Advice to Startup Founders and Employees: Strength Doesn’t Always Come in Numbers

The potential perils of following the crowd in venture capital during a down market

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The narrative fallacy in Silicon Valley, and venture capital broadly, is that venture investing is an artisanal business, made up of good “pickers” that have a nose for special founders, and at times, are known for putting intangibles above prudent risk management.

The reality is much more complicated. Very few funds actually drive returns in the venture industry – specifically, the top 10% of funds account for roughly 75% of distributed VC returns. The industry as a whole has typically followed the pack leaders, investing in many of the same startups and areas of the technology industry, giving credence to the “herd mentality” stereotype.

The fact is that it’s been relatively difficult to separate signals from the noise over the past decade. The tech economy has massively benefited from the tailwinds of zero interest rates and loose monetary policy. As a result, we saw unprecedented funding rounds, soaring valuations, and all-time highs across nearly every tech-related asset class.

And the longer things are going up and to the right, the more difficult it becomes to separate the alpha from the beta. So why does any of this matter now?

As we enter a new (higher) interest rate regime, we have an opportunity to more accurately measure VC performance, as well as highlight what we believe founders, employees, and investors should be paying attention to going forward.

First, some VC basics…

For the past half century, venture capitalists have used a range of metrics to describe their performance. While many of them are useful – some more so than others – none of them paint a complete picture on their own. So let's explore the merits of each.

Total Value to Paid-In Capital (TVPI)

TVPI compares a fund's realized and unrealized gains (aka total book value) to the amount of money contributed by investors. For example, if a GP invests $1M into a cohort of startups which are now held at $3M, the TVPI is 3.0x.

This metric has two main issues. The first is obvious – TVPI includes both realized and unrealized gains, so while the TVPI may be 3.0x today, changes in market conditions or a company's valuation could materially affect the TVPI over time. Second, TVPI does not account for the time value of money – put simply, a 10x return over 10 years is much more valuable than a 10x return over 30 years.

Internal Rate of Return (IRR)

IRR helps to account for this time value of money by calculating an annual percentage return. However, this too includes hypothetical paper gains, and can be manipulated to be artificially high using financial engineering to shorten the period of time between a capital call and a higher valuation or exit.

Distributions to Paid-In Capital (DPI)

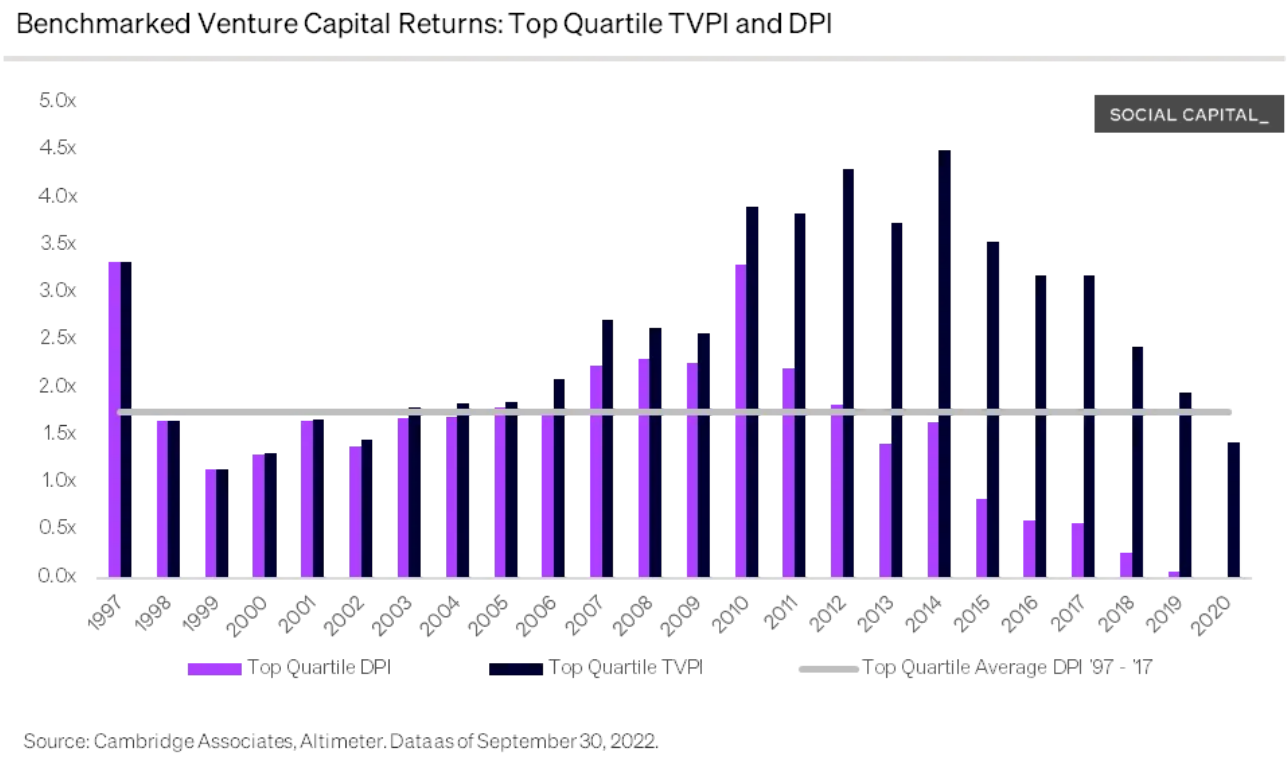
We believe that actual cash distributions to investors is far and away the cleanest and most accurate way to measure performance and consistency – money in vs. money out. DPI does this by comparing the total value of cash (or securities, if shares are distributed) returned to investors vs. the dollars they contributed.

Measuring efficiency: TVPI to DPI conversion

We believe the best measure of *risk management* is to look at a VC's ability to convert TVPI into DPI, especially over multiple funds, years, and investing cycles. In other words, how efficient is that VC in not only generating paper markups, but

ultimately converting as close to 100% of those paper markups into distributed proceeds to their investors.

We looked at the industry as a whole dating back to 1997, and here's what we found...



Source: Cambridge Associates, Altimeter. Data as of September 30, 2022.

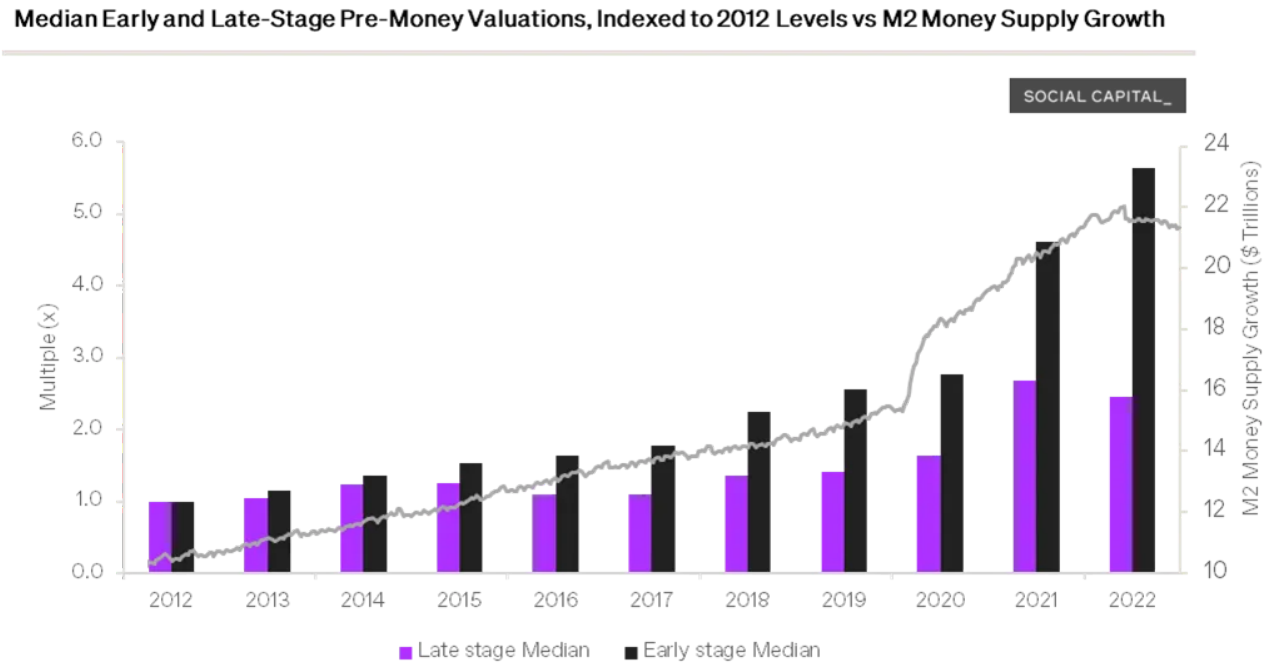
From the late 1990s to the mid 2000s, the top quartile of VCs were generally quite efficient at converting TVPI to DPI. This cohort returned an average of 1.7x DPI, compared to a TVPI of ~1.8x, resulting in leakage of just around 3%.

However, in later years, particularly fund vintages of the 2010s (i.e. the decade of zero interest rates), the jury is still out. Specifically, while the TVPI for fund vintages 2010 to 2020 has meaningfully outperformed historic averages, the top quartile DPI of these funds has not. On average, they have only converted 25% of TVPI into DPI thus far – roughly a third of the historical mean.

In fairness, one could counter that some of the 2010s vintages have not yet reached maturity. In fact, there are a number of breakout companies founded

during this period that are still awaiting exits, such as Stripe (2010), Instacart (2012), and Databricks (2013), which could help close the gap.

That said, the data shows that much of the TVPI generated over the 2010s was less about a handful of companies but, unfortunately, highly correlated to the growth in money supply. And with a new interest rate regime putting many of the all-time highs behind us (at least in the near term), investors may have missed the optimal window to take money off the table. In aggregate, no matter how you look at it, there is still a long way to go before LPs make their money back.



Source: Pitchbook Q3 2022 US VC Valuations Report Summary, Board of Governors of the Federal Reserve System (U.S.)

How much of this value, then, is at risk as TVPI and DPI revert to historical means? Assuming mean reversion for both TVPI and DPI to historical averages, we estimate roughly $1 trillion of paper value could be wiped out globally, more than half of which would come from U.S. funds.

Measuring risk and correlation in VC

In the public markets, one commonly used method of interpreting risk is a stock's "beta" – which is the measure of the stock's volatility relative to its underlying

index. Stocks with higher beta are riskier, but investors will underwrite a higher return.

In venture, there is no meaningful analog to beta. The absence of publicly available data makes assessing risk much less clear cut, which is why we tend to place greater weight on intangibles like founder quality, product-market fit, and cyclicality, to name a few.

However, in this new economic regime where broader markets are no longer always trending up and to the right, we believe that portfolio correlation is an important component of risk management, as well as a decent analog to public market beta.

To understand this risk in our own portfolio, we measured the overlap of Social Capital's portfolio vs. our peers. Put another way, how frequently did we exhibit a herd mentality and invest in the same rounds as other VCs, and what were the outcomes?

In our research, we accessed third-party funding databases and ended up mapping the portfolio overlap of our peer group. A subset is presented below.

Portfolio Overlap Coefficients: Rounds VC Firms Co-Invested With Each Other (2013-2022)

SOCIAL CAPITAL_

	A16Z	Index	Greylock	Benchmark	Sequoia	General Catalyst	Founders Fund	Tiger Global	Accel	Kleiner Perkins	Khosla Ventures
A16Z											
Index	5.7%										
Greylock	9.8%	8.5%									
Benchmark	5.4%	15.2%	8.9%								
Sequoia	6.4%	6.8%	5.9%	6.3%							
General Catalyst	10.6%	3.3%	3.3%	3.6%	3.5%						
Founders Fund	9.9%	3.1%	5.2%	1.8%	5.0%	5.7%					
Tiger Global	5.8%	5.2%	2.9%	6.3%	7.4%	5.5%	2.9%				
Accel	3.9%	5.9%	5.2%	4.5%	5.0%	5.9%	2.1%	7.9%			
Kleiner Perkins	6.8%	4.1%	5.5%	2.7%	7.0%	3.3%	2.4%	2.4%	3.1%		
Khosla Ventures	6.8%	1.7%	4.2%	1.8%	2.5%	6.2%	9.6%	1.7%	1.7%	3.3%	
Social Capital	3.2%	2.9%	2.5%	1.8%	1.8%	2.9%	3.6%	0.0%	1.4%	1.8%	2.1%

Source: Pitchbook Data, 1/1/2013 – 10/17/2022

To compare correlation between funds, we averaged each firm's overlap coefficients, and indexed them against Social Capital. Giving ourselves an index of

1.0, we found that each of the firms in the peer group were anywhere from 1.7x (Khosla) up to 3.1x (A16Z) more correlated than ours to the rest of the pack.

The data also showed how correlated other firms were to each other among the peer set. For example, Benchmark and Index show an overlap coefficient of 15.2%, meaning that roughly 1 in 6 of their deals end up being done together, in the same round.

Why is any of this important? When we experience significant market changes – such as a meaningful change in interest rates – paper marks are at serious risk of being whipsawed downwards. And the more correlated one is to the market, the higher the likelihood you can get swept into the turbulence. Live by the beta, die by the beta.

As it turns out, what VCs of the past decade assumed to be market *alpha* may have actually been market *beta* (i.e. fellow venture funds bidding up the same cohort of companies over several funding rounds). In contrast, one could draw the conclusion that less correlated portfolios tend to be less susceptible to broader market moves and have a greater likelihood of minimizing leakage from TVPI to DPI.

Further, while the data above shows investments completed in the same round, when looking more broadly at how frequently VCs invest in the same *companies*, not just the same *rounds*, the overlap is even higher – in other words, the beta increases.

To be clear, none of this is a statement about the quality of any firm (in fact, the ones listed above are consistently among the top performers of the past decade). But in our case, we have found that having a highly *uncorrelated* portfolio (low beta) has been one of the ways we have successfully managed risk, the result of which has been consistent top quartile TVPI *and* DPI.

What does this mean for startup employees?

As an employee, there's inherent risk in joining any startup. Will the equity actually be worth something? How long will it take? Will the amount of equity or other

factors like cash compensation and benefits make the risk more palatable?

More recently, we have heard employees also consider which VCs are on the company's cap table. Is it a "top-tier" fund? Who's on the board? Which other companies have these funds backed in the past?

When joining an early-stage startup, building "heat" around the company is important. It has the ability to attract talent, customers, and of course, more venture investors – all of which increase the likelihood of success.

But is there such a thing as too much heat? If a startup is backed by multiple highly-correlated venture firms, there could also be a higher probability of equity impairment down the line. As we have seen over the past 12 months, inflated valuations (due in part to overcrowded funding rounds) are in the process of being re-rated across the board.

Said differently, riding the market beta works well in a bull market, but cuts both ways in a bear market.

So as employees evaluate their own risk when deciding to join a startup, they may want to scrutinize the cap table more closely. Beyond looking at your options, salary, and benefits, you may also want to understand more details of the company's venture backers and the funding history to better assess how much beta the company exhibits.

While counterintuitive, a low beta set of venture investors on a cap table may actually *increase* the probability that a company's valuation is real and can actually be realized – ultimately putting more money (*real* money) in your pocket.

Final thoughts

In our experience, founders have long evaluated VCs based on things like a firm's brand, name recognition, or domain expertise in a given sector.

In a world of higher rates, we believe that founders should now also pay attention to a VC's ability to actually manage their portfolio to success (converting TVPI to DPI) and employees should get smarter before accepting an offer from a given

startup. This not only has an impact on the VC's distributions, but importantly its real value to the founders and their employees.

Finally, for LPs allocating capital, factors like correlation and DPI should be increasingly top of mind, because running with the crowd may not be the safest strategy after all.

Sources: Cambridge Associates, Preqin, Pitchbook

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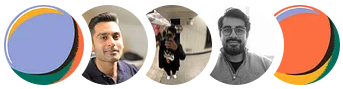

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