

DAVID WEEKLY

*presents*

# AN INTRODUCTION TO STOCK & OPTIONS

*for the*

TECH ENTREPRENEUR

- or -

STARTUP EMPLOYEE

SECOND EDITION  
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# INTRODUCTION

Hello. You'd like to start a company or join a tech startup? Sweet. You didn't go to business school? That's okay, neither did I. Frankly, most MBA programs won't teach you much about what goes in to actually making a startup. Most of what you need to know you learn "on the job" as you're founding your first business, which can be downright scary when you're in an environment with people who have seen a thousand people just like you and understand all the subtleties and lingo and incentives and laws. So this is the guide I wish my future self had handed me when, at the bright and shiny anything-is-possible age of 25, I decided to start my first Internet business.

*Requisite disclaimer: **I am not a lawyer.** There may be egregious errors in this document. You really should talk to a lawyer about any decisions that you make concerning stock and options - especially a tax attorney around how to get the best tax treatment if your company sells - but hopefully this document will help you understand the playing field a little better.*

## STOCK

**Stock** represents ownership in a corporation. In most corporate structures, a majority vote of shareholders is needed for most important actions (like selling the company, firing the CEO, etc), so if you own 51% of a company, you are said to own a **controlling interest**. You're the boss.

## THE BOARD

Because asking every shareholder for input on every serious decision a company must make is impractical, a company usually has a **Board of Directors** whose job it is to act in the best interests of the shareholders. A Board has a legal obligation to act in its shareholders' best interest, even if that interest is in conflict with their personal interest. That responsibility is called a **fiduciary obligation**. Most people don't realize this but shareholders are, legally, at the top of the totem pole: the Board's job is to serve them. Shareholders have a right to appoint a different Board if they're not being represented properly. The CEO, in turn, operates the business at the pleasure of the Board; the Board appoints, compensates, reviews, and fires the CEO. *If you own a share in a business, you're the CEO's boss's boss.*

A Board has a **Chairman** whose business it is to direct the meetings of the Board, but in practice in smaller Silicon Valley companies this title is given to the principal founder of a company and is intended to signal to outsiders that this person sets the overall tone and direction of the company rather than getting any special privileges.

A Board is almost always composed of a small but odd number of members (to avoid a "tie" in votes). It's common for the lead investor in a round of financing to ask to have a seat on the Board, so a typical configuration for a company that has raised two major rounds of financing

from different firms would be to have two seats appointed by Common Stock (usually the CEO and a founder or someone loyal to a founder), one seat from the first round (Series A), one from the second (Series B), and an “outside director” that has been agreed on by both the founding team and investors.

A Board may also have any number of people who have the right to sit in on (but not vote in) meetings: these people are called **Board observers**. Some investors, particularly those investors who are not leading a round, may ask for observer rights, i.e. the right to appoint a person who has the right to be notified about and optionally attend Board meetings.

While some portions of a Board meeting may be open to a larger audience (e.g. entertaining reports from department heads about company progress), the Board may choose to enter into a **closed session** and exclude all non-members other than formal observers and Board members. This can be helpful for candid discussions of the company’s performance or legal issues.

In order for a Board meeting to be legal, generally speaking notice needs to be given at least 48 hours in advance of a meeting and a majority of Board members (called a **quorum**) must be in attendance (you’re allowed to phone/Skype in). Minutes from Board meetings tend to cover only the legal minimums, such as exactly what was decided, but to minimize liability very little of the discussion tends to be included. (a la “A vigorous discussion of the state of the company ensued.” and “Company financials were discussed.”) If you’ve never been to a Board meeting, you could always ask permission from your CEO to sit in on one or to at least show you the slide deck used in the open session.

Board members of Silicon Valley companies are almost never compensated with cash for their service, since the Common representatives are often employees who are already paid a salary, and the investor representatives are already paid by their firms, though in some cases the outside observer may be given a stock option grant.

## EQUITY

Ownership in a company is often called **equity**. The total number of shares defines the total ownership (equity) of the company. Corporations are required to keep track of who owns what stock; the spreadsheet that spells out exactly who has exactly what kind of ownership (or capital) in the company is called a Capitalization Table, or **cap table**. It’s generally considered extremely private / sensitive information, so if you’re working for a company and are curious about the ownership structure, asking to see the cap table will probably be met with a groan and a roll of the eyeballs, even by a relatively transparent company.

With a Board’s permission, the company can issue new stock, which is a lot like printing money: it makes everyone else’s shares smaller as a percentage of the company. This reduction in ownership is called **dilution**. Let’s say you start a company with a friend and each give yourself 500 shares of the company. The company now has 1000 shares outstanding, so your 500 shares mean you own half of the company. Let’s say then that you two work hard at it and after a time

you hire your first employee. This person is taking a lot less risk than you two founders so gets a lot less equity. If you two founders grant the new employee 100 shares, the company now has 1100 shares outstanding and your ownership is now been diluted from 50% (500/1000) to about 45% (500/1100) even though you still have all 500 shares.

Dilution is not always a bad thing: in the case above, if you believe that the new employee will make your company a lot more than 10% more valuable, then giving this employee 9% (100/1100) ownership means that your 45% is a *smaller slice of a bigger pie*.

## COMMON VS PREFERRED STOCK

Unless it has special provisions attached, shares of ownership in a company are classified as **Common Stock**. If you were to buy a share of Microsoft stock on the public market, for instance, you'd become a Common shareholder of the Microsoft corporation.

When institutional investors spend money to acquire ownership in a private company like a Silicon Valley startup, they usually want some special rights concerning their investment. These extra rights are negotiated (in excruciating detail) by the company's management team and Board at the time of investment. Shares that grant special rights are called **Preferred Stock** although what exactly those rights are can vary dramatically from one investment round to the the next.

The first major negotiated sale of Preferred Stock is usually called a **Series A**, and is most typically to raise between \$500,000 and \$10,000,000 of funds, though there are dramatic exceptions all the time and there's no real legal definition for what a Series A round is or means. You could even call it a Series Q if you'd like. It's all up to negotiation, though in a good deal most terms adhere to certain industry standards of sanity and normality. Any Valley lawyer worth their salt will be able to look at a term sheet and let you know what looks reasonable and what's not. A second round of a financing with different terms and different investors would usually be called a **Series B**, and so forth, though if a follow-on financing round was done on similar terms with similar investors (an **inside round**) it might be called e.g. a **Series B-2**.

## LIQUIDITY

If your company does well, another company may want to buy it. When this happens the most common transaction is for the acquiring company to offer a certain cash price for every share of the company that exists. As a shareholder, your "illiquid" shares (called as such because you can't turn them into other assets, like a house or movie tickets) thus become "liquid" cash. This is called a **liquidity event** and it's what all of your investors and employees are counting on. It's the way most people in Silicon Valley become very rich. It may be worth noting that it's common for key staff in an acquisition to not get paid most of their money until after they have worked for the acquiring company for a certain "golden handcuff" period, often two years.

The other common way for a shareholder to “gain liquidity” is if the company gets permission from the Securities and Exchange Commission to publicly sell its stock. There are a lot of regulations around trying to make sure that unsophisticated members of the general public don’t get defrauded by companies selling ownership, especially post-Enron, so this is a long and difficult process and generally doesn’t make a lot of sense in the U.S. if your company is making less than \$100m/year and has been profitable for several years in a row. When the company “goes public” and has an “Initial Public Offering” (**IPO**), it creates some new Common stock that it sells to investment banks called **underwriters** that in turn sell the stock to members of the general public or other investors. Done well, this process generates a bunch of cash that the company can use to grow, and the company’s employees can sell some of their stock on the market after a brief “lockup” period. Interestingly enough, it’s very difficult for a founder to completely cash out after an IPO as investors will see it as a bad sign if the management team is uninterested in holding onto the stock in the long run. Furthermore, it needs to be done in a very controlled way to avoid allegations that you’re timing the sale of your stock based on things you know about the company that the general public doesn’t. That’s called “insider trading” and is a good way to end up in jail. So even though Bill Gates is one of the richest men in the world, most of his wealth is in Microsoft stock. Even though this stock is technically liquid, if Bill tried to sell all of his stock tomorrow, the value of Microsoft stock would plummet precipitously.

While an IPO or a buyout are the most common ways for founders and employees to gain liquidity, there are other (rarer) ways now available, most of which require the company to be doing very well (\$10m+/year revenues, near-doubling year-over-year, etc). The first is to sell the stock on a **private market** only available to sophisticated / accredited investors; several such markets exist, though SecondMarket and SharesPost are the most popular by far. Companies do not have to “go public” to sell shares in these markets. The second is for the founders to simply get paid a straight cash bonus as part of a financing round, and the third is to use an advanced technique that must be planned for in advance of incorporating the company, called **Founder’s Shares**.

Now when a company has a liquidity event, it may or may not actually be a good thing: just because the company was sold for some price does not mean that price will make anyone rich. Indeed, different people get paid in a different order when a company is sold; the order in which people are paid is called **seniority**. Debt-holders are always first in line (if the company has various lines of debt, which debt gets paid first is usually spelled out), followed by the Preferred shareholders, followed by Common. I above mentioned the special rights Preferred Stock has over Common Stock. Two of the most important rights are a **liquidity preference** and whether or not the Preferred is **participating**. It’s also important to understand that at any point in time and for any reason, Preferred shareholders can decide to turn their stock into Common stock, usually on a 1-to-1 basis. For example, a typical term sheet might specify a “1x participating preferred”: this would mean that after the company’s debt obligations have been repaid (provided there’s still money left over) Preferred shareholders would be repaid the money they had invested and then *participate* by converting their shares to Common shares. After all of the Preferred owners got their investment back and converted their shares to Common, the remaining money would be evenly distributed between all Common shareholders. A “non-participating” Preferred (somewhat rarer) would mean that the investor would get to *choose* between simply getting their money back (1x) or converting to Common. You can see then that

this is a particularly important term for a management team to negotiate well to ensure a good outcome at a sale - a very large investment at a 3x preference could mean that a company that did well and sold for a good price might leave nothing for the founders or employees. For this reason, most deals in the Valley are done at a 1x preference (except vastly smaller convertible notes, see below).

## INVESTORS

Generally speaking, investors in startups come in three flavors: angels, angel groups, and VC firms. **Angels** are mostly rich people (legally, an accredited investor is a person with \$1m+ in the bank or making \$200k+/year) investing their own money, directly. It's a very straightforward proposition: you're asking them to make a bet with their own money that you'll do well. Most angels in Silicon Valley are entrepreneurs who have built their own companies and who double as excellent mentors. If they say yes, you get a check immediately - there's nobody they need to ask permission from (except, perhaps, their spouse). Angels usually have a full time job elsewhere, such as running their own companies, though some "fulltime professional angels" do exist. Most of the best angels need to be approached through someone they know instead of directly; this is principally because the very most famous (e.g. Ron Conway) get thousands upon thousands of business pitches -- they have basically given up on trying to filter all of these direct pitches themselves: you need to get someone they know and trust excited, like a team they've invested in previously.

**Angel groups** try to act like professional venture firms but can often involve more paperwork for less equity. I had one guy standing next to me at an angel group pitch night tell me it was easier to get listed on NASDAQ than to make it through this particular group's torturous process. This complexity is structural rather than due to any malice or lack of competence: an angel group is generally investing money from wealthy but unsophisticated high net worth individuals who bring all of the liability concerns a VC has, but they cannot bring to bear the kind of full-time resources a VC can. I also would very strongly caution an entrepreneur to vet any individual that an angel group proposed to add to your Board; it can be excruciatingly difficult to eject an overbearing or incompetent Board member. That said, a great Board member can be an invaluable asset; making introductions, closing deals, lining up more financing, discovering potential acquirers, and dispensing crucial advice, and some truly fantastic mentors can be found in these groups. Overall, though, I'd stay away.

**Venture capital (VC) firms** are staffed by paid professionals whose full time job it is to invest money into promising startups and help those startups quickly become worth a lot of money. VC firms generally raise their money from enormous financial institutions like pension funds, sovereign wealth management funds, and very large corporations. The entities that invest in a VC firm are called Limited Partners (LPs) because while they provide the capital, they don't actually get to decide what companies get investment. That's left to the General Partners (GPs or just "partners"), the full-time investment professionals at the firm.

GPs get paid an annual **management fee** of 1-2% (of the total fund size) plus about 20% of any of the profits reaped from their investments (called a **carry**). The remaining 80% is naturally paid back to the LPs. While the carry is distributed by seniority within the firm, it's usually the case that the partner who is managing the deal gets the lion's share, so there's a lot potentially on the line for the partner who's sitting on a Board.

When dealing with VC firms, it's very important to know if you're dealing with a partner (someone who can actually vote / make decisions) or an **associate** (also sometimes dubbed an "analyst"). You see, a lot of people think it would be really sweet to be a VC partner, so they go to business school and then get a job at a VC firm, hoping to work their way up. Their starting position is as an associate...and usually they don't make it farther than that. They sit in front of Excel spreadsheets all day long trying to figure out what deals should be worth what. If an associate calls you, keep in mind that part of their job is to sound really excited about your company and that it is full of promise. But if there's no partner involved in the deal, there is a 0% chance of anything happening. Get a partner involved or don't waste your time.

Another thing you should know about VC firms is that nearly all of them have Partner Meetings on Mondays. These meetings are where the final investment decisions are made, usually shortly after a CEO pitches the full collection of partners. If you get asked to come in on a Monday to a VC firm, it's a very good thing.

## FUNDRAISING

There are two common ways that a Silicon Valley can raise money from investors: a convertible note (debt) and a priced investment round (equity sale) like a Series A. Convertible notes tend to be smaller (\$50k - \$500k) and raised from angels or angel groups; priced rounds tend to be larger (\$500k - \$5m+) and raised from VCs.

### CONVERTIBLE NOTES

In a **convertible note** sale, the company takes a loan from an investor or set of investors. The loan has interest (usually low, like 6% a year) that is not payable until the loan comes due (often 12 to 18 months out) and is secured by the company's assets. Interestingly enough, the intent is almost never that the loan is paid off. That's because this is not ordinary debt, it's a "debt instrument" or "note" that has terms that enable the investor to potentially make back much more than 6%.

In the case that the company is sold before the next round of financing, the investor gets back the interest owed plus a multiple of the money they put in (usually 2 or 3x) called a **liquidity preference**. You could certainly imagine that an investor with a \$100,000 and 3x preference would not be too sad if the company got sold a year later - the investor would get back \$306,000 in only 12 months, a 306% annual return!

More commonly, investors are counting on you to build the company up with the cash they've loaned and for you to grow to the point you need a Serious Institutional Financing, aka a Series A round. When such a financing happens, the debt (principal plus interest) "converts" to Preferred Shares with a specified "discount" (usually 20-30%), meaning that it's exactly the same as if the company had paid the debt-investors back the cash owed and then the debt-investors had immediately turned around and given the company that cash back to invest it in the Series A financing round on the same terms as other investors, except paying 20-30% less per share.

The astute reader will notice that neither the company nor the investor has to figure out how much a company is worth to raise a convertible note round - the investor simply has to have confidence that the company is likely to either sell or raise a round of financing in a reasonably well-defined period of time. One of the hardest parts about raising financing is usually debating how much the company is worth, so this can be a handy way around such infighting...but there's a catch.

One thing important for a founder to keep in mind is that in American corporate law, debtors come "first in line" - before equity investors, founders, employees, anyone. So if the company proves unable to either sell or raise a round of financing in the allotted time and does not have the cash to pay back the loan, the courts will give full ownership of the company to the debtor. The debtor can then force a halt to the company's operations and sell off assets piecemeal. Yikes.

Convertible debt holders will also want semi-regular assurance that progress is being made towards a financing round or a sale; the main point is to "bridge" you to a transaction, which is why convertible notes are often also called **bridge loans**. But without bridging you to a transaction it becomes a "pier": pejorative from noteholders concerned that the debt is going to come due without a financing or a liquidity event.

Aside from getting to punt on valuation issues, one of the reasons why convertible notes are so much quicker to close is that there don't tend to be special rights accorded to noteholders that constitute much of the complex dance in closing an equity financing - e.g. a Right of First Refusal, a board seat, anti-dilution protections, etc.

## EQUITY FINANCING

In a traditional equity financing, a venture capital firm will offer to invest money for a percentage of the company and certain other rights. This implies a fixed **valuation** for the company: the **pre-money valuation** of what the company is worth without the cash and the **post-money valuation** of what it's worth after it receives the money.

It's helpful to work through an example to grasp the important distinction. If I were to offer you \$100 for 10% of your company, that would imply that your pre-money valuation was \$900, because *after* I give you \$100, I want to own 10%. This round would be described in industry parlance as "\$100 on a \$900 pre".



Since this is usually the most important part of an agreement, a VC firm will generally come to an oral agreement with a company as to how much money will be put in for what percentage ownership. Immediately thereafter, the firm will present a **term sheet**, often about 3-5 pages, that spells out in more detail how many shares are proposed to be bought, whether the firm would like a seat on the Board, Anti-Dilution rights, etc. The term sheet will often expire in a very short period of time (e.g. 48 hours) and is designed to only be enough time to have your lawyer and Board approve it, but not enough time to have other firms present a competitive alternate term sheet. While getting several different firms to bid on a deal at the same time is ideal for a company, VCs deliberately make it hard to do this and often will not invest in a deal if the term sheet is not signed within the specified time period. Once you've signed the term sheet, you're not allowed to negotiate with other investors for a period of several months, so it's a real commitment that you're intent on raising money from that VC!

One horrible mistake I made early on in my career as a startup CEO was that I thought the terms in a term sheet were absolutely hard and fast. It's all written up in Scary Language with lots of specific numbers and clauses and it's a bit overwhelming. When I was confused about certain terms and wasn't sure if they were fair, I (*very* wrongly) assumed that they were non-negotiable, and I backed out. I wish someone had told me that the term sheet is meant to be a discussion. You don't sign the sheet without talking it through. In the process you can often get very substantial concessions on things that are important to you. Once you've signed the term sheet, it's going to be very difficult to undo what you've agreed to, so that's absolutely the right time to fight for what you want. (Very silly aside, but I enjoy flying helicopters and scuba diving, both of which I might not have been permitted to do if I had agreed to a Key Man Insurance clause -- so I got my VC firm to remove the clause from the terms.)

One entity almost always has the responsibility to negotiate these terms with you - the **lead investor**. This is almost always the individual or firm putting in the most money. Other investors in the round agree to "follow" - i.e. put in a certain amount of money at whatever terms the lead investor has agreed to. This makes things easier for everyone, because even if you have five entities looking to invest you still only need to have one conversation/agreement.

Once you agree to sign a term sheet, the money's the bank the next day, right...? Champagne! Well, no. Actually, there's a long (4-10 week) **closing process** of finalizing the exact terms of the deal and the VC firm has the right to do some research on the company to ensure that you haven't just been lying to them the whole time. This research process is called **due diligence**: if the firm gave companies money without verifying that the companies actually existed, they'd (rightfully) get sued by their LPs for negligence! The closing process involves a great deal of back-and-forth between your company's lawyers and your investor's lawyers about exactly what terms the sale will be made on. And very, very unfortunately, your company needs to foot the bill for *both sides*. Oy. The first financing round I raised was \$350k, of which \$50k went to legal fees. So painful. The resulting output is a set of **closing documents** that are literally a fricking book: typically about 150 pages of Investor Rights Agreements, Purchase Agreements, Management Disclosures, Right of First Refusal Agreements, and the like. It's rare but not crazy uncommon for an investment to blow up during this process, and it can be brutal, particularly if the company has started to ramp up its spending in anticipation of receiving the new funds. Just remember: *the deal's not done until the cash is in the bank*.

Things are usually set up such that on one very specific **closing day**, the documents are signed and wire transfers into your company's bank account are made by all of the investors in the round. It sounds random, but it's critical that you know that as a legacy of the US banking system, wire transfers need to be completed by 1pm Pacific Time. If someone wires in their investment at 1:02 PT, it won't show up until the next day, and depending on the legal structure you've set up for the close this can actually somewhat seriously screw things up. Needless to say the morning of a close can be a hectic affair of hitting refresh on your bank's web service. And let me tell you, it is a really incredible rush to see the number in your checking account go from \$14,213.87 to \$2,114,213.87, especially if you grew up like me and thought \$14k was a lot of money. (We actually printed out our daily balance, circled it, and had it on our Controller's door for a few months after we closed.)

## TIPS

A maxim for financing is that **it's best to raise money when you don't need it**. When you are plumb out of money and *must* take the first deal of any kind that winds up on your lap, you're kind of boned. VCs are professionally trained to smell fear - most will simply not have any appetite to invest in a company on the brink of survival. If you do get an offer, it will probably be an extremely low-ball one. The story you need to tell when raising money is a delicate balance between clarity on how new funds could be very effectively put to work and the company doing just fine without that money. But if your company is a rocket ship and/or money printing machine, you will have firms bending over backwards to give you money on any terms. (Google just last week raised \$3bn of debt even though they had \$37bn of cash in the bank. Why? You guessed it: they didn't need it, so the markets bought their ten year bonds at a rate most governments would envy.) And before you waltz into a financing, make sure you have a mentor, Board member, and law firm lined up to vet the term sheet in the requisite time period!

## OPTIONS

When you're starting a company, you don't have huge piles of cash. Even if you've closed a Series A or Series B, you generally don't have enough money to be able to pay people really generous salaries. To give your employees compensation competitive with what they can get paid at a large company, you'll need to throw a sweetener into the mix...the same reason why you're working your tail off for pennies: equity.

So you might think a company would pay a salary and shares, right? But there's a problem with this: employees would have to recognize the Fair Market Value (FMV) of the stocks as income and pay taxes on them. If the company were to start doing very well, the employee might find that she had to pay a staggering amount of tax on the stock received; if the stock was illiquid, the employee could be put in an awkward pinch where the IRS demanded they paid more taxes than she had cash! Whoops.

What a company *can* do, tax-free to the employee, is give the employee an **option** to purchase shares of Common stock at a price fixed by their hire date (the **strike price**). Since the company wants the employee to stick around for a while instead of quitting after a week, what's commonly done is to have the employee earn out (or **vest**) their stock purchase rights over a four year period. Furthermore, in many cases companies invest a great deal in training up an employee over their first few months; losing an employee after only a few months would be a tremendous loss to the company, since so much had been spent in training and the employee would not yet have been able to make significant contributions to the company's success. So companies set up a one year **cliff**, meaning the employee will not earn the right to purchase any stock at all until their one year anniversary, on which day the employee vests a quarter of their options, further vesting 1/48 of their options every month thereafter until their four year anniversary. To keep employees from waltzing out the door on their four year, companies usually provide supplementary options grants (also four-year but usually with no cliff) that start a few years in. That way, an employee is always earning more options. Supplementary grants have the advantage of taking into account the employee's actual performance at the firm.

So as the employee passes their one year anniversary, they now have vested an option to purchase stock, but unless they do anything about it, they're still not a stockholder. They can't vote. They're just an optionholder. To acquire stock, they still have to **exercise** their options to purchase Common Stock from the company. If they leave the company or are fired, employees generally lose their unexercised options 90 days after they stop working for the company.

## STRATEGIES & PITFALLS

Startup employee? Pay attention. Friends smarter than you and I combined were forced into bankruptcy because they didn't understand the following.

Let's say a company is doing really, really well - it's in the press all the time, has raised a lot of money, has fast-growing revenues, etc. An employee of three years might be tempted to exercise their vested options. When the employee joined the company the FMV of Common Stock was \$0.03/share, setting his strike price at \$0.03. Since he was hired as a vice president, he got a large options grant of 100,000 shares. Now that the company has done really well, Common Stock is at \$3.00/share. Amazing! 100x growth! The employee thinks he's doing something *really* smart financially by exercising now, especially since he's thinking of moving on to his next job pretty soon and wouldn't want to leave all that money on the table. So he pays  $(\$0.03 * (3/4 * 100,000))$  \$2250 to exercise the 75,000 shares he's vested and that are now ostensibly worth \$225,000. He's rich! Well, on paper at least. He goes ahead and moves on to his next job. The next spring, he runs his taxes and learns that the IRS will recognize the fact that he paid \$2250 for assets worth \$225,000 as a taxable gain under Alternative Minimum Tax (**AMT**), taxable at 28%, so he'd owe  $((\$225,000 - \$2250) * 0.28) = \$62,370$  to the IRS. Which he does not have. The IRS does not care that he cannot sell his shares on the market or does not have the cash. If he's lucky, the IRS may accept him paying a few thousand a year (yes, they want interest) for the next 10 years. If he's not so lucky, bankruptcy awaits: seizure of his assets, maybe even his home. Fail.

So how does one avoid this “bear trap” of AMT when working for a startup? Well, there are two good answers. The first is that it’s a pretty reasonably good idea to **do nothing**. Let’s say our guy stuck it out with the company for four years and the company got bought for \$4.00/share. All of his vested options would immediately vest and exercise, with the exercise price coming out of his liquidity check, which would be for  $((\$4.00 - \$0.03) * 100,000) = \$397,000$ . The Federal government would consider this wage income and would be taxed like he had received a really nice bonus. This would probably bump him up to the 35% tax bracket, so he’d owe \$138,950 to the Feds and in California with a 9.1% income tax a further \$36,127. He’d get to keep \$221,923 of it. Not too bad, and it was pretty much all risk-free money. (If the company had gone under instead, he’d be out a job but no money.)

The other good answer, and one that’s less well-known by first-timers, is to **exercise immediately and file an 83(b)**. Let me explain. Remember that the employee is vesting an option to purchase Common Stock over a four year period? You might reasonably assume that that would mean that the employee couldn’t exercise their option before they had vested, but, startlingly, you’d be wrong. You see, the employee can pay to **forward exercise** their full options even on their first day at work, but instead of getting Common Stock they would receive **Restricted Stock**. Restricted Stock can be purchased back from a stockholder by the company at the price the stockholder paid for the stock. So if an employee quits (or is fired) holding Restricted Stock, the company will buy back all of that stock. But now instead of vesting options, the employee is vesting Restricted Stock *into* Common Stock. If our cunning employee exercised his stock soon after starting his job, he’d start off with 100% Restricted Stock, but on his one-year anniversary of employment, 25% of his Restricted Stock magically (with no paperwork required) would become Common Stock.

There’s a trick here, and it’s an important one: **to avoid a “bear trap”, you need to file an 83(b) Election**. You see, normally when the Restricted Stock turns into Common Stock, you’d have to recognize as taxable income the price difference between the fair market value of Common and what you had paid for the Restricted. If the FMV of Common skyrockets (because your company is doing really well) you can get boned by AMT per the above...unless you tell the IRS that you want to recognize the whole event immediately, as if all of your Restricted Stock had already vested into Common Stock the day you received your Restricted Stock. That would mean you’d owe the IRS the difference between what you paid for your Restricted Stock and the FMV of Common Stock that same day...but the two are the same price! So the transaction is *tax free*. The important thing to remember is to file the form (called an 83(b)) through the company immediately and also with the IRS when you do your taxes at year-end.

Our protagonist needs to pay **capital gains tax** at a liquidity event, since he’s selling shares for a gain. If he’s held the stock for less than a year when the company liquidates, that would qualify as **short term capital gains**, which are currently taxed as regular income - so he’d have basically the same net result as the “do nothing” strategy above. If he’s held the stock for more than a year he’d qualify for **long-term capital gains** (a delightfully small 15% as of early 2011), which lets him keep a lot more of his profit. Our employee above whose company sells for \$4.00/share? He had to dip into his savings to pay in \$3000 for his shares when he was hired but after all is said and done, instead of bringing home \$221,923, he’d net \$303,600! And most amazing of all, if he held the shares for at least five years before the company had a liquidity

event, he could reinvest up to \$10m of the proceeds **tax free** in another *Qualified Small Business*, if he had the mind to start a company himself (or join another company as an angel!)

## PRICING

When a private company takes an investment, it ends up naturally pricing the Preferred Stock's Fair Market Value. But since this stock has special privileges, it's surely worth a lot more than Common Stock. So how should Common Stock be priced? The Board sets the price of Common and it has every incentive to price Common Stock as cheaply as possible. Why? Preferred should of course be as expensive as possible so as to minimally dilute the existing shareholders for a maximum of cash the company can receive, but Common principally affects future employees: the cheaper Common is, the lower the strike price of new employees' options, and the more employees stand to gain from a liquidity event. So Boards classically priced Common at about 1/8 to 1/10 of Preferred. Post-Enron, the government suddenly felt it was really important to have all options be priced by third parties, even tiny three-person private companies, so it's now a legal requirement that if the Board wants safe harbor from lawsuits, it must get a **409(a) valuation** done every 12 months. These usually cost around \$8000 and are done by the most unimaginably braindead accountants you can possibly imagine. Their job is to tell you a high price (say, 1/4 of Preferred) and your job, amusingly, is to explain to them why your company is Really On The Brink Of Absolute Annihilation so as to coax them into a 1/6 or so valuation, which then the Board will accept. This process is time and money you cannot afford, but the government mandates it. (I'd recommend the movie *Brazil* to those of you amused to explore dystopian authoritarian regimes mired in needless paperwork.)

There are obviously complex issues at play if the early employees of a company want to sell some of their Common stock to investors, A) because those investors must accept a lack of Preferred privileges and B) because the market will override the Board in setting a fair market value for Common. There's a conflict of interest because existing employees want a high price but the company wants a low price for the reasons above. There are ways around this by using Founder Stock or exotic instruments like Variable Spread Prepaid Forward Options that are beyond the scope of this text.

## THE POOL

The company should get shareholder approval to set aside a **pool** of options for future employees to avoid having to ask shareholders to create new shares every time someone new is hired. (Approval is needed anytime new shares are being created because it's dilutive.) This pool of unallocated options is usually mandated to be around 10-15% of the total shares outstanding at a major financing, particularly if the company is planning to make senior-level hires in the reasonably near future. Sometimes a company can exhaust its pool, in which case it will have to ask for shareholder approval to grow it further. As employees leave the company, their unexercised options return to the pool.

# OWNERSHIP

A common term used to understand one's rough ownership is ***total shares outstanding***, which means the total number of shares that the Board has been authorized by shareholders to allocate. Ownership is usually calculated based on this ***fully diluted basis***. It's a "guaranteed pessimistic" interpretation of ownership, however, because it includes unvested options, unallocated options in the pool, and Restricted Stock. Furthermore, only shareholders have voting rights; even vested optionholders can't vote if they haven't exercised. This means that one's control as a shareholder is generally significantly higher than the ownership percentage would indicate. This is especially true if the Preferred has rights to vote as a class on certain actions (e.g. approving a sale of the company), which make it possible for an investor with 10% ownership to block a sale. Corollary: **make sure you trust investors before accepting money!** Once you're playing on someone else's dime, it's not your business anymore and it's nearly impossible to unwind the investment if things turn hostile. You're pretty much in with them for the life of the company.

# ADVISORS

It can be extraordinarily helpful for a company to have advice and mentorship from those who have been down the startup road before. It's worthwhile for companies to compensate these advisors but probably couldn't pay them the cash they're worth. So companies will issue options grants to advisors similarly to employees. But advisors tend to be more useful for a given stage of a company's growth than employees, so advisory shares usually vest over two years with a six-month cliff. Since these are being given to non-employees, they're also classified ***Non-Qualified Stock Options*** (NSO) instead of the options given full-time hires, ***Incentive Stock Options*** (ISO).

# ACCELERATION

An acquiring company is unlikely to be very interested in the company's advisors. Smart advisors know this and ask for "full acceleration on change of control", also called ***Single Trigger*** acceleration. This means that if your company gets acquired, all of the options you granted to the advisor will be completely vested, as if time had skipped ahead, or ***accelerated***, to the end of the vesting period.

Employees' grants can also be similarly accelerated; it's not uncommon to add in a "50% acceleration" clause that immediately vests half of an employee's unvested options when a company is acquired. Even more common is a ***Double Trigger*** acceleration, which provides employees full acceleration of their options in the event that the company is acquired *and* they are laid off without cause.

It can be dangerous to bake in full single trigger acceleration for all of your employees, though, as this sends a clear message to acquirers that the day after the acquisition, everyone's planning on leaving. Given that most acquisitions are based in good part on acquiring a team, a structure that nearly guarantees employee departures post-acquisition could negatively impact a company's value to a potential buyer. In reality, though, most of employee clauses concerning acceleration end up being mooted, as they're renegotiated as part of the acquisition. That said, they can provide a helpful starting point for expectations.

## ALLOCATIONS

So how large should each grant be? Let's be clear: this gets into awkward-turtle land in a hurry, since you're trying to objectively decide an employee's likely impact on the company's success before their first day on the job. Here are some maxims to stand by: People earlier on and taking a bigger risk (e.g. without a salary) should get dramatically larger grants. Splitting ownership evenly five ways or more is asking for trouble. People with relevant connections, insight, skills, and experience should see that reflected in their grant size.

To walk through a specific example, let's say you're hiring your fifth employee, a senior engineer. (Seniority in this case should be more closely proportional to relevant raw skill than years worked.) Your company has raised \$300,000 in seed financing from some angels and your product has just launched in public beta, though is pre revenue. Sheila has a relatively extensive network and some basic management experience. You don't want to hire her directly into a VP/Engineering role but think she might be able to grow into it. Sheila is still paying off student loans, though, and will need to be paid at least \$85,000/year while you and your other engineers are earning \$60,000/year (the baseline for Basic Valley Survival Pay). The last engineer you brought on board, Fred, was quite junior but is turning out well - you gave Fred a 3% grant, but that was before you had shipped your product to critical acclaim. My advice in the above case would be to make a grant of 2% with a supplementary 1% grant at the point in time you do decide to make her VP/Engineering.

## INCUBATORS

A very large number of programs and spaces have launched that bring together entrepreneurs and give them some training, mentoring, and a little money. The most famous of these is inarguably Y Combinator, which has made a name for itself investing in very highly technically qualified young teams. Many other programs exist, such as i/o ventures, Founder's Institute, Women 2.0 Labs, TechStars, and so forth. Most people who go through these programs appreciate the hands on-help they get on working on their ideas, the excitement of being around other people pursuing their passions, and the "kick in the butt" they need to dive headlong into founding their company. I would *not* recommend trying to start a company part-time, or to join an incubator in the hope of finding a "technical cofounder". If you're building a technology startup, you need to either bring on board someone Seriously, go plow through Learn Python

The Hard Way or Rails for Zombies. There are some fabulous free resources available online that can walk you through it. It's not rocket science (trust me, I've lived with rocket scientists!) or even math. It's just logic. If this, then that, or else do this. If you can follow an argument (or better yet make a convincing argument) you can probably code just fine.

## AFTERWARD

To keep myself busy, I wrote the first version of this guide on a ten hour plane flight from SF to London on May 21, 2011. I had just the week before given my explanation about what options were to my employees at PBworks and the week before that walked a first-time tech entrepreneur through a convertible financing. It was clear really smart people had no idea how this stuff worked and nobody had bothered to explain it to them. After I landed, I posted the guide to Scribd. By the time I hopped on my return flight three days later (it was an admittedly quick stop!) it had hit the front page of Hacker News and received over 20,000 views. I was delighted to find out that people really wanted to know this stuff and were having trouble finding an approachable guide to the whole thing.

My favorite tweet said "This guide should be required reading for every startup founder or employee!". But even more useful than the praise were the corrections: angel investor Chris Yeh pointed out that I hadn't covered convertible notes not receiving a Board seat. Jasmine de Field sent in extensive corrections to my AMT and other tax handling. I was asked to give more concrete examples and walkthroughs and asked how one should handle writedowns.

I hope this guide has been helpful for you. If you have comments, praise, corrections, anecdotes, criticism, or would like to add or remove anything, please let me know! Email [david@weekly.org](mailto:david@weekly.org) or tweet me @dweekly and I'll do my level best to update this guide accordingly at: <http://www.scribd.com/doc/55945011/Intro-to-Stock-and-Options>

*For the typophiles amongst you: the body is set in Baskerville and headings in Capitals and Blair.*