

Glossary by Video

Week 1 - Metrics Help us Ask the Right Questions

click-through - When a web visitor clicks on an advertisement or sponsored link and arrives at the "landing page" of the sponsor.

latency - The time delay in a computerized response caused by processing requirements or distance a signal must travel.

metrics - Numbers with significant business relevance. Metrics guide the process of inquiry - What decision should we make? What processes should we change to increase revenues, improve efficiency, or minimize risk?

real-time - Computer systems that provide a customized response immediately (typically in less than 1 second).

Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

churn rate - The portion of customers who leave within a year.

default - Failure to pay interest or principal on a debt.

efficiency - Delivering products or services of consistent quality while minimizing the cost of doing so.

fixed costs - Costs that do not increase or decrease with small changes in production. An example are salaries for current full-time employees.

inventory - Finished goods on hand and not yet sold.

logistics - Planning for all physical stages of a commercial enterprise from

delivery of raw materials to a factory through delivery of products to customers.

operational metrics - Metrics related to production, and in particular, to production efficiency.

profitability - Net Income, or gross sales minus all accounted expenses during a certain time period.

recurring-revenue customers - Customers who buy again repeatedly after a first sale.

revenue - Gross income, the dollar amount of sales booked during a certain time period.

risk - The chance of a major negative event such as a product recall, default on a debt, insolvency, etc. In finance, "risk" is often also used to refer to volatility (standard deviation) of returns from an investment.

sales "funnel" - The metrics used to track the steps in the process of converting individuals or Companies with a potential interest in one's product or service into paying customers.

sales & marketing - The process of creating positive awareness about a company's products or services in a target audience, and converting members of that audience into paying customers.

secured creditors - Entities, such as banks, with the contractual right to seize certain assets ("secured" assets) if they are not paid on time.

spoilage - The portion of inventory of a perishable product that becomes unsaleable because it is held too long.

variable costs - Costs that go up when production increases and go down when production decreases.

volatility of returns - The standard deviation of a time series of investment returns.

wastage - The portion of inventory that becomes unsaleable because it is damaged or lost before sale.

Week 1 - Distinguishing Traditional and Dynamic Metrics

balance sheet - The document that shows a company's assets, liabilities, and shareholder's equity. Traditional financial accounting uses three systems: profit and loss, cash flow, and the balance sheet, to capture all changes in economic value.

Content Delivery Network (CDN) - Companies that provide edge caching for a fee. The best-known is Akamai.

dynamic metrics - Defined here as Business metrics that show significant change over time intervals of a month or less, and can be impacted directly by changes in business processes.

edge-caching - Paying third parties (Content Delivery Networks) to locate copies of one's web content on servers physically nearer to customers and other visitors.

managerial accounting - Accounting used to determine the profitability of individual products and services and make management decisions.

net cash flow - The change in actual cash on hand held by a business over a particular time interval.

"noisy" vs "twitchy" metrics - Informal terms to contrast aggregate metric - which many factors impact - and highly focused metrics that can easily be impacted by changing a single factor.

page-load time - How much time is required for a web page to be com-

plete and usable from the point of view of a visitor.

profits and losses - Accounting measure of whether a company is generating net economic value, after including capital investment and other sunk costs.

revenues as an "aggregate number" - Total revenues are an "aggregate" metric because they reflect sales across all products and services, and combine new sales and long-term contracts, and involve an element of random variation. For this reason even big process changes for the better or worse may be hard to detect in total revenues.

shareholder's equity - Also known as "stockholder's equity" - the accounting value of a company's assets minus its liabilities.

traditional metrics - As defined here, Business metrics related to financial and managerial accounting, in particular those used for required quarterly or annual financial reporting. In contrast to dynamic metrics, traditional metrics rarely, if ever, show significant changes within the time interval of a single month, and as aggregated measures, are difficult to impact with isolated business changes.

Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

accounts receivable - Monies a company's customers owe it for products or services we have already delivered.

aged receivables - Tracking how long cash owed is overdue.

capital expenditure - Synonym for capital investment.

capital investment - Money spent for capital assets such as manufacturing equipment that, under standard accounting rules, is "depreciated", or allo-

cated across a large number of products or services over time.

cash flow - How cash "on hand" - meaning in the Company's bank accounts - has changed over a give time interval.

Cash on Delivery (COD) - Being required to pay in cash when items are delivered.

depreciation - Accounting methodology for reducing the value of a capital investment over time and allocating that expenditure to products or services produced.

fixed costs - Costs that do not increase or decrease with small changes in production. An example are salaries for current full-time employees.

general and administrative (G&A) expenses - Overhead not directly tied to individual products or services - for example, rent, utilities, insurance, required business licenses, salaries of central office employees.

negative float - Needing working capital to make and deliver products or services for which one is paid cash later.

net 60 - Paying cash for products or services 60 days after they are received. "Net 30" and "net 90" are also common terms.

net earnings - Synonym for profits.

positive float - Holding customer cash for a product or service to be delivered later. The classic example is insurance.

profit - The positive difference between revenue and expenses, using standard accounting methods for capital expenditures.

straight line depreciation - Depreciation of the same amount over each of several time periods: for example, 20% reduction in value over each of 5 years.

to book sales - To record sales at the time when, under accounting rules, a mutual contractual obligation is created.

useful life - The time interval over which a capital investment is allocated
- in theory, it corresponds to the time required for a piece of equipment to wear out and need to be replaced.

Week 1 - Egger's Roast Coffee Case Study Part 2 - How a Profitable Growing Company can go Bankrupt

burn rate - Actual net negative cash flow for a time interval, typically a month, or projected net negative cash flow for the next month.

cost of goods sold - Costs that are allocated to each unit of production.

economies of scale - Rising marginal profits on higher sales and production volumes - due to fixed costs and capital investment being high compared to variable costs.

factoring (accounts receivable financing) - A short-term loan secured by accounts receivable.

marginal profit - Profit per one additional unit of production.

runway (for a company) - Net cash on hand divided by current monthly burn rate gives the number of months a company can survive under present conditions.

working capital (credit line) - Money provided by a bank or a factor
- or made available if needed - to cover negative float.

Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

booking revenue (a completed sale) - When a commitment to buy becomes contractually enforceable and is recorded under accounting rules.

correct decision-maker - Someone who has the budget and authority to decide on purchases and sign purchase orders.

enterprise - Defined here as any sale that requires involvement by full-time sales people. Enterprise sales must be large to be viable.

expression of interest - When a decision-maker informs you that they want to engage with you about the possibility of buying your product.

gatekeeper - People whose job it is to stand between you and the person who will ultimately make a decision.

lead - A person whose name and contact information you know, whom you believe may be interested in buying something from you.

qualified lead - A lead that you have determined to have the budget and the decision-making authority to purchase your product or service.

soft-circle sale - A verbal commitment to buy that is not yet an enforceable contract.

Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

click-stream - The exact path a visitor follows through a website - what they view, how much they spend on each page visited and etc.

controlled-vocabulary index - An index with a relatively small number

of words.

pre-processed data - Data to which an algorithmic process has already been applied so that the result can be retrieval rapidly. An example is Google's calculation of "pagerank" for all known web sites before any individual text search is run.

query (query terms) - What someone types into a search engine when looking for information. The exact characters they type are known as a "string."

subject index - A pre-processed index consisting of defined topic areas that permits documents to be located based on their subject matter.

subtopics - A lower, more specific level in a hierarchical organization of subject matter.

text index - A pre-processed index used to permit a list of documents on which all contain a common word or phrase to be retrieved rapidly.

thesaurus - A specialized dictionary of synonyms or near synonyms.

user experience - The subjective quality of a visitor's interactions with a web site - is the web site clear, informative, easy to navigate, or confusing, unhelpful, and difficult to navigate?

user session - One visitor's single interaction with a web site from beginning to end.

Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

algorithms - A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.

browsing (to "view" a book in Amazon) - Clicking on the link referencing a book to the web page with more detailed information about it.

co-occurrence - When two events happen at the same time or within a single defined interval, such as a web user session.

co-occurrence matrix - A way of representing mathematically all possible co-occurrence events.

co-occurring sales - When someone buys two items during the same store visit or web session.

frequently bought together - An Amazon metric for items with a high likelihood of co-occurring sales.

information theory - Information theory is a branch of applied mathematics, electrical engineering, and computer science involving the quantification of information.

Week 1 - Profitability/Efficiency Metrics: Inventory Management

0-level inventory (potential opportunity cost) - When a product is "sold out" and none is available were a potential new customer to request it.

complete wastage - When a product or service loses all value if not sold by a certain date. Examples are hotel rooms and airline seats.

cost of goods sold - P&L Item - The standard accounting calculation of what it costs to manufacture a given unit of a product.

days inventory - The average number of days between when a product is completed (or arrives at a retail location) and when it is sold.

expiration - "sell-by" dates - Legal requirements that a product can only be sold within a certain time interval.

inventory management - The optimization process of simultaneously minimizing days inventory while avoiding the opportunity cost of having zero inventory when more product could be sold.

inventory on hand - (value as balance sheet item) - The value of inventory on hand at a given moment in time (usually the end of the fiscal or calendar year).

inventory turnaround - same as inventory turnover - Synonym for inventory turnover.

inventory turnover = $365/\text{days' inventory}$ - The inverse of days' inventory - simply calculates how many times in a year a given product on average is delivered and sold to a retail location, based on days' inventory.

obsolescence - When a product is no longer in demand due to newer, better, or equivalent but less expensive, alternatives being available.

SKUs - Abbreviation for "Stock Keeping Unit" - every item sold has a unique ID in the form of an SKU.

Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

floor rate - The minimal price of a room, based on accounting breakeven - its share of fixed costs plus variable cost.

occupancy rates - The percentage of rooms in a hotel that are booked by paying customers on a given night.

Online Travel Agencies (OTAs) - Companies that acts as intermediaries and sell airline tickets or hotel rooms from multiple suppliers.

opaque inventory market - A market, such as the market for hotel rooms, where opaque pricing is offered.

opaque pricing - The practice of offering hotel rooms for (non-refundable) sale in a given city without disclosing until after the sale what hotel is meant.

promotional rate - A rate between the rack rate and floor rate, typically offered to repeat customers on a limited-time basis.

rack price - The official, list price of a hotel room.

sunk cost - Money already spent - such as the cost of an empty hotel room even absent the variable costs of occupancy.

variable pricing - The practice of charging more or less for the same good or service depending upon current supply and demand.

Week 1 - Risk Metrics: Leverage and Reputational Risk

gross profit - Usually refers to the difference between the sales price of a product and its marginal cost. Does not include indirect costs that should be allocated to the product to determine net profits.

insolvent - When a company does not have the cash to meet its immediate obligations to creditors.

leverage - Purchasing an asset, in particular an investment asset, partly or completely with borrowed money.

reputational risk - Events that can damage a company's brand, good-

will, or future attractiveness to customers and potential customers.

return on equity - The investment return on an investor's cash. For example, an investment that returns 5% would have a 5% "return on equity" if it were purchased for cash. The same investment, if purchased 50% with investor's cash and 50% with money borrowed at 1% interest, would have a return on equity of 9%.

unrecoverable (debt) - Money loaned out that will never be repaid.

Week 2 - Roles & Companies

big data culture - Awareness that real-time data-processing is a positive development that allows for better products and services to be delivered more efficiently, and will soon be an essential part of almost all business transactions.

bricks-and-mortar - Traditional product and service companies with physical stores and locations.

business analyst - As defined here, someone who works with an external or internal client to develop requirements, documents and reports.

business data analyst - As defined here, someone who assembles information stored in databases and translates it into business recommendations.

consulting with IT focus - Companies that sell business advice and as part of their recommendations build or install custom information technology systems for their clients.

data scientist - As defined here, someone responsible for recommending and designing new technologies including real-time or just-in-time data-processing, in particular predictive analytics using machine learning.

digital businesses - Internet-based companies, typically with minimal phys-

ical stores and locations.

hardware & software - Companies that sell information technology.

software engineer - Someone responsible for the application of engineering to the design, development, and maintenance of software.

traditional strategic consulting - Companies that sell business advice.

Week 2 - The Business Analyst

area under the ROC curve - A metric used to evaluate the effectiveness of a binary classification model.

binary classification - Separating items into two exclusive groups. For example, defining all credit card customers as "in default" or "not in default."

horizontal metrics - Business metrics that are useful for many types of industry.

local knowledge - Ability to identify the most important and relevant business metrics in a particular market sector or niche.

models - Simplified mathematical representations of complex real-world situations.

operationalize - What specific steps need to be taken, by whom, in what order, in order to solve the problem.

vertical metrics - Business metrics that are specific to a particular industry or market sector.

Week 2 - Distinguishing the Business Data Analyst and Business Analyst Roles

SQL - Structured Query Language. A standard for communicating with databases.

Week 2 - The Data Scientist

Bayesian Learning - Algorithms that interpret new information using Bayes' theorem in order to reduce the uncertainty of a probabilistic outcome.

just-in-time data - When all relevant historical information about a customer, including prior sales, support, and complaint contacts, is available at the time a customer interacts with a company employee, whether in sales, product support, etc.

Populating (databases) - Importing data into a database structure for later retrieval and analysis.

preference engine - A computer system that makes customized recommendations to users based on their prior purchase history, demographics, or expressed preferences.

real-time data - Data that is provided with an almost immediate response (typically in less than 1 second).

sentiment analysis - The algorithmic study of large amounts of web-based text to evaluate public opinion - and any changes in public opinion - about a product or company.

Week 2 - The Senior Software Engineer

layers - Distinct functional parts of an information technology system. For example applications and operating systems can be thought of as two layers of software. This course uses a simple three-layer model for the IT "stack" - hardware and communications, enterprise software systems, business desktop software.

natural-language processing - Algorithms for computer study of written texts or spoken voice.

retrieval - The process of recovering relevant information from an index or database, in response to a query.

Week 2 - Overview of the 5 Types of Companies

"Big Box" stores - Large retailers such as Walmart, Costco, etc.

machine learning - The process by which computers improve their models when they take in new information.

Week 2 - Traditional Strategic Business Consulting

Argus Information & Advisory Services -

Credit Bureau - A company that evaluates individuals and companies' likelihood of default and ability to manage additional indebtedness.

Week 2 - Bricks-and-Mortar

AB testing - Trying two versions of something to determine which is more effective.

conversion - When a web visitor becomes a paying customer. Also used to refer to a lesser step when a visitor registers and provides identity information.

Google Ad Rank - Google's system for rating a company's desirability as bidder on a sponsored link. It combines the bid expected click-through rate, ad quality and landing page experience.

IP address - The unique numerical ID for devices connected to the internet.

Membership programs - Programs where companies offer additional benefits to customers who agree to register and provide identifying information, or to pay an annual fee.

Price per click-through (CPC) - Cost per Click-through - for ads where the advertiser pays only when a potential customer clicks through to the advertiser's landing page.

whales - Slang for repeat customers individuals who tend to gamble large amounts at casinos.

Week 2 - Strategic Business Consulting: Focus on Software/IT Systems Integration

early adopter - A group of customers who are motivated to try new products or services before they are established as mainstream.

Week 2 - Hardware & Software Companies

cloud - Data storage with redundancy, and processing capacity, offered as a service with access from anywhere.

routers - Hardware for communicating using Internet protocols.

semiconductor chip - The technology that allows computers to be very small and inexpensive.

stack - The combined "layers" of an information technology system.

terabyte - 1,000 billion, or 1 trillion, bytes of information. A byte is 8 bits - and a bit is simply a binary indicator, 0 or 1.

Week 2 - Digital Companies

hosting services - Companies that are paid to offer web sites or applications for public, or private, corporate access.

Week 3 - Web Marketing

AdWords - Words purchased by auction to show sponsored links on Google search results.

customer loyalty - The fact that repeat customers are typically motivated by more than only lowest price alone - they have positive associations with the brand.

demographic categories - Common ways to classify people, such as by income, age, employment, education, nation and region, etc.

home page - The main web page of a company, linked to its primary URL address.

landing page - The web page URL, not necessarily a home page, that a sponsored link or marketing campaign link points to.

market differentiation - The ways in which a product or service is described as being different than competitive offerings.

marketing - The systematic process of creating and increasing positive awareness about a brand, product, or service with a target audience.

switching costs - The costs in time, money and inconvenience in leaving one's old supplier of a product or service and moving to a new one.

target demographic - A group with common characteristics, such as nationality, age range, or participating in a Facebook interest group, that permits a focused marketing effort.

Week 3 - Web Marketing: AdWords Metrics

actual CPC - Because winning an AdWords auction only requires paying \$0.01 more than the next highest bidder, Actual CPC will be lower than Max CPC - especially when an advertiser has a high "quality score."

ad relevance - A metric developed by Google that is based on how closely advertisement text relates to the viewers original search terms.

CPC - "Cost per Click-through" - for ads where the advertiser pays only when a potential customer clicks through o the advertiser's landing page.

expected click-through rate - When used to generate a "Quality Score" - Google's estimate, based on historical data or mathematical models, of the percentage of viewers who will click-through a particular sponsored link.

key words - On Google, the words bid in AdWords auctions.

landing page experience - A metric developed by Google that is based on how focused, factual, current, and informative the landing page text is, relative to key word and sponsored link text.

max CPC - The maximum cost per click-through that a Google AdWords bidder is theoretically willing to pay.

quality score - A metric developed by Google that combines expected click-through rates, "ad relevance" and "landing page experience."

Week 3 - Web Marketing: Segmentation

bounce - When a visitor to a home page or landing page leaves the site immediately, without clicking on any internal links.

click-stream - The exact path a visitor follows through a web site - what do they view, where do they spend the most time, etc.

conversion rate (to registration) - The percentage of not previously registered visitors in a website who register and provide identity information - typically an e-mail address, phone number, etc.

conversion rate (to revenues) - The percentage of visitors not previously customers who become customers.

device (when tracking origin of web site visitor) - A metric that considers whether the visitor viewed the site from a PC or Mac, or a mobile device.

direct - A metric for website visitors meaning the visitor typed the Company URL directly into their browser themselves.

duration - The time interval that a visitor spends on some part of a company's site.

LTV - various measures - Life Time Value - a metric intended to estimate the discounted present value of all future revenues from a new customer. It is calculated a number of different ways depending on context. What method to use is a matter of individual preference and judgment.

organic link - Search results that are not paid for.

retweet - A tweet that originates with one author and is reposted by another - the format is RT@username. Retweets indicate that the retweeting party (a holder of a Twitter account) thinks your tweet will be of interest to his or her audience as well as your own.

segmentation - The process of classifying one's current customers or target customers by recognizable, traceable attributes such as how much on average they purchase in a year.

social link (when tracking origin of web site visitor) - A URL to a company landing page that is embedded in a Facebook post, tweet, Instagram, or other social media.

social signal - The fact that search engine rankings are influenced by a company's activity and success on social media, including Facebook likes, retweets, etc. The stronger the "social signal", the higher the ranking.

sponsored link - An advertisement shown along with organic search results.

third-party web site - Any web site that is not part of a company or its paid advertising network - blogs, review sites, news sites, etc.

tweet - A 140-character message in response to Twitter's "What are you doing?"

Week 3 - Financial Services Metrics: Money Management & Investing

annualized discrete return - $\left(\frac{p_1}{p_0}\right)^{\left(\frac{1}{n}\right)} - 1$

Where,

p_1 = Price at time t_1

p_0 = Price at time t_0

n = Number of years

annualized continuously compounded return - $\frac{\ln\left(\frac{p_1}{p_0}\right)}{n}$

Where,

p_1 = Price at time t_1

p_0 = Price at time t_0

n = Number of years

continuously compounded return - $\ln\left(\frac{p_1}{p_0}\right)$

Where,

p_1 = Price at time t_1

p_0 = Price at time t_0

discrete return - $\frac{p_1}{p_0} - 1$

Where,

p_1 = Price at time t_1

p_0 = Price at time t_0

geometric mean return - For a series of various returns r_1, r_2, \dots, r_n , the geometric mean return is defined below: $\sqrt[n]{(1 + r_1)(1 + r_2) \dots (1 + r_n)} - 1$

r_i = rate of return i

n = number of periods

internal rate of return (IRR) - Rate on which the present values for the cash inflows equalize to the present value of the cash outflow(s) as defined below:

$$\frac{\text{Payment 1}}{(1+r)^{t_1-1}} + \frac{\text{Payment 2}}{(1+r)^{t_2-t}} \dots \frac{\text{Payment } n}{(1+r)^{t_n-t}} = \frac{\text{Payment out}}{(1+r)^{t_{out}-t}}$$

money manager - Someone who seeks to generate profits (returns) on someone else's money, either through dividends, interest, or through buying assets that are expected to increase in price.

root mean square - For a set of n numbers or values of a discrete distribution x_i, \dots, x_n , the root-mean-square (abbreviated "RMS" and sometimes called the quadratic mean), is the square root of mean of the values x_i^2 , namely:

$$x_{(RMS)} = \sqrt{(x_1^2 + x_2^2 + \dots + x_n^2)/n}$$

$$= \sqrt{\sum_{i=1}^n (x_i^2)/n}$$

The RMS difference between each value in a set x_1, x_1, \dots, x_n and the mean of all values N equals the standard deviation for the set.

standard deviation - The standard deviation, commonly represented by the greek letter sigma, σ , is a measure that is used to quantify the amount of variation or dispersion of a set of data values. For a set of N discrete values, the standard deviation is given by:

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$$

Where,

μ = Mean of the set

Week 3 - Equivalence of Different Returns: The Sharpe Ratio

annualized volatility of return - The standard deviation increases as the square root of time; for example, if the standard deviation is 5.77% per month, than it can be estimated that it is $5.77\sqrt{(12)}\% = 20\%$ per year. If the the daily volatility is 1.26% per trading day, then we can estimate the

monthly volatility to be $1.26\sqrt{(252)}\% = 20\%$ per year.

risk-free rate of return - An investment return minus the return offered by stable governments for bonds in their own currency - this return is considered to have no default risk and so have zero volatility of return.

leverage - Using borrowed money to buy an asset.

manager skill - Manager skill is usually defined as the ability to consistently generate an excess return over the manager's benchmark, without excessive additional volatility - the risk-adjusted return should be better than the benchmark index.

sharpe ratio - the ratio of a manager's excess return over the risk-free rate (the manager return minus the risk-free return) divided by the volatility of the manager's return.

Week 3 - Passive and Active Equity Managers

GSPC - The stock ticker symbol for the S&P 500 index.

active investment - Investment in a fraction of all possible investments in a universe, chosen because they are expected to generate a better return than the benchmark index.

benchmark return - The return of an index or other metric based on the "universe" combining all possible investments a manager could make.

BRIC - Brazil, Russia, India, China.

efficient market - A market, such as the U.S. public equities market, where active investors rarely outperform a passive index of the market assets. The efficient markets theory states that this failure is because the information that moves prices is available to everyone and stocks already reflect this information in their market prices - they are priced "efficiently."

excess return (over benchmark) - The manager's return minus the return of their designated benchmark, usually an index of the stocks from which they chose - their "universe."

excess return (over risk-free rate) - An investment return minus the return offered by stable governments for bonds in their own currency - this return is considered to have no default risk and so have zero volatility of return.

Exchange Traded Fund (ETF) - A fund that holds all the stocks in an index or market, passively, and simply tries to maintain the ratios used in the index.

expense ratio - The costs of running an investment fund each year, including fees paid to the fund's managers, divided by the total value of assets under management.

index (market-capitalization weighted) - An index in which the contribution to the overall index return is weighted according to the market capitalization of each company with stock in the index. An example of a market-capitalization weighted index is the S&P 500.

index (equal weighted) - An index in which the contribution to the overall index return has equal weights among the stocks. For example, EWI is an index tracking the same stocks as in the S&P 500 but with equal weights.

index fund - A fund, usually but not always structured as an Exchange Traded Fund, that is intended to mimic as closely as possible the performance of an index.

information ratio - The ratio of annualized excess returns over a manager's benchmark, divided by the standard deviation of the time series of excess returns.

long-only" funds - Funds, such as U.S. equity mutual funds, that are forbidden by rule from investing in options, or in selling shares "short" in order to make money if their price goes down.

market-capitalization - Market-capitalization of a company equals the most recent market price per share, multiplied by the number of shares of stock of that company not held by the company itself (shares "outstanding").

passive investment - Investment in a basket of all the stocks in a market, either in equal-weighted portions, or based on their market-capitalization.

SPY - The stock ticker symbol for the State Street S&P 500 Exchange Traded Fund.

tracking error - The standard deviation of excess returns (difference in returns) between a fund manager's performance and their designated benchmark.

universe (for a fund manager) - The pool of permissible assets from which an active manager chooses when trying to generate an excess risk-adjusted return.

Week 3 - Venture Capital Investors and Hedge Funds

"call" or "draw" - When a fund manager makes a contractually obligatory request for cash from fund investors.

commitments - The contractual obligation to provide cash to a venture or private equity fund when called upon to do so by the fund managers.

correlation with equity markets - What is the linear correlation of returns between an investment and its appropriate stock market benchmark over time.

derivatives - Financial instruments such as puts and calls that derive their value from the market price of some other asset, such as a stock, which is known as the "underlying" asset.

fund life - The pre-agreed number of years that a temporary investment vehicle, such as a venture fund, will be in operation. At the end of the "fund life" any remaining liquid assets, such as shares of stock, are distributed to investors.

linearity of log wealth - Describes how linear is the return when evaluated on a log wealth scale. A continuously compounded rate of return that never varies (volatility of 0) will have a linear correlation of 1.

maximum drawdown from high water mark - A peak-to-valley measure: If you entered in the investment at the unluckiest possible moment, what would your maximum % losses be? Sometimes it is referred as maximum draw down from water mark.

options - Options give the contractual right, but not the obligation, for a certain fixed period of time, to buy a stock at a pre-determined price (a "call") or sell a stock at a pre-determined price (a "put").

short, also known as "short selling" or "shorting" - Practice of selling securities or other financial instruments that are not currently owned, but are merely borrowed, subsequently repurchasing them and returning them to their owners.

tranches - One of a series of payments spread out over time.

years to breakeven - How many years, at average return, it would take to get back to breakeven from the maximum draw-down. Calculated as $|maxdraw - downpeak - to - valley| / annualizedrateofreturn$.