



FINANCIAL MARKETS

QUICK REFERENCE GUIDE

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LAB49

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FINANCIAL MARKETS

INTRODUCTION TO GLOBAL FINANCIAL MARKETS

The global financial market is the worldwide framework of legal agreements, institutions, and both formal and informal economic factors that together facilitate international flows of financial capital for purposes of investment and trade financing.

Money Market

The money market is where financial instruments with high liquidity and very short maturities are traded. It is used by participants as a means for borrowing and lending in the short term, with maturities that usually range from overnight to just under a year.

OTC Markets Group, (previously known as "Pink Sheets") is an American financial market providing price and liquidity information for almost 10,000 over-the-counter (OTC) securities. The group has its headquarters in New York City. OTC-traded securities are organized into three markets to inform investors of opportunities and risks: OTCQX, OTCQB and Pink.

Over-the-counter trading is done in the money market and it is a wholesale process. It is used by the participants as a way of borrowing and lending for the short term. Description: Money market consists of negotiable instruments such as treasury bills, commercial papers, and certificates of deposit.

Commodity Market

A commodity market is a physical or virtual marketplace for buying, selling and trading raw or primary products, and there are currently about 50 major commodity markets worldwide that facilitate investment trade in approximately 100 primary commodities.

Commodities are split into two types: hard and soft commodities. Hard commodities are typically natural resources that must be mined or extracted (such as gold, rubber and oil), whereas soft commodities are agricultural products or livestock (such as corn, wheat, coffee, sugar, soybeans and pork).

FX (Forex) and the Interbank Market

The foreign exchange market is the market in which participants buy, sell, exchange and speculate on currencies. Foreign exchange markets are made up of banks, commercial companies, central banks, investment management firms, hedge funds, and retail forex brokers and investors. The interbank market is the top-level foreign exchange market where banks exchange different currencies. The banks can either deal with one another directly, or through electronic brokering platforms. It is mainly used for trading among bankers.

Capital Markets

- Debt (Bond) Markets - is a financial market in which the participants are provided with the issuance and trading of debt securities.

- Equity (Stock) Markets - the meeting point for buyers and sellers of stocks. The securities traded in the equity market can be either public stocks, which are those listed on the stock exchange, or privately traded stocks.

Derivatives Markets

A derivative is a financial security with a value that is reliant upon or derived from an underlying asset or group of assets. The derivative itself is a contract between two or more parties based upon the asset or assets. Its price is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes.

Derivatives can either be traded over-the-counter (OTC) or on an exchange. OTC derivatives constitute the greater proportion of derivatives in existence and are unregulated, whereas derivatives traded on exchanges are standardized. OTC derivatives generally have greater risk for the counterparty than do standardized derivatives.

Cash or Spot Market

The spot market or cash market is a public financial market in which financial instruments or commodities are traded for immediate delivery. It contrasts with a futures market, in which delivery is due at a later date. Spot markets can operate wherever the infrastructure exists to conduct the transaction.

Futures market

The futures market is an auction market in which participants buy and sell commodity and futures contracts for delivery on a specified future date. Examples of futures markets are the New York Mercantile Exchange, the Kansas City Board of Trade, the Chicago Mercantile Exchange, the Chicago Board of Options Exchange and the Minneapolis Grain Exchange. Originally, trading was carried on through open yelling and hand signals in a trading pit, though in the 21st century, like most other markets, futures exchanges are mostly electronic.

HOW BANKING AND FINANCIAL MARKETS WORK TOGETHER

Banking and financial markets encompass the 'ecosystem' that channelizes money from those who have it (i.e. savers/investors) to those who need it (i.e. borrowers) and facilitates cross-border flow of funds through exchange of currencies. The ecosystem of banks and financial markets (including Central Banks) has deepened in size, sophistication and complexity over the years.



PRIMARY AND SECONDARY MARKETS

The capital market can be broken down into two separate markets – primary and secondary. In the primary market, institutions invest capital in corporations that seek to grow and operate, while corporations issue debt or equity in return. Investment banks act as advisors for institutions and corporations on mergers and acquisitions (M&A) and initial public offerings (IPO). Public accounting firms provide accounting and advisory services to the key players. The secondary market involves the sale and trading of issued bonds and shares in a centralized marketplace. Investment banks offer their sales, trading and research services to help buyers and sellers make decisions on their securities.

Primary market (5% of trading markets)

- Public offerings
- Private placements

Secondary markets (95% of trading markets)

- Exchange (listed) trading
- Over the counter (OTC) market



FUNCTION OF FINANCIAL INTERMEDIARIES: INDIRECT FINANCE

A financial intermediary is an entity that acts as the middleman between two parties in a financial transaction, such as a commercial bank, investment banks, mutual funds and pension funds. Financial intermediaries offer a number of benefits to the average consumer, including safety, liquidity, and economies of scale involved in commercial banking, investment banking and asset management. Although in certain areas, such as investing, advances in technology threaten to eliminate the financial intermediary, disintermediation is much less of a threat in other areas of finance, including banking and insurance.

IDENTIFYING THE KEY PARTICIPANTS

Financial intermediaries

- Commercial banks
- Investment
- Insurance Companies
- Brokerages
- Investment Companies
- Unit Investment Trusts (UITs)
- Face Amount Certificates
- Management Investment Companies
- Non bank Financial Institutions
 - Savings and Loans
 - Credit Unions
 - Shadow Banks

Issuers of Securities

- Business sector
- Governments
 - National/Provincial/Local
- Government agencies

Holders of Wealth

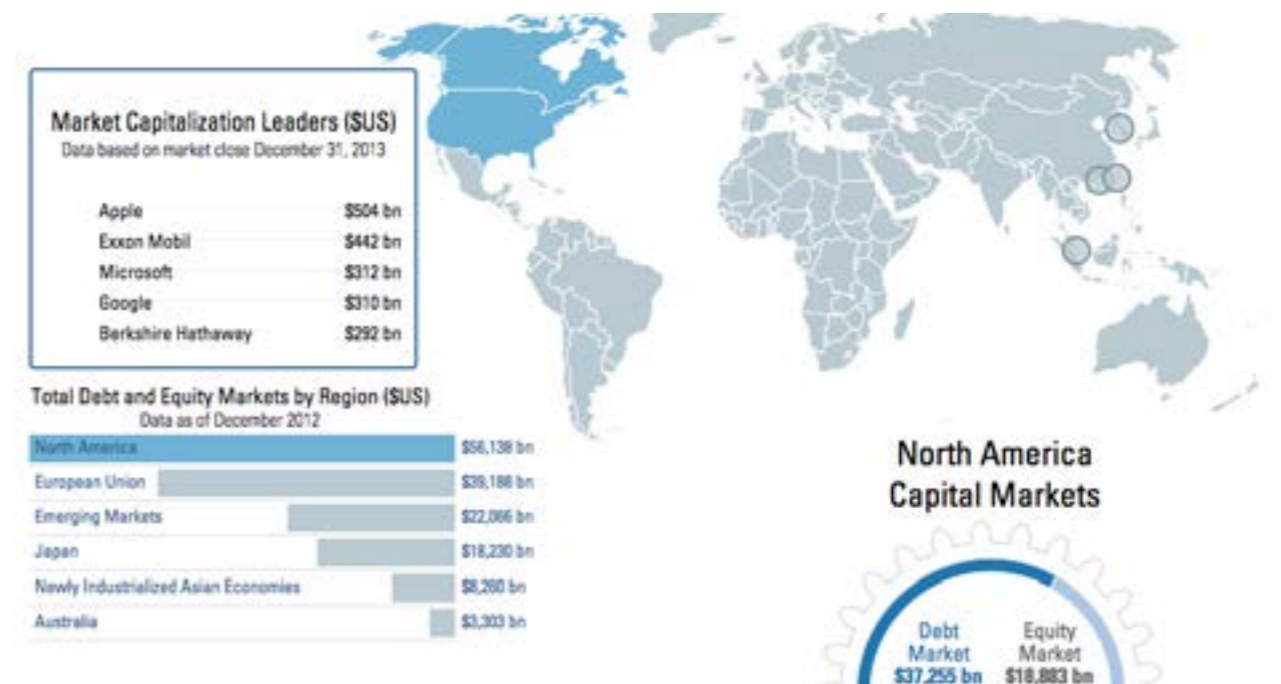
- Household sector (individual wealth)
- Institutional investors
 - Pension funds
 - Insurance companies
 - Investment companies
 - Mutual funds
- Sovereign wealth funds (Middle east, Norway, China)
- Endowments
 - Universities
 - Non-profits
- Asset managers (Blackrock, Pimco)
- Hedge funds (represent high net worth individuals)

Broker-Dealers

- Mergers & Acquisitions advisory
- Wealth management
- Asset management
- Prime brokerage

INTERNATIONALIZATION OF FINANCIAL MARKETS

The drive toward international diversification by U.S. institutional investors (especially pension funds, insurance companies, and mutual funds) has been a major force behind the internationalization and integration of U.S. financial markets.



ECONOMIC FACTORS IN FINANCIAL MARKETS

The most influential factors are GDP (Gross domestic product), unemployment rate (positively correlated) and inflation (negatively correlated). Macroeconomic policy through their instruments affects the whole economy the country, so also the business. Macroeconomic factors are major drivers of capital markets worldwide. Trends are what allow traders and investors to capture profits. Whether on a short or long-term time frame, in an overall trending market or a range of environment, the flow from one price to another is what creates profits and losses. There are four major factors that cause both long-term trends and short-term fluctuations. These factors are government, international transactions, speculation and expectation, and supply and demand.

GDP

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as well (in the United States, for example, the government releases an annualized GDP estimate for each quarter and also for an entire year).

Unemployment Rate

The unemployment rate is the share of the labor force that is jobless, expressed as a percentage. It is a lagging indicator, meaning that it generally rises or falls in the wake of changing economic conditions, rather than anticipating them. When the economy is in poor shape and jobs are scarce, the unemployment rate can be expected to rise. When the economy is growing at a healthy rate and jobs are relatively plentiful, it can be expected to fall.

Inflation

Inflation is defined as a sustained increase in the general level of prices for goods and services in a county, and is measured as an annual percentage change. Under conditions of inflation, the prices of things rise over time. Put differently, as inflation rises, every dollar you own buys a smaller percentage of a good or service. When prices rise, and alternatively when the value of money falls you have inflation. The most common measure of inflation is the Consumer Price Index (CPI), which is computed each month by the U.S. Bureau of Labor Statistics. The index tracks the percentage change in prices of a basket of 80,000 goods and services and is measured against the reference period 1982-1984.

Government

Government holds much sway over the free markets. The fiscal and monetary policies that governments and their central banks put in place have a profound effect on the financial marketplace. By increasing and decreasing interest rates, the U.S. Federal Reserve can effectively slow or attempt to speed up growth within the country. This is called monetary policy.

If government spending increases or contracts, this is known as fiscal policy, and can be used to help ease unemployment and/or stabilize prices. By altering interest rates and the amount of dollars available on the open market, governments can change how much investment flows into and out of the country.

International Transactions

The flow of funds between countries effects the strength of a country's economy and its currency. The more money that is leaving a country, the weaker the country's economy and currency. Countries that predominantly export, whether physical goods or services, are continually bringing money into their countries. This money can then be reinvested and can stimulate the financial markets within those countries.

Speculation and Expectation

Speculation and expectation are integral parts of the financial system. Consumers, investors and politicians all hold different views about where they think the economy will go in the future and that effects how they act today. Expectation of future action is dependent on current acts and shapes both current and future trends. Sentiment indicators are commonly used to gauge how certain groups are feeling about the current economy. Analysis of these indicators as well as other forms of fundamental and technical analysis can create a bias or expectation of future price rates and trend direction.

Supply and Demand

Supply and demand for products, services, currencies and other investments creates a push-pull dynamic in prices. Prices and rates change as supply or demand changes. If something is in demand and supply begins to shrink, prices will rise. If supply increases beyond current demand, prices will fall. If supply is relatively stable, prices can fluctuate higher and lower as demand increases or decreases.

STOCK MARKET BASICS

Broker-Dealer

A broker-dealer is a brokerage firm with a license from the SEC that enables its employees to execute trades on behalf of its clients and the firm.

Clearance & Settlement

The process of completing an order is called clearance and settlement. By law, the final transfer of stock ownership must be completed within three business days of the trade. The transfer happens in three steps.

Stock Ownership

Originally, investors received stock certificates when they bought shares of stock. Today, the vast majority of stock purchases are recorded electronically in book entry form.

INVESTMENT STRATEGIES

Compounding

Compounding occurs when you add your investment earnings or savings account interest to your original investment, forming a larger foundation upon which future earnings may accumulate.

Dollar Cost Averaging

Dollar cost averaging, also known as a constant dollar plan, is an investing technique that can help reduce market risk.

INVESTMENT RISK

Liquidity

Liquidity measures the accessibility of your money, or how easily your investments can be converted into cash. If you need invested money during an emergency, lack of liquidity can be a concern.

Volatility

Volatility measures how much and how quickly the value of a security or market sector changes. The more volatile a security, the more its value fluctuates, and the more risky it can be.

Risk Types

The various risks you take as an investor can be broadly categorized as either systematic or non systematic. Systematic risk, or market risk, is characteristic of the entire market or a particular market segment. Non systematic risk is based on the performance of an individual company or groups of companies.

Trading Hours

Regular market hours are 9:30 a.m. to 4 p.m. Eastern Time. Extended hours trading is also available for NASDAQ National Market and Listed Securities on normal market days and half-day market holidays.

Investment Return

When you invest, you're interested in whether you're making progress toward your financial goals. Return on investment can help you gauge how much progress you're making.

Benchmarks

An investment benchmark is a standard against which you can measure the performance of an individual security or group of securities.

Hedging

Hedging helps limit risk. Even if you believe you know how an investment is going to perform, market movements are generally unpredictable. As a result, some investors hedge to help counter the instability of the markets.

Leverage

Leverage can help increase your financial power because you spend only a small portion of your own money to make an investment of much greater value.

Bull & Bear Markets

Though investment markets are unpredictable, they tend to move in cycles of ups and downs. A bull market occurs when stock prices as a whole move upward for a prolonged period. Bear markets happen during periods of falling stock prices, and are generally said to occur when prices fall at least 20% from the most recent high.

Correlation

Some investments react similarly to changing economic and market conditions. In investment terms, correlation describes the extent to which various types of investments respond in the same way.

EXCHANGES AND INDEXES

EXCHANGES

An exchange is a marketplace, either physical or electronic, where financial products such as securities and commodities are bought and sold. The main goal of an exchange is to ensure fair, organized trading as well as efficient dissemination of price information for the securities on that exchange. An exchange may also be referred to as a “share exchange” or a “bourse” depending on the location. Stocks first become available on an exchange after a company conducts its initial public offering (IPO). In an IPO, a company sells shares to an initial set of public shareholders (the primary market). After the IPO “floats” shares into the hands of public shareholders, these shares can be sold and purchased on an exchange (the secondary market). The exchange tracks the flow of orders for each stock, and this flow of supply and demand sets the stock price.

Auction Exchanges

The NYSE is primarily auction-based, which means specialists are physically present on the exchanges trading floors. Each specialist “specializes” in a particular stock, buying and selling the stock in the auction. These specialists are under competitive threat by electronic-only exchanges that claim to be more efficient (that is, they execute faster trades and exhibit smaller bid-ask spreads) by eliminating human intermediaries.

The NYSE is the largest and most prestigious exchange. Listing on the NYSE affords companies great credibility, because they must meet initial listing requirements and also comply annually with maintenance requirements. For example, for U.S. companies to remain listed, the NYSE companies must keep their price above \$4 per share and their market capitalization (number of shares times price) above \$40 million.

Electronic Exchange

Trading is increasingly conducted on electronic exchanges as markets become more sophisticated; exchanges themselves can ensure fair trading without requiring all members to be on a centralized trading floor. As of 2016, the floor of the NYSE processes less than 15% of the overall volume of stocks traded in the United States. Transactions are now spread across multiple exchanges. This has resulted in a substantial increase in high-frequency trading programs and the use of complex algorithms by traders on exchanges.



Electronic Communication Networks (ECNs)

ECNs are part of an exchange class called alternative trading systems (ATS). ECNs connect buyers and sellers directly as opposed to electronic exchanges which act as intermediaries because they allow for direct connection.

Over-the-Counter (OTC)

Over-the-counter (OTC) refers to markets other than the organized exchanges described above. OTC markets generally list small companies, and often (but not always) these companies have “fallen off” to the OTC market because they were delisted from Nasdaq. Some individual investors will not even consider buying OTC stocks due to the extra risks involved.

INDEXES

An Index is a statistical measure of change in a securities market. In other words, an index in the financial markets is an imaginary portfolio of different stocks designed to represent a particular market (such as the technology sector) or a part of it. Each index has a different methodology when it comes to calculation and it is usually expressed in terms of a change from a base value. As such, looking at the percentage change is more valuable than just the numeric value. The Standard and Poor’s 500 and the Dow Jones Industrial Average are the best known indexes and are often used as a benchmark for the stock market because they include a wide range of companies that best represent movements in the overall market. However, there are a wide variety of indexes that people can use to track the performance of sectors or country specific stocks, depending on their investing style or objectives.

Essentially, an index is used for comparison purposes to evaluate your portfolios performance versus how the market is doing in general. For example, if your portfolio contains mostly technology stocks, a good index to track your performance against would be the NASDAQ, where the most technology stocks lie.

That being said, you can’t actually invest in an index, however there are mutual funds and exchange traded funds that are based on indexes that allow investors to invest in stocks that represent vast market segments or the total market depending on your preference. This is what is known as passive investing, where an investor is accepting market returns instead of trying to perform better than the market by trying to select higher performing stocks through active investing. Typically, even professional mutual fund managers find it hard to outperform their market index regularly year after year, so less experienced investors may find it in their best interest to invest more passively.

TIED TO STOCK MARKET

Dow Jones Industrial Average

The Dow Jones Industrial Average is a stock index that represents the average price movement of 30 large companies from various industries in the United States.

The S&P 500 Index

Known as “the S&P 500” or simply “the market,” the Standard & Poor’s 500 Index is the most commonly used benchmark for the large-cap segment of the US domestic stock market. The index represents approximately 500 US-based companies and covers approximately 75% of the US equity market. Many investors use one of the best S&P 500 Index funds as a core holding in a portfolio of mutual funds or ETFs.

The NASDAQ

The NASDAQ or National Association of Securities Dealers Automated Quotations System is a stock exchange like the better-known New York Stock Exchange (NYSE) on Wall Street. The first electronic stock market, and the successor to the over-the-counter (OTC) system of trading, the NASDAQ differs from the NYSE in that it is a fully automated network. The NASDAQ is also recognized for its high relative concentration of technology sector stocks.

The Russell 2000 Index

The Russell 2000 is an index that represents the small-cap stock portion of the equity investment universe. As the name implies, the index covers approximately 2000 of the smallest companies, based on market capitalization.

TIED TO INTEREST RATES

LIBOR

The London Inter-bank Offered Rate is the average of interest rates estimated by each of the leading banks in London that it would be charged were it to borrow from other banks. It is usually abbreviated to LIBOR, or more officially to ICE LIBOR (for Intercontinental Exchange Libor).

TIBOR

Acronym for the “Tokyo Interbank Offered Rate.” The Japanese Bankers Association (JBA) publishes the TIBOR every business day at 11:00am (Japan Standard Time). There are two types of TIBOR rates – the European TIBOR rate and the Japanese Yen TIBOR rate. The European TIBOR rate is based on Japan offshore market rates. The Japan offshore market was created in 1986 to help internationalize the country’s financial markets. Yen traded in the offshore market is termed “euroyen.” The Japanese Yen TIBOR rate is based on unsecured call market rates. The call market provides a place for financial institutions to lend to, or borrow from, other banks and lenders to either adjust an unexpected short-term surplus or make up an unexpected deficit.

LINKS

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STRUCTURE OF AN INVESTMENT BANK

Investment banks are split up into front office, middle office, and back office. Each sector is very different yet plays an important role in making sure that the bank makes money, manages risk, and runs smoothly.

Front Office

The front office generates the bank's revenue and consists of three primary divisions: investment banking, sales & trading, and research. Investment banking is where the bank helps clients raise money in capital markets and also where the bank advises companies on mergers & acquisitions. Sales and trading is where the bank (on behalf of the bank and its clients) buys and sells products. Research is where banks review companies and write reports about future earnings prospects.

Middle Office

Typically includes risk management, financial control, corporate treasury, corporate strategy, and compliance. Ultimately, the goal of the middle office is to ensure that the investment bank doesn't engage in certain activities that could be detrimental to the bank's overall health as a firm.

Back Office

Typically includes operations and regulatory issues. The back office provides the support so that the front office can do the jobs needed to make money for the investment bank.



BUY SIDE VS SELL SIDE

The Buy Side refers to firms that purchase securities and include investment managers, pension funds, and hedge funds. The Sell Side refers to firms that issue, sell, or trade securities and includes investment banks, advisory firms, and corporations.

TRADE LIFE CYCLE

Trade is a process of buying and selling any financial instrument. Just like any other product even a trade has its life cycle involving several steps.



1. Sale

- This is a process of client acquisition in which HNIs (High Net Worth Individual) or Institutional clients are introduced to various investment products or vehicles.
- These vehicles or products are available with an Investment Manager or Bank by whom the client's investments are managed.
- The investments are collectively called a Mutual or a Hedge fund.

2. Trade Initiation and Execution

- This is the process of placing an order in the market.
- Trade Initiation and Execution can be done both in Order and Quote-driven markets.
- This depends on the choice of a marketplace and on the external platform.
- Once the order is placed and it gets matched, the trade is said to be executed.

3. Trade Capture

- Trades are then booked internally in an front office system for it to flow down to the operating systems.
- It is booked in a Risk Management System (RMS)

4. Trade Validation and Enrichment

- Reference data team set up the static and dynamic details which help middle office teams to validate the trade, before releasing instructions into the market.
- Repository for data management

5. Trade Confirmation

- This is an extremely critical step for the trade settlement.
- Trade details and SSIs (Standard Settlement Instructions) are agreed with the counterparty at least a day prior to settlement date.
- Confirmation via depositories like Euro clear/DTCC

6. Trade Settlement

- This is the process of simultaneous exchange of cash versus securities for a security trade or cash versus cash for a Derivative trade.

7. Reconciliation

- Reconciliation involves matching ledgers against statements to ensure correct accounting of all trade booked.

TRADING DESKS OF AN INVESTMENT BANK

A sector in an investment bank is referred to as a trading desk. Depending on the investment bank, trading desks are likely to be split up among sectors differently. The four main sectors are foreign exchange, fixed income, equities and commodities. Each of these sectors can be further subdivided. For instance, fixed income is a very broad category and can deal with anything from ultra-safe U.S. Treasury's to ultra-risky, low-grade company bonds also known as junk bonds. Larger investment banks may subdivide their trading desks to specialize in narrower categories within these main sectors.

A trade can be executed with a huge variety of underlying assets, and it usual to group these assets into classes. Traders are normally organised into desks, each desk trading the same class of assets. Processes that flow from these trades are also divided by their asset class. Large parts of the trade lifecycle are generic: trades are executed, booked, confirmed and settled. But the implication of these processes may vary from one class of assets to another.

Equities

The equity trading desk of an investment bank can cover anything from equity sales or trading to equity derivatives trading and exotic options trading. Sell-side traders on equity trading desks use information from research analysts' reports to try to generate sales ideas among their clients. The trading desk gets a commission from trades placed through it. Equity sales desk traders execute trade orders for clients. Often, the trading desk is divided into those that execute trades for institutional clients and those that institute trades for hedge fund clients.

Forex Trading Desk

Nearly every large investment bank has some form of forex trading desk. The forex market is the largest in the world, dwarfing equities and fixed income. The Bank for International Settlements (BIS) estimates forex trading at an average of \$5.3 trillion a day. Most of this trading is done by institutional investors such as investment banks. Traders are drawn to forex trading because it is highly liquid, meaning they can take on large positions and get in and out of trading positions with ease. Forex contracts are quoted in currency pairs. For example, traders take bets on whether the dollar will rise or fall in relation to the yen (USD/JPY). The U.S. dollar is the most heavily traded currency, taking up about 85% of forex trading volume; next is the euro and then the Japanese yen. Traders on a forex trading desk usually deal in the spot exchange rate of a foreign exchange contract.

Commodities

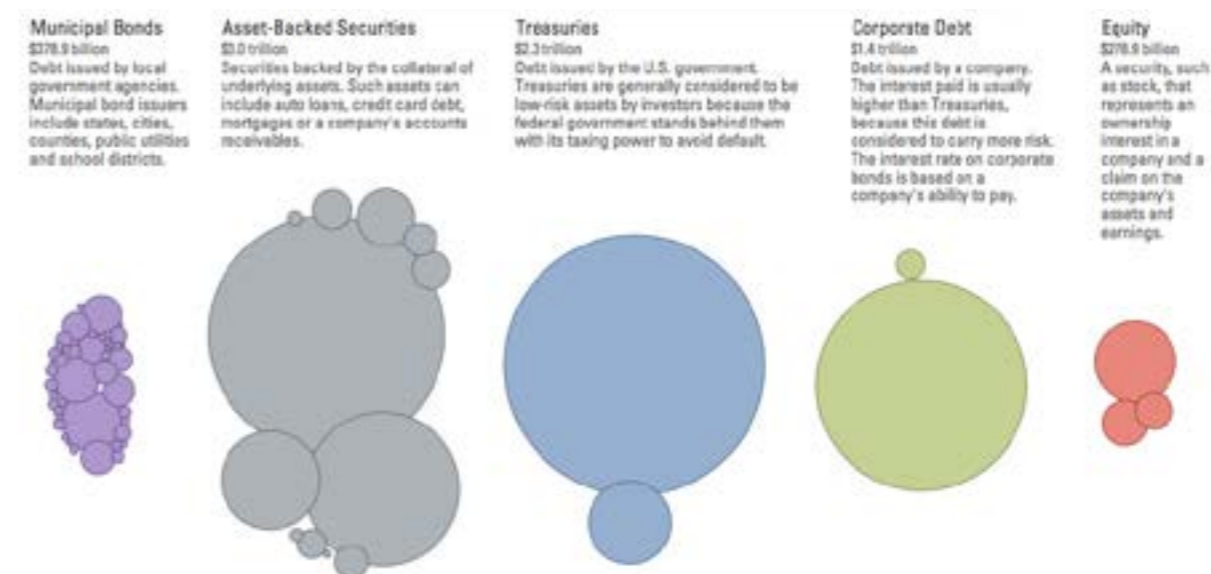
Commodities can include anything from hard commodities such as crude oil, gold and silver to soft commodities that include agricultural products such as cocoa, coffee, soybean, rice, wheat and corn. The main difference between the two is that soft commodities have short shelf lives and hard commodities have much longer shelf lives. Investment bank commodities trading desks can be split into separate desks for hard and soft commodities, but depending on the amount of trading done by the bank, they could be further split with some banks having trading desks dedicated to a particular commodity such as crude oil.

Fixed-Income Trading Desk

Fixed income generally refers to anything that has an income stream, from government bonds, such as U.S. Treasury's, to corporate bonds. Credit default swaps (CDS) are derivatives that insure against default by the issuer of corporate bonds or sovereign debt and can be traded on fixed-income trading desks. Sometimes an investment bank subdivides its fixed-income trading desks so the derivatives desk dealing in CDS is different from the trading desk dealing in the less-risky U.S. Treasury bonds, or the desk dealing in the riskier corporate low-grade bonds also known as junk bonds is separate from the desk dealing in higher-grade corporate bonds. Debt issued by developed countries may also be traded on a desk that is different from the desk that deals in the sovereign debt of developing countries.

STRUCTURE OF CAPITAL MARKETS

The United States has the largest capital markets of any country in the world. In 2012, companies as well as federal, state and local governments issued nearly \$7.4 trillion in new securities (stocks and bonds) in U.S. capital markets.



ASSET CLASSES

An asset class is a group of securities that exhibits similar characteristics, behaves similarly in the marketplace and is subject to the same laws and regulations.

Equities - stocks

- Represent shares of ownership in publicly held companies
- Historically have outperformed other investments over long periods
- Most volatile in the short term
- Returns and principal will fluctuate

Fixed income - debt/bonds

- Pay a set rate of interest over a given period, then return the investor's principal.
- More stability than stocks
- Value fluctuates due to current interest and inflation rates
- Includes "guaranteed" or "risk-free" assets
- Also includes money market instruments (short-term fixed income investments)

Foreign Currencies - FX, FOREX, foreign exchange

- No bearish periods, as when one currency's value falls, others' will in turn rise
- The only truly 24-hour traceable asset class
- Highly speculative (97%) market

Real estate

- Your home or investment property, plus shares of funds that invest in commercial real estate.
- Helps protect future purchasing power as property values and rental income run parallel to inflation
- Values tend to rise and fall more slowly than stock and bond prices.

Infrastructure as an asset class

- Broad category including highways, airports, rail networks, energy generation (utilities), energy storage and distribution (gas mains, pipelines etc)
- Provides a longer duration (facilitating cash flow matching with long-term liabilities), protection against inflation, and statistical diversification (low correlation with 'traditional' listed assets such as equity and fixed income investments), thus reducing overall portfolio volatility)

Commodities

- Physical goods such as gold, copper, crude oil, natural gas, wheat, corn, and even electricity.
- Helps protect future purchasing power as values have fixed utility and thus run parallel to inflation
- Values tend to exhibit low correlations with stock and bond prices.
- Price dynamics are also unique: commodities become more volatile as prices rise. Thus a commodity with a 20% volatility might have a 50% volatility if prices doubled.

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TIME VALUE OF MONEY

The time value of money (TVM) is an important concept to investors because a dollar on hand today is worth more than a dollar promised in the future. The dollar on hand today can be used to invest and earn interest or capital gains. A dollar promised in the future is actually worth less than a dollar today because of inflation.

Provided money can earn interest, this core principle of finance holds that any amount of money is worth more the sooner it is received. At the most basic level, the time value of money demonstrates that, all things being equal, it is better to have money now rather than later.

PRESENT VALUE

Present value determines what a cash flow to be received in the future is worth in today's dollars. It discounts the future cash flow back to the present date, using the average rate of return and the number of periods. No matter what the present value is, if you invest that present value amount at the specified rate of return and number of periods, the investment would grow into the future cash flow amount.

FUTURE VALUE

Future value determines what a cash flow received today is worth in the future, based on interest rates or capital gains. It calculates what a current cash flow would be worth in the future, if it was invested at a specified rate of return and number of periods.

What are Annuities

Annuities are essentially a series of fixed payments required from you, or paid to you, at a specified frequency over the course of a fixed time period. Payment frequencies can be yearly, semi-annually (twice a year), quarterly and monthly.

There are two basic types of annuities: ordinary annuities and annuities due:

- Ordinary annuity: Payments are required at the end of each period. For example, straight bonds usually make coupon payments at the end of every six months until the bond's maturity date.

- Annuity due: Payments are required at the beginning of each period. Rent is an example of annuity due. You are usually required to pay rent when you first move in at the beginning of the month, and then on the first of each month thereafter.

T-BILL YIELD

Treasury yield is the return on investment, expressed as a percentage, on the U.S. government's debt obligations. Looked at another way, the Treasury yield is the interest rate that the U.S. government pays to borrow money for different lengths of time.

Treasury yields don't just influence how much the government pays to borrow and how much investors earn by investing in this debt, they also influence the interest rates that individuals and businesses pay to borrow money to buy real estate, vehicles, and equipment. Treasury yields also tell us how investors feel about the economy. The higher the yields on 10-, 20- and 30-year Treasuries, the better the economic outlook.

BOND EQUIVALENT YIELD

The bond equivalent yield (BEY) allows fixed-income securities whose payments are not annual to be compared with securities with annual yields. The BEY is a calculation for restating semi-annual, quarterly or monthly discount bond or note yields into an annual yield, and is the yield quoted in newspapers. Alternatively, if the semi-annual or quarterly yield to maturity of a bond is known, the annual percentage rate (APR) calculation may be used.

PROFIT AND LOSS

A profit and loss statement (P&L) is a financial statement that summarizes the revenues, costs and expenses incurred during a specific period of time, usually a fiscal quarter or year. These records provide information about a company's ability – or lack thereof – to generate profit by increasing revenue, reducing costs, or both. The P&L statement is also referred to as "statement of profit and loss", "income statement," "statement of operations," "statement of financial results," and "income and expense statement."

REGULATION OF THE FINANCIAL SYSTEM

MOTIVATION FOR REGULATION AND OVERSIGHT

Financial regulation is a form of regulation or supervision, which subjects financial institutions to certain requirements, restrictions and guidelines, aiming to maintain the integrity of the financial system. This may be handled by either a government or non-government organization. Financial regulation has also influenced the structure of banking sectors by increasing the variety of financial products available.

AIMS FOR FINANCIAL REGULATION:

- Market confidence – to maintain confidence in the financial system
- Financial stability – contributing to the protection and enhancement of stability of the financial system
- Consumer protection – securing the appropriate degree of protection for consumers.

ASYMMETRIC INFORMATION AND FINANCIAL REGULATION

Asymmetric information, also known as information failure, occurs when one party to an economic transaction possesses greater material knowledge than the other party. This normally manifests when the seller of a good or service has greater knowledge than the buyer, although the reverse is possible. Almost all economic transactions involve information asymmetries.

US FINANCIAL REGULATORS

The Federal Reserve (FRB/The Fed), is one of the most recognized of all the regulatory bodies. As such, the "Fed" often gets blamed for economic downfalls or heralded for stimulating the economy. It is responsible for influencing money, liquidity and overall credit conditions.

Federal Deposit Insurance Corp. (FDIC), which insures money deposited with banks.

Office of the Comptroller of the Currency (OCC), Its main purpose is to supervise, regulate and provide charters to banks operating in the U.S. to ensure the soundness of the overall banking system.

Office of Thrift Supervision (OTS), The OTS is similar to the OCC except that it regulates federal savings associations, also known as thrifts or savings and loans.

State Bank, Insurance and Securities Regulators.

Commodity Futures Trading Commission (CFTC), an independent authority to regulate commodity futures and options markets and to provide for competitive and efficient market trading. It also seeks to protect participants from market manipulation, investigates abusive trading practices and fraud, and maintains fluid processes for clearing.

Financial Industry Regulatory Authority (FINRA), oversees all firms that are in the securities business with the public. It is also responsible for training financial services professionals, licensing and testing agents, and overseeing the mediation and arbitration processes for disputes between customers and brokers.

Securities and Exchange Commission (SEC), acts independently of the U.S. government, one of the most comprehensive and powerful agencies, the SEC enforces the federal securities laws and regulates the majority of the securities industry.

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MODERN BANKING CRISES THROUGHOUT THE WORLD

Financial crises have been an unfortunate part of the industry since its beginnings. Bankers and financiers readily admit that in a business so large, so global and so complex, it is naive to think such events can ever be avoided. A look at a number of financial crises over the last 30 years suggests a high degree of commonality: excessive exuberance, poor regulatory oversight, dodgy accounting, herd mentalities and, in many cases, a sense of infallibility.

LatAm sovereign debt crisis 1982 - This crisis developed when Latin American countries, which had been gorging on cheap foreign debt for years, suddenly realized they could not repay it. The main culprits, Mexico, Brazil and Argentina, borrowed money for development and infrastructure programmes. Their economies were booming, and banks were happy to provide loans to the point where Latin American debt quadrupled in seven years. When the world's economy went into recession in the late 1970s the problem compounded itself. Interest rates on bond payments rose while Latin American currencies plummeted. The crisis officially kicked off in August 1982 when Mexico's finance minister Jesus Silva-Herzog said the country could not pay its bills.

Savings and loans crisis 1980s - The so-called savings and loans crisis took place throughout the 1980s and even into the early 1990s, when more than 700 savings and loan associations in the US went bust. These institutions were lending long term at fixed rates using short-term money. As interest rates rose, many became insolvent. But thanks to a steady stream of deregulation under President Ronald Reagan, many firms were able to use accounting gimmicks to make them appear solvent. In a sense, many of them resembled Ponzi schemes.

Stock market crash 1987 - Despite the shock of the savings and loans crisis, two more crises took place before the 1989 Act. The most memorable was the 1987 stock market crash. On what became known as Black Monday, global stock markets crashed, including in the US, where the Dow Jones index lost 508 points or 23% of its value. The causes are still debated. Much blame has been placed on the growth of programme trading, where computers were executing a high number of trades in rapid fashion. Many were programmed to sell as prices dropped, creating something of a self-inflicted crash.

Junk bond crash 1989 - There is some disagreement as to what caused it, but most point to the collapse of the US\$6.75bn buyout of UAL as the main trigger. Others point to the Ohio Mattress fiasco, a deal that would become known as "burning bed" and remains widely considered to be among the worst deals in modern finance. The culmination of the crash is considered to be the collapse of Drexel Burnham Lambert, which was forced into bankruptcy in early 1990, largely due to its heavy involvement in junk bonds. At one point it had been the fifth-largest investment bank in the US.

Tequila crisis 1994 - In 1994 a sudden devaluation of the Mexican peso triggered what would become known as the Tequila crisis, which would become a massive interest rate crisis and result in a bond rout. Analysts regard the crisis as being triggered by a reversal in economic policy in Mexico, whereby the new president, Ernesto Zedillo, removed the tight currency controls his predecessor had put in place. While the controls had established a degree of market stability, they had also put an enormous strain on Mexico's finances.

Asia crisis, 1997 to 1998 - More than 15 years after the Latin American debt crisis of 1982, history would indeed repeat itself in Asia. In July 1997 Thailand's currency, the baht, collapsed when the government was forced into floating it on the open market. The country owed a huge amount of debt to foreign entities that it couldn't pay even before the currency plummeted. Similarly to what was experienced in Latin America in the 1980s and present-day Europe, the crisis spread across the region, with South Korea, Indonesia, Laos, Hong Kong and Malaysia also affected.

Dotcom bubble, 1999 to 2000 - Markets would yet again forget the lessons of the past in the dotcom bubble and subsequent crash in 2000. As in most crises, it was preceded by a bull rush into one sector. In this case it was technology and internet-related stocks. Individuals became millionaires overnight through companies such as eBay and Amazon. The hysteria reached such a pitch that the inconvenient fact that few of these companies made any money scarcely mattered. By 2000, however, the game was up. The economy had slowed and interest rate hikes had diluted the easy money that was propping up these companies. Many dotcoms went bust and were liquidated.

Global financial crisis, 2007 to 2008 - It was only a few years later that an even nastier crisis would hit the entire world's financial markets. In many ways it has still not ended, with the billions in losses and slowing global economy manifesting themselves in the current European sovereign debt crisis. It resulted in the collapse of a number of large financial institutions and is considered by many economists to be the worst crisis since the Great Depression. While the causes are numerous, the main trigger is considered to be the crash of the US housing market.

THE DODD-FRANK BILL AND FUTURE REGULATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act is a massive piece of financial reform legislation passed by the Obama administration in 2010 as a response to the financial crisis of 2008. Named after sponsors U.S. Senator Christopher J. Dodd and U.S. Representative Barney Frank, the act's numerous provisions, spelled out over roughly 2,300 pages, are being implemented over a period of several years and are intended to decrease various risks in the U.S. financial system. The act established a number of new government agencies tasked with overseeing various components of the act and by extension various aspects of the banking system. President Donald Trump has pledged to repeal Dodd-Frank, and on June 8th, the House of Representatives voted to replace it with the Financial CHOICE Act, which will roll back significant pieces of Dodd-Frank. The CHOICE act, however, is not expected to pass the Senate in its entirety.

BASEL III

Basel III is an international regulatory accord that introduced a set of reforms designed to improve the regulation, supervision and risk management within the banking sector. The Basel Committee on Banking Supervision published the first version of Basel III in late 2009, giving banks approximately three years to satisfy all requirements. Largely in response to the credit crisis, banks are required to maintain proper leverage ratios and meet certain minimum capital requirements.

MIFID

The Markets in Financial Instruments Directive (MIFID) is a European Union law which standardizes regulation for investment services across all member states of the European Economic Area.

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MONEY MARKETS

Money market securities are short-term IOUs issued by governments, financial institutions and large corporations. These instruments are very liquid and considered extremely safe. Defaults on money market instruments have been extremely rare. Because of this relative safety, money market securities offer significantly lower returns than most other securities.

INTERBANK LOANS AND DEPOSITS

These banks will lend money in the interbank market, receiving interest on the assets. The interbank rate is the rate of interest charged on short-term loans between banks. Banks borrow and lend money in the interbank lending market to manage liquidity and satisfy regulations such as reserve requirements.

CERTIFICATES OF DEPOSIT

A certificate of deposit (CD) is a savings certificate with a fixed maturity date, specified fixed interest rate and can be issued in any denomination aside from minimum investment requirements. A CD restricts access to the funds until the maturity date of the investment. CDs are generally issued by commercial banks and are insured by the FDIC up to \$250,000 per individual.

COMMERCIAL PAPER

Commercial paper is an unsecured, short-term debt instrument issued by a corporation, typically for the financing of accounts receivable, inventories and meeting short-term liabilities. Maturities on commercial paper rarely range any longer than 270 days. Commercial paper is usually issued at a discount from face value and reflects prevailing market interest rates.

REPOS

A repurchase agreement (Repo) is a form of short-term borrowing for dealers in government securities. The dealer sells the government securities to investors, usually on an overnight basis, and buys them back the following day.

TREASURY BILLS

A Treasury bill (T-Bill) is a short-term debt obligation backed by the Treasury Dept. of the U.S. government with a maturity of less than one year, sold in denominations of \$1,000 up to a maximum purchase of \$5 million. T-bills have various maturities and are issued at a discount from par.

When an investor purchases a T-Bill, the U.S. government effectively writes investors an IOU; they do not receive regular interest payments as with a coupon bond, but a T-Bill does include interest, reflected in the amount it pays when it matures.

BANKERS ACCEPTANCES

A banker's acceptance (BA) is a short-term debt instrument issued by a company that is guaranteed by a commercial bank. Banker's acceptances are issued as part of a commercial transaction. These instruments are similar to T-Bills, are frequently used in money market funds and are traded at a discount from face value on the secondary market, which can be an advantage because the banker's acceptance does not need to be held until it matures.

LINKS

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COMMODITIES MARKETS

Commodities, whether they are related to food, energy or metals, are an important part of everyday life. Anyone who drives a car can become significantly impacted by rising crude oil prices. The impact of a drought on the soybean supply may influence the composition of your next meal. Similarly, commodities can be an important way to diversify a portfolio beyond traditional securities – either for the long term, or as a place to park cash during unusually volatile or bearish stock markets, as commodities traditionally move in opposition to stocks.

Commodities: A History

Dealing commodities is an old profession, dating back further than trading stocks and bonds. Ancient civilizations traded a wide array of commodities, from seashells to spices. Commodity trading was an essential business. The might of empires can be viewed as somewhat proportionate to their ability to create and manage complex trading systems and facilitate commodity exchange, serving as the wheels of commerce, economic development and taxation for a kingdom's treasuries. Although most of the principals were people who actually created or used the physical goods in some way, there were doubtless speculators eager to bet a drachma or two on the upcoming wheat harvest, for instance.

Where to Invest Commodities

There are still multitudes of commodities exchanges around the world, although many have merged or gone out of business over the years. Most carry a few different commodities, though some specialize in a single group. For instance, the London Metal Exchange only carries metal commodities, as its name implies.

In the U.S., the most popular exchanges include those run by CME Group, which was formed after the Chicago Mercantile Exchange and Chicago Board of Trade merged in 2006 (the New York Mercantile Exchange is among its operations), the Intercontinental Exchange in Atlanta and the Kansas City Board of Trade.

Commodity trading in the exchanges can require standard agreements so that trades can be confidently executed without visual inspection. For example, you don't want to buy 100 units of cattle only to find out that the cattle are sick, or discover that the sugar purchased is of inferior or unacceptable quality.

Investment Characteristics of Commodities

Basic economic principles of supply and demand typically drive the commodities markets: lower supply drives up demand, which equals higher prices, and vice versa. Major disruptions in supply, such as a widespread health scare among cattle, might lead to a spike in the generally stable and predictable demand for livestock. On the demand side, global economic development and technological advances often have a less dramatic, but important effect on prices. Case in point: The emergence of China and India as significant manufacturing players has contributed to the declining availability of industrial metals, such as steel, for the rest of the world.

TYPES OF COMMODITIES

Today, tradable commodities fall into the following four categories:

- **Metals** (such as gold, silver, platinum and copper)
- **Energy** (such as crude oil, heating oil, natural gas and gasoline)
- **Agricultural** (including corn, soybeans, wheat, rice, cocoa, coffee, cotton and sugar)
- **Livestock and Meat** (including lean hogs, pork bellies, live cattle and feeder cattle)

Volatile or bearish stock markets typically find scared investors scrambling to transfer money to precious metals such as gold, which has historically been viewed as a reliable, dependable metal with conveyable value. Precious metals can also be used as a hedge against high inflation or periods of currency.

LINKS

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CURRENCY MARKETS

STRUCTURE OF THE FX MARKET

The first thing to understand about the structure of the forex (Foreign Exchange) market is the way in which products are traded. Forex is for the most part, is an over the counter (OTC) market. This means that there is no central exchange through which instruments are traded. When we refer to instruments, we are referring to the different forex products participants use to conduct transactions, whether they be corporate, speculative or hedging. These products include: Spot forex, outright forwards, forex swaps, forex options. When a product is traded OTC it is done so through a market maker. A market maker in forex is effectively a bank or broker that facilitates currency trades by providing buy and sell quotes and then taking orders. Orders can be hedged or passed on so there is no exposure/risk, matched within the internal order book or held by the market maker, meaning they take the other side of the order and take a position against the client.

Other commonly traded instruments such as shares and futures are exchange traded products, this means that any transaction involving these instruments is done through an exchange such as the New York Stock Exchange (NYSE) and London Stock Exchange (LSE). The points below highlight some features of OTC and exchange traded markets. Foreign exchange spot contracts are the most common and are usually for delivery in two business days, while most other financial instruments settle the next business day. The spot foreign exchange (forex) market trades electronically around the world. It is the world's largest market, with over \$5 trillion traded daily; its size dwarfs the interest rate and commodity markets.

The Players

At the top of the food chain we have the foreign exchange dealers. These are the dealer banks which conduct foreign exchange business for their clients or themselves. The major banks include; Deutsche Bank, UBS, Citigroup, Barclays Capital, RBS, Goldman Sachs, HSBC, Bank of America, JP Morgan, Credit Suisse and Morgan Stanley. These banks handle approximately 2/3 of the daily forex volume and along with others form what is known as the interbank market.

On the next level of the forex market we have the market that exists for financial and non-financial participants. This may include smaller banks, businesses, hedge/mutual/pension funds, CTAs and large investors.

On the next level we have forex brokers and retail ECNs (electronic communications network). Traditionally forex brokers were the intermediary party between buyers and sellers, meaning they facilitated the transaction between the end user and their liquidity provider (market maker bank). For the most part this is still the case today, however, some brokers will run a book and trade against their clients.

In the background of all this we have the central banks. The central banks follow their respective currency, making sure it's price movements aren't too erratic and promoting stability.

KNOWING YOUR FOREX JARGON

Every discipline has its own jargon, and the currency market is no different. Here are some terms to know that will make you sound like a seasoned currency trader:

- **Cable, sterling, pound** - alternative names for the GBP
- **Greenback, buck** - nicknames for the U.S. dollar
- **Swissie** - nickname for the Swiss franc
- **Aussie** - nickname for the Australian dollar
- **Kiwi** - nickname for the New Zealand dollar
- **Loonie, the little dollar** - nicknames for the Canadian dollar
- **Figure** - FX term connoting a round number like 1.2000
- **Yard** - a billion units

WHICH CURRENCIES ARE TRADED IN THE FOREX MARKET?

Although some retail dealers trade exotic currencies such as the Thai baht or the Czech koruna, the majority trade the seven most liquid currency pairs in the world.

The four “majors”:

- **EUR/USD** (euro/dollar)
- **USD/JPY** (dollar/Japanese yen)
- **GBP/USD** (British pound/dollar)
- **USD/CHF** (dollar/Swiss franc)

Three commodity pairs:

- **AUD/USD** (Australian dollar/dollar)
- **USD/CAD** (dollar/Canadian dollar)
- **NZD/USD** (New Zealand dollar/dollar)

These currency pairs, along with their various combinations (such as EUR/JPY, GBP/JPY and EUR/GBP), account for more than 95% of all speculative trading in FX. Given the small number of trading instruments – only 18 pairs and crosses are actively traded – the FX market is far more concentrated than the stock market.

* Definition of ‘Commodity Pairs’

The three forex pairs which include currencies from countries that possess large amounts of commodities. The commodity pairs are: USD/CAD, USD/AUD, USD/NZD. These pairs are highly correlated to changes in commodity prices, therefore traders looking to gain exposure to commodity fluctuations often take advantage of these pairs.

HOW THE MARKET TRADES

The EUR/USD rate represents the number of USD one EUR can buy. If you think the Euro will increase in value against the US Dollar, you buy Euros with US Dollars. If the exchange rate rises, you sell the Euros back, and you cash in your profit. Please keep in mind that forex trading involves a high risk of loss.

READING PRICES AND CALCULATING SIMPLE VALUES

Fundamental, technical, quantitative - there are several methods used by forex traders to predict the movements of currency pairs. Some traders focus on news, interest rates and economic variables while others prefer to use charting tools and indicators to guide their trading decisions.

CALCULATING AND UNDERSTANDING CROSS RATES

To calculate the cross exchange rate, you need the bid prices of both currencies involved when paired with the USD. It's quite easy when the USD is the base currency in one pairing and the quote currency in the other pairings. You just have to multiply the two bid prices with your cross rate calculator to get the cross rate.

For example: In the case of the GBP/CHF. The bid prices are as follows: GBP/USD=1.5700, USD/CHF=0.9300. Thus the cross rate (GBP/CHF) will be $1.5700 \times 0.9300 = 1.4601$.

UNDERSTANDING FX PRICES - SPOT RATES

The forex spot rate is determined by supply and demand. Banks all over the world are buying and selling different currencies to accommodate their customers' requirements for trade or to exchange one currency into another.

The forex spot rate is the current exchange rate at which a currency pair can be bought or sold. The spot forex rate differs from the forward rate in that it prices the value of currencies compared to foreign currencies today, rather than at some time in the future. The spot rate in forex currency trading, is the rate that most traders use when trading with an online retail forex broker.

The forex spot rate is the most common transaction in the forex market, more so than an FX forward and FX swap. The global forex spot market has a daily turnover of more than \$5 trillion, which makes it bigger than both the equity and bond market.

The standard delivery time for a forex spot rate is T+2 days, which is where there is no adjustment for interest rate differentials. Should a counterparty wish to delay delivery, they will have to take out a forward contract. For example, if a EUR/USD trade is executed at 1.1550, this will be the rate at which the currencies are exchanged on the spot date. However, say European interest rates are lower than they are in the U.S. this rate will be adjusted higher to account for this difference. So if a counterparty wishes to own EUR and short USD for a period of time it will cost them more than the spot rate.

INTRODUCTION TO FX FORWARDS

Binding contract in the foreign exchange market that locks in the exchange rate for the purchase or sale of a currency on a future date. A currency forward is essentially a hedging tool that does not involve any upfront payment. The other major benefit of a currency forward is that it can be tailored to a particular amount and delivery period, unlike standardized currency futures. Currency forward settlement can either be on a cash or a delivery basis, provided that the option is mutually acceptable and has been specified beforehand in the contract. Currency forwards are over-the-counter (OTC) instruments, as they do not trade on a centralized exchange. Also known as an “outright forward.”

INTRODUCTION TO FX FUTURES

Currency futures are a transferable futures contract that specifies the price at which a currency can be bought or sold at a future date. Currency futures contracts are legally binding and counterparties that are still holding the contracts on the expiration date must trade the currency pair at a specified price on the specified delivery date. Currency future contracts allow investors to hedge against foreign exchange risk.

Futures differ from forwards in several instances:

- A forward contract is a private transaction - a futures contract is not. Futures contracts are reported to the future's exchange, the clearing house and at least one regulatory agency. The price is recorded and available from pricing services.
- A future takes place on an organized exchange where the all of the contracts terms and conditions, except price, are formalized. Forwards are customized to meet the user's special needs. The future's standardization helps to create liquidity in the marketplace enabling participants to close out positions before expiration.
- Forwards have credit risk, but futures do not because a clearing house guarantees against default risk by taking both sides of the trade and marking to market their positions every night. Mark to market is the process of converting daily gains and losses into actual cash gains and losses each night. As one party loses on the trade the other party gains, and the clearing house moves the payments for the counterparty through this process.
- Forwards are basically unregulated, while future contract are regulated at the federal government level. The regulation is there to ensure that no manipulation occurs, that trades are reported in a timely manner and that the professionals in the market are qualified and honest.

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CAPITAL MARKETS

FIXED INCOME

Fixed income is a type of investment in which real return rates or periodic income is received at regular intervals and at reasonably predictable levels. Fixed-income investments can be used to diversify one's portfolio, as they pose less risk than equities and derivative investments. Retired individuals typically tend to invest heavily in fixed-income investments because of the reliable returns they offer.

TYPES OF FIXED-INCOME SECURITIES

The most common type of fixed income securities are bonds. A bond is an investment product that is issued by corporate and governmental entities to raise capital to finance and expand their operations and projects. The borrower, or issuer, promises to pay interest, called the coupon, on an annual or semi-annual basis until a set date. The issuer returns the principal amount, also called the face or par value, to the investor on the maturity date.

Bonds can be broken down into **corporate bonds** and **government bonds**. Corporate bonds are issued by companies and can either be investment grade or non-investment grade bonds. Investment grade bonds are issued by stable companies with a low risk of default and, therefore, have lower interest rates than non-investment grade bonds. Non-investment grade bonds, also known as junk bonds or high-yield bonds, have very low credit ratings due to a high probability of the corporate issuer defaulting on its interest payments. For this reason, investors in high-yield bonds typically require a higher rate of interest for taking on the higher risk posed by these debt securities. Corporate bonds trade on major exchanges, and have \$1,000 par values.

The **municipal bond** is an example of a government bond. Municipal bonds are issued by states, cities, and counties to fund capital projects, such as building roads, schools, and hospitals. The interest earned from these bonds are tax exempt from federal income tax. In addition, a muni bond investor may also have his interest earned exempt from state and local taxes if he resides in the state where the bond is issued. The muni bond has several maturity dates in which a portion of the principal comes due on a separate date until the entire principal is repaid. Munis have par values of \$5,000 and trade over-the-counter.

Another type of government bond is the **Treasury bond** (T-bond) which has maturity dates of more than 20 years. The interest payment and principal repayment of T-bonds are backed by the full faith and credit of the US government which issues these bonds to fund its debts. Treasury bonds typically have par values of \$10,000, and are sold on auction on Treasury Direct.

Other types of fixed income securities include **Treasury bills**, Treasury notes, certificates of deposit (CD), and preferred stock. The Treasury bills (T-bills) and Treasury notes (T-notes) are similar to the T-bond in that they are sold by the US government. The T-bill is a short-term fixed income security that matures within one year from issuance, and typically sells at a discount to par. The Treasury notes have maturity dates of 10 years or less, and like Treasury bonds, can be issued at a discount, at a premium, or at par.

A **certificate of deposit** (CD) is issued by a bank. In return for saving money with the bank for a predetermined period of time which could range from a month to 5 years, the bank pays interest to the account holder. CDs typically offer lower rates than bonds, but higher rates than traditional savings accounts.

Preferred stocks are issued by companies, and provide investors with a fixed dividend, set as a dollar amount or percentage of share value on a predetermined schedule. The price of preferred shares is influenced by interest rates and inflation, and these shares have higher yields than most bonds due to their longer duration.

International Bonds

An international bond is a debt investment that is issued in a country by a non-domestic entity. International bonds are issued in countries outside of the United States, in their native country's currency. They pay interest at specific intervals, and pay the principal amount back to the bond's buyer at maturity.

Government Bonds (Sovereign debt)

A government bond is a debt security issued by a government to support government spending. Federal government bonds in the United States include savings bonds, Treasury bonds and Treasury inflation-protected securities (TIPS). Before investing in government bonds, investors need to assess several risks associated with the country, such as country risk, political risk, inflation risk and interest rate risk, although the government usually has low credit risk.

Government Agency Securities

Low-risk debt obligations that are issued by U.S. government-sponsored entities (GSEs) and other federally related bodies. Agency securities are issued by GSEs, including the Federal National Mortgage Association (FNMA), Federal Home Loan Bank and the Student Loan Marketing Association (SLMA). These entities were created to reduce the costs associated with borrowing for certain areas of the economy, including homeowners, students and farmers.

Corporate Bonds

A corporate bond is a debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds. Structured securities.

A Structured Security

Also known as a market-linked investment, is a pre-packaged investment strategy based on a single security, a basket of securities, options, indexes, commodities, debt issuance or foreign currencies, and to a lesser extent, derivatives. Mortgage backed securities/asset backed securities/collateralized debt obligations. Some of the well-known primary dealers in the United States include Fannie Mae, Freddie Mac, Jeannie Mai.

Plain Vanilla Bonds

Plain vanilla signifies the most basic or standard version of a financial instrument, usually options, bonds, futures and swaps. Plain vanilla is the opposite of an exotic instrument, which alters the components of a traditional financial instrument, resulting in a more complex security.

TYPES OF BOND RISK

The most well-known risk in the bond market is interest rate risk – the risk that bond prices will fall as interest rates rise. By buying a bond, the bondholder has committed to receiving a fixed rate of return for a set period. Should the market interest rate rise from the date of the bond's purchase, the bond's price will fall accordingly. The bond will then be trading at a discount to reflect the lower return that an investor will make on the bond.

1. Interest rate risk

When interest rates rise, bond prices fall. When interest rates fall, bond prices rise. This is a risk if you need to sell a bond before its maturity date and interest rates are up. You may end up selling the bond for less than you paid for it.

2. Inflation risk

This is the risk that the return you earn on your investment doesn't keep pace with inflation. If you hold a bond paying 2% interest and inflation reaches 3%, your return is actually negative (-1%), when adjusted for inflation. You'll still get your principal back when your bond matures, but it will be worth less in today's dollars. Inflation risk increases the longer you hold a bond.

3. Market risk

This is the risk that the entire bond market declines. If this happens, the price of your bond investments will likely fall regardless of the quality or type of bonds you hold. If you need to sell a bond before its maturity date, you may end up selling it for less than you paid for it.

4. Default (Credit) risk

If you buy bonds from a company or government that isn't financially stable, there's more of a risk you'll lose money. This is called credit risk or default risk. Sometimes, the issuer can't make the interest payments to investors. It's also possible the issuer won't pay back the face value of the bond when it matures.

INVESTMENT GRADE/CREDIT RATING

A credit rating is an assessment of the creditworthiness of a borrower in general terms or with respect to a particular debt or financial obligation. A credit rating can be assigned to any entity that seeks to borrow money – an individual, corporation, state or provincial authority, or sovereign government. Credit assessment and evaluation for companies and governments is generally done by a credit rating agency such as Standard & Poor's (S&P), Moody's, or Fitch. These rating agencies are paid by the entity that is seeking a credit rating for itself or for one of its debt issues. Credit rating agencies typically assign letter grades to indicate ratings. Standard & Poor's, for instance, has a credit rating scale ranging from AAA (excellent) and AA+ to C and D. A debt instrument with a rating below BBB - is considered to be speculative grade or a junk bond, which means it is more likely to default on loans.

BORROWING BASE

A borrowing base is the amount of money a lender will loan to a company based on the value of the collateral the company pledges. The borrowing base is usually determined by a method called margining, in which the lender determines a discount factor that is multiplied by the value of the collateral. The result is the amount that will be loaned to the company.

PRICE-YIELD RELATIONSHIP

Bond yield is the amount of return an investor realizes on a bond. Several types of bond yields exist, including nominal yield which is the interest paid divided by the face value of the bond, and current yield which equals annual earnings of the bond divided by its current market price. Additionally, required yield refers to the amount of yield a bond issuer must offer to attract investors.

YIELD CURVES

A yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates. The most frequently reported yield curve compares the three-month, two-year, five-year and 30-year U.S. Treasury debt. This yield curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates, and it is also used to predict changes in economic output and growth.



CREDIT SPREADS

A credit spread is the difference in yield between two bonds of similar maturity but different credit quality. For example, if the 10-year Treasury note is trading at a yield of 6% and a 10-year corporate bond is trading at a yield of 8%, the corporate bond is said to offer a 200-basis-point spread over the Treasury.

ECONOMY/BUSINESS CYCLE

The business cycle describes the rise and fall in production output of goods and services in an economy. Business cycles are generally measured using rise and fall in real – inflation-adjusted – gross domestic product (GDP), which includes output from the household and nonprofit sector and the government sector, as well as business output. "Output cycle" is therefore a better description of what is measured. The business or output cycle should not be confused with market cycles, measured using broad stock market indexes; or the debt cycle, referring to the rise and fall in household and government debt.

PRIMARY DEALERS

A primary dealer is a firm that buys government securities directly from a government, with the intention of reselling them to others, thus acting as a market maker of government securities. The government may regulate the behavior and number of its primary dealers and impose conditions of entry. Some of the well-known primary dealers in the United States include Merrill Lynch and Citigroup.

SECONDARY MARKETS

The secondary market, also called the aftermarket and follow on public offering is the financial market in which previously issued financial instruments such as stock, bonds, options, and futures are bought and sold. After the initial issuance, investors can purchase from other investors in the secondary market.

TREASURY AUCTION

Marketable securities can be bought, sold, or transferred after they are originally issued. The U.S. Treasury uses an auction process to sell these securities and determine their rate or yield.

The auction announcement details:

- Amount of the security being offered
- Auction date
- Issue date
- Maturity date
- Terms and conditions of the offering
- Noncompetitive and competitive bidding close times
- Other pertinent information

TYPES OF BONDS

Fixed-rate coupons

The most common form of corporate bond is one that has a fixed rate of interest. The coupon and benchmark can also have an inverse relationship.

The payment amount is calculated as a percentage of the face value of the bond.

Corporate bonds are generally rated by one or more of the major credit rating agencies. Investment grade bonds are considered to be lower risk than others within the category. Non-investment grade bonds are considered to be higher risk or speculative investments. The higher yield reflects the higher risk. So an investment grade bond could become non-investment grade over time and vice versa.

*Par value: The amount paid for the bond at maturity, or a coupon as indicated in writing on the document or otherwise.

Investment grade vs. non-investment grade (high yield) Corporate bonds are generally rated by one or more of the major credit rating agencies. Investment grade bonds are considered to be lower risk than others within the category. Non-investment grade bonds are considered to be higher risk or speculative investments. The higher yield reflects the higher risk. So an investment grade bond could become non-investment grade over time and vice versa.

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Zero-coupon

Zero-coupon bonds make no actual payments. Prices of zero-coupon bonds tend to be more volatile than bonds that make regular interest payments.

Floating rate

The coupon on a floating-rate corporate bond changes periodically. The coupon and benchmark can also have an inverse relationship.

Callable and puttable Corporate bonds are similar to callable and puttable bonds and the price at which they will do so. The callable bonds and the price at which they will do so. The callable bonds and the price at which they will do so.

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Step-up bond is not called.

Step-down bond is not called.

Convertible bonds are similar to convertible bonds and the price at which they will do so. The callable bonds and the price at which they will do so. The callable bonds and the price at which they will do so.

MUNICIPAL BONDS

Municipal bonds are issued by state and local governments. They are generally exempt from federal income tax. Some are backed by dedicated property taxes; others are payable from general funds.

Types of Municipal Bonds

A municipal bond is categorized based on the source of its interest payments and principal repayments. A bond can be general obligation, revenue, or secured.

Some are backed by dedicated property taxes; others are payable from general funds.

Revenue bonds are used to finance specific projects like schools or hospitals.

Municipal Bond Risks

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CREDIT MARKET

Credit market refers to the market through which companies and governments issue debt to investors, such as investment-grade bonds, junk bonds and short-term commercial paper. Sometimes called the debt market, the credit market also includes debt offerings, such as notes, and securitized obligations, including mortgage pools, collateralized debt obligations (CDOs), dwarfs and credit default swaps (CDS).

The credit market dwarfs the equity market in terms of dollar value. As such, the current state of the credit market acts as an indicator of the relative health of the markets as a whole. Some analysts refer to the credit market as the canary in the mine, because the credit market typically shows signs of distress before the equity market.

When corporations, national governments and municipalities need to earn money, they issue bonds. Investors who buy the bonds essentially loan the issuers money. In turn, the issuers pay the investors interest on the bonds, and when the bonds mature, the investors sell them back to the issuers at face value. However, investors may also sell their bonds to other investors for more or less than their face values.

Other parts of the credit market are slightly more complicated, and they consist of consumer debt, such as mortgages, credit cards and car loans bundled together and sold as an investment. Simply, as the bank receives payments on the debt, the investor earns interest on his security, but if too many borrowers default on their loans, the investor loses.

RATES TRADING VS. CREDIT TRADING

At a broad level, rates trading has a macro-economic focus looking at economies and interest rates. Credit trading has a micro-economic focus and looks at specific debt securities such as corporate bonds.

What is Rates Trading?

Interest Rates Trading revolves around more macro credit products such as government bonds and interest rate swap products. These roles will be heavily focused on the yield curve, inflation in different geographies, and monetary policy.

What is an Interest Rate Swap?

An interest rate swap is an agreement between two parties to exchange interest payments to create a marginally lower interest rate payment on both sides. This usually involves exchanging fixed vs. floating interest rates.

What is Credit Trading?

As previously mentioned, Credit Trading is more based on micro analysis such corporate bonds and credit default swaps.

What is a Credit Default Swap?

A credit default swap transfers the credit exposure of a fixed income product between parties. The buyer of the swap makes payments to the seller. This acts like an insurance in the event of a negative credit event - such as default - at which point the seller will pay the buyer a premium.

CORPORATE BONDS AND CREDIT DEFAULT SWAPS

Corporate bonds are just like government bonds, except companies issue them so there's always the chance of default – and the yield is higher to compensate for that. If you're working with smaller or non-US/European companies, you need to watch the news constantly to stay on top of things – but compared to government bond trading there's less emphasis on macroeconomic happenings.

Credit Default Swaps (CDS), meanwhile, are like insurance on bonds: they're derivatives that let you separate the risk of default from the risk of interest rates falling, so you can effectively "insure" yourself against losing your investment. Most banks combine these two groups, since the value of corporate bonds and credit default swaps are closely related.

Structured Credit Trading

Of the different Fixed Income groups here, Structured Credit Trading is the most different because they don't spend all their time checking the market and keeping up to date on the news. Instead, they price and package complex financial products in Excel and then sell them to investors. They don't make trades every day, but when a trade does happen it could be for an amount of hundreds of millions or billions of dollars – compared to the other two groups above, where the size of individual trades is typically much smaller.

SECURITIZED PRODUCTS

Securitized products represent a complicated sector of the fixed-income market. These products are pools of financial assets that are brought together to make a new security, which is then divided and sold to investors.

Securitization describes the process of pooling financial assets and turning them into tradable securities. The first products to be securitized were home mortgages. These were followed by commercial mortgages, credit card receivables, auto loans, student loans and many other financial assets.

How Securitization Works

Bonds backed by home mortgages are commonly referred to as mortgage-backed securities (MBS), and bonds backed by non-mortgage-related financial assets are called asset-backed securities (ABS). Mortgage-backed securities played a central role in the financial crisis that began in 2007, wiping out trillions of dollars and shaking world financial markets.

The process of creating a securitized bond is straightforward. A financial institution (the "issuer") with assets it wishes to securitize sells the assets to a special-purpose vehicle (SPV). For legal purposes, the SPV is a separate entity from the financial institution, but the SPV exists only to purchase the financial institution's assets. By selling the assets to the SPV, the issuer receives cash and removes the assets from its balance sheet, providing the issuer with greater financial flexibility. The SPV issues bonds to finance the purchase of the assets; these bonds can be traded in the marketplace and are referred to as securitized products.

One key feature of securitized products is that they are usually issued in tranches. This means that the larger deal is broken down into smaller pieces, each of which has different investment characteristics. The existence of different tranches makes securitized products appealing to a wide range of investors, because each investor can choose the tranche that best combines his or her desire for yield, cash flow and safety.

Benefits of Securitization

- Frees capital for lending - Securitization provides financial institutions with a mechanism for removing assets from their balance sheets, thereby increasing the pool of available capital that can be loaned out.
Lowers the cost of capital - A corollary to the increased abundance of capital is that the rate required on loans is lower; lower interest rates promote increased economic growth.
- Makes non-tradable assets tradable – This action increases liquidity in a variety of previously illiquid financial products.
Spreads the ownership of risk - Pooling and distributing financial assets provides greater ability to diversify risk and provides investors with more choice as to how much risk to hold in their portfolios.
- Provides profits for financial intermediaries - Intermediaries benefit by keeping the profits from the spread, or difference, between the interest rate on the underlying assets and the rate paid on the securities that are issued.
Creates an attractive asset class for investors - Purchasers of securitized products benefit from the fact that these products are often highly customizable and can offer a wide range of yields.

Investment Characteristics of Securitized Products

High Yield

Many securitized products offer relatively attractive yields. These high returns don't come for free though – compared to many other types of bonds, the timing of the cash flows from securitized products is relatively uncertain. This uncertainty is why investors demand higher returns.

Diversification

As one of the largest fixed-income security types, securitized products present fixed-income investors with an alternative to government, corporate or municipal bonds.

Safety

There are several methods that financial intermediaries use in order to issue bonds that are safer than the assets that back them. Most securitized products have investment-grade ratings.

EQUITY MARKETS

An equity market is a market in which shares are issued and traded, either through exchanges or over-the-counter markets. Also known as the stock market, it is one of the most vital areas of a market economy because it gives companies access to capital and investors a slice of ownership in a company with the potential to realize gains based on its future performance.

COMMON STOCK

Common stock is a security that represents ownership in a corporation. Holders of common stock exercise control by electing a board of directors and voting on corporate policy. Common stockholders are on the bottom of the priority ladder for ownership structure; in the event of liquidation, common shareholders have rights to a company's assets only after bondholders, preferred shareholders and other debt holders are paid in full.

PREFERRED STOCK

A preferred stock is a class of ownership in a corporation that has a higher claim on its assets and earnings than common stock. Preferred shares generally have a dividend that must be paid out before dividends to common shareholders, and the shares usually do not carry voting rights.

Preferred stock combines features of debt, in that it pays fixed dividends, and equity, in that it has the potential to appreciate in price. The details of each preferred stock depend on the issue.

DEPOSITORY RECEIPTS

A depository receipt is a negotiable financial instrument issued by a bank to represent a foreign company's publicly traded securities. With a depository receipt, a custodian bank in the foreign country holds the actual shares, often in the form of an American depository receipt (ADR), which is listed and traded on exchanges based in the United States, or a global depository receipt GDR, which is traded in established non-U.S. markets such as London and Singapore.

CONVERTIBLE BONDS

A convertible bond is a type of debt security that can be converted into a predetermined amount of the underlying company's equity at certain times during the bond's life, usually at the discretion of the bondholder. Convertible bonds are a flexible financing option for companies and are particularly useful for companies with high risk/reward profiles. Convertible bonds are sometimes referred to as "CVs."

RIGHTS/WARRANTS

Companies that need to raise additional capital can do so by issuing additional shares of stock. However, these additional shares will dilute the value of existing shares, which can be a concern for shareholders. Some companies, therefore, choose to issue rights or warrants as an alternative means of generating capital. These instruments give shareholders the preemptive right to purchase additional shares of stock directly from the company, typically at a discounted price.

In a **rights** offering, also known as a subscription right, a company offers existing shareholders the opportunity to buy additional shares of company stock in proportion to the number they already own before any new shares are offered to the public. Such an offering is usually mandated by the corporate charter. To act on the offering, you turn over the rights you receive, typically one for each share of stock you own, and the money needed to make the purchase within the required period, often two to four weeks. The amount of money that's required is known as the subscription price. You don't have to buy the additional shares, and you can transfer your rights to someone else if you prefer. But buying helps you maintain the same percentage of ownership you had in the company before the new shares were issued rather than having that percentage diluted.

Warrants are long-term instruments that also allow shareholders to purchase additional shares of stock at a discounted price, but they are typically issued with an exercise price above the current market price. A waiting period of perhaps six months to a year is thus assigned to warrants, which gives the stock price time to rise enough to exceed the exercise price and provide an intrinsic value. Warrants are usually offered in conjunction with fixed income securities and act as a "sweetener", or financial enticement to purchase a bond or preferred stock.

PRIMARY AND SECONDARY MARKETS

The difference between the primary capital market and the secondary capital market is that in the primary market, investors buy securities directly from the company issuing them, while in the secondary market, investors trade securities among themselves, and the company with the security being traded does usually not participate in the transaction.

IPO - initial public offering.

DARK POOLS

Dark pools are an ominous-sounding term for private exchanges or forums for trading securities; unlike stock exchanges, dark pools are not accessible by the investing public. Also known as "dark pools of liquidity," they are so named for their complete lack of transparency. Dark pools came about primarily to facilitate block trading by institutional investors, who did not wish to impact the markets with their large orders and consequently obtain adverse prices for their trades. While dark pools have been cast in a very unfavorable light in Michael Lewis' bestseller "Flash Boys: A Wall Street Revolt," the reality is that they do serve a purpose. However, their lack of transparency makes them vulnerable to potential conflicts of interest by their owners and predatory trading practices by some high-frequency traders.

QUOTE AND ORDER DRIVEN MARKETS

The difference between these two market systems lies in what is displayed in the market in terms of orders and bid and ask prices. The order driven market displays all of the bids and asks, while the quote driven market focuses only on the bids and asks of market makers and other designated parties.

ORDER EXECUTION

Execution is the completion of a buy or sell order for a security. The execution of an order occurs when it gets filled, not when the investor places it. When the investor submits the trade, it is sent to a broker, who then determines the best way for it to be executed.

SHORT SELLING

Short selling is the sale of a security that is not owned by the seller or that the seller has borrowed. Short selling is motivated by the belief that a security's price will decline, enabling it to be bought back at a lower price to make a profit. Short selling may be prompted by speculation, or by the desire to hedge the downside risk of a long position in the same security or a related one. Since the risk of loss on a short sale is theoretically infinite, short selling should only be used by experienced traders, who are familiar with the risks.

LINKS

<https://www.investopedia.com/terms/c/commonstock.asp>
<https://www.investopedia.com/terms/p/preferredstock.asp>
<https://www.investopedia.com/articles/investing/062713/investing-stock-rights-and-warrants.asp>
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DERIVATIVES MARKETS

WHAT IS A DERIVATIVE

A derivative is a financial security with a value that is reliant upon or derived from an underlying asset or group of assets. The derivative itself is a contract between two or more parties based upon the asset or assets. Its price is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes.

Derivatives can either be traded over-the-counter (OTC) or on an exchange. OTC derivatives constitute the greater proportion of derivatives in existence and are unregulated, whereas derivatives traded on exchanges are standardized. OTC derivatives generally have greater risk for the counterparty than do standardized derivatives.

FUTURES contracts are one of the most common types of derivatives. A futures contract is an agreement between two parties for the sale of an asset at an agreed upon price. One would generally use a futures contract to hedge against risk during a particular period of time. The futures contract can be considered a sort of bet between the two parties.

FORWARD contracts are an important kind of derivative similar to futures contracts, the key difference being that unlike futures, forward contracts are not traded on exchange, rather only over-the-counter.

SWAPS are another common type of derivative. A swap is most often a contract between two parties agreeing to trade loan terms. One might use an interest rate swap to switch from a variable interest rate loan to a fixed interest rate loan, or vice versa. If someone with a variable interest rate loan were trying to secure additional financing, a lender might deny him or her a loan because of the uncertain future bearing of the variable interest rates upon the individual's ability to repay debts, perhaps fearing that the individual will default. For this reason, he or she might seek to switch their variable interest rate loan with someone else, who has a loan with a fixed interest rate that is otherwise similar. Although the loans will remain in the original holders' names, the contract mandates that each party will make payments toward the other's loan at a mutually agreed upon rate. Yet this can be risky, because if one party defaults or goes bankrupt, the other will be forced back into their original loan. Swaps can be made using interest rates, currencies or commodities.

OPTIONS are another common form of derivative. An option is similar to a futures contract in that it is an agreement between two parties granting one the opportunity to buy or sell a security from or to the other party at a predetermined future date. The key difference between options and futures is that with an option, the buyer is not obligated to make the transaction if he or she decides not to, hence the name "option." The exchange itself is, ultimately, optional. Like with futures, options may be used to hedge the seller's stock against a price drop and to provide the buyer with an opportunity for financial gain through speculation. An option can be short or long, as well as a call or put.

A CREDIT DERIVATIVE is a loan sold to a speculator at a discount to its true value. Though the original lender is selling the loan at a reduced price, and will therefore see a lower return, in selling the loan the lender will regain most of the capital from the loan and can then use that money to issue a new and (ideally) more profitable loan. If, for example, a lender issued a loan and subsequently had the opportunity to engage in another loan with more profitable terms, the lender might choose to sell the original loan to a speculator in order to finance the more profitable loan. In this way, credit derivatives exchange modest returns for lower risk and greater liquidity.

Another kind of derivative is a **MORTGAGE-BACKED SECURITY**, which is a broad category defined by the fact that the assets underlying the derivative are mortgages.

LINKS

<https://www.investopedia.com/terms/d/derivative.asp#ixzz5BpXspRBN>

What does 'Unwind' mean

To unwind is to close out a position that has offsetting investments or the correction of an error. Unwinds occur when, for example, a broker mistakenly sells part of a position when an investor wanted to add to it. The broker would have to unwind the transaction by selling the erroneously purchased stock and buying the proper stock. Generally, the term "unwind" refers to more complicated and layered trades.