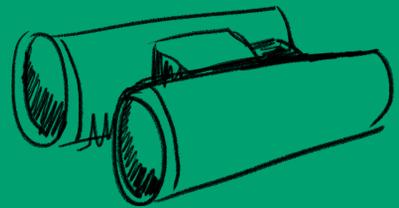


Forecasting & Scenario Planning



- The objective of this presentation is not to give a comprehensive overview of forecasting and scenario planning. This is tailored specifically to how forecasting and scenario planning come into play when the world around you is changing rapidly, as it is at the moment.
- We've been living in an environment of abundance. In an environment of abundance a rational actor chooses to invest the incremental dollar.
- The challenge is that the world has changed. The thing that worked yesterday may not work tomorrow, which creates a problem.
- Today we'll talk about what it means to build a great business, why the world changing poses a problem, and what we can collectively do about it to set ourselves on a good path.

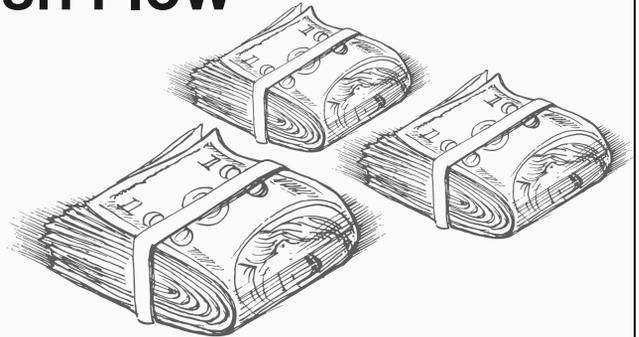


What is a great business?

- Most people have an intuitive sense for what constitutes a great product or what constitutes a great culture, but not for what constitutes a great business.
- This could be because the environment we're coming out of defines a great business differently than the environment we're heading into.
- One idea that withstands the test of time is that a great business generates durably high returns on invested capital.
- "Durably high returns on invested capital" boils down into three words...free cash flow.

In three words...

Free Cash Flow



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- Free cash flow is what defines a great business. What it means:
 - Free cash flow for you as an operator means freedom.
 - Free cash flow for your employees or your customers means trust: they know that the company is going to be around tomorrow.
 - Free cash flow for an investor is the definition of value. If you've ever looked at a DCF model (a discounted cash flow model), it's what underlies all valuation.

How does Revenue convert into Free Cash Flow?

Income Statement		
Revenue	\$500	100%
COGS	\$150	30%
Gross Profit	\$350	70%
S&M	\$100	20%
R&D	\$100	20%
G&A	\$50	10%
Operating Income	\$100	20%
Interest & Taxes	\$30	6%
Net Income	\$70	14%

Statement of Cash Flows		
Net Income	\$70	14%
Non-Cash Items	\$30	6%
Changes in Working Capital	\$20	4%
Cash from Operations	\$120	24%
Capex	\$70	14%
Free Cash Flow	\$50	10%

→ 1. Gross Margin

→ 2. Operating Margin

→ 3. Working Capital

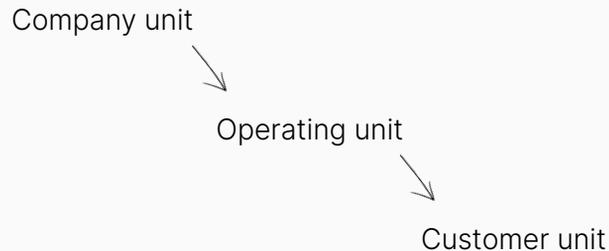
→ 4. Capital Intensity

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- At the top of this slide is revenue and at the bottom is free cash flow.
- In the middle are the four key operating decisions, or operating levers, that determine how effectively your business can convert revenue into free cash flow.
- These are things that need to be baked into your product, your pricing, your packaging, and your distribution model.
- These things weren't necessarily top of mind over the last years as we were operating in an environment of abundance. They should be top of mind as we head into an environment of scarcity.

Atomic Units of Investing

IN WHAT ASSET ARE YOU INVESTING?



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- We do not expect early-stage companies to produce free cash flow today. We do, however, want to encourage you to have a clear line of sight to producing free cash flow over time.
- One way to do that is to think about the atomic units of investment for your business.
 - The difference between an investment and an expense is that an expense yields no future benefit and investment yields a future benefit. At the early stages, the atomic unit may be the customer unit. Hopefully that's a very clear investment, where the amount of money you put in to acquire and serve the customer is less than the amount of money you get back from the customer.
 - If that's true at the unit level, you can start to roll that up into the operating unit. Maybe the operating unit level is the city, maybe it's a product line, maybe it's a segment, but hopefully over time, the customer rolls up to the operating unit.
 - The operating unit rolls up to the company and produces free cash flow at the company level over time.

What does it mean to build a Great Business?

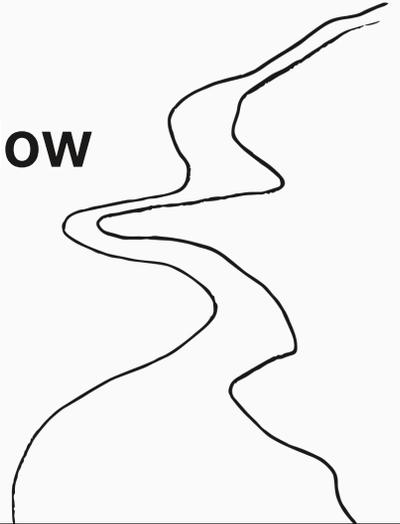


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- This is another framing for what it means to build a great business:
 - The story needs to translate into a set of metrics that eventually produces a set of financials that generate free cash flow. That's the input.
 - The output is the valuation, which is just the reward for having built a great business. The causality runs from left to right.

THE MUST-HAVE:

A Path to Free Cash Flow

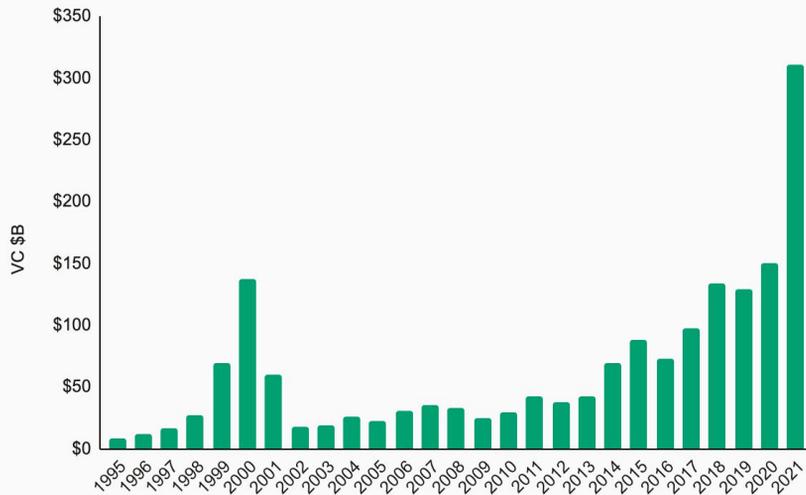


- To recap this first section:
 - The thing that is critically important in an environment of scarcity, which we believe we're heading into, is having a clear path to generating free cash flow that begins at the atomic unit, and rolls up to the company level.
 - This starts with a story that produces metrics, that produces free cash flow at some point in time.

What is the problem?

- The environment of recent years has not rewarded a lot of thought around the path to free cash flow. The environment that we're heading into is going to demand it.
- That creates a problem.
 - What is the problem, more specifically?

The Tide is going Out



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- The tide is going out.
 - This is the total VC money invested market-wide, year by year, for the last ~25 years.
 - If you go back to 2000 and 2001: the dollars invested in 2000 were cut in half in 2001, and then they were cut again in 2002. There was about an order of magnitude drop over a two-year period.
 - 2022 is pacing to look a lot like 2001; 2023 might shape up to look a lot like 2002. So we believe we are heading into a different environment.

Risk On versus Risk Off

Tide is In: Risk On!

Innocent until proven guilty

Invest in dreams

Reward growth

Spend on S&M

Eat Sugar (VC \$\$)

Grow Fat (use \$\$ to solve problems)

Tide is Out: Risk Off

Guilty until proven innocent

Invest in reality

Reward profitability

Invest in R&D

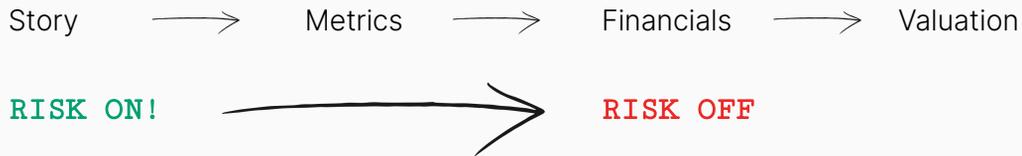
Eat Protein (Customer \$\$)

Build Muscle (use brain cells to solve problems)

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- When the tide is in, risk is on. When the tide is out, risk is off.
- When risk is on, it means that people are innocent until proven guilty and investors are willing to buy a dream.
 - When risk is off, it means that people are guilty until proven innocent and investors want to invest in reality.
- When risk is on, it means that growth is rewarded and the incremental dollar spent on sales and marketing is a good investment.
 - When risk is off, it means that people reward profitability and it's a good time to invest in product and in R&D.
- When risk is on, you can eat sugar (venture capital money) and grow fat, which means using money to solve problems.
 - When risk is off, you need to eat protein (customer money) and build muscle, which means using critical thinking to solve problems.
- These are two very different sorts of environments that reward very different sorts of behavior.

The Market has Changed



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- When risk is on, people are willing to believe in a story or in a dream.
- When risk is off, people want to see financials.
 - This is true not just of investors, but customers: they want to know that you have a durable business.
 - It's also true of employees: they want to believe that you have a sustainable business. They may want to see a liquid stock.
 - When risk is off the connection between the story and the metrics and the financials needs to be much tighter than when risk is on. Story alone may get you most of the way there.

The Problem

Yesterday's market rewarded excess; tomorrow's will not

Without a clear path to Free Cash Flow, there is **no more money**

Clear path: story → metrics → financials

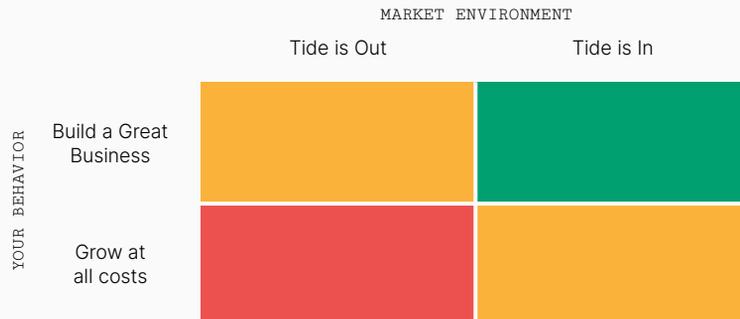
Clear path: customer unit → operating unit → company unit

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- The market that we're coming out of rewarded spending the incremental dollar; the market that we're heading into probably will not.
- Without a clear path to free cash flow, there's probably no money available from investors, maybe not from customers, maybe not from anybody else.
- The clear path is translating the story into metrics into financials.
- Start with the atomic unit (which is probably a customer) and then roll it up into successively bigger units until you get to the company, so that it's understood how the business produces free cash flow at scale.

Pascal's Wager

Even if we're wrong about the market, it always makes sense to build a great business.



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- You do not need to believe that we're right about where the market is going to believe that the best plan of attack is to focus on free cash flow, and that the path to free cash flow is to build a great business.
- Regardless of the market environment, it is a good idea to build a great business.
- If we are right that the tide is out, then, then you *definitely* want to focus on the path to free cash flow.

What is the solution?



- So: what is the solution?

OBJECTIVE:

Optimize for long-term market leadership subject to the constraints of reality



- The objective in forecasting is to optimize for long-term market leadership, subject to the constraints of reality.
- Optimizing for long term market leadership means building a great business, which means producing free cash flow—because that's what allows you to sustain your operations and invest in innovation for the future.
- In this section we'll discuss the constraints of reality and specifically how reality is changing.

Reality has Changed

Spending

Talent

Funding

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- There are three legs to the stool: spending, talent, and funding.

Spending Reality

Enterprise

- ↓ Revenue Growth
- ↓ Opex
- ↓ Capex

Consumer

- ↑ Interest Rates: mortgage payments
- ↑ Inflation: gas prices
- ↓ Propensity to consume

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- Businesses are facing either drops in revenue or declines in revenue growth.
 - That puts pressure on their business, which means they're revisiting operating assumptions and OPEX.
 - In many cases they're pausing capital investments and reducing CAPEX.
- On the consumer side, propensity to consume is going down.
 - Rising interest rates mean that the house somebody wanted to buy a year ago now costs them three times as much. Not because the price of the house went up by 3x, but because their monthly mortgage payment just went up by 3x.
 - Inflation means that somebody who had to spend \$80 to fill up their tank last year is spending \$200 to fill up this year. That's \$120 worth of stuff that they can't buy anymore.

Spending Reality

Enterprise

- ↓ Revenue Growth
- ↓ Opex
- ↓ Capex

Consumer

- ↑ Interest Rates: mortgage payments
- ↑ Inflation: gas prices
- ↓ Propensity to consume

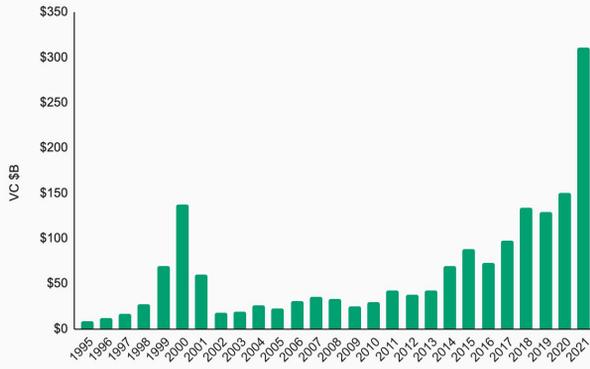
Their Spend is Your Revenue

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- Their spend is your revenue. This is why revenue forecasting assumptions that were good and valid last year may not hold next year.

Funding Reality

AVAILABILITY



PRICE



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- This is the funding reality.
 - On the left is the availability of capital.
 - On the right is the average trading multiple for the NASDAQ composite index over the last 30-ish years. You can see a spike around the internet bubble, and a spike around the COVID bubble.
 - We suspect that over the next couple of years, both the availability and the price of money will be very different than they've been for the last couple of years.
 - That may not yet be true today – so today may be an excellent time to raise one last round before we head into what might be a prolonged contraction.

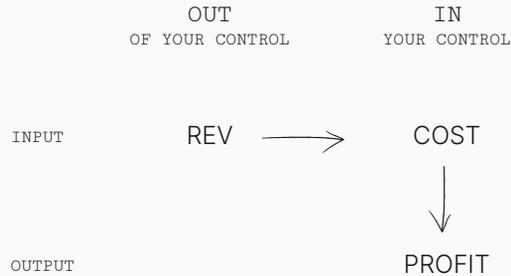
Reality has Changed
Your Plan has Changed

REALITY		PLAN
Spending	→	Revenue
Talent	→	Cost
Funding	→	Profit

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- Reality has changed, which means that your plan has changed.
- Their spending is your revenue. Talent is your cost, funding is your need for profitability.

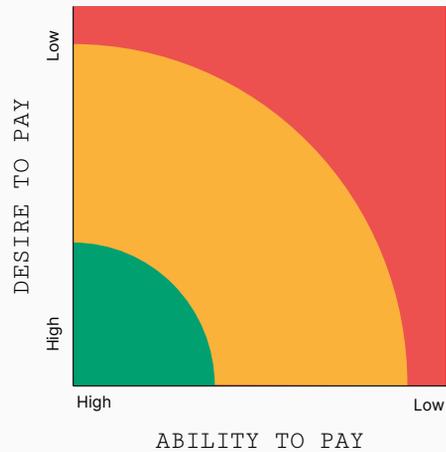
Planning During Uncertain Times



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- Here is a way to think about planning in uncertain times:
 - Start with an input that's out of your control, like revenue.
 - Figure out some revenue scenarios and then move to the cost part of the equation, which is in your control.
 - Then move to the profit part of the equation, which is the output.
 - The objective function is to be able to fund your future.

Spending Reality → Revenue Plan



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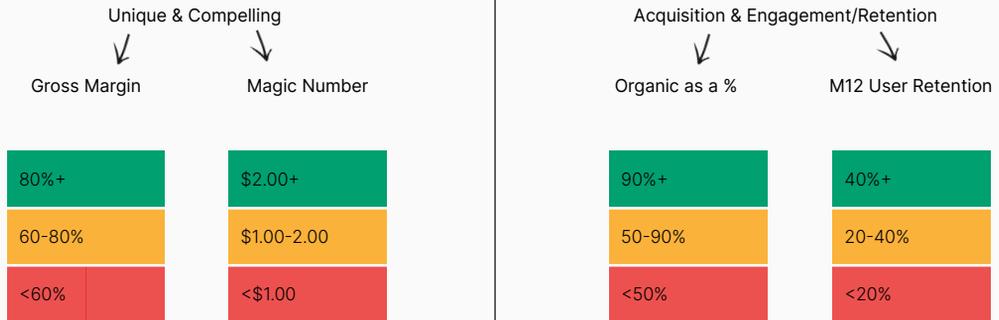
- This is one conceptual framework for thinking about spending.
 - There are two dimensions to consider: 1) desire to pay (how much do the customers love your product or want your product?) and 2) ability to pay (can the customers afford your product?).
- In an environment of abundance, all the yellow converts into revenue. In an environment of scarcity, all of that yellow goes away.

Spending Reality → Revenue Plan

Desire to Pay

ENTERPRISE

CONSUMER



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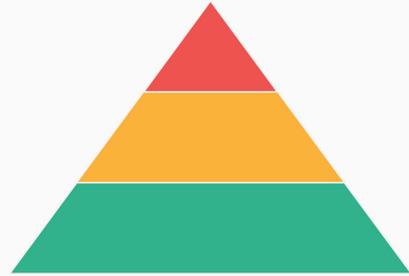
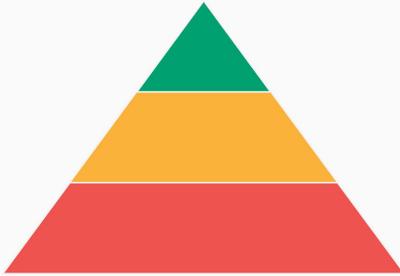
- Here are some quantitative benchmarks:
 - Green is good in any environment. Yellow is good in an environment of abundance, but maybe not so good in an environment of scarcity. Red is not so good in any environment.
 - We'd be happy to go deeper with founders on the benchmarks that may be more relevant to your specific business.

Spending Reality → Revenue Plan

Ability to Pay

ENTERPRISE

CONSUMER



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- Ability to pay—these pyramids mean different things:
 - On the enterprise side, the top represents the small number of very high value customers, and the bottom represents the large number of very low value customers. Big companies that generate cash tend to be reliable customers. Small companies that do not generate cash tend to be unreliable when the tide goes out.
 - On the consumer side, think about this as Maslow's Hierarchy: if you're at the base of Maslow's Hierarchy addressing a fundamental need, then your customers will have relatively high ability to pay as you head into a recessionary environment. If you're at the tip of Maslow's Hierarchy, doing something that's more of a luxury product or a nice-to-have, then your customers' ability to pay may go away in an environment of scarcity.

Spending Reality → Revenue Plan

Enterprise Examples

GOOD

BAD



	1997	1998	1999	2000	2001	2002	2003
Revenue	\$13.6	\$17.5	\$21.4	\$24.1	\$26.8	\$30.3	\$34.5
Growth Rate	32%	29%	22%	13%	11%	13%	14%
Free Cash Flow	\$6.0	\$9.7	\$11.1	\$11.4	\$13.0	\$14.3	\$14.2
FCF Margin	44%	55%	52%	47%	49%	47%	41%



\$60 Billion
↓
\$200 Million

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- Here are a couple of examples on the enterprise side.
 - If you go back to the Internet bubble. Microsoft performed exceptionally well during 2000-2001. Their growth rate and free cash flow margin ticked down a bit, but they just kept chugging along. They were selling a must-have product largely to big customers.
 - At the other end of the spectrum, there was a there was an organization called Internet Capital Group, which was essentially a conglomerate of B2B marketplace businesses that would raise money from venture capitalists and then spend that money on each other's products. When that money dried up, their ability to spend on each other's products dried up, and all of the revenue dried up. An organization that peaked at \$60 billion of market cap during the bubble and dropped to \$200 million about 18 months later.
- This is a stark example of a company that was selling must-have products to good customers versus a company that was selling nice-to-have products to bad customers.

Spending Reality → Revenue Plan

Consumer Examples

Total Revenue	2006	2007	2008	2009	2010	2011
Walmart	348,650	378,476	404,254	408,085	421,849	446,509
<i>y/y Growth</i>		8.6%	6.8%	0.9%	3.4%	5.8%
Amazon	10,711	14,835	19,166	24,509	34,204	48,077
<i>y/y Growth</i>		38.5%	29.2%	27.9%	39.6%	40.6%
eBay	5,970	7,673	8,541	8,727	9,156	11,652
<i>y/y Growth</i>		28.5%	11.3%	2.2%	4.9%	27.3%
Expedia	2,238	2,665	2,937	2,743	3,034	3,449
<i>y/y Growth</i>		19.1%	10.2%	(6.6)%	10.6%	13.7%
Williams Sonoma	3,728	3,945	3,362	3,103	3,504	3,721
<i>y/y Growth</i>		5.8%	(14.8)%	(7.7)%	12.9%	6.2%

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h/t Bryce Kam, SCGE

- On the consumer side, here's a look at what happened during the global financial crisis in 2008-2009.
 - Walmart and Amazon were selling consumer staples. They performed reasonably well during that period.
 - Expedia and Williams Sonoma, by way of comparison, shrunk in 2009. Travel and fancy home goods are luxuries, and people tend to cut those first in a recessionary environment.

Spending Reality → Revenue Plan

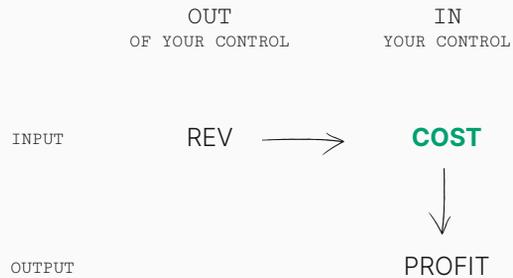
3 Sets of Questions to Ask Yourself

- | | |
|--------------------------|---|
| 1. Desire to Pay | How strong is our product/market fit? Where is it evident in our numbers? |
| 2. Ability to Pay | Who are my customers? Are they going to survive? Is my spot in their budget going to survive? |
| 3. Benchmarks | What examples from 2000/2001 or 2008/2009 are relevant to me? What current public companies should I be watching? |

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- There are three sets of questions that you might want to ask yourself when you're thinking about how spending changes convert into revenue:
 - The first is around desire to pay.
 - The second is around ability to pay.
 - The third, trying to quantify the first two, is to look at benchmarks from companies similar to yours and see how they performed during the Internet bubble, during the global financial crisis, or how they're performing today.
- We would encourage you to look in these places for benchmarks to help convert the qualitative aspects of this into numbers.

Planning During Uncertain Times

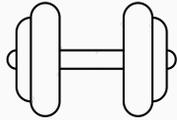


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- Once you have some revenue scenarios, you can start to map them into your cost structure.

Talent Reality → Cost Plan

BUILD MUSCLE



R&D

CUT FAT



COGS
S&M
G&A

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- Overall, we would encourage you to think about building muscle and cutting fat.
 - This is counterintuitive because a lot of people would think, “Sales and marketing pays for itself, therefore, I’ll invest in sales and marketing.” We encourage you not to do that.
 - The reason is, long term, the best product tends to win, and that is more true in an environment of scarcity than in an environment of abundance. We would encourage you to keep investing in the product side of your business, and if you need to cut something try to cut it out of COGS—sales and marketing, and G&A.

Talent Reality → Cost Plan

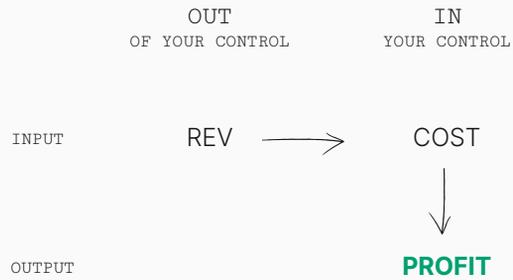
1 Exercise to Do



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- Here's one exercise you can do with your team. If you're if you're a small team, you can do this yourself. If you're a large team, you could do this with their respective organizations.
- It's called a nine box. It plots people across two axes of performance and potential.
 - In an environment of abundance, you can afford to make the incremental investments in people who land in these yellow boxes. In an environment of scarcity, you may choose not to make that investment, and focus all of your time and energy on the people who are in the green boxes.

Planning During Uncertain Times



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- Once we have revenue and cost we we get to profit.

Funding Reality → Profit Plan

OBJECTIVE:

Fund Our Future
“Go FOF Yourself”



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- The objective on profit—and this is meant in a lighthearted way—is to go FOF yourself, which means to “fund our future.”
- A good outcome would be fully funded. For an earlier stage company that may not be plausible, so we'd encourage you to think about at least 36 months of runway.
 - Why 36 months? There's no magic to that number, but during the Internet bubble, it took about three years before it felt like we were back to a reasonably normal funding environment.

Funding Reality → Profit Plan

Scenario Planning Matrix

		OUT OF YOUR CONTROL		
		REVENUE SCENARIO A Down 0%	REVENUE SCENARIO B Down 25%	REVENUE SCENARIO C Down 50%
IN YOUR CONTROL	COST PLAN A Down 0%	3+ YRS RUNWAY	<3 YRS RUNWAY	<3 YRS RUNWAY
	COST PLAN B Down 25%	FULLY FUNDED!	3+ YRS RUNWAY	<3 YRS RUNWAY
	COST PLAN C Down 50%	FULLY FUNDED!	FULLY FUNDED!	3+ YRS RUNWAY

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- This 9 box brings everything together. It says...
- Start with the things that are out of your control and create a few discrete scenarios around what you predict your revenue may be.
 - We don't know if down 0%, 25% 50% are the right numbers for you. Come up with your numbers using the exercise we did earlier around desire to pay and ability to pay. Look at benchmarks.
- Once you have a few revenue scenarios, think about what is in your control, which is your cost plan.
 - Again, we don't know if down 0%, 25%, 50% are the right numbers for you. You can do the nine box exercise around building muscle and cutting fat, and come up with your own discrete scenarios.
- The resulting output is your runway. If you end up with a few scenarios where you're fully funded, it's ideal. Shoot for fully funded or 3+ years of runway.
- Start with a scenario that has fairly conservative assumptions, where you're in the green or at least in the yellow on the things that are in your control. Monitor your progress weekly or monthly, and if and when you see your company outperforming that scenario, unlock some increments.
 - Have defined trigger points to unlock more spend.
 - Be tough on what metrics need to happen to unlock dollars.

Summary

Great Businesses generate Free Cash Flow. If you want to build a great business, you need a clear line of sight to generating FCF.

Yesterday's market didn't reward FCF. Tomorrow's will demand it. Even if we're wrong about that, you have little to lose and much to gain if you act accordingly.

Your plan is no longer valid because the world has changed. Come up with revenue scenarios and then match your costs to those scenarios to achieve financial freedom.

Go FOF yourself!

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- Remember, this is your moment. You do have the ability to go “fund your future.”
- We believe the world is going to change. The revenue forecast for the vast majority of companies is going to come down, and you can't just go and buy growth right now.
- Ultimately you need a free cash flow story. Yesterday's market was the blip. That was the anomaly—today is the durable reality.

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Thank you.