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HOW TO FUND A STARTUP

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Venture funding works like gears. A typical startup goes through several rounds of funding, and at each round you want to take just enough money to reach the speed where you can shift into the next gear.

Few startups get it quite right. Many are underfunded. A few are overfunded, which is like trying to start driving in third gear.

I think it would help founders to understand funding better—not just the mechanics of it, but what investors are thinking. I was surprised recently when I realized that all the worst problems we faced in our startup were due not to competitors, but investors. Dealing with competitors was easy by comparison.

I don't mean to suggest that our investors were nothing but a drag on us. They were helpful in negotiating deals, for example. I mean more that conflicts with investors are particularly nasty. Competitors punch you in the jaw, but investors have you by the balls.

Apparently our situation was not unusual. And if trouble with investors is one of the biggest threats to a startup, managing them is one of the most important skills founders need to learn.

Let's start by talking about the five sources of startup funding. Then we'll trace the life of a hypothetical (very fortunate) startup as it shifts gears through successive rounds.

Friends and Family

A lot of startups get their first funding from friends and family. Excite did, for example: after the founders graduated from college, they borrowed \$15,000 from their parents to start a company. With the help of some part-time jobs they made it last 18 months.

If your friends or family happen to be rich, the line blurs between them and angel investors. At Viaweb we got our first \$10,000 of seed money from our friend Julian, but he was sufficiently rich that it's hard to say whether he should be classified as a friend or angel. He was also a lawyer, which was great, because it meant we didn't have to pay legal bills out of that initial small sum.

The advantage of raising money from friends and family is that they're easy to find. You already know them. There are three main disadvantages: you mix together your business and

personal life; they will probably not be as well connected as angels or venture firms; and they may not be accredited investors, which could complicate your life later.

The SEC defines an "accredited investor" as someone with over a million dollars in liquid assets or an income of over \$200,000 a year. The regulatory burden is much lower if a company's shareholders are all accredited investors. Once you take money from the general public you're more restricted in what you can do. [1]

A startup's life will be more complicated, legally, if any of the investors aren't accredited. In an IPO, it might not merely add expense, but change the outcome. A lawyer I asked about it said:

When the company goes public, the SEC will carefully study all prior issuances of stock by the company and demand that it take immediate action to cure any past violations of securities laws. Those remedial actions can delay, stall or even kill the IPO.

Of course the odds of any given startup doing an IPO are small. But not as small as they might seem. A lot of startups that end up going public didn't seem likely to at first. (Who could have guessed that the company Wozniak and Jobs started in their spare time selling plans for microcomputers would yield one of the biggest IPOs of the decade?) Much of the value of a startup consists of that tiny probability multiplied by the huge outcome.

It wasn't because they weren't accredited investors that I didn't ask my parents for seed money, though. When we were starting Viaweb, I didn't know about the concept of an accredited investor, and didn't stop to think about the value of investors' connections. The reason I didn't take money from my parents was that I didn't want them to lose it.

Consulting

Another way to fund a startup is to get a job. The best sort of job is a consulting project in which you can build whatever software you wanted to sell as a startup. Then you can gradually transform yourself from a consulting company into a product company, and have your clients pay your development expenses.

This is a good plan for someone with kids, because it takes most of the risk out of starting a startup. There never has to be a time when you have no revenues. Risk and reward are usually proportionate, however: you should expect a plan that cuts the risk of starting a startup also to cut the average return. In this case, you trade decreased financial risk for increased risk that your company won't succeed as a startup.

But isn't the consulting company itself a startup? No, not generally. A company has to be more than small and newly founded to be a startup. There are millions of small businesses in America, but only a few thousand are startups. To be a startup, a company has to be a product business, not a service business. By

which I mean not that it has to make something physical, but that it has to have one thing it sells to many people, rather than doing custom work for individual clients. Custom work doesn't scale. To be a startup you need to be the band that sells a million copies of a song, not the band that makes money by playing at individual weddings and bar mitzvahs.

The trouble with consulting is that clients have an awkward habit of calling you on the phone. Most startups operate close to the margin of failure, and the distraction of having to deal with clients could be enough to put you over the edge. Especially if you have competitors who get to work full time on just being a startup.

So you have to be very disciplined if you take the consulting route. You have to work actively to prevent your company growing into a "weed tree," dependent on this source of easy but low-margin money. [2]

Indeed, the biggest danger of consulting may be that it gives you an excuse for failure. In a startup, as in grad school, a lot of what ends up driving you are the expectations of your family and friends. Once you start a startup and tell everyone that's what you're doing, you're now on a path labelled "get rich or bust." You now have to get rich, or you've failed.

Fear of failure is an extraordinarily powerful force. Usually it prevents people from starting things, but once you publish some definite ambition, it switches directions and starts working in your favor. I think it's a pretty clever piece of jiu-jitsu to set this irresistible force against the slightly less immovable object of becoming rich. You won't have it driving you if your stated ambition is merely to start a consulting company that you will one day morph into a startup.

An advantage of consulting, as a way to develop a product, is that you know you're making something at least one customer wants. But if you have what it takes to start a startup you should have sufficient vision not to need this crutch.

Angel Investors

Angels are individual rich people. The word was first used for backers of Broadway plays, but now applies to individual investors generally. Angels who've made money in technology are preferable, for two reasons: they understand your situation, and they're a source of contacts and advice.

The contacts and advice can be more important than the money. When del.icio.us took money from investors, they took money from, among others, Tim O'Reilly. The amount he put in was small compared to the VCs who led the round, but Tim is a smart and influential guy and it's good to have him on your side.

You can do whatever you want with money from consulting or friends and family. With angels we're now talking about venture funding proper, so it's time to introduce the concept of *exit strategy*. Younger would-be founders are often surprised that

investors expect them either to sell the company or go public. The reason is that investors need to get their capital back. They'll only consider companies that have an exit strategy—meaning companies that could get bought or go public.

This is not as selfish as it sounds. There are few large, private technology companies. Those that don't fail all seem to get bought or go public. The reason is that employees are investors too—of their time—and they want just as much to be able to cash out. If your competitors offer employees stock options that might make them rich, while you make it clear you plan to stay private, your competitors will get the best people. So the principle of an "exit" is not just something forced on startups by investors, but part of what it means to be a startup.

Another concept we need to introduce now is valuation. When someone buys shares in a company, that implicitly establishes a value for it. If someone pays \$20,000 for 10% of a company, the company is in theory worth \$200,000. I say "in theory" because in early stage investing, valuations are voodoo. As a company gets more established, its valuation gets closer to an actual market value. But in a newly founded startup, the valuation number is just an artifact of the respective contributions of everyone involved.

Startups often "pay" investors who will help the company in some way by letting them invest at low valuations. If I had a startup and Steve Jobs wanted to invest in it, I'd give him the stock for \$10, just to be able to brag that he was an investor. Unfortunately, it's impractical (if not illegal) to adjust the valuation of the company up and down for each investor. Startups' valuations are supposed to rise over time. So if you're going to sell cheap stock to eminent angels, do it early, when it's natural for the company to have a low valuation.

Some angel investors join together in syndicates. Any city where people start startups will have one or more of them. In Boston the biggest is the [Common Angels](#). In the Bay Area it's the [Band of Angels](#). You can find groups near you through the [Angel Capital Association](#). [3] However, most angel investors don't belong to these groups. In fact, the more prominent the angel, the less likely they are to belong to a group.

Some angel groups charge you money to pitch your idea to them. Needless to say, you should never do this.

One of the dangers of taking investment from individual angels, rather than through an angel group or investment firm, is that they have less reputation to protect. A big-name VC firm will not screw you too outrageously, because other founders would avoid them if word got out. With individual angels you don't have this protection, as we found to our dismay in our own startup. In many startups' lives there comes a point when you're at the investors' mercy—when you're out of money and the only place to get more is your existing investors. When we got into such a scrape, our investors took advantage of it in a way that a name-brand VC probably wouldn't have.

Angels have a corresponding advantage, however: they're also not bound by all the rules that VC firms are. And so they can, for example, allow founders to cash out partially in a funding round, by selling some of their stock directly to the investors. I think this will become more common; the average founder is eager to do it, and selling, say, half a million dollars worth of stock will not, as VCs fear, cause most founders to be any less committed to the business.

The same angels who tried to screw us also let us do this, and so on balance I'm grateful rather than angry. (As in families, relations between founders and investors can be complicated.)

The best way to find angel investors is through personal introductions. You could try to cold-call angel groups near you, but angels, like VCs, will pay more attention to deals recommended by someone they respect.

Deal terms with angels vary a lot. There are no generally accepted standards. Sometimes angels' deal terms are as fearsome as VCs'. Other angels, particularly in the earliest stages, will invest based on a two-page agreement.

Angels who only invest occasionally may not themselves know what terms they want. They just want to invest in this startup. What kind of anti-dilution protection do they want? Hell if they know. In these situations, the deal terms tend to be random: the angel asks his lawyer to create a vanilla agreement, and the terms end up being whatever the lawyer considers vanilla. Which in practice usually means, whatever existing agreement he finds lying around his firm. (Few legal documents are created from scratch.)

These heaps o' boilerplate are a problem for small startups, because they tend to grow into the union of all preceding documents. I know of one startup that got from an angel investor what amounted to a five hundred pound handshake: after deciding to invest, the angel presented them with a 70-page agreement. The startup didn't have enough money to pay a lawyer even to read it, let alone negotiate the terms, so the deal fell through.

One solution to this problem would be to have the startup's lawyer produce the agreement, instead of the angel's. Some angels might balk at this, but others would probably welcome it.

Inexperienced angels often get cold feet when the time comes to write that big check. In our startup, one of the two angels in the initial round took months to pay us, and only did after repeated nagging from our lawyer, who was also, fortunately, his lawyer.

It's obvious why investors delay. Investing in startups is risky! When a company is only two months old, every *day* you wait gives you 1.7% more data about their trajectory. But the investor is already being compensated for that risk in the low price of the stock, so it is unfair to delay.

Fair or not, investors do it if you let them. Even VCs do it. And funding delays are a big distraction for founders, who ought to be working on their company, not worrying about investors. What's a startup to do? With both investors and acquirers, the only leverage you have is competition. If an investor knows you have other investors lined up, he'll be a lot more eager to close-- and not just because he'll worry about losing the deal, but because if other investors are interested, you must be worth investing in. It's the same with acquisitions. No one wants to buy you till someone else wants to buy you, and then everyone wants to buy you.

The key to closing deals is never to stop pursuing alternatives. When an investor says he wants to invest in you, or an acquirer says they want to buy you, *don't believe it till you get the check*. Your natural tendency when an investor says yes will be to relax and go back to writing code. Alas, you can't; you have to keep looking for more investors, if only to get this one to act. [4]

Seed Funding Firms

Seed firms are like angels in that they invest relatively small amounts at early stages, but like VCs in that they're companies that do it as a business, rather than individuals making occasional investments on the side.

Till now, nearly all seed firms have been so-called "incubators," so [Y Combinator](#) gets called one too, though the only thing we have in common is that we invest in the earliest phase.

According to the National Association of Business Incubators, there are about 800 incubators in the US. This is an astounding number, because I know the founders of a lot of startups, and I can't think of one that began in an incubator.

What is an incubator? I'm not sure myself. The defining quality seems to be that you work in their space. That's where the name "incubator" comes from. They seem to vary a great deal in other respects. At one extreme is the sort of pork-barrel project where a town gets money from the state government to renovate a vacant building as a "high-tech incubator," as if it were merely lack of the right sort of office space that had till now prevented the town from becoming a [startup hub](#). At the other extreme are places like Idealab, which generates ideas for new startups internally and hires people to work for them.

The classic Bubble incubators, most of which now seem to be dead, were like VC firms except that they took a much bigger role in the startups they funded. In addition to working in their space, you were supposed to use their office staff, lawyers, accountants, and so on.

Whereas incubators tend (or tended) to exert more control than VCs, Y Combinator exerts less. And we think it's better if startups operate out of their own premises, however crappy, than the offices of their investors. So it's annoying that we keep getting

called an "incubator," but perhaps inevitable, because there's only one of us so far and no word yet for what we are. If we have to be called something, the obvious name would be "excubator." (The name is more excusable if one considers it as meaning that we enable people to escape cubicles.)

Because seed firms are companies rather than individual people, reaching them is easier than reaching angels. Just go to their web site and send them an email. The importance of personal introductions varies, but is less than with angels or VCs.

The fact that seed firms are companies also means the investment process is more standardized. (This is generally true with angel groups too.) Seed firms will probably have set deal terms they use for every startup they fund. The fact that the deal terms are standard doesn't mean they're favorable to you, but if other startups have signed the same agreements and things went well for them, it's a sign the terms are reasonable.

Seed firms differ from angels and VCs in that they invest exclusively in the earliest phases—often when the company is still just an idea. Angels and even VC firms occasionally do this, but they also invest at later stages.

The problems are different in the early stages. For example, in the first couple months a startup may completely redefine their idea. So seed investors usually care less about the idea than the people. This is true of all venture funding, but especially so in the seed stage.

Like VCs, one of the advantages of seed firms is the advice they offer. But because seed firms operate in an earlier phase, they need to offer different kinds of advice. For example, a seed firm should be able to give advice about how to approach VCs, which VCs obviously don't need to do; whereas VCs should be able to give advice about how to hire an "executive team," which is not an issue in the seed stage.

In the earliest phases, a lot of the problems are technical, so seed firms should be able to help with technical as well as business problems.

Seed firms and angel investors generally want to invest in the initial phases of a startup, then hand them off to VC firms for the next round. Occasionally startups go from seed funding direct to acquisition, however, and I expect this to become increasingly common.

Google has been aggressively pursuing this route, and now [Yahoo](#) is too. Both now compete directly with VCs. And this is a smart move. Why wait for further funding rounds to jack up a startup's price? When a startup reaches the point where VCs have enough information to invest in it, the acquirer should have enough information to buy it. More information, in fact; with their technical depth, the acquirers should be better at picking winners than VCs.

Venture Capital Funds

VC firms are like seed firms in that they're actual companies, but they invest other people's money, and much larger amounts of it. VC investments average several million dollars. So they tend to come later in the life of a startup, are harder to get, and come with tougher terms.

The word "venture capitalist" is sometimes used loosely for any venture investor, but there is a sharp difference between VCs and other investors: VC firms are organized as *funds*, much like hedge funds or mutual funds. The fund managers, who are called "general partners," get about 2% of the fund annually as a management fee, plus about 20% of the fund's gains.

There is a very sharp dropoff in performance among VC firms, because in the VC business both success and failure are self-perpetuating. When an investment scores spectacularly, as Google did for Kleiner and Sequoia, it generates a lot of good publicity for the VCs. And many founders prefer to take money from successful VC firms, because of the legitimacy it confers. Hence a vicious (for the losers) cycle: VC firms that have been doing badly will only get the deals the bigger fish have rejected, causing them to continue to do badly.

As a result, of the thousand or so VC funds in the US now, only about 50 are likely to make money, and it is very hard for a new fund to break into this group.

In a sense, the lower-tier VC firms are a bargain for founders. They may not be quite as smart or as well connected as the big-name firms, but they are much hungrier for deals. This means you should be able to get better terms from them.

Better how? The most obvious is valuation: they'll take less of your company. But as well as money, there's power. I think founders will increasingly be able to stay on as CEO, and on terms that will make it fairly hard to fire them later.

The most dramatic change, I predict, is that VCs will allow founders to cash out partially by selling some of their stock direct to the VC firm. VCs have traditionally resisted letting founders get anything before the ultimate "liquidity event." But they're also desperate for deals. And since I know from my own experience that the rule against buying stock from founders is a stupid one, this is a natural place for things to give as venture funding becomes more and more a seller's market.

The disadvantage of taking money from less known firms is that people will assume, correctly or not, that you were turned down by the more exalted ones. But, like where you went to college, the name of your VC stops mattering once you have some performance to measure. So the more confident you are, the less you need a brand-name VC. We funded Viaweb entirely with angel money; it never occurred to us that the backing of a well known VC firm would make us seem more impressive. [5]

Another danger of less known firms is that, like angels, they have less reputation to protect. I suspect it's the lower-tier firms that are responsible for most of the tricks that have given VCs such a bad reputation among hackers. They are doubly hosed: the general partners themselves are less able, and yet they have harder problems to solve, because the top VCs skim off all the best deals, leaving the lower-tier firms exactly the startups that are likely to blow up.

For example, lower-tier firms are much more likely to pretend to want to do a deal with you just to lock you up while they decide if they really want to. One experienced CFO said:

The better ones usually will not give a term sheet unless they really want to do a deal. The second or third tier firms have a much higher break rate—it could be as high as 50%.

It's obvious why: the lower-tier firms' biggest fear, when chance throws them a bone, is that one of the big dogs will notice and take it away. The big dogs don't have to worry about that.

Falling victim to this trick could really hurt you. As one VC told me:

If you were talking to four VCs, told three of them that you accepted a term sheet, and then have to call them back to tell them you were just kidding, you are absolutely damaged goods.

Here's a partial solution: when a VC offers you a term sheet, ask how many of their last 10 term sheets turned into deals. This will at least force them to lie outright if they want to mislead you.

Not all the people who work at VC firms are partners. Most firms also have a handful of junior employees called something like associates or analysts. If you get a call from a VC firm, go to their web site and check whether the person you talked to is a partner. Odds are it will be a junior person; they scour the web looking for startups their bosses could invest in. The junior people will tend to seem very positive about your company. They're not pretending; they *want* to believe you're a hot prospect, because it would be a huge coup for them if their firm invested in a company they discovered. Don't be misled by this optimism. It's the partners who decide, and they view things with a colder eye.

Because VCs invest large amounts, the money comes with more restrictions. Most only come into effect if the company gets into trouble. For example, VCs generally write it into the deal that in any sale, they get their investment back first. So if the company gets sold at a low price, the founders could get nothing. Some VCs now require that in any sale they get 4x their investment back before the common stock holders (that is, you) get anything, but this is an abuse that should be resisted.

Another difference with large investments is that the founders are usually required to accept "vesting"—to surrender their stock and earn it back over the next 4-5 years. VCs don't want to invest

millions in a company the founders could just walk away from. Financially, vesting has little effect, but in some situations it could mean founders will have less power. If VCs got de facto control of the company and fired one of the founders, he'd lose any unvested stock unless there was specific protection against this. So vesting would in that situation force founders to toe the line.

The most noticeable change when a startup takes serious funding is that the founders will no longer have complete control. Ten years ago VCs used to insist that founders step down as CEO and hand the job over to a business guy they supplied. This is less the rule now, partly because the disasters of the Bubble showed that generic business guys don't make such great CEOs.

But while founders will increasingly be able to stay on as CEO, they'll have to cede some power, because the board of directors will become more powerful. In the seed stage, the board is generally a formality; if you want to talk to the other board members, you just yell into the next room. This stops with VC-scale money. In a typical VC funding deal, the board of directors might be composed of two VCs, two founders, and one outside person acceptable to both. The board will have ultimate power, which means the founders now have to convince instead of commanding.

This is not as bad as it sounds, however. Bill Gates is in the same position; he doesn't have majority control of Microsoft; in principle he also has to convince instead of commanding. And yet he seems pretty commanding, doesn't he? As long as things are going smoothly, boards don't interfere much. The danger comes when there's a bump in the road, as happened to Steve Jobs at Apple.

Like angels, VCs prefer to invest in deals that come to them through people they know. So while nearly all VC funds have some address you can send your business plan to, VCs privately admit the chance of getting funding by this route is near zero. One recently told me that he did not know a single startup that got funded this way.

I suspect VCs accept business plans "over the transom" more as a way to keep tabs on industry trends than as a source of deals. In fact, I would strongly advise against mailing your business plan randomly to VCs, because they treat this as evidence of laziness. Do the extra work of getting personal introductions. As one VC put it:

I'm not hard to find. I know a lot of people. If you can't find some way to reach me, how are you going to create a successful company?

One of the most difficult problems for startup founders is deciding when to approach VCs. You really only get one chance, because they rely heavily on first impressions. And you can't approach some and save others for later, because (a) they ask who else you've talked to and when and (b) they talk among themselves. If you're talking to one VC and he finds out that you were

rejected by another several months ago, you'll definitely seem shopworn.

So when do you approach VCs? When you can convince them. If the founders have impressive resumes and the idea isn't hard to understand, you could approach VCs quite early. Whereas if the founders are unknown and the idea is very novel, you might have to launch the thing and show that users loved it before VCs would be convinced.

If several VCs are interested in you, they will sometimes be willing to split the deal between them. They're more likely to do this if they're close in the VC pecking order. Such deals may be a net win for founders, because you get multiple VCs interested in your success, and you can ask each for advice about the other. One founder I know wrote:

Two-firm deals are great. It costs you a little more equity, but being able to play the two firms off each other (as well as ask one if the other is being out of line) is invaluable.

When you do negotiate with VCs, remember that they've done this a lot more than you have. They've invested in dozens of startups, whereas this is probably the first you've founded. But don't let them or the situation intimidate you. The average founder is smarter than the average VC. So just do what you'd do in any complex, unfamiliar situation: proceed deliberately, and question anything that seems odd.

It is, unfortunately, common for VCs to put terms in an agreement whose consequences surprise founders later, and also common for VCs to defend things they do by saying that they're standard in the industry. Standard, schmandard; the whole industry is only a few decades old, and rapidly evolving. The concept of "standard" is a useful one when you're operating on a small scale (Y Combinator uses identical terms for every deal because for tiny seed-stage investments it's not worth the overhead of negotiating individual deals), but it doesn't apply at the VC level. On that scale, every negotiation is unique.

Most successful startups get money from more than one of the preceding five sources. [6] And, confusingly, the names of funding sources also tend to be used as the names of different rounds. The best way to explain how it all works is to follow the case of a hypothetical startup.

Stage 1: Seed Round

Our startup begins when a group of three friends have an idea--either an idea for something they might build, or simply the idea "let's start a company." Presumably they already have some source of food and shelter. But if you have food and shelter, you probably also have something you're supposed to be working on: either classwork, or a job. So if you want to work full-time on a startup, your money situation will probably change too.

A lot of startup founders say they started the company without any idea of what they planned to do. This is actually less common than it seems: many have to claim they thought of the idea after quitting because otherwise their former employer would own it.

The three friends decide to take the leap. Since most startups are in competitive businesses, you not only want to work full-time on them, but more than full-time. So some or all of the friends quit their jobs or leave school. (Some of the founders in a startup can stay in grad school, but at least one has to make the company his full-time job.)

They're going to run the company out of one of their apartments at first, and since they don't have any users they don't have to pay much for infrastructure. Their main expenses are setting up the company, which costs a couple thousand dollars in legal work and registration fees, and the living expenses of the founders.

The phrase "seed investment" covers a broad range. To some VC firms it means \$500,000, but to most startups it means several months' living expenses. We'll suppose our group of friends start with \$15,000 from their friend's rich uncle, who they give 5% of the company in return. There's only common stock at this stage. They leave 20% as an options pool for later employees (but they set things up so that they can issue this stock to themselves if they get bought early and most is still unissued), and the three founders each get 25%.

By living really cheaply they think they can make the remaining money last five months. When you have five months' runway left, how soon do you need to start looking for your next round? Answer: immediately. It takes time to find investors, and time (always more than you expect) for the deal to close even after they say yes. So if our group of founders know what they're doing they'll start sniffing around for angel investors right away. But of course their main job is to build version 1 of their software.

The friends might have liked to have more money in this first phase, but being slightly underfunded teaches them an important lesson. For a startup, cheapness is power. The lower your costs, the more options you have—not just at this stage, but at every point till you're profitable. When you have a high "burn rate," you're always under time pressure, which means (a) you don't have time for your ideas to evolve, and (b) you're often forced to take deals you don't like.

Every startup's rule should be: spend little, and work fast.

After ten weeks' work the three friends have built a prototype that gives one a taste of what their product will do. It's not what they originally set out to do—in the process of writing it, they had some new ideas. And it only does a fraction of what the finished product will do, but that fraction includes stuff that no one else has done before.

They've also written at least a skeleton business plan, addressing the five fundamental questions: what they're going to do, why

users need it, how large the market is, how they'll make money, and who the competitors are and why this company is going to beat them. (That last has to be more specific than "they suck" or "we'll work really hard.")

If you have to choose between spending time on the demo or the business plan, spend most on the demo. Software is not only more convincing, but a better way to explore ideas.

Stage 2: Angel Round

While writing the prototype, the group has been traversing their network of friends in search of angel investors. They find some just as the prototype is demoable. When they demo it, one of the angels is willing to invest. Now the group is looking for more money: they want enough to last for a year, and maybe to hire a couple friends. So they're going to raise \$200,000.

The angel agrees to invest at a pre-money valuation of \$1 million. The company issues \$200,000 worth of new shares to the angel; if there were 1000 shares before the deal, this means 200 additional shares. The angel now owns 200/1200 shares, or a sixth of the company, and all the previous shareholders' percentage ownership is diluted by a sixth. After the deal, the capitalization table looks like this:

shareholder	shares	percent
-----	-----	-----
angel	200	16.7
uncle	50	4.2
each founder	250	20.8
option pool	200	16.7
-----	-----	-----
total	1200	100

To keep things simple, I had the angel do a straight cash for stock deal. In reality the angel might be more likely to make the investment in the form of a convertible loan. A convertible loan is a loan that can be converted into stock later; it works out the same as a stock purchase in the end, but gives the angel more protection against being squashed by VCs in future rounds.

Who pays the legal bills for this deal? The startup, remember, only has a couple thousand left. In practice this turns out to be a sticky problem that usually gets solved in some improvised way. Maybe the startup can find lawyers who will do it cheaply in the hope of future work if the startup succeeds. Maybe someone has a lawyer friend. Maybe the angel pays for his lawyer to represent both sides. (Make sure if you take the latter route that the lawyer is *representing* you rather than merely advising you, or his only duty is to the investor.)

An angel investing \$200k would probably expect a seat on the board of directors. He might also want preferred stock, meaning a special class of stock that has some additional rights over the common stock everyone else has. Typically these rights include vetoes over major strategic decisions, protection against being diluted in future rounds, and the right to get one's investment back first if the company is sold.

Some investors might expect the founders to accept vesting for a sum this size, and others wouldn't. VCs are more likely to require vesting than angels. At Viaweb we managed to raise \$2.5 million from angels without ever accepting vesting, largely because we were so inexperienced that we were appalled at the idea. In practice this turned out to be good, because it made us harder to push around.

Our experience was unusual; vesting is the norm for amounts that size. Y Combinator doesn't require vesting, because (a) we invest such small amounts, and (b) we think it's unnecessary, and that the hope of getting rich is enough motivation to keep founders at work. But maybe if we were investing millions we would think differently.

I should add that vesting is also a way for founders to protect themselves against one another. It solves the problem of what to do if one of the founders quits. So some founders impose it on themselves when they start the company.

The angel deal takes two weeks to close, so we are now three months into the life of the company.

The point after you get the first big chunk of angel money will usually be the happiest phase in a startup's life. It's a lot like being a postdoc: you have no immediate financial worries, and few responsibilities. You get to work on juicy kinds of work, like designing software. You don't have to spend time on bureaucratic stuff, because you haven't hired any bureaucrats yet. Enjoy it while it lasts, and get as much done as you can, because you will never again be so productive.

With an apparently inexhaustible sum of money sitting safely in the bank, the founders happily set to work turning their prototype into something they can release. They hire one of their friends—at first just as a consultant, so they can try him out—and then a month later as employee #1. They pay him the smallest salary he can live on, plus 3% of the company in restricted stock, vesting over four years. (So after this the option pool is down to 13.7%). [Z] They also spend a little money on a freelance graphic designer.

How much stock do you give early employees? That varies so much that there's no conventional number. If you get someone really good, really early, it might be wise to give him as much stock as the founders. The one universal rule is that the amount of stock an employee gets decreases polynomially with the age of the company. In other words, you get rich as a power of how early you were. So if some friends want you to come work for their startup, don't wait several months before deciding.

A month later, at the end of month four, our group of founders have something they can launch. Gradually through word of mouth they start to get users. Seeing the system in use by real users—people they don't know—gives them lots of new ideas. Also they find they now worry obsessively about the status of

their server. (How relaxing founders' lives must have been when startups wrote VisiCalc.)

By the end of month six, the system is starting to have a solid core of features, and a small but devoted following. People start to write about it, and the founders are starting to feel like experts in their field.

We'll assume that their startup is one that could put millions more to use. Perhaps they need to spend a lot on marketing, or build some kind of expensive infrastructure, or hire highly paid salesmen. So they decide to start talking to VCs. They get introductions to VCs from various sources: their angel investor connects them with a couple; they meet a few at conferences; a couple VCs call them after reading about them.

Step 3: Series A Round

Armed with their now somewhat fleshed-out business plan and able to demo a real, working system, the founders visit the VCs they have introductions to. They find the VCs intimidating and inscrutable. They all ask the same question: who else have you pitched to? (VCs are like high school girls: they're acutely aware of their position in the VC pecking order, and their interest in a company is a function of the interest other VCs show in it.)

One of the VC firms says they want to invest and offers the founders a term sheet. A term sheet is a summary of what the deal terms will be when and if they do a deal; lawyers will fill in the details later. By accepting the term sheet, the startup agrees to turn away other VCs for some set amount of time while this firm does the "due diligence" required for the deal. Due diligence is the corporate equivalent of a background check: the purpose is to uncover any hidden bombs that might sink the company later, like serious design flaws in the product, pending lawsuits against the company, intellectual property issues, and so on. VCs' legal and financial due diligence is pretty thorough, but the technical due diligence is generally a joke. [8]

The due diligence discloses no ticking bombs, and six weeks later they go ahead with the deal. Here are the terms: a \$2 million investment at a pre-money valuation of \$4 million, meaning that after the deal closes the VCs will own a third of the company ($2 / (4 + 2)$). The VCs also insist that prior to the deal the option pool be enlarged by an additional hundred shares. So the total number of new shares issued is 750, and the cap table becomes:

shareholder	shares	percent	
VCs	650	33.3	
angel	200	10.3	
uncle	50	2.6	
each founder	250	12.8	
employee	36*	1.8	*unvested
option pool	264	13.5	
	----	----	
total	1950	100	

This picture is unrealistic in several respects. For example, while

the percentages might end up looking like this, it's unlikely that the VCs would keep the existing numbers of shares. In fact, every bit of the startup's paperwork would probably be replaced, as if the company were being founded anew. Also, the money might come in several tranches, the later ones subject to various conditions—though this is apparently more common in deals with lower-tier VCs (whose lot in life is to fund more dubious startups) than with the top firms.

And of course any VCs reading this are probably rolling on the floor laughing at how my hypothetical VCs let the angel keep his 10.3 of the company. I admit, this is the Bambi version; in simplifying the picture, I've also made everyone nicer. In the real world, VCs regard angels the way a jealous husband feels about his wife's previous boyfriends. To them the company didn't exist before they invested in it. [9]

I don't want to give the impression you have to do an angel round before going to VCs. In this example I stretched things out to show multiple sources of funding in action. Some startups could go directly from seed funding to a VC round; several of the companies we've funded have.

The founders are required to vest their shares over four years, and the board is now reconstituted to consist of two VCs, two founders, and a fifth person acceptable to both. The angel investor cheerfully surrenders his board seat.

At this point there is nothing new our startup can teach us about funding—or at least, nothing good. [10] The startup will almost certainly hire more people at this point; those millions must be put to work, after all. The company may do additional funding rounds, presumably at higher valuations. They may if they are extraordinarily fortunate do an IPO, which we should remember is also in principle a round of funding, regardless of its de facto purpose. But that, if not beyond the bounds of possibility, is beyond the scope of this article.

Deals Fall Through

Anyone who's been through a startup will find the preceding portrait to be missing something: disasters. If there's one thing all startups have in common, it's that something is always going wrong. And nowhere more than in matters of funding.

For example, our hypothetical startup never spent more than half of one round before securing the next. That's more ideal than typical. Many startups—even successful ones—come close to running out of money at some point. Terrible things happen to startups when they run out of money, because they're designed for growth, not adversity.

But the most unrealistic thing about the series of deals I've described is that they all closed. In the startup world, closing is not what deals do. What deals do is fall through. If you're starting a startup you would do well to remember that. Birds fly; fish swim; deals fall through.

Why? Partly the reason deals seem to fall through so often is that you lie to yourself. You want the deal to close, so you start to believe it will. But even correcting for this, startup deals fall through alarmingly often—far more often than, say, deals to buy real estate. The reason is that it's such a risky environment. People about to fund or acquire a startup are prone to wicked cases of buyer's remorse. They don't really grasp the risk they're taking till the deal's about to close. And then they panic. And not just inexperienced angel investors, but big companies too.

So if you're a startup founder wondering why some angel investor isn't returning your phone calls, you can at least take comfort in the thought that the same thing is happening to other deals a hundred times the size.

The example of a startup's history that I've presented is like a skeleton—accurate so far as it goes, but needing to be fleshed out to be a complete picture. To get a complete picture, just add in every possible disaster.

A frightening prospect? In a way. And yet also in a way encouraging. The very uncertainty of startups frightens away almost everyone. People overvalue stability—especially young people, who ironically need it least. And so in starting a startup, as in any really bold undertaking, merely deciding to do it gets you halfway there. On the day of the race, most of the other runners won't show up.

Notes

[1] The aim of such regulations is to protect widows and orphans from crooked investment schemes; people with a million dollars in liquid assets are assumed to be able to protect themselves. The unintended consequence is that the investments that generate the highest returns, like hedge funds, are available only to the rich.

[2] Consulting is where product companies go to die. IBM is the most famous example. So starting as a consulting company is like starting out in the grave and trying to work your way up into the world of the living.

[3] If "near you" doesn't mean the Bay Area, Boston, or Seattle, consider moving. It's not a coincidence you haven't heard of many startups from Philadelphia.

[4] Investors are often compared to sheep. And they are like sheep, but that's a rational response to their situation. Sheep act the way they do for a reason. If all the other sheep head for a certain field, it's probably good grazing. And when a wolf appears, is he going to eat a sheep in the middle of the flock, or one near the edge?

[5] This was partly confidence, and partly simple ignorance. We didn't know ourselves which VC firms were the impressive ones. We thought software was all that mattered. But that turned out to be the right direction to be naive in: it's much better to overestimate than underestimate the importance of making a good product.

[6] I've omitted one source: government grants. I don't think these are even worth thinking about for the average startup. Governments may mean well when they set up grant programs to encourage startups, but what they give with one hand they take away with the other: the process of applying is inevitably so arduous, and the restrictions on what you can do with the money so burdensome, that it would be easier to take a job to get the money.

You should be especially suspicious of grants whose purpose is some kind of social engineering-- e.g. to encourage more startups to be started in Mississippi. Free money to start a startup in a place where few succeed is hardly free.

Some government agencies run venture funding groups, which make investments rather than giving grants. For example, the CIA runs a venture fund called In-Q-Tel that is modelled on private sector funds and apparently generates good returns. They would probably be worth approaching—if you don't mind taking money from the CIA.

[7] Options have largely been replaced with restricted stock, which amounts to the same thing. Instead of earning the right to buy stock, the employee gets the stock up front, and earns the right not to have to give it back. The shares set aside for this purpose are still called the "option pool."

[8] First-rate technical people do not generally hire themselves out to do due diligence for VCs. So the most difficult part for startup founders is often responding politely to the inane questions of the "expert" they send to look you over.

[9] VCs regularly wipe out angels by issuing arbitrary amounts of new stock. They seem to have a standard piece of casuistry for this situation: that the angels are no longer working to help the company, and so don't deserve to keep their stock. This of course reflects a willful misunderstanding of what investment means; like any investor, the angel is being compensated for risks he took earlier. By a similar logic, one could argue that the VCs should be deprived of their shares when the company goes public.

[10] One new thing the company might encounter is a *down round*, or a funding round at valuation lower than the previous round. Down rounds are bad news; it is generally the common stock holders who take the hit. Some of the most fearsome provisions in VC deal terms have to do with down rounds—like "full ratchet anti-dilution," which is as frightening as it sounds.

Founders are tempted to ignore these clauses, because they think

the company will either be a big success or a complete bust. VCs know otherwise: it's not uncommon for startups to have moments of adversity before they ultimately succeed. So it's worth negotiating anti-dilution provisions, even though you don't think you need to, and VCs will try to make you feel that you're being gratuitously troublesome.

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■ [Arabic Translation](#)
