dollar into Japanese yen, which is $1/S_{\$¥}$. Then we invest the yen to get a gross return of $(1/S_{\$¥})(1+r_{¥})$. If we convert this yen amount to dollar at the future market exchange rate, we don’t know how many dollars we will get back.

How do we eliminate this exchange rate risk? By entering into a contract to sell yen forward. Since the forward exchange rate is $F_{\$¥}$, we will be able lock into $F_{\$¥}$ $(1/S_{\$¥})(1+r_{¥})$ dollars. In well-functioning markets, investing in the U.S. and investing in Japan must lead to the same return, i.e., $(1+r_{\$}) = (1/S_{\$¥})(1+r_{¥})$, which is precisely the interest rate parity. So, as you can see, many seemingly formidable theories are based on nothing but common sense.

See also "Exchange Rate" and "Forward Contract."

Interest Rate Swap

See "Swap."

Internal Rate of Return (IRR)

Implied return from an investment. For example, if you put in $100 today and get $120 back one year from now, then the internal rate of return or IRR is 20% per year. Similarly, if you purchase a 12-month T-bill with a face value of $1000 for $909.09 today, then the actual return you will earn is 10% ($1000 discounted at 10% gives you $909.09 today). Here the IRR is 10%. In general, IRR is the discount rate that makes the net present value (NPV) of an investment equal to zero. In the T-bill example, initial investment is $909.09, dollar return is $1000, and NPV = 1000/(1 + r) – 909.09. When you set NPV to zero and solve for the discount rate r, you get IRR = 10%. When the investment involves multiple cash flows over many years, the IRR usually cannot be solved by hand. Many spreadsheets such as Excel have built-in functions to solve for IRR. For example, if you put in $100 today, and get back $80 one year later and $140 two years later, then the IRR is 64.90%.

IRR is usually used to gauge the profitability of an investment. For instance, if your minimum acceptable return is 12%, and a project offers an IRR of 14%, then this is an attractive project.

The word "internal" means implied or intrinsic. It has nothing to do with the cheating practice where a firm reports one return internally while another externally.

See "Net Present Value."

International Monetary Fund (IMF)

The International Monetary Fund, together with the World Bank, was created by the victorious countries of the Second World War. The two institutions, both headquartered in Washington D.C., were designed to help rebuild the post-war economies of the allied countries. Today, the main mandate of the IMF includes

promoting international monetary cooperation, balanced expansion of world trade, stability of exchange rates, the avoidance of competitive currency devaluations, and the orderly correction of a country's balance of payments problems. The IMF has almost 200 countries as members.

See also "World Bank."

Investment Banker

Synonym of "investment dealer."

Investment Banking

One of the main business activities carried out by large banks. Unlike commercial banking which involves taking deposits and making loans, investment banking mostly involves assisting companies in their financing and other related decisions. The commonly known activities include underwriting securities and advising companies on mergers and acquisitions (M&As). When firms need capital, investment banks assist them in issuing new debt or equity. When a private company goes public the first time, investment banks help them carry out the so-called "initial public offering (IPO)." In the case of M&As, investment banks carry out such activities as valuation and due diligence checks. While banks make profit from the interest rate spread in commercial banking, they make money in investment banking by charging service fees. The proceed from investment banking typically accounts for a large portion of the bank's total revenue.

Incidentally, there are also independent financial companies that engage exclusively in investment banking.

See also "Commercial Banking," "Initial Public Offering (IPO)" and "Mergers and Acquisitions (M&A)."

Investment Dealer

Financial firms which specialize in selling securities on other companies' behalf. In the U.S., they are called investment bankers. Major investment dealers in Canada include RBC Dominion Securities, CIBC Capital Markets, and BMO Nesbitt Burns.

Investment Grade Bonds

Bonds rated above and including BBB. Many institutional investors are not allowed (by law) to hold bonds rated below BBB, or junk bonds. That is why bonds rated above and including BBB are called investment grade bonds. Please see "Bond Rating."

Junk Bonds

Bonds rated below BBB. See "Bond Rating."

LEAPS

Long-term Equity AnticiPation Securities, developed by the Chicago Board Options Exchange (CBOE) in 1990. They are essentially options on stocks and stock market indices with an initial maturity longer than one year. In fact, the maturity at issue can be as long as three years. While regular options allow investors to express a short-term view since their initial maturity is usually less than nine months, LEAPS allow investors to bet on a view extending much longer into the future. Of course, once the maturity of LEAPS shrinks to a few months, they are equivalent to regular short term options.

See "Option."

Leverage

A way of magnifying returns. Take stock investment as an example. Suppose you have \$100 to invest. The stock you are interested in is selling for \$10 per share. Suppose the stock price becomes \$14 one year later. If you put all your money in this stock, you will end up with \$140, representing a return of 40%. Now, suppose you borrow \$50 at 10% p.a. and use the \$150 (\$100 of your own and \$50 borrowed) to buy 15 shares. One year later, you sell the 15 shares for $\$14\times15=\$210$. You then repay the loan plus interest, which is $\$50(1+0.1) = \$55$, and you are left with $\$210 - \$55 = \$155$. In this case, your return is 55%. This is essentially leverage: borrow money to invest. Leverage enhances the overall return when the investment return (40% in our example) is higher than the interest rate (10% in our example). Of course, leverage will hurt when the investment turns out to be a poor venture. To continue the example, if the ending stock price is \$7, then you lose \$30 (or a loss of 30%) if you don't leverage; if you borrow \$50 at 10% p.a., then you lose \$50 altogether, corresponding to a loss of 50%. (Here is the calculation: gross return is $\$7\times15=\$105$, net return after repaying the loan is $\$105 - \$55 = \$50$, and the total loss is therefore $\$100 - \$50 = \$50$, which is 50% of the initial \$100.)

For a firm, when it borrows money in the form of debt, we say it engages in a financial leverage.

Leveraged Buyout

See "Buyout."

LIBOR

Short for "London Interbank Offer Rate." It is an average of the rates at which the most creditworthy banks in London lend to one another. LIBOR is quoted for various major currencies and maturities usually shorter than one year (mostly 1, 3, 6 or 12 months). LIBOR is the most widely used interest rate index. The rates on many international loans are based on LIBOR.

LIBOR is published daily by the British Bankers Association (BBA). The LIBOR rates are based on a dozen major banks' rates in more than 10 currencies surveyed at 11 a.m. London time.

A major scandal broke out in 2012 which led to investigations and subsequent disciplinary actions. In a nutshell, several LIBOR-rate-contributing banks (i.e., banks being surveyed everyday by the BBA) colluded and rigged the LIBOR rate. They were fined for their fraudulent activities. Barclays Bank was the first to admit the wrong doing.

Limit Order

A trading request to buy a stock at or below a specified price, or to sell a stock at or above a specified price. For example, you may submit an order that instructs your broker to buy 500 shares of Company XYZ's stock at $5 or less. In this case, the broker will buy shares for you only if the stock is exactly $5 a share or cheaper. In contrast to market orders, a limit order can avoid buying stocks too expensively or selling stocks too cheaply.

See also "Market Order."

Line of Credit

It is an agreement between a bank and a borrower (which could be an individual or a firm) that allows the borrower to borrow up to a pre-determined amount within a specified period of time. The limit depends on the borrower's credit-worthiness and the period is usually for one year, which can be renewed subsequently. Take a fictitious example. David Ryan just negotiated a line of credit with Royal Bank for the amount of $50,000 and a period of one year. In this case, David can go to the bank to borrow any amount of money as he wishes within the year, as long as the total borrowed amount is not more than $50,000. Of course, he can also repay any amount as he wishes. The main advantage of a line of credit is its flexibility and convenience. You borrow however much you need, and you do not have to negotiate with the bank every time you need funds.

Liquidity

Ease with which a security can be converted into cash. Stocks and bonds can be sold quickly for cash, so they are liquid assets; but antiques and real estates cannot be sold quickly for cash and they are illiquid assets. For corporations liquidity management is important because poor liquidity may mean a failure of meeting interest payments to creditors, which in turn can result in bankruptcy.

Long

Holding status of a security. "Mike longs Air Canada stock" means "Mike has bought and is holding Air Canada stock." So roughly, "long" means "buy" or "hold."

Also see "Short."

Loss Aversion

It is a key building block of the so-called Prospect Theory. It describes the tendency for us to be affected more by losses than by gains of equal amount. As an illustration, suppose you win a lottery of $100. You will be thrilled and perhaps treat your family for a meal. The event will quickly fade away from your mind and you will go on with your daily routines. Now, imagine a different scenario. Suppose you just realize that you lost a $100 bill (it slipped out of your pocket). You will be distressed and blame yourself for not being careful enough. Very likely, the displeasure from the loss won't go away easily. You will keep thinking about where you might have lost it, and what you could have done with the $100, and so on.

This tendency to attach more weight to losses than gains has profound implications for decision making. It intensifies our risk aversion.

Also see "Prospect Theory" and "Risk Aversion."

Margin/Margin Investment

In general, it refers to leveraged investments. For example, if you have only $100 and you borrow another $50 and invest the $150 in stocks, then you have a margin investment. Typically your broker lends you the money, up to 50% of total investment or 100% of your own money. In other words, if you start with $100, you may borrow up to $100 and purchase stocks worth $200.

Margin Account

A brokerage account that allows margin investments. Holders of a margin account can borrow money from their brokers to leverage their investments.

See also "Margin Investment" and "Margin Call."

Margin Call

A demand from brokers for additional funds on a margin account because of adverse price movements. To protect their loans, brokers set a certain minimum value to be maintained in a margin account at all times. When the account balance falls below this minimum value due to adverse price movements, a margin call is made for addition funds.
See also "Margin Account."

Market Capitalization

Refers to the total dollar size of a company. It is also called "market cap" in short. It is the product of the number of shares outstanding and the market price per share. Since the share price changes all the time, the market capitalization of a firm also changes. For this reason, sometimes the end-of-year share price is used to calculate this quantity.

Market Efficiency

It refers to how efficiently the market incorporates new information. In an efficient market, prices are always unbiased and no one can consistently beat the market. If you ever make a superior return, it would be your good luck. Eugene Fama, a University of Chicago professor, classified market efficiency into three categories. In a *weak-form efficient* market, stock prices reflect all historical information (such as past price patterns and trading volumes) so that no one can make a superior return by studying price history; in a *semi-strong efficient* market, stock prices reflect not only all historical information, but also current information (such as news from the media); in a *strong-form efficient* market, stock prices reflect all existing information including inside information (such as the things discussed by the board of directors that are not yet released to the public).

It is still under debate as to whether the market is efficient. Supporters of market efficiency cite such evidence as many mutual fund managers failing to beat the market; critics of market efficiency point to the many phenomena that contradict efficiency (e.g., the mad rush to dotcom stocks in the mid 90's and the subsequent downfall of those stocks). The jury is still out. The truth is, if you really know something that others don't, for example, your nice uncle serving on company ABC's board told you that they have just approved a merger deal to buy company XYZ and this will be announced next week, then you should waste no time to buy company XYZ's stock. Chances are, when the actual announcement is made the following week, XYZ's stock price will shoot up, and you will make a handsome profit. Mind you though, you and your uncle will also have a good chance to reunite in jail since your transaction is considered as illegal insider trading.

Perhaps intentionally to accentuate the unresolved status of the debate on market efficiency, the Nobel Prize committee awarded the 2013 Nobel Prize in Economics

(The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, to be precise) to Eugene Fama, Robert Shiller and Lars Peter Hansen. Robert Shiller from Yale University has been arguing that the market is far from being efficient and is often driven by irrational behaviors. (Professor Hansen, also from University of Chicago, was awarded the Prize for his contribution to econometrics.)

Market Maker

Also called "Specialist." A person or a firm that makes the market for stocks, bonds or other securities. Most of the time, it refers to those who make the market for stocks. What does "making the market" mean? It is a service to match buyers and sellers. For instance, a market maker for a stock would stand ready to buy or sell the stock she deals. She simultaneously posts bid and ask prices for certain quantities and ready to transact at those prices. Suppose Susan is a market maker for Stock ABC and she posts $25.01 and $25.04 as bid and ask prices at a particular moment. Then she would buy at $25.01 and sell at $25.04. The 3-cent spread (what we call bid-ask spread) is her profit.

In the old days, all trading was done through market makers or specialists. Nowadays, with powerful computers, many stock exchanges (e.g., TSX) match trade orders with computers instead of relying on market makers. Some exchanges (e.g., NYSE) still retain market makers while at the same time adopt computer order matching.

See also "Bid-ask Spread," "TSX" and "NYSE."

Market Order

A trading request to buy or sell a stock at the market price. Usually, your broker will ensure that you get the most advantageous price possible. That is, if you submit a buy order, then your broker will execute your order at the lowest asking price among all asking prices; and if you submit a sell order, then your broker will execute your order at the highest biding price among all biding prices. A good thing about market order is that you are almost sure that your order will be executed. Of course, you may also get your order executed at a price that is not quite what you wanted. A limit order will always guarantee the price you desire, but it may not get executed.

See also "Limit Order."

Marketable Securities

Securities that can be sold on short notice. Typical examples include high-grade, short-term debt instruments issued by governments such as T-bills. Marketable securities are part of a firm's current assets, and are used by firms to management their liquidity.

Also see "Current Assets" and "Liquidity."

Marking to Market

The process of adjusting a trading book, a contract position, or any asset or liability to its market value on a continual basis. A trader working for a bank may make numerous transactions during the day which will either increase or decrease the total value of his/her holdings or the trading book. An easy and unambiguous way of seeing the daily gains or losses is to re-evaluate the holdings at the closing prices of the day. This process of updating the value of a trading book, a contract position or a portfolio using market prices is called marking to market. The calculation of the unit value of mutual funds (i.e., NAV) at the end of the day is an obvious example of marking to market. Futures trading is another example. The balance of a futures contract account is updated at the end of each day and a margin call may be made if the position has lost enough money. Please see "Futures Contract" and "Margin Call" for details.

Mergers and Acquisitions (M&A)

Arguably one of the most exciting events in corporate finance. The term Mergers and Acquisitions (M&A or M&As) refers to any type of transactions that involve combining two companies into one. "Mergers" refers to the combining of two existing companies (of roughly equal size) and forming a new identity. A well-known example is Exxon Mobil which resulted from a merger between Exxon and Mobil in 1999. "Acquisitions" on the other hand refers to a transaction whereby a larger company acquires a smaller one and the identity of the acquired disappears afterwards. Examples are abundant, especially in the software developers markets. As if life is not already complicated enough, there are also many acquisitions whereby the newly acquired company remains its identity and product brand. In this case, the acquisition is purely a matter of solidifying ownership and market share. A case in point is Rogers and Fido. Rogers acquired Fido in 2004 but let Fido operate more or less as an independent carrier.

M&As tend to occur in waves, with more activities in economic booms. The reasons and rationales for M&As are many, ranging from CEOs urge of empire building all the way to strategic market-share-capturing. Regardless, investment banks love the high tides since they make tons of money as advisors.

Also see "Investment Banking."

Money Market Instruments

Refers to short-term, highly liquid debt instruments such as T-bills and commercial papers. Most mutual fund companies provide Money Market Funds that invest in the

aforementioned securities. Investors may use money market funds as a temporary parking place for their money, because the return on these funds are much higher than the interest rate of a typical bank account.

Money Market Mutual Funds

See "Money Market" and "Mutual Funds."

Monthly Compounding

Please see "Compounding Frequency."

Mortgage

Money borrowed from a bank to be invested in real estate properties. A residential mortgage is for a private dwelling such as a house while a commercial mortgage is for a commercial property such as a convenient store at the street corner. The total amount of borrowing is called "principal," and the number of years over which the mortgage is to be paid off is called "term" or "amortization period." For example, you can take out a mortgage of $550,000 to be amortized over 25 years. Here, "amortization" means you make equal periodical payments that include both principal repayment and interest. The payment period is typically monthly, although bi-weekly payment is also common. By the end of year 25, you will have completely paid off the mortgage. The rate based on which the periodical payments is calculated can be variable or fixed. Please see "Fixed-rate Mortgage" and "Variable-rate Mortgage" for details. Also see "Amortization."

Mortgage-backed Securities

Shares of a particular type of "mutual fund" which invests in a pool of residential mortgages. The mortgages are initially arranged by banks and subsequently sold or "securitized." Take CIBC as an example. Numerous house buyers borrow money from CIBC in the form of mortgages. To the bank, these mortgages are just like other loans in that the borrowers pay interest as well as repaying the principal. The bank can package or bundle up individual mortgages and turn around sell them as mortgage-backed securities. This way, the bank can free up money and loan it out again as new mortgages. What does the bank gain in this process? It earns a fee! Every time a mortgage is arranged, the bank charges a fee. So, in essence, investors of mortgage-backed securities collectively provide financing to the many invisible house buyers, while the bank earns a fee every time it bridges the house buyers and the investors. The investment return on mortgage-backed securities comes from monthly mortgage payments by the many house buyers.

Mortgage-back securities and similar securitization products were considered as some of the main culprits of the 2007 financial crisis.

See “Securitization,” “Financial Crisis” and “Mortgage.”

Mutual Funds

Investment products offered by mutual fund companies. A mutual fund is a basket of shares. Suppose you invest with mutual fund company ABC. ABC gets money from you and turns around to invest the money in different stocks. The types of stocks and the investment proportion in each are up to the mutual fund companies to decide. But generally speaking, funds are specialized. For example, a single mutual fund company (AGF, e.g.) can offer many specialized funds such as fixed-income fund, equity fund, and Asia fund. A fixed-income fund would invest in only fixed-income securities such as T-bills and bonds. Likewise, an Asia fund would invest in only stocks in Asia (e.g., Hong Kong, Japan and Singapore). Since a mutual fund is a basket of different securities, the fund value is more stable relative to a single share price.

Mutual funds have somewhat fallen out of favor as ETFs become better known amount investors. Mutual fund companies make their living by charging an annual management fee ranging anywhere between 1% and 2.5%. In contrast, the fees with ETFs are extremely low, mostly in two-digit basis points. Some have a fee as low as a few basis points. Those who still invest in mutual funds (as opposed to ETFs) either don’t know what they are doing or somehow believe that their fund managers can deliver superior returns (so that the higher fees are worth it).

See also “ETF” and “Basis Point.”

NASDAQ (or Nasdaq)

Short-hand form of National Association of Securities Dealers Automated Quotation System. Nasdaq started as a quotation system for stocks not traded on formal exchanges such as the NYSE (New York Stock Exchange). But it has grown to be an organized market with its own listing requirements. Unlike other exchanges such as the NYSE, Nasdaq doesn’t have a physical location to conduct trading activities. It is a computer network connecting all the dealers and brokers. There are more shares listed on Nasdaq than on the NYSE, and the trading volume (i.e., number of shares) is also larger on the Nasdaq. However, the market capitalization of stocks traded on the NYSE is larger than that on Nasdaq. This is because NYSE tends to list all the large companies (such as GM and IBM), while Nasdaq has relatively smaller companies. But even this is not strictly true. Microsoft, listed on Nasdaq, is a case in point.

See also “Over-the-Counter Market,” “NYSE” and “TSX.”

Nasdaq Composite

It is a widely watched stock market index in the U.S. It is a value-weighted or capitalization-weighted average of stock prices of all the securities (more than 3,000) traded on the Nasdaq. "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. Since the index is based on all the Nasdaq securities, it includes things like ETFs, ADRs and REITs. In fact, aside from ADRs, the index also contains some foreign listed companies. Generally speaking, the index is a barometer of the technology and high growth sectors.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500," "Shanghai Composite," "ETF," "ADR" and "REIT."

Net Asset Value (NAV)

Per-share value of a mutual fund at the end of the business day. It is calculated by dividing the total value of the fund's holdings by the number of shares outstanding. In an open-end fund, when new investors wish to purchase shares or when existing mutual fund investors wish to redeem their shares, the fund will complete the transactions based on the NAV at the close of that business day.

See also "Mutual Fund," "Closed-end Fund" and "Open-end Fund."

Net Income

It is the bottom line on an income statement. In other words, it is an accounting number that measures a company's net profit after all expenses including taxes. To illustrate, suppose a company has a total sales of $2,000,000, out of which cost of goods sold is $800,000. Then the gross profit for the year is $1,200,000. Let's assume the total operating expenses (including such items as wages, utilities and depreciation) amount to $500,000, and the interest expense is $200,000, then the before-tax income is $1,200,000 – $500,000 – $200,000 = $500,000. Finally, assume a tax rate of 20% which leads to a tax payable of $100,000, then the net income for the year is $400,000.

It should be noted again that net income is an accounting number. It is not the actual amount of money the company makes. For instance, part of the $500,000 operating expenses is depreciation. Suppose it is $90,000. This $90,000 is not actual cash expense. So the actual net profit in cash is $400,000 + $90,000 = $490,000.

See also "Return on Assets (ROA)" and "Return on Equity (ROE)."

Net Present Value (NPV)

Value of future cash flows in today's terms net of investments. For instance, if you investment $10,000 toady on a venture and expect to receive a net income of $8,000 next year and $9,000 the year after. If your required minimum return on an investment is 10%, then using this discount rate of 10%, you could calculate the NPV of this venture as

$$\$8{,}000/(1 + 0.1) + \$9{,}000/(1 + 0.1)^2 - \$10{,}000 = \$4{,}710.74.$$

Also see "Discount Rate" and "Internal Rate of Return."

Net Working Capital

The difference between a firm's current assets and current liabilities.

See also "Current Assets" and "Current Liabilities."

Nikkei 225

It is a widely watched stock market index in Japan. It is a price-weighted average of stock prices of the 225 largest companies traded on the Tokyo Stock Exchange. "Price-weighted" means the higher the stock price, the bigger the weight the stock enjoys in the index calculation. In this sense it is very different from most of the stock market indices in the world, but it is quite similar to the Dow Jones Industrial Average. In fact, it used to be called "Nikkei Dow Jones Stock Average" (from 1975 to 1985).

At the time of writing (October 2013), the Nikkei 225 index hovers around 13,800. You may think that, this must have grown from a small number years ago. Not quite. Well, at its peak in the late 1980s, the index almost reached 40,000. In fact, the index was barely over 7,000 in March 2009, the lowest point it slid to since its peak. Now you know what people mean when they say that "The Japanese market has been taking a beating in the past several decades."

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

No-Load Funds

Mutual funds that are sold with no commissions. Mutual funds offered by banks are typically no-load funds. The majority of mutual funds are sold through brokers in which case a commission of some sort will be charged.

Nominal Interest Rate

It is the risk-free interest rate we earn on a T-bill or a bond issued by the federal government. "Risk-free" here means the instrument we are holding (e.g., T-bill) has no default risk. The word "nominal" is with respect to the word "real." In other words, nominal interest rate is the sum of real interest rate plus anticipated inflation. Since we can observe neither the real interest rate nor the anticipated inflation, we never know the true composition of the nominal interest rate. However, we can always use recent inflation as a guide to estimating future inflation. Therefore, once observing the nominal interest rate and the past inflation rate, we can have a rough idea of the magnitude of the real interest rate.

But why do we demand an interest rate that is the sum of the real interest rate and anticipated inflation? To understand this, suppose we are in a world without inflation, i.e., a world where prices stay put. If we deposit \$100 today, we will demand more than \$100 back one year later since we are giving up consumption today. We demand a return to compensate for the delay of consumption. Suppose this rate is 3%. Then we are basically saying that today's \$100 is equivalent to next year's \$103. Suppose the price of apple is one dollar per pound. Then the above means we demand three more pounds of apple if we have to postpone buying 100 pounds today. The 3% is the real return on investing or real interest rate.

Now, let's suppose there is a 7% inflation. The price of apple one year later is \$1.07 per pound. If we still demand 3% for postponing buying apples today, then we can get only 103/1.07 = 96.26 pounds of apple one year late. We will be worse off. How do we make sure that we still get 103 pounds of apple? We should demand a total interest rate such that we end up with \$100(1+0.03)(1+0.07). Dividing this by the price \$1.07, we get exactly 103 pounds of apple. If we multiply out the above expression, we have \$100(1+0.03)(1+0.07) = \$100(1+0.03+0.07+0.03×0.07) ≅\$100(1+0.03+0.07) = \$100(1+0.1). In the middle step, we omit the term 0.03×0.07 since it is very tiny. As you can see, the total interest rate we demand is roughly 10%, which is the sum of the real interest rate and the anticipated inflation. This is the nominal interest rate.

Non-diversifiable Risk

Synonym of "systematic risk."

Nonsystematic Risk

The part of a financial asset's risk that is not associated with the overall market risk. It is firm-specific and can be diversified away when many assets are put in the same portfolio. Examples of nonsystematic risk include management risk (e.g., a scandal involving the company's CEO) and losses due to accidents (e.g., a fire at a company's main assembly line). Since this type of risk is confined to a particular company and

is not market-wide, they can be diversified away. An acute reader may say "How can a CEO scandal and a factory fire diversify each other? They are both bad." Indeed, they can't. Diversification means losses can be made up by gains. So, to make the illustration complete, imagine a portfolio within which Stock ABC falls because the company suffers a big loss from a factor fire, but Stock XYZ rises thanks to a major technological breakthrough.

See also "Diversification" and "Systematic Risk."

NYSE

Short for "New York Stock Exchange." It is a formal stock change with a physical location. It is the largest exchange in the U.S. It tends to list only the largest companies in the United States. NYSE also lists shares of many large foreign companies.

See also "Nasdaq," "Over-the-Counter Market" and "TSX."

NYSE Euronext

Headquartered in New York City, it is an international conglomerate that operates major exchanges in Europe and the U.S., including NYSE, American Stock Exchange, and Euronext. It came into existence in 2007 after the merger between NYSE Group, Inc. which controlled NYSE and Euronext N.V. which controlled Euronext.

See also "NYSE" and "Euronext."

OECD

Organization for Economic Co-operation and Development, headquartered in Paris. Established in 1961 by 18 European countries and the U.S. and Canada, the OECD has grown to a body of more than 30 country members. As the name itself suggests, the organization's mandate is to promote co-operations among member countries in economic policies such that the world economy can grow at an orderly, balanced and optimal fashion. Being a co-operative organization, the OECD doesn't have much supervisory power. As a byproduct of economic coordination, the OECD publishes a large quantity of statistics and analyses on things like standard of living around the world.

Because of its European root, some key economic players in the world are still non-members of OECD. China, India, Russia and Brazil are all non-members at the time of writing (October 2013), although Russia is getting close to joining the organization.

Office of the Superintendent of Financial Institutions (OSFI)

Headquartered in Ottawa, OSFI is the watchdog of the Canadian financial institutions. It is the regulator and supervisor of banks, insurance companies, trust companies and all other financial institutions (e.g., private pension funds) that are under the jurisdiction of the federal government. It ensures that financial institutions are well capitalized and follow all the rules. For instance, OSFI goes after all the Canadian banks to ensure that they meet the capital and liquidity requirements dictated by the Basel Accords.

Notice that stock exchanges such as the TSX are not regulated by OSFI since security regulations are under provincial jurisdictions in Canada (which is a rarity in the world since most other developed countries have a central regulator for security listing, trading, and the like).

See "Basel Accords" and "TSX."

Ontario Securities Commission (OSC)

OSC is a provincial Crown corporation that administers and enforces securities law in Ontario. It regulates every aspect of capital markets in Ontario that has to do with securities such as bonds, stocks, commodities and mutual funds. When a company seeks to list its shares on the TSX, it needs to apply to OSC. Once the shares are formally traded, the company must report to OSC periodically about its financial status. Aside from regulating listing firms on the TSX, another important mandate of OSC is to monitor and regulate the trading of financial securities. OSC charges and prosecutes individuals engaging in illegal trading activities such as front running and trading on inside information. It also goes after fraudsters such as those running a Ponzi scheme.

As you can see, ultimately, the mandate of OSC is to protect investors and at the same time ensure a smooth and orderly operation of the capital markets.

In Canada, regulations of capital markets fall under the provincial or territorial jurisdictions. Therefore we have Alberta Securities Commission, Manitoba Securities Commission, British Columbia Securities Commission, to name a few. In contrast, in almost all other developed countries, capital market regulations are carried out by a single, national body such as the Securities and Exchange Commission (SEC) in the U.S.

See "Crown Corporation," "Front Running," "Insider Trading," "Ponzi Scheme," "TSX" and "SEC."

Open-end Fund

A mutual fund that continually creates new shares and redeem existing ones on demand. An open-end fund values its portfolio holdings at the end of each day, and then calculate the so-called net asset value (NAV), which is essentially the total value of portfolio holdings divided by the number of shares outstanding. Sales of new shares or redemptions of existing ones will be based on this NAV.

Unlike that of a closed-end fund's shares, the value of open-end fund's shares will go up and down purely due to the changes in the value of the securities held in the fund. The majority of mutual funds are open-end funds.

See also "Closed-end Fund," "Mutual Fund" and "NAV."

Open Interest

You need to first look up "Option." It is the number of contracts outstanding for a particular option. In nature, it is very similar to the total number of shares outstanding for a stock. But the similarity stops there. For a stock, the number of shares outstanding normally remains the same (barring share repurchase or additional issuance). However, the open interest for an option can potentially change on a daily basis since more contracts could be created or existing contracts are closed out. Notice that, trading volume is usually lower than open interest, just as a stock's trading volume is usually lower than its number of shares outstanding. On some days though, trading volume could be higher than open interest, which means some option contracts change hands more than once in a day.

See "Share Repurchase."

Option

An option is the right to buy or sell a stock at a particular price on a specific future date. Unlike a forward contract which is an obligation, an option will lead to a transaction on the specified future date only if it is favorable to the option holder.

See also "Call Option," "Put Option," "European Option," "American Option," "Asian Option," "Currency Option" and "Index Option."

Out-of-the-money

A term used to describe the relative magnitude between the current underlying asset price and the exercise price of an option. An option is "out-of-the-money" if the immediate exercise value is negative. So, a call option is "out-of-the-money" when the current underlying asset price is lower than the exercise price; a put option is "out-of-the-money" when the current underlying asset price is higher than the exercise price.

Please see "Call Option," "Put Option," "Exercise Price," "At-the-money," and "In-the-money."

Over-the-Counter (OTC) Market

A market whereby securities such as stocks and bonds are traded among dealers and brokers connected through telephone and computer networks. The key difference between a formal exchange and an OTC market is, a formal exchange has a physical location (e.g. NYSE) or an open-to-public platform (e.g., Nasdaq) to conduct trades and the prices and trading volumes are known. OTC markets generally do not possess these traits. Bonds and foreign currencies are traded on OTC markets.

See also "Nasdaq," "NYSE" and "TSX."

Payback Period

It is a metric used to evaluate a capital investment project. It is the number of years needed to recover the initial investment. Suppose that a three-year project requires an initial investment of $1.5 million, and it will generate the following cash flows for the three years: $0.6 million, $0.8 million, and $2.0 million. As can be seen, after the first two years, we recover only $1.4 million of the investment; we still need to recover $0.1 million, which will take only a fraction of the third year: ($0.1 million / $2.0 million)(1 year) = 0.05 years. Therefore the total payback period for this project is 2 + 0.05 = 2.05 years.

To reflect the time value of money, sometimes people calculate the so-called "discounted payback period." All you have to do is to discount the future cash flows first to get their present values, and then go through the same procedure as before. To continue the above example, suppose the discount rate is 12% p.a., then the present values of the three future cash flows are, $0.6/(1+0.12) = $0.5357 million, $0.8/$(1+0.12)^2$ = $0.6378 million, and $2.0/$(1+0.12)^3$ = $1.4236 million. Then the discounted payback period is 2.229 years. The calculation is as follows: 2 + (1.5 – 0.5357 – 0.6378)/1.4236 = 2.229.

See also "Discount Rate" and "Discounting."

Pension Fund/Plan

A pool of money used to pay for retirees' pensions. The money in the pool is contributed by both the employer and the employee. The amount of contribution varies from fund to fund. Typically, employers and employees make equal contributions as a percentage (say 8%) of the employee's annual salary. Usually there is also a cap on pensionable earnings, meaning that the percentage

contribution is only applied to the annual salary to a certain level (e.g., $140,000). Salaries beyond this threshold are not subject to pension-contribution deductions. Don't high-five each other upon hearing this! In fact, the capping of deduction only means the pension payment upon retirement is also capped (e.g., at $80,000). This is especially true for the so-called "defined benefit" (DB) pension plans which guarantee a pension amount based on years of service and salary level. In contrast, in the so-called "defined contribution" (DC) plans, no such guarantee exists. How much pension the employee gets completely depends on the investment performance of the pension fund. In the stock market heydays (e.g., prior to the bursting of the dotcom bubble in the late 1990s), many employees converted their DB plans into DC plans. Not a wise move at all, judging by the low returns most pension funds make.

Incidentally, Canada Pension Plan (CPP) is different from usual pension plans in that it is a mandatory social insurance (or social security) program. Any Canadian resident aged 18 or over must pay a small percentage of their earnings (up to a cap) to the CPP. Upon retirement, they will automatically receive an annual pension from the government. This pension, however, is usually much smaller in amount than the workplace pension. As mentioned above, even workplace pensions have a cap. Therefore, to continue a comfortable life style after retirement (e.g., going to the fancy restaurants every week and replacing your luxury car every three years), a person must also save for his/her retirement via other means such as the RRSP.

See "Registered Retirement Savings Plan" (RRSP).

Poison Pill

Upon hearing this term, people usually conjure up a malicious, murderous act. In finance, this term also refers to a poisonous act of some sort, but perfectly legal though. Simply put, it is an anti-takeover defense or device. It is written in the corporate charter/bylaw and works in the following way. If/when a shareholder, aiming at taking control of the company, has acquired shares more than a threshold level (e.g., holding more than 25% of the company's shares), the company will issue new shares to other shareholders at a deep discount. This is poisonous to the shareholder attempting to take over the company since his holdings will be diluted after the new share issuance. Therefore, anyone contemplating a hostile takeover will have to think twice. Sometimes, the poison bill provision allows the shareholders to purchase the shares of the merged company at a deep discount. It will achieve the same purpose: discourage a hostile takeover by dilution.

See "Hostile Takeover."

Ponzi Scheme

A fraudulent scheme whereby the fraudster uses the money from new investors to pay off the existing investors. The fraudster attracts victims by promising and paying investment returns much higher than what the market can offer. Ironically, this kind of schemes is usually being exposed on its own. The reason is rather simple: the scheme collapses the moment new money stops coming in. Several "adverse" conditions can lead to a Ponzi scheme's demise. One is the slow speed of new money coming in, causing existing investors to be alarmed when their inflow of high investment income is being interrupted or when they can't get their initial investments back; the other is a market crash which immediately deprives the ability for the fraudster to keep up with the promised payments. Of course, the "successful" fraudsters are those who manage to disappear with investors' money before the scheme is being exposed. Most Ponzi schemes are eventually exposed, of course. It is only a matter of how much (if at all) the victims could recover from the fraudster.

Ponzi scheme fraudsters love two types of individuals: the financially illiterate (who don't ask pointed questions before investing) and the downright greedy. Lack of financial knowledge won't get people in much trouble as long as they are not greedy; greed can drive people blind even when they are financially literate. The moment you hear someone saying he/she can guarantee a return higher than the GIC rate, be alert and, most advisably, stay away from him/her.

Incidentally, in case you wonder where the name Ponzi came from, the honor goes to Carlo Pietro Giovanni Guglielmo Tebaldo Ponzi or simply Charles Ponzi. An Italian himself, Charles Ponzi pursued his fraudster career in the U.S. and Canada at the early part of the 20th century. He of course wasn't the inventor of the scheme, for smart scoundrels already started taking advantage of investors' greed way back in history. Charles Ponzi acquired the crowning status only because he made it big by the standard back then (to the tune of $20 million). Arguably, Bernard L. Madoff is quite a legit competitor for the crown since he managed to amass a total loss of more than $17 billion for his "aspiring" investors.
The world will be so boring if greed is wiped out of human race.

See "GIC."

Portfolio

A basket of securities. For example, you may invest $5,000 in government bonds, $4,000 in stocks, and $6,000 in T-bills. The total investment in all these securities is called a portfolio.

See also "Diversification."

Portfolio Insurance

Refers to the hedging of downsize risk of a portfolio. There are many techniques available for portfolio insurance. If the portfolio is a well diversified equity portfolio, then one may purchase put options on a stock market index (e.g., S&P 500). Taking a short position on index futures will also do. Hedging can be achieved since your diversified equity portfolio moves in tandem with the market most of the time so that losses (if any) will be made up by gains from the put options or futures. In the so-called synthetic portfolio insurance, one can sell a portion of the portfolio and put it in T-bills and make this adjustment continually in response to market movements. Here, you would switch more equity to T-bills if the market continues to slide, and move money back into equity if the market goes up. Insurance or hedging is achieved through this constant adjustment. In theory, it is equivalent to insuring via put options.

See "S&P 500," "Futures Contract," "Short" and "Put Option."

Precious Metals

Metals that are rare, slow to react (chemically), shiny and easy to manipulate. Notice that those properties must be present simultaneously in order for the metal in question to be called a precious metal. The word "precious" here mostly signifies that the metals are also used for investment purposes aside from their usual industrial applications. Typically, "precious metals" include gold, silver, platinum and palladium. Technically speaking though, platinum and palladium are only members of a larger group: ruthenium, rhodium, palladium, osmium, iridium and platinum. But they are the two widely traded.

You may be surprised to know that gold is not the most precious/expensive. At the time of writing (October 2013), gold stands around $1,300/oz while platinum trades at a higher value around $1,400/oz. Don't marvel at this yet. There are even more expensive ones. What is the most precious of all? Rhodium takes the honor. Although it only stands at around $1,100/oz at the time of writing, its historical price has topped that of gold many times over. The highest gold price to date is around $1,900/oz reached in September 2011. The record high of rhodium? $10,010/oz reached in 2008. Why so? Because rhodium is much more difficult to come by than gold or platinum.

Preferred Shares

Shares issued by companies that guarantee relatively stable dividends, but do not come with voting rights. These shares are "preferred" since they enjoy a higher priority (relative to common shares) when it comes to dividend payments.

Price Earnings Ratio (P/E ratio)

P/E ratio for short, it refers to the ratio of stock price over the recent annual earnings per share. For example, if Stock Bre-Y is trading at $10 now and its earnings per share in the past year is $0.5, then the P/E ratio is 10/0.5 = 20. This is what we call "trailing P/E ratio." Alternatively, one could divide the current stock price by the forecasted earnings for the next year. In this case, we speak of "forward P/E ratio." To continue the above example, suppose the forecasted earnings for the next 12 months is $0.6 per share, then the forward P/E ratio is 10/0.6 = 16.67.

Similar ratios can also be calculated for a stock market index. Typically, P/E ratio for a stock market index can be anywhere between 15 and 60, although the normal range is around 20 or so. Stable stocks tend to have low P/E ratios, and fast growing stocks have high P/E ratios. For instance, in January 1999, the stock of Ebay had a P/E ratio around 2,000. That is very high by any standard! It reflects the mad bidding on that company's stock.

Prime Rate

The rate a commercial bank (Royal Bank, e.g.) charges its most credit-worthy corporate customers (BCE, e.g.) for short-term loans. It is lower than the bank loan rates charged on small businesses or individual borrowers. Prime rates may differ across banks, but they tend to be very close due to competitions among banks.

Prime rate is periodically reset in accordance with the movement of bank rate. Generally speaking, prime rate is 1% to 1.5% above the bank rate. It is not unlikely that an individual obtains a loan from a bank at the prime rate or even prime rate minus some basis points. One scenario is, the loan is fully guaranteed by, say, a fixed term GIC. Another scenario is, you are super rich but still need a loan. For some reason, banks seem to have more confidence in super rich individuals than, say, university professors.

See also "Bank Rate," "GIC" and "Basis Point."

Private Equity

Please first look up "Equity." The term "private equity" usually refers to a particular class of investments − investments in a company that is not publicly traded on a stock exchange. Since the investment objects are not publicly traded, individual investors usually don't have direct access to private equity investing. The investing is usually done by private equity firms. These firms are organized as partnerships which consist of general partners (those who contribute more money and make all investment and management decisions) and limited partners (those who contribute less money and are not responsible for management decisions). The general partners are very similar to hedge fund owners in that they also follow the usual

2/20 fee and profit sharing scheme. The companies that private equity firms invest in are usually small- to medium-sized firms originated from a family business. But there are also quite large companies controlled by private equity firms. In fact, some publicly listed companies are sometimes taken private, meaning that private equity firms purchase all the shares of the public companies and delist them from stock exchanges. (After a period of restructuring under private management, the companies are taken public again via IPOs at a much higher value – this is how private equity firms make their money.)

Needless to say, private equity firms can, and almost always do, borrow money to leverage up the general and limited partners' equity investments.

It is generally believed, and mostly true, that returns from private equity investments are on average higher than returns from public equity investments (i.e., investing in stocks traded on exchanges). But the risk is also higher since some companies simply fail before they can successfully grow.

Incidentally, it is not completely impossible for retail investors to invest in private equities. Aside from the fact that their pension funds might have already got exposure to private equities, investors can in fact buy shares of companies that specialize in private equity investments – private equity firms that are publicly traded. Examples include Onex (in Canada) and Blackstone (in the U.S.).

See also "Hedge Fund," "IPO" and "Venture Capital."

Prospect Theory

This is a theory proposed by Nobel Prize Laureate, Daniel Kahneman together with his colleague Amos Tversky (see "Behavioral Finance" for more information about Daniel Kahneman). It is the theoretical foundation for behavioral economics/finance. In contrast to the classic economic theories assuming that people make decisions with a cool mind, prospect theory embraces psychology and emotions as factors that can affect decision making. For instance, the theory builds on loss aversion, something not allowed in the classic economic theories.

The term "prospect theory" is perhaps better replaced by something like "prospect paradigm," for most of its components cannot be easily described by mathematics. The traditional model building exercise is not trivial in this paradigm. This is not surprising since emotions and other psychological traits are hard to quantify mathematically.

In all fairness, it is a more meaningful paradigm than classic economic theories, but it is also more challenging to derive falsifiable predictions in this paradigm.

See "Loss Aversion."

Put Option

A put option is a derivative security whose value depends on a particular underlying asset. It is a high-leverage investment instrument. Suppose you own a put option on Company ABC's stock that is trading at $40 per share now. The put option is the right for you to sell a share at a specific price (say $42) on a specific future date (say three months from now). Three months later, if the ABC share is trading at a price above $42, then you would throw away the put option because you do not want to sell something for $42 which is worth more than $42. But if the price is lower than $42, then you would exercise your right – sell the share at $42. Suppose the share is trading at $35, then you make a $7 profit. The purchase price of this option is perhaps only $1. Therefore, your return over the three-month period is (7 – 1)/1 = 600%! (How do we estimate the value of an option? See "Black-Scholes Option Pricing Model/Formula.")

A put option holder tends to have sweet dreams about market crashes.

See also "Call Option," "European Option," "American Option," "Asian Option," "Index Option" and "Exercise Price" or "Strike Price."

Put-Call Parity

It refers to the relationship between the value of a European call and that of a European put written on the same stock with the same exercise price and time to maturity. Specifically, the parity says: the sum of the put value and the stock price is equal to the sum of the call value and the present value of the exercise price. This relationship is independent of any pricing model.

It is actually not that difficulty to understand the parity. To prove it, all we need is the no-arbitrage principle: if two portfolios have the same value at a future time, then they must have the same value today to avoid arbitrage. Let me outline the arguments below.

As described above, the put-call parity basically involves two portfolios, one consisting of a share and a put (let's call this portfolio A), while the other consisting of a call and a T-bill whose par value is the exercise price of the options (let's call this portfolio B). Let's examine the value of the portfolios at the options' maturity. First let's look at the case where the stock price is above the exercise price. In this case, portfolio A will just have a stock in it since the put is worthless; portfolio B will also have a share in it since we will render the T-bill (whose value is exactly equal to the exercise price) to acquire a share in exercising the call option. The two portfolios have the same value. Using the same logic, we can show that the value of both portfolios will be equal to the exercise price or the par value of the T-bill when the stock price is lower than the exercise price. Therefore, no matter whether the stock price is above or below the exercise price, the two portfolios will always have the same value at the options' maturity. Hence they must have the same value today.

Hence the put-call parity. As you can see, some seemingly intimating stuffs are actually not that difficulty to understand.

See "Call Option," "Put Option" and "Arbitrage" for related information.

Rate of Return

A number used to measure investment performance over a fixed period. For example, you spent $4,000 purchasing some stocks three months ago. You sell the stocks for $4,400 today. Then the rate of return of your investment is $(4400 - 4000)/4000 = 0.1 = 10\%$. If you sell the stocks for $3500, then the rate of return is $(3500 - 4000)/4000 = -0.125 = -12.5\%$ (needless to say, in this case, you also lose the chance to brag).

Real Interest Rate

It is part of the nominal interest rate. Please see "Nominal Interest Rate" for details.

Real Options

A real option refers to the managerial flexibility in a capital budgeting situation. This concept is best explained through an example. Suppose there are two projects (A and B) that are identical in every aspect, except that Project B can be terminated and sold back to the government for a pre-set price one year later. In this case, we say that Project B has a real option in it, and it is an abandonment option. The choice of abandoning the project one year later is very much like a put option (and the pre-set price is the exercise price). Therefore real options add value to a capital project. In this example, one year later, if the prospect is not very bright for the remaining life of the project, then getting out to avoid further loss is a good thing. This is where the value is from. Project A doesn't have this option.

The word "real" here is used to signify that the options involve real assets rather than financial assets. If an instructor uses the best three of four assignments to evaluate students' performance, then in effect the students also have an real option here. The only thing is, it is hard to attach a dollar value to this option.

See also "Option."

Registered Retirement Savings Plan (RRSP)

A retirement savings plan available to Canadians and Canadian permanent residents. A plan holder makes tax-deductible contributions under his/her own name or that of his/her spouse or common-law partner. Income earned within the plan is exempt from taxes as long as the funds remain in the plan. The funds in the plan can be withdrawn anytime, and the withdrawal is subject to regular taxation. In

the case of spousal or common-law RRSP, the tax is levied at the rate applicable to the spouse or the common-law partner. RRSP has three advantages. First, it defers taxation. Second, earnings within the plan are tax-free until the time of withdrawal. Third, it reduces taxes since the marginal tax rate after retirement is typically lower. RRSP is similar to the 401(k) plan in the U.S.

See also "Tax-Free Savings Account (TFSA)."

REIT

Real Estate Income Trust. Please see "Income Trust" for details.

Repo (Repurchase Agreement)

An agreement in which the seller of a security, such as a T-Bill, commits to buy it back on a specified date for a specified price. A repo or repurchase agreement is essentially a collateralized short-term loan.

See also "Reverse Repo."

Required Rate of Return

The rate of return you require on a specific investment. It is mainly affected by the riskiness of the investment. For example, if someone borrows money from you to set up a street-corner grocery store, then you may charge a 10% interest rate. But if the money is used for gold mining, then you may require an interest rate of 20%.

Retail Banking

See "Commercial Banking."

Retained Earnings

The sum of net earnings a firm has cumulated through time. "Net earnings" refers to the net profits: revenues after all operating expenses, interest payments, and taxes.

Return on Assets (ROA)

Please first look up "Net Income." ROA is net income divided by total assets. In the example under the entry "Net Income," net income is $400,000. Assume the total amount of assets is $5,000,000. Then ROA = $400,000/$5,000,000 = 8%. ROA measures how efficiently the assets are being utilized in generating profits. Obviously, the higher the ROA, the better. It should be noted though that different industries tend to have different ROA levels. Thus it only makes sense to compare returns on assets within the same industry, or compare the company's ROA with its

own previous ROAs. Even within the same industry, a higher ROA doesn't necessarily mean a better bottom line for shareholders. What also matters is the leverage. Please see "Return on Equity (ROE)" for details.

Return on Equity (ROE)

Please first look up "Net Income." ROE is net income divided by the book value of equity. It reflects a firm's overall financial performance. For example, Canadian banks' ROE is typically between 10% and 20%. Note that ROE is only an accounting metric because both the net income and book value of equity are accounting numbers. The real return an investor makes obviously depends on the stock price and dividend payments.

It should also be noted that a higher ROA doesn't necessarily lead to a higher ROE (please look up ROA before reading on). How much debt financing the firm employs will affect the bottom line a lot. To continue the example in "Net Income" and "ROA," suppose, out of the $5,000,000 total liability (remember: total assets equal total liability), $3,000,000 is debt and $2,000,000 is equity. Then the ROE is $400,000/$2,000,000 = 20%. Recall the ROA is 8% in this case.

Now, let's modify the situation a little bit. Suppose the firm is fully equity financed so that equity is equal to $5,000,000. The interest expense is zero in this case. Therefore the before-tax income is $1,200,000 – $500,000 = $700,000. With a tax rate of 20%, the net income is therefore 700,000(1 – 0.2) = $560,000. For this equity-financed firm, the ROA is $560,000/$5,000,000 = 11.2%, higher than the ROA of the leveraged firm, 8%. However, its ROE is also 11.2% (since total equity is equal to total assets in this case), much lower than the 20% ROE of the leveraged firm. In general, other things being equal, leverage enhances ROE.

Reverse Repo

A reverse repo is just a repo viewed from the buyer's perspective. The buyer of the security is essentially the provider of the loan.

See also "Repo (Repurchase Agreement)."

Risk Aversion

Refers to people's dislike or avoidance of risk. When we make decisions, especially financial ones, we tend to avoid uncertainty. When we couldn't avoid it in the end, we tend to require a fair amount of compensation for bearing the uncertainty. This risk-shunning inclination or behavior is called risk aversion.

The concept can be easily understood with the following illustration. If we are asked to choose between a) receiving $1,000 for sure and, b) receiving either $500 or

$1,600 with equal probability, most of us would choose to receive $1,000 for sure, although the expected amount in choice b) is actually $1,050 (i.e., $500(1/2) + $1,600(1/2) = $1,050). We would rather forgo the expected extra $50 just to avoid the chance of receiving only $500.

Also see "Loss Aversion" and "Prospect Theory."

Russell 2000

It is a widely watched stock market index in the U.S. It is a value-weighted or capitalization-weighted average of stock prices of the 2,000 smallest companies in the Russell 3000 index. "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. The index is reviewed and modified each year so that companies that have grown in size are replaced by smaller ones. Typically, the total market capitalization of the 2,000 stocks accounts for less than 10% of the total capitalization of the Russell 3000 index.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 3000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Russell 3000

It is a stock market index in the U.S. It is a value-weighted or capitalization-weighted average of stock prices of the 3,000 largest listed companies in the U.S. "Value-weighted" means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. Its coverage is so wide that the index represents around 98% of the total U.S. equity market capitalization. Nevertheless, it is not as well known as S&P 500 which is considered as the barometer of the U.S. equity market. Interestingly, Russell 3000's small cousin, Russell 2000, is more widely followed, chiefly because it represents a particular sector (i.e., the small-cap) of the market.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P/TSX," "S&P 500" and "Shanghai Composite."

Samurai Bond

Bond issued in Japan by foreign companies or agencies, denominated in Japanese yen. For instance, if IBM issues bonds in Tokyo with a total par value of ¥15,000-million, then these bonds will be called samurai bonds. Since the bonds are denominated in yen, the coupons will also be paid in yen.

See “Bond,” “Coupon Payments” and “Face Value” for basic knowledge of bonds. Also see “Bulldog Bond” and “Yankee Bond.”

Sarbanes-Oxley Act

Named after U.S. Senator Paul Sarbanes and Representative Michael Oxley, the Sarbanes-Oxley Act (or simply SOX) was signed into law in July 2002 by President George W. Bush. The law was enacted largely in response to several high-profile corporate bankruptcies (e.g., Enron and Worldcom) that were rooted in accounting scandals. Therefore the Act mainly aimed at tightening the standards concerning financial reporting and holding companies’ executives and board members more accountable. Ultimately, the objective was to protect investors by improving the accuracy and reliability of accounting information and other disclosures.

S&P/TSX Composite

It is a widely watched stock market index in Canada. It is a value-weighted or capitalization-weighted average of stock prices of the largest companies listed on the Toronto Stock Exchange (TSX). “Value-weighted” means the larger the company in market capitalization, the higher the weight its stock enjoys in the index calculation. The number of companies/stocks included in the index is not fixed. Instead, the index membership depends on a set of criteria concerning size and liquidity. Typically, the number of stocks varies between 200 and 300, and they represent a large portion of the entire Canadian equity market.

The name “S&P/TSX” stems from the fact that the index is co-managed by Standard and Poor’s and the Toronto Stock Exchange. S&P/TSX 60, which contains the 60 largest companies within the S&P/TSX Composite is also widely watched since most of the derivative securities such as options and futures are based on this index.

See also “All Ordinaries,” “CAC 40,” “CSI 300,” “DAX,” “Dow Jones Industrial Average,” “Euro Stoxx 50,” “FTSE 100,” “Hang Seng Index,” “Nasdaq Composite,” “Nikkei 225,” “Russell 2000,” “S&P 500” and “Shanghai Composite.”

S&P 500

It is a widely watched stock market index in the U.S. and in the world. Managed by Standard and Poor’s, the index is essentially a scaled average of the market capitalizations of the 500 leading U.S. stocks traded on either the NYSE or Nasdaq. In fact, the index membership is not based on size alone. Other traits of the stock such as trading volume, liquidity and industry representation are also considered. The index, representing about 80% of the entire U.S. equity market capitalization, is considered to be the barometer of the U.S. equity market.

See also “All Ordinaries,” “CAC 40,” “CSI 300,” “DAX,” “Dow Jones Industrial Average,” “Euro Stoxx 50,” “FTSE 100,” “Hang Seng Index,” “Nasdaq Composite,” “Nikkei 225,” “Russell 2000,” “S&P/TSX Composite” and “Shanghai Composite.”

Securitization

A process in which non-security assets such as mortgages, loans and accounts receivables are packages together and sold as pass-through financial instruments. The newly packaged instruments are usually tradable securities, and that is why this process is called securitization. Specific names are given to the newly born securities depending on the nature of the non-security assets being packaged. For instance, mortgage-backed securities are packaged out of residential mortgages while collateralized debt obligations (CDOs) are packaged out of bonds. Collectively, the newly created securities from securitization are called “asset-backed securities” or ABS.

See also “Asset-backed Securities (ABS),” “Mortgage-backed Securities” and “CDO.”

Security

A general term standing for a financial instrument. For example, a stock is a security, a bond is a security, and so is a T-bill. Insofar as security means financial assets that are essentially money, it is no wonder that we all need “security.”

Securities and Exchange Commission (SEC)

You should first look up “Ontario Securities Commission.” It is the U.S. version of the Ontario Securities Commission except that it is for the entire United States of America. Created pursuant to the Securities Exchange Act of 1934, the Securities and Exchange Commission was initially meant to restore confidence in and the order of the stock market following the 1929 market crash. Nowadays the SEC has a much broader mandate like any other modern securities commission.

The U.S. SEC is headquartered in Washington DC and has a dozen regional offices throughout the country. The organization is under the leadership of five commissioners, all pointed with five-year stagger terms by the President of the United States of America. The President names one of the five as Chairman who becomes the ultimate boss of the Commission. To ensure nonpartisan nature of the Commission, no more than three commissioners can come from the same party.

Semi-annual Compounding

Please see “Compounding Frequency.”

Shanghai Composite

Also called "Shanghai Stock Exchange Composite Index" or "SSE Composite Index." It is a widely watched stock market index in China. It is a market capitalization average of all the shares (both A-shares and B-shares) listed on the Shanghai Stock Exchange. Unlike most of the composite stock market indices in the world which represent a large portion of the capital market of the country in question, the Shanghai Composite doesn't accurately represent the overall Chinese capital market since many of the state-own companies are not yet publically listed.

See also "All Ordinaries," "CAC 40," "CSI 300," "DAX," "Dow Jones Industrial Average," "Euro Stoxx 50," "FTSE 100," "Hang Seng Index," "Nasdaq Composite," "Nikkei 225," "Russell 2000," "S&P 500" and "S&P/TSX."

Short/Short Selling

Referring to selling a security you don't own. Because you don't own the security, you must borrow it first. Of course, you must buy it back later to return it. Obviously, you would short a security only if you anticipate its price to go down. As an illustration, suppose Jack believes that Company ABC's stock will decline from today's $65 to $50 in the near future. Then Jack can borrow certain number of shares, say 100, from his broker, and sell them immediately for $6,500. After several days, if the share price indeed tumbles to $50, then Jack will purchase 100 shares for $5,000 and return them to his broker. In this process Jack makes $1,500. Very nice indeed, and Jack will have acquired some bragging rights at cocktail parties. But if the stock price keeps climbing up, then Jack will lose money because he has to return the shares sooner or later. For example, if the stock price is $85 when he has to return the shares, then he will lose $2000 in this process. (You can be sure that Jack won't be too eager to talk about it at cocktail parties.)

As you can see, deciding whether to go long or short with an investment is no less tricky than deciding what to wear on an early summer day!

Also see "long."

Simple Interest

Please see "Compound Interest."

Sinking Fund

Generally, the term refers to a situation whereby money is being periodically put into a fund which can be used to make capital purchases, retire debts or facilitate any other causes. Nowadays, especially in North America, the term is often used for a particular situation: gradual retiring of debt. When bonds are issued with a sinking fund feature, the issuer can purchase back a fraction of the issue each year so that it

won't have to face the challenge of coming up with a large amount of money at the bond maturity. In some ways, bonds with a sinking fund feature are similar to mortgages: once you make the last payment, you are debt free. In another sense, bonds with a sinking fund provision are also similar to callable bonds, except that in the latter, the entire issue is called back, and it is done to save financing costs.

Some argue that bonds with a sinking fund feature are also less risky to creditors. The reason is quite simple: when the borrower repays the debt gradually, there is less chance for it to default than if it has to repay the whole loan amount in one shot.

See also "Bond," "Mortgage" and "Callable Bond."

South Sea Bubble

This is a well-told story about stock price bubbles. But unlike its older cousin, the Tulipmania, the South Sea Bubble story involves many more dimensions than simple greed. A complete recount of the story would require delineations of colonial rivalry, international trade, government finance, and a myriad of dirty tricks such as deceptions and briberies, all beyond the scope of this humble guide. Instead, only a rough sketch is provided below.

In a nutshell, it is an event in England in the early 18th century that made many people rich and many others poor, thanks to the spectacular rise and the subsequent, equally spectacular fall of South Sea Company's stock, all in a matter of months.

What is this South Sea Company? It was founded in 1711 as a private company, but with a great deal of government involvements. The company took over the national debt from the British government (the debt itself was used to finance the British participation in the War of Spanish Succession, 1701-1714). In return, it would receive the interest payments on the debt and a guaranteed monopoly of trades with Spanish colonies in South America (e.g., Peru, Mexico and Chile, all of which were collectively referred to as South Seas, hence the company's name). The war ended in 1713 but it didn't quite weaken Spain's colonial dominance in South America. South Sea Company's trade monopoly only materialized to limited slave trade and one-voyage-per-year to South America with various limitations (e.g., capped total tonnage of goods to be shipped) and a stingy profit-sharing plan imposed by Spain). In other words, the company had no good prospect whatsoever.

This was when the rogue directors and other company executives started to engage in deceptions and briberies in the hope to hoist their stock price. More national debt was converted into the company's shares (thanks to the help from corrupted politicians who were willing and ready slaves of briberies) and other trickeries were to be deployed. And the bubble was ready to be inflated.

The bubble started to form in January 1720 when the share was trading around £130. Acquiring more national debt surely made the company more prominent, but the real air inflating the bubble came from downright deceptions. The company concocted and spread tempting tales of super riches resulting from the splendid trading profits thanks to the bountiful supply of gold and silver from South America at virtually zero costs. None of the claim was true, of course, but the greedy and the foolish were basking themselves in the fanciful dreams of being rich and helped push the stock price higher and higher: £175 in February, £330 in late March, and £550 in May.

The greedy and the foolish always help breed the rogue, and this axiom was at its best display in the South Sea Bubble saga. The creation of super riches dutifully inspired the dormant rogues who set up their own companies and promoted their shares on all kinds of luring promises, ranging from improving the art of making soap all the way to extracting silver from lead. The laziest yet perhaps the most clever of all venture promotions: "For carrying on an undertaking of great advantage; but nobody to know what it is."

Unwittingly, these mushrooming ventures were nicknamed "bubbles" at the time. And the British government was indeed a bit concerned about the runaway bubble bubbling, so to speak. So much so that it passed the "Bubble Act" which stipulated that a legit company must apply for a royal charter. Lo and behold, South Sea Company was the first to be granted the charter! This "prestigious" status plus other manoeuvres helped further propel its share to the peak price of £1,000 in early August. Shortly after, the bubble bursted. By the end of September, the stock price fell to an earthly level of £150, more or less where it started in January.

The saga of the South Sea Company actually led to many consequences aside from creating super rich and sudden paupers. In 1721, a formal investigation lead to prosecutions and convictions of many high society figures including the chancellor of the exchequer.

Well, perhaps not all victims were greedy and foolish. Sir Isaac Newton reportedly lost £20,000 from the saga. When asked to comment, he reportedly said "I can calculate the movement of heavenly bodies but not the madness of men."

Did people learn a lesson from the South Sea Bubble, especially considering that it already had a younger cousin (Tulipmania)? Read "Dotcom Bubble" to find out.

Speculation

The act of educated betting on the price movements of certain assets. Its synonym is "risk-taking" or "betting." Risk-taking or betting by definition can lead to either gains or losses. For example, Peter Pringle thinks that the oil price will reach $100 a barrel in two years (while the market consensus is $80), and he enters into a

forward contract to buy oil at $80 a barrel. In this case, we say that he is speculating on the oil price. Two years later, if the market price is, say, $110 a barrel, then he would settle his forward contract by buying oil at $80 a barrel, turning around and selling it at $110 a barrel, pocketing $30 a barrel. Of course, he could lose a bundle if the price is low, e.g., at $55, since he still has to buy at $80.

Notice that if a refiner enters into a forward contract to buy oil at $80 a barrel, then the refiner is hedging rather than speculating. Why? Because the refiner will not sell the oil; rather it will use it for refining.

See also "Forward Contract," "Hedging," "Dotcom Bubble," "South Sea Bubble" and "Tulipmania."

Spot Interest Rates

Interest rates applicable today or "on the spot." For example, if you go to a bank branch today and intend to purchase $1,000 worth of GIC. Depending on the number of years you want to lock your money in, the annual interest rate will be different. The one-year rate may be 2.5%, the two-year rate may be 2.75%, the three-year rate may be 3.00%, and so on. (Note: those rates are annual rates applicable to the period in question.) The rates that are prevailing today for different investment periods are called spot rates.

See also "Forward Interest Rates," "GIC," and "Term Structure of Interest Rates."

Staggered Board

See "Board of Directors."

Stock Repurchase

It refers to a firm's purchase of some of its own shares. Once the shares are purchased back, they become so-called "treasury stocks" and are not included in the total number of shares outstanding. Therefore, stock repurchase may improve a firm's earnings per share and ROE when the firm is really doing well.

See also "Treasury Stock."

Stock Split

Artificial reset of stock price in accordance with the total number of shares outstanding. Suppose Company ABC's stock is trading at $150 per share, and there are two million shares outstanding. If the stock undergoes a 2:1 split, then the new share price will be $75 and the total number of shares outstanding will double to four million. Obviously, shareholders are neither better off nor worse off with a

stock split. Why then do companies undertake stock splits? The reason is a practical one: When shares are trading at a higher price, they are less accessible to small investors, especially given the fact that shares are usually traded in the multiples of 100 (the so-called board lots). For instance, with $1,000 you could by 100 shares of a $10 stock, but it will only get you an awkward 2.5 shares if the stock is trading at $400. You think $400 is too high? Think again. At the time of writing (October 2013), Google stock is trading around $870. But here comes the true surprise: Warren Buffett's Berkshire Hathaway A-share is trading around $173,500! He had been resisting splits for years, deliberately eschewing small investors (partly because he considered them as unsophisticated, whimsical, mad little gamblers). He gave in eventually in 1996, creating the so-called Berkshire Baby Shares at $1,000 a pop (that baby was seriously overweight!). Then in 2010, a truly accessible Berkshire stock was created when the Baby Share (B-share) underwent a 50:1 split. At the time of writing, it is trading around $115. Still not quite lean and fit compared with most other babies out there!

A company sometimes also undertakes a reverse stock split, only that in this case, the sheer reason is for survival. A reverse stock split refers to stock consolidations: combining many shares into one. When stocks are sliding to some low price levels, consolidation is called for either to shore up investors confidence (perhaps only works for the not-so-intelligent ones) or to avoid the stock being delisted by exchanges (most exchanges would delist a stock if the price is below $1). Nortel, the one-time Canadian darling, underwent a 1:10 reverse split with its stock in December 2006. But evidently, that manoeuvre was to no avail.

Straddle

An option investment strategy. It is a combination of one call option and one put option on the same stock with the same exercise price and time-to-maturity. Insofar as a call option is a bet on the upward price movement and a put option a bet on the downward movement, a combination of the two is a simultaneous bet on both directions. In other words, it is a bet on the stock's volatility. If there are a lot of developments with a stock and its price may go up or down in the short-term, then holding a straddle would make sense. Of course, you can also use it the other way around. If you are quite confident that the stock price won't move much in the next little while, then you can sell a straddle. If indeed the price didn't move before the option matures, you get to keep the proceeds from selling the straddle.

Don't get too excited just yet. You need to understand that either bet can go sour. If you buy a straddle and nothing happens to the stock price, then you lose your entire investment; if you sell a straddle and the price moves a great deal in either direction, then the straddle holder will come back and exercise one of the options against you in which case the loss may be way more than your initial proceed. No secret weapon, unfortunately.

Why is this option strategy called a "straddle"? It should be obvious now after reading the above. Each of your leg is betting on one direction of the market!

See "Volatility," "Call Option," "Put Option" and related definitions for detail. Also see "Strip," "Strap," "Bull Spread," "Bear Spread" and "Butterfly."

Strap

You need to look up "Straddle" before reading on. Strap is yet another option investment strategy. It is a combination of two call options and one put option on the same stock with the same exercise price and time-to-maturity. Insofar as a straddle allows you to bet on both directions with equal conviction, a strap puts more weight on the upward movement than on the downward. Since a strap allows you to make more money than a straddle when the stock price goes up, it also costs you more – you pay for one extra call option. Again, nothing is free!

Why is this option strategy called a "strap"? No one knows. Perhaps to symbolize the extra call option attached (as a strap) to one of the two legs in reference to the description of straddle?

Also see "Strip," "Bull Spread," "Bear Spread" and "Butterfly."

Strike Price

See "Exercise Price."

Strip

You need to look up "Straddle" before reading on. Strip is yet another option investment strategy. It is a combination of one call option and two put options on the same stock with the same exercise price and time-to-maturity. Insofar as a straddle allows you to bet on both directions with equal conviction, a strip puts more weight on the downward movement than on the upward. Since a strip allows you to make more money than a straddle when the stock price goes down, it also costs you more – you pay for one extra put option. Again, nothing is free!

Why is this option strategy called a "strip"? No one knows. Perhaps similar to the reason for "strap" except that the extra piece is now attached to a different leg!

Also see "Strap," "Bull Spread," "Bear Spread" and "Butterfly."

Strip Bond

The par part of a coupon bond, i.e., the remaining part of a bond after the coupons are stripped away. In nature, a strip bond is a discount bond. If a bond is issued

without coupon, then it is called a discount bond; if a bond is issued as a regular coupon bond, and the coupons are subsequently stripped away, then it is called a strip bond. Typically, borrowers such as governments and corporations do not issue discount bonds due to their lower issuance proceeds (compared with coupon bonds), yet discount bonds serve an important investment purpose (e.g., for those who want to invest for a three-year horizon without having to worry about reinvesting coupons). As a result, strip bonds are created to fill the gap. Strip bonds are traded over-the-counter, and one can buy them from any investment broker. In Canadian markets, strip bonds are typically stripped from bonds issued by governments (federal or provincial) and crown corporations.

Also see "Discount Bond."

Subprime Loans

Loans made to those with inferior credit worthiness such as unemployed individuals or people with temporary low-wage jobs. Because of the higher-than-average credit risk, banks charge a higher interest rate for this type of loans. An extreme version of subprime loans is NINJA (loans made to people with No Income, No Job and Assets). Shortly prior to the 2007 financial crisis, many lenders offered subprime loans as mortgages.

Swap

Exchange of cash flows or financial securities. For instance, a company may swap out of a floating rate loan and get into a fixed rate loan, or vice versa. In this case, it is an interest rate swap. Similarly, a corporate borrower may exchange a U.S. dollar loan into a Japanese yen loan, in which case it is a currency swap. There are also commodity swaps and equity swaps. In general, swaps are used by corporations and financial institutions to hedge risk or to take advantage of certain market conditions.

See also "Asset Swap," "CDS," "Commodity Swap," "Equity Swap" and "Total Return Swap."

Systematic Risk

The part of a financial asset's risk that is associated with the overall market risk. It is measured by "beta." A higher systematic risk means a higher chance for the asset's return and the market return to move together. When we put many stocks in one portfolio, the portfolio's risk is basically systematic risk since all firm-specific risks would cancel each other. The movement of the portfolio's return is due to market-wide factors only such as interest rate.

See also "Idiosyncratic Risk," "Diversifiable Risk" and "Nonsystematic Risk."

T-bill

A T-bill (Treasury Bill) is a short-term security issued by the federal government to raise funds. T-bills are auctioned to major commercial banks (e.g., Royal Bank, CIBC, and TD), which in turn sell them to individual investors. T-bills are sold in discount. For example, if you purchase a $10,000 T-bill with one year to maturity at an interest rate of 10%, then you now pay 10,000/(1+0.1)=$9090.91 to get the bill. One year from now, you get $10,000 back. Normally, T-bills are sold with time to maturity of one, three, six, or twelve months.

Takeover

The same as acquisition. Please see "Mergers and Acquisitions (M&A)." Also see "Poison Pill" and "Golden Parachute."

Tax-Free Savings Account (TFSA)

A savings plan coming into effect on January 1, 2009. Essentially, it is a vehicle used to encourage Canadians to save. Under this plan, a Canadian resident can contribute up to $5,500 per year (used to be $5,000 until December 2012) to earn tax-free investment income. The contribution itself is after-tax, so only the investment income is tax-free. It is quite different from RRSP in this aspect. Withdrawals from a TFSA are tax-free and can be put back to the plan anytime. Unused portion of the annual contribution limit can be accumulated and carried forward. Just like a spousal RRSP, contributions can also be made under the name of a spouse or common-law partner. For instance, if Peter's wife Sarah has no income, then he can contribute $11,000 per year, out of which $5,500 is under his own name while the other $5,500 under Sarah's name.

See "RRSP."

Technical Analysis

A type of stock analysis with the ultimate goal of determining where the stock price is going. In contrast to "fundamental analysis," technical analysis is not preoccupied with fundamentals. Instead, efforts are directed at detecting trading patterns so that the price movements in the immediate future can be predicted. Naturally, past prices and trading volume are the main targets of investigation. The usual metrics being looked at include such things as moving average of past prices, support level, and resistance level. Comparing the current stock price with a, say 250-day, moving average might indicate the overall direction of the price movement. A resistance level is a price that the stock has repeatedly reached in the recent past but never managed to pass through. If one day the stock price breaks through this level, then it indicates the start of an upward momentum and hence qualifies as a buy signal. The

support level is just the opposite: if the stock price flirts with a low level several times and eventually dips through it, then it is time to sell.

Clearly, those who rely on technical analysis don't believe in market efficiency, especially the so-called weak-form market efficiency.

Also see "Fundamental Analysis" and "Market Efficiency."

Term Deposit

Exactly the same as a GIC (see GIC) except that term deposits can be redeemed prior to maturity subject to a penalty. Term deposits are also insured under the CDIC. These days, term deposits are no longer popular.

See "GIC" and "CDIC."

Term Structure of Interest Rates

The curve relating spot interest rates to maturities. Suppose we have a series of Government of Canada strip bonds with maturities of 1-, 2-, 3-, 4-, and 5-years. Further suppose the return or yield on each bond is 4.00%, 4.25%, 4.55%, 5.00%, and 5.50%, respectively. If we plot the yields on the maturities, we will have an upward sloping curve. This curve is called term structure of interest rates. It is a useful concept because once we have this curve, we can value any coupon bonds by doing simple cash flow discounting.

Also see "Discount Bond," "Spot Interest Rates," and "Strip Bond."

Total Return Swap

Please first look up "Swap" and "Equity Swap." In nature, it is similar to an equity swap in that it allows one party to receive the actual total return on an asset without directly acquiring it. However, total return swaps are usually classified under credit derivatives since the underlying asset is usually a bond or a loan. Suppose ABC Pension Plan would like to enhance its returns by investing in corporate bonds issued by WhiteBerry Inc. Instead of going out and directly acquiring WhiteBerry's bonds, ABC Pension Plan can enter into a total return swap with, say, a five-year tenure whereby each year, ABC will pay LIBOR plus a spread and receive a pre-determined fixed rate commensurate with the credit risk of WhiteBerry – i.e., a rate equal to the yield on WhiteBerry's bonds. At the swap's maturity, a one-time payment is made to reflect the gain or loss on the bond price. For instance, if the market interest rate gradually declines throughout the life of the swap, then there will be capital gain on the bond, and ABC Pension Plan will be paid the net-gain amount before the swap is closed. Thus, ABC would have received the total return on WhiteBerry's bonds. Hence the name "total return swap."

An acute reader may now realize that a total return swap is simply a financing vehicle. In other words, it is exactly equivalent to borrowing funds (by paying an interest rate equal to LIBOR plus a spread) and investing in bonds.

See "Bond" and "LIBOR." Also see "Commodity Swap," "CDS (Credit Default Swap)," "Asset Swap" and "Credit Derivatives."

Treasury Bonds

A treasury bond is a long-term debt issued by the federal government. Treasury bonds are different from T-bills in that they have a longer maturity (usually longer than 10 years at issue) and carry coupons.

Please see "T-bills."

Treasury Stock

Common stock that has been repurchased by the company and held in the company's treasury. These shares don't pay dividends, have no voting rights, and are not part of the total number of shares outstanding, although they are still counted as part of shares issued.

See also "Stock Repurchase."

TSX

Short for "Toronto Stock Exchange." It is a formal exchange with a physical location. Companies listing shares on the TSX must meet certain requirements regarding such things as the number of shares outstanding and market capitalization. The vast majority of listing companies on the TSX are Canadian.

See also "Market Capitalization," "Nasdaq," "Over-the-Counter Market" and "NYSE."

Tulipmania

Refers to a tulip trading frenzy that occurred in the Netherlands in the mid 17th century. Essentially, the event was a display of vanity, greed and madness. The story is often told to illustrate how investors could easily create a bubble and then witness its burst subsequently.

Tulips were introduced to Europe from Turkey in the mid-1500s (in fact, the word "tulip" is believed to have originated from the Turkish word "turban"). Just as other novel things which tend to be first owned, proudly, by people in high societies, tulips soon became a status symbol in the Netherlands. Hobby horticulturists and

entrepreneur-spirited people started to take advantage of the status-craving by cultivating and selling tulip bulbs in the spring. By the early part of 1630s, tulips had become a must-have for wealthy individuals as a status symbol. The absence of tulips in the garden would be tantamount to the absence of a luxury car on the driveway of a modern-day well-to-do family. But the craving for status didn't stop at the rich. Ordinary folks were not to be outdone. A trader in Haarlem reportedly spent half of his life savings to acquire a single tulip bulb, not for profit, but for show. Surely, that bulb must have been of a rare variety. Indeed, the trading prices of bulbs chiefly depended on how rare and exotic the tulips were.

People were so enthused that trading was no longer confined to the spring season. Folks in bars, taverns and other gathering places started trading in the winter when the bulbs were still buried frozen in the ground. They traded bulbs by signing promissory notes – promises of delivery of tulip bulbs in the spring. And soon after, the promissory notes themselves were being traded for profits. In other words, in the later stage of the mania, people didn't even care what species of tulips were specified in the contracts; they were only interested in how much profit they could make when they sell the promissory notes to the next fool. (Contrary to many accounts, tulip bulbs were never traded on formal exchanged such as the Amsterdam Stock Exchange.)

Peak prices of tulip bulbs (of different varieties) were reached at the end of 1636 and the beginning of 1637. According to various estimates, in today's U.S. dollar terms, a single bulb of a fancy variety fetched a price anywhere from $17,000 U.S. to $76,000 U.S. (that would be a very expensive onion to eat if the tulip bulb were mistaken as such!). It took only a few weeks for the bubble to completely burst. After all the dusts had settled, the price dropped all the way to one dollar per bulb in today's terms.

Did people learn a lesson from the Tulipmania? Well, you will find out by reading the entry "South Sea Bubble."

Underwriter

Synonym of "investment dealer."

Value at Risk (VaR)

An encompassing measure of risk for a portfolio. It was invented by J.P. Morgan in the early 90s upon the order of Chairman, Dennis Weatherstone. Legends have it that he demanded that his staff save all the boring technicalities and simply tell him how much money the company may lose tomorrow. With a lot of sweating and some ingenuity, VaR was born and it was dubbed the 4:15pm report. (Picture this in your mind: Weatherstone approvingly glances over the single-page VaR report at 4:15pm before he heads home.)

Essentially, VaR is an estimate of maximum loss during a specific horizon with a certain level of confidence. Suppose a portfolio is currently worth $500 million. If we say that with 99% confidence, the loss over the next 10 days will not exceed $15 million, then in this case the VaR over the 10-day period is $15 million at the 99% confidence level. Clearly, the higher the confidence level, the larger the VaR number. The extreme case: we are 100% confident that the loss will not be more than $500 million over the next ten days. But this is an empty statement!

Thanks to its simplicity, VaR became a universally accepted risk measure and the centerpiece of Basel Accord II.

Also see "Basel Accords."

Value Stock

Stock of a company that is on solid footing, making profits, but somehow neglected by investors. It is a synonym for undervalued stocks. These stocks usually have a lower P/E ratio but a higher dividend yield. They are favored by patient bargain hunters. The legendary Warren Buffett of Omaha is a well-known example of value investors.

It should be noted that some glamor stocks will lose luster in the long run, just as not all value stocks will realize superior returns. Some seemingly undervalued stocks eventually do perish; and some glittering stocks do become dogs. How to precisely identify genuine growth and value stocks? I suggest you schedule a lunch meeting with people like Warren Buffett to find out. And please don't forget to contact me once you find the open sesame.

Also see "Price Earnings Ratio (P/E)" and "Dividend Yield."

Variable-rate Mortgage

A mortgage whereby the rate floats with the market and can be adjusted at any time by the bank. Whenever the rate is adjusted, a new monthly payment will be calculated for the remaining balance. When the rate goes up, the monthly payment will increase, and vice versa. Those customers who opt for a variable rate anticipate the rate to go down. Please see "Mortgage" and "Fixed-rate Mortgage" for related information.

Venture Capital

A particular type of private equity. Specifically, it refers to investments in more risky businesses in their early development stages. Venture capital can be further classified into finer categories according to the business development stage. For

instance, "seed capital" is money invested in the earliest stage of a business which may only show some promise of a product; "usual stage of venture capital" is investment in a venture that is already turning a profit; and "later stage of venture capital" is investments in businesses that already have fully developed products and are ready for expansion, and so on.

Naturally, venture capital investments are highly risky. Statistically, 10% of ventures simply go bust, and 50% fail to produce profits. Among the 40% lucky ones, 35% are mediocre, and only 5% are true homeruns. In fact, for most private equity firms, the 5% homeruns make up more than 80% of the total gains. Case in point: Kleiner Perkins (U.S. venture firm) bought 25% of Netscape for $20m. Subsequently, Netscape acquired by AOL for $4 billion. Return:

25% × ($4,000m) / ($20m) = 5,000% !!!

Due to the inherent high risk, only about 20% of private equity firms make venture capital investments.

See also "Private Equity," "Buyout" and "Leveraged Buyout."

VIX

An encompassing measure of investors' assessment of the overall market volatility for the immediate future. It is also considered to be a gauge of investors' fear. Because it is a measure of volatility, it is expressed as a standard deviation of returns in percentage form. For instance, the VIX stands at 19.60 on October 9, 2013, which means investors collectively believe that the annualized market volatility for the next little while will be 19.60%. The calculation of VIX is rather complicated. In a nutshell, it is the average of volatilities implied from short term options on the S&P 500 index. Since we observe option values together with the index level, we can use certain option pricing models (e.g., the Black-Scholes option pricing model) to calculate an implied volatility of the S&P 500 index (i.e., to back out a volatility that will make the model price equal the observed market price of the option). Insofar as S&P 500 is a barometer of the overall equity market in the U.S., its implied volatility will represent investors' assessment of the overall market volatility. VIX is computed such that it always measures the volatility for the next 30 days.

See "Volatility," "Option," "Black-Scholes Option Pricing Model/Formula" and "S&P 500."

Volatility

It usually refers to the riskiness of a stock. When we say a particular stock is very volatile or has a high volatility, we mean that its price fluctuates a great deal. Most of the time, we use the standard deviation of the stock's return to measure volatility.

Volcker Rule

Named after Paul Volcker who served as Chairman of the Federal Reserve from 1979 to 1987 (under Presidents Jimmy Carter and Ronald Reagan), the Volcker Rule is a main component of the Dodd-Frank Act.

Prior to the Financial Crisis of 2007, banks and other deposit taking institutions were allowed to perform both an advisor's role and a creditor's role to the same client (e.g., in a leveraged buyout situation). They were also allowed to trade on their own accounts, an activity called proprietary trading. Mr. Volcker strongly believed that deposit taking institutions' engagement in such activities constituted a severe form of conflict-of-interest and hence ought to be presented.

The Volcker Rule contains detailed stipulations. In a nutshell, it requires that depositing taking institutions separate such activities as investment banking, private equity and proprietary trading from their consumer lending activities.

See "Federal Reserve System," "Dodd-Frank Act," "Financial Crisis of 2007," "Leveraged Buyout," "Investment Banking" and "Private Equity."

Warrant

A long-term call option offered with newly issued debt as a sweetener. It allows the holder to buy company shares at a pre-determined price in the future. Since call options will pay off if the firm's stock is doing well, warrants are used to signal the confidence of the firm, which in turn will lower the coupon rate on the bond being issued. Warrants are very similar to convertible bonds in this sense. The only difference is, warrant holders pay the pre-determined price to acquire the share, whereas convertible-bond holders give up the bond in exchange for company shares at a pre-determined conversion ratio.

Since I haven't heard of companies that attach long term put options to their newly issued debt, so there is no put option counterpart for "warrant." Issuing put options on a company's own stock is tantamount to a person admitting that he is the biggest loser in the world.

See also "Call Option," "Convertible Bond" and "Put Option."

Wholesale Banking

See "Commercial Banking."

Working Capital

Sometimes called "Gross Working Capital." It is simply the current assets of a firm. This type of capital "works" for the firm in that it ensures the smooth operation of

the firm. For individuals, we can think of the petty cash in our wallet and the balance on our checking account as working capital, since they ensure that we can carry out our daily lives smoothly. Please see "Current Assets."

World Bank

The World Bank, together with the International Monetary Fund (IMF), was created by the victorious countries of the Second World War. The two institutions, both headquartered in Washington D.C., were designed to help rebuild the post-war economy of the allied countries. The World Bank is not a bank in the common sense. It is one of the United Nations' specialized agencies, and is made up of about 200 member countries. Its main mandate is to make loans to developing countries for social overhead capital projects such as building schools and health centers, providing water and electricity, fighting disease, and protecting the environment.

See also "International Monetary Fund (IMF)."

Yankee Bond

Bond issued in the U.S. by foreign companies or agencies, denominated in U.S. dollars. For instance, if Canadian Tire issues bonds in New York with a total par value of $80-million U.S., then these bonds will be called Yankee bonds. Since the bonds are denominated in U.S. dollars, the coupons will also be paid in U.S. dollars.

In order to make the issuance, the foreign identify must apply to the Securities and Exchange Commission (SEC) in the U.S. and obtain a formal approval. This procedure can take months and, needless to say, not all foreign companies or agencies can qualify even if they don't mind the waiting. For those who are unlikely to qualify, they can issue bonds without the SEC approval. In this case, they are called "144A Bond."

See "Bond," "Coupon Payments" and "Face Value" for basic knowledge of bonds. Also see "Bulldog Bond," "Samurai Bond," "144A Bond" and "SEC."

Yield Curve

Synonym of "term structure of interest rates."

Yield to Maturity

Average rate of return from investing in bonds. It is the rate of return a bond investor can expect if he holds the bond to maturity and is able to reinvest all the coupons at this rate of return. In essence, yield to maturity is nothing but the internal rate of return on a bond. Since the rate at which the coupons can be reinvested is mostly governed by the market, the yield to maturity is only a

benchmark number. At maturity, the actual realized return may be higher or lower than the initially calculated yield to maturity, depending on the interest rate environment.

See also "Bond."

Yield Spread

The difference between the yield to maturity of a corporate bond and that of a risk-free government bond. Suppose the yield to maturity of a 10-year IBM bond is 2.8% while that of a comparable Treasury note is 2.4%. Then the difference in yield, 0.4%, is the so-called yield spread. It measures the credit risk of IBM bonds. In other words, it is the annual return investors demand for bearing the default risk of IBM.

See "Bond" and "Yield to Maturity."

Zero-coupon Bond

Synonym of "discount bond."