INVESTOR
GUIDE

A Fresh Look at Venture Capital

Glorified, sometimes vilified, always shrouded in mystery. Venture Capital merits consideration for investors.

By its nature the world of Venture Capital keeps to itself. Barriers shutter all but the intrepid, deep pocketed few out of its potentially lucrative opportunities. Yet this form of funding younger companies plays such a vital role in spawning innovation and ushering new start-ups through the stages en route to a possible IPO. Even so, exposure to Venture Capital ("VC" for short) is nowhere to be found in most people's investment portfolios.

In this guide, we will explain the VC world, its history and current state. You will learn how VC-backed enterprises are valued and how they have performed over time. Finally, we will explore the investment opportunities that may be accessible to those who may never be full-fledged venture capitalists yet desire to diversify their growth-oriented portfolio with some VC exposure.

By

DSC Quantitative Group & AXS Investments

AXS Investments does not offer investment products that will give investors access or exposure to venture capital, start-up companies or offer a similar investment experience as described in this eBook.

CHAPTER I

Introduction to Private Equity and Venture Capital

The Roots of Venture Capital

While Venture Capital is typically associated with California-based technology start-up companies, French-born George Doriot is generally regarded as the “father of Venture Capitalism.” While a professor at Harvard Business School in 1946, he founded American Research and Development to invest in businesses run by soldiers who were returning from World War II. Over time, the industry migrated to the West Coast where it played a principal role in nurturing the semiconductor and other technology-related verticals that formed the backbone of the industry.

Figure 1 George Doriot "Father of Venture Capitalism"

The Venture Capital industry has long been known for backing disruptive technologies that challenge traditional business models and seek to upend the status quo. As a consequence of the lofty aspirations of these companies, the VC ecosystem has produced incredible growth stories while also delivering a material rate of company failures.

Google This

Over time, there have been numerous examples of businesses being launched from garages that have gone on to achieve global impact and recognition. One of the more well-known examples is Google (now Alphabet), a story in which Sergey Brin and Larry Page met at Stanford in 1995 and began work on their search engine from Page’s garage. They incorporated Google in 1998 and moved into a small office in Menlo Park from which the company has now grown into a $1.5T market cap due to its Search, YouTube, advertising and related businesses. The rest is history you can easily research by going to Google, of course.

Private Equity Industry Breakdown and Size of Segments

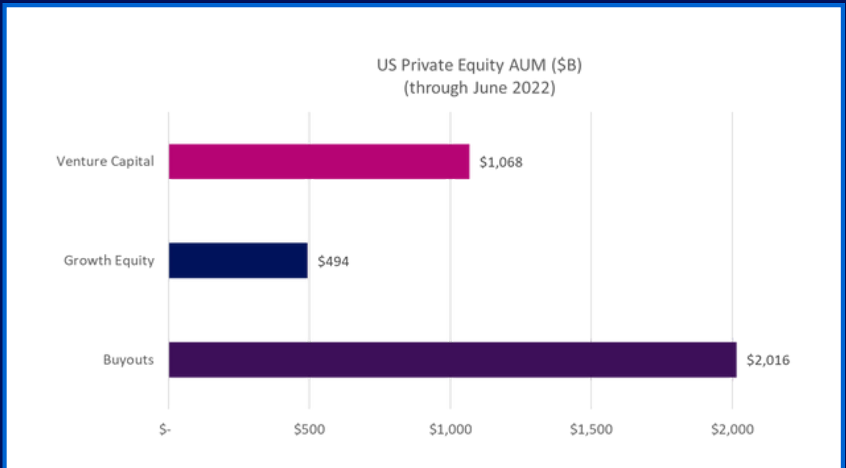
Venture Capital is an element of Private Equity, which also includes Buyouts (representing the most mature businesses) and Growth Equity (which sits between Buyouts and VC on the business maturity spectrum).

Let’s define these:

Venture Capital	Growth Equity	Buyout
Minority investments in startups, which typically have unproven business models that may not yet generate revenue or profits. Funds invest in many businesses and rely on a small number of major successes to make up for high failure rates.	Minority investments in companies that are more mature than a startup, but less established and faster growing than a typical buyout target, and need capital to grow, commercialize or professionalize.	Traditionally these are majority investments in mature companies and involve restructuring the company’s operations, governance, finances or some combination of those factors to maximize returns for the fund’s investors.

Combined, the US Private Equity industry represents $3.6T in total assets as of the end 2022.

The VC industry grew at roughly 20% per year for the last decade through 2022 based on AUM, with similar growth in the number of investment firms entering the industry at the same time. What was once largely the domain of the connected HNW investors and endowments and foundations, has attracted institutions that now dominate the landscape. In addition, crossover investors (generally hedge funds that invest in both public and private companies) and specific mutual fund companies have become more active in venture investing.

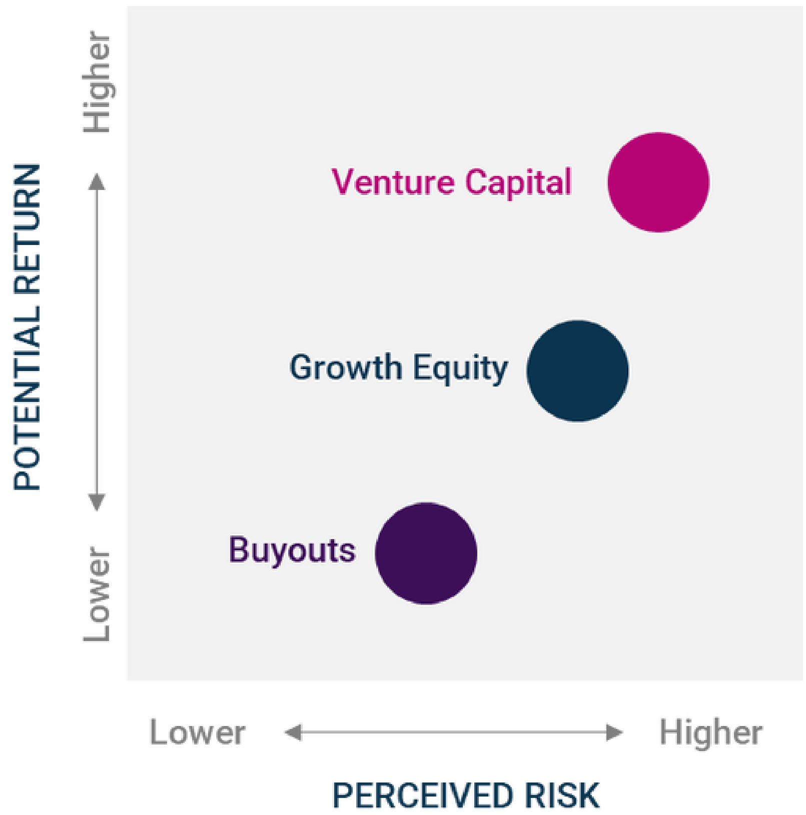


Source: Preqin

Comparing Risk and Return Across Private Equity

The three components of Private Equity are generally considered to have different risk/reward profiles, due to the stage of the companies as reflected in the below chart. Venture Capital-backed funds invest in early-stage companies that have the highest growth potential, but that comes with a higher level of risk.

Comparative Risk-Reward Relationships for Private Equity



Source: AXS Investments. For illustrative purposes only.

CHAPTER II

A Breakdown of Venture Capital

The VC market can be broken down into several sub-segments, driven by the maturity of the business and fundraising rounds, which also differ by level of risk and return attributes. Venture Capital funds tend to specialize in different segments of the market and bring specific expertise to helping their portfolio companies at different points of the lifecycle.

In addition, we can think of the level of risk associated with each stage generally decreasing as companies grow toward generating cash flow and becoming profitable businesses with attractive growth prospects.

Venture Capital Funding Stages

Stage	What they are selling and funding	Who's investing	Size of Investments
Pre-Seed Stage	Start-ups often have an idea or a prototype but may not have a fully developed product or significant revenue Funding is typically used for market research, product development and initial traction	Angel investors Friends and family Pre-seed venture capital firms	**$** Relatively small, usually ranging from a few tens of thousands to a couple of hundred thousand dollars
Seed Stage	Start-ups have a more developed product or service, and they are looking to scale their operations Funding is used for building a customer base, expanding the team and refining the product	Angel investors Seed-stage venture capital firms Corporate venture arms (sometimes)	**$$** Can range from a few hundred thousand to a few million dollars
Early Stage (Series A and Series B)	Typically have a proven product-market fit and are looking to accelerate growth Funding is used for scaling the business, expanding into new markets, and increasing market share	Venture capital firms specializing in early-stage investments	**$$$** **Series A:** range from a few million to tens of millions of dollars **Series B:** can go higher, often into the tens of millions or even over a hundred million dollars
Late Stage (Series C and Beyond)	More mature start-ups that are on the path to profitability or are already profitable Funding is used for scaling rapidly, entering new geographies, and preparing for potential IPOs or acquisitions	Venture capital firms specializing in early-stage investments	**$$$$** Can range from tens of millions to hundreds of millions or even billions of dollars

Source: Silicon Valley Bank and AXS Investments

Who is involved in Venture Capital?

Typically, three parties participate in a venture capital (VC) deal.

Investors

Investors put up the money. Often considered “limited partners,” they fall into two broad camps:

- Institutional investors, like college endowments, charitable organizations and governments that manage money for long-term growth.
- High net worth individuals or family offices. They are accredited investors with sizable income and wealth, high risk tolerance and the ability to withstand long lock-up periods of their funds. (Often 8-10 years).
- They are also permitted to trade in illiquid securities.

Venture capital funds

Venture capital funds pool investor money in one fund to seek private equity stakes in companies. Venture capitalists pick the companies for the portfolio. Using a combination of analytical, business management and other relevant skills, they find and nurture high growth opportunities. These are some of the smartest, forward-thinking people with a knack for spotting future trends and successful businesses. They understand the high risks involved and aim to diversify their investments to attempt to mitigate risks. Think Shark Tank.

Private companies

Private companies receive funding and guidance from the VC fund, and they typically acquire board seats. These are start-ups and small- to medium-sized enterprises with strong growth potential that need cash to implement their business plans.

If a company successfully grows, it can eventually go public or attract a buyer. The VC fund then gets it share of the proceeds based on its percentage ownership, takes its fees from the transaction, and returns the rest to the limited partners. Returns range from zilch to multiples of the original investment.

Other paths exist to own equity in a private company. Before seeking VC money, start-ups often get an initial injection of cash from individual “angel” investors and may go through rounds of seed capital raised from other sources.

VC “Unicorns”

Recently, significant discussion has revolved around Unicorns as part of the VC ecosystem. This term was coined in 2013 to describe the phenomenon of VC-backed companies achieving a billion-dollar valuation while still private – something never previously imagined. There were 39 Unicorns identified initially, but the number is estimated to have grown closer to 800 just in the US prior to the market retrenchment starting in 2022. Two famous examples of unicorns include SpaceX and Stripe.

Why is Venture Capital Attractive?

Start-ups typically approach VC firms with an audacious idea for a company that requires funding to get its business off the ground and to support its rapid growth. The vast majority of VC-backed companies are technology-focused, but healthcare and consumer-focused companies are also key verticals.

Venture Capitalists are focused on finding companies with a specific niche or focus, with a large Total Addressable Market, and a superior management team that provides the best prospects for growth and potential return on capital. Over time, exceptional VC-backed companies have gone public and led to outsized returns, such as Facebook/Meta. Under the right circumstances, VC managers have been able to deliver attractive returns beyond other equity class investments.

US VENTURE CAPITAL INDEX RETURNS

Pooled Trailing Period Returns through June 30, 2023

Indices	1Y	3Y	5Y	10Y	15Y	20Y
VENTURE CAPITAL	-9.9%	18.9%	18.7%	18.3%	13.9%	13.0%
Nasdaq	13.4%	9.8%	13.7%	15.6%	13.9%	N/A
S&P 500	10.4%	12.9%	11.7%	12.4%	11.0%	10.0%
MSCI World	10.7%	10.8%	8.6%	9.0%	7.4%	8.3%
Russell 2000	1.9%	10.1%	3.9%	7.6%	8.2%	8.6%

Source: Burgiss Global Private Capital Performance Summary, Q2 2023. Internal Rate of Return (IRR) methodology is used for Venture Capital, while Time-Weighted Rate of Return (TWR) is used for all others. Nasdaq Composite Index is a market capitalization-weighted index of more than 2,500 stocks listed on the Nasdaq stock exchange. S&P 500 Index (Standard & Poor's 500 Index) is a market-capitalization-weighted index of the 500 largest publicly traded companies in the U.S. MSCI All Country World Index (ACWI) is a global equity index that tracks the performance of small- to large-cap stocks from 23 developed and 24 emerging markets. Russell 2000 Index refers to a stock market index that measures the performance of the 2,000 smaller companies included in the Russell 3000 Index.

However, it is very difficult identifying these high growth investment opportunities, especially as sometimes they are little more than ideas on paper.

CHAPTER IV

Staying Private Longer

There are several factors that have led to the explosive growth of the VC industry over the last 20 years, including:

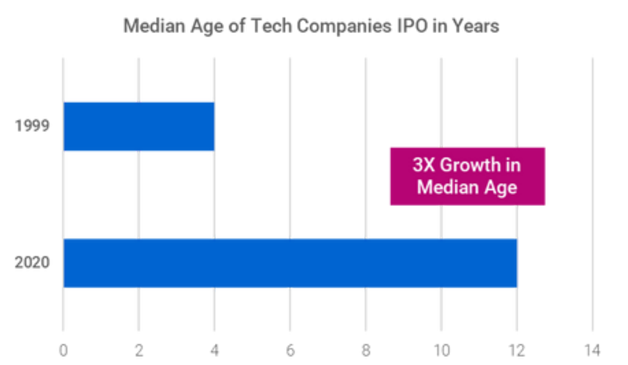
- An extended period of historically low interest rates
- Increased investor demand across all market segments (from institutions to high net worth individuals) driven by attractive returns
- An expanding universe of investment opportunities as more companies stay private longer

The last point deserves further exploration as to why companies are extending their time as private companies and the possible implications.

For nearly all VC-backed companies, an initial public offering (IPO) is the natural exit. This event typically arrives when additional capital is needed to fund the business and the current owners, the VC funds, are looking to wind down their relationship and return capital to their investors. VC funds typically have 8-10 year horizons.

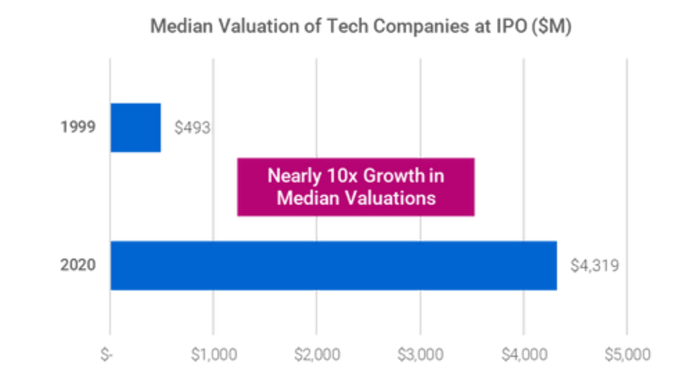
As the chart below highlights, companies are staying private materially longer than in the past. This dynamic has been facilitated by the flood of capital that has entered the VC space, attracted by the very high returns of the industry.

Median Age of Tech Company IPO in Years



Source: Jay Ritter, University of Florida

Median Valuation of Tech Companies at IPO ($M)



Source: Jay Ritter, University of Florida

What may appear less obvious at first is that more value is being created and extracted while companies are still private – and out of reach of most public market investors (see second chart below). Solving the "access" problem to VC investments is a challenge for most individual investors who are looking to participate in this high growth area of the investment universe. Keep in mind that investments in the stocks of privately held companies and in companies that only recently began to trade, such as initial public offerings (IPOs), involve greater risks than investments in stocks of companies that have traded publicly on an exchange for extended time periods.

CHAPTER V

Challenges with Venture Capital Investing

Despite the potential return opportunity, successfully investing in Venture Capital is difficult and out of reach for many investors due to unique industry dynamics, including:

1 **Illiquidity:**

Funds typically have lifespans of 8-10 years, and sometimes materially longer, well beyond the tolerance of most investors.

2 **Access:**

Investment minimums can be prohibitively high often starting at greater than $1M, particularly for later stage funds.

3 **Opacity:**

Information flow is constrained for regulatory and competitive reasons, making traditional due diligence materially more difficult.

4 **The Power Law:**

The vast majority of venture capital investments (up to 90%) fail to generate a positive return and many fail altogether. The industry is dependent upon a small number of investments (around 10%) to generate returns that are many times greater than the average of the industry.

5 **Dispersion of Manager Returns:**

As a byproduct of the Power Law, Venture Capital tends to have the highest dispersion of manager returns among all equity classes. Put simply, winners win big and losers lose big. Investing with the right Manager and Fund disproportionately drives success in Venture Capital.

CHAPTER VI

Valuing Venture Capital

Valuing VC-backed companies and their related funds can be tricky, often requiring an approach that is equal parts art (subjective elements) and science (objective elements). All unlisted investments lack valuation clarity and the active price discovery associated with exchange-traded securities. As a consequence, these private companies require substantially more work to accurately value.

In general, the value of a VC-backed company is determined by the post-money valuation of the most recent funding round. While this process provides a clear valuation, having confidence in the "fair market value" of a company at any point subsequent to that period becomes increasingly difficult as more time passes since the last valuation event.

Further, significant changes in market conditions, such as we saw in the market pull-back of 2022, can lead to many companies being materially over-valued based upon the static and stale pricing of their last post-money valuation. At such times, there can appear to be a material dislocation between private and public market valuations.

Public vs. Private Company Valuations

Financial theory suggests this type of dislocation between public and private valuations should not exist (at least for very long). As an example, consider two theoretically identical companies: one public and one private. As identical companies, they would face the same competitive industry dynamics and related headwinds and tailwinds. Therefore, they should have highly similar valuations. This idea suggests that the form of ownership is not relevant, and that private and public company valuations should move together over time, though it may be difficult to measure at a given point in time.

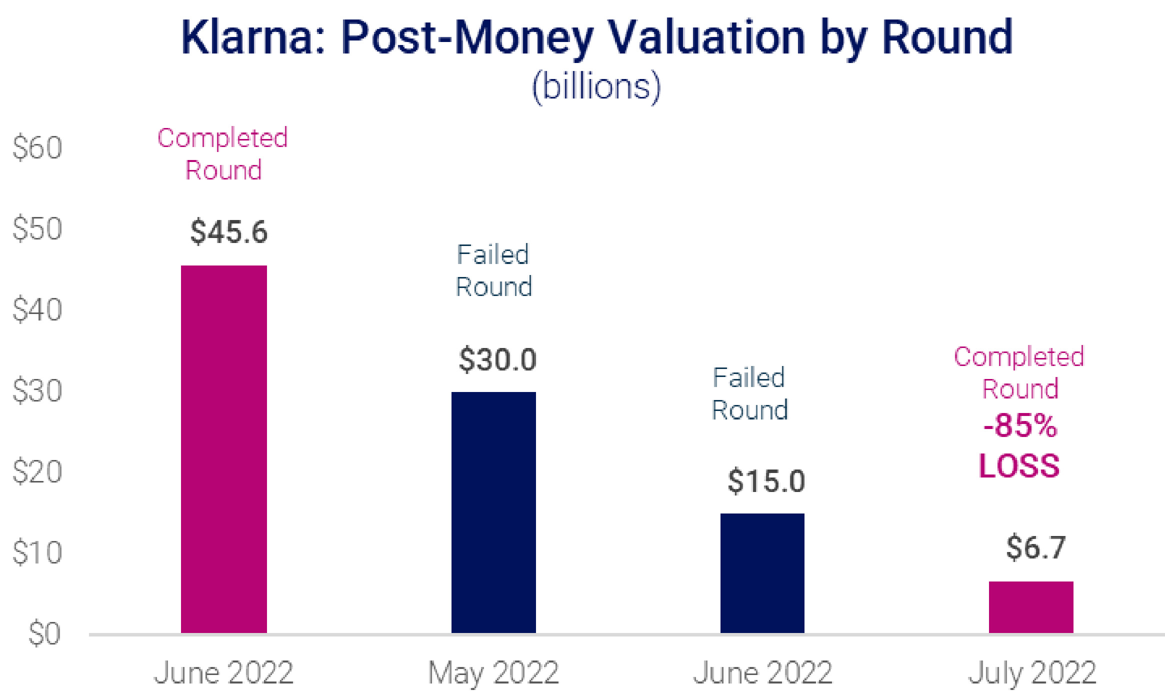
In a similar way, we recognize that because the natural migration of VC-backed companies is towards an IPO, this highlights again how companies, whether public or privately held, move together in terms of valuation. In fact, looking at recent IPO performance can provide timely insights into late-stage, pre-IPO company valuations and trends.

> *"…you quickly realize that **companies don't magically move to a different universe when they go public**… there are still going to be meaningful competitors to private entrants."*
>
> KYLE HARRISON, CONTRARY PARTNER, ON PUBLIC VS PRIVATE INVESTING

Case Study: Klarna vs. Affirm

The below chart highlights a good example from the market pullback of 2022 of how two very similar companies experienced similar decreases in market valuation. Both Klarna (private) and Affirm (IPO date of 1/13/2021) are "Buy Now Pay Later" companies that compete head to head.

As Klarna sought additional capital to fund its growth, the company recognized that valuations had decreased and consequently tried to raise capital at valuations that were lower than its last successful raise. After failing to raise capital at a $30B valuation in May 2022 and again at $15B in June 2022, Klarna finally attracted capital at just a $6.7B valuation (an 85% decrease from the last round). Interestingly, one of Klarna's key competitors, Affirm (AFRM) IPO'd a year prior and its stock performance was -82% for a very similar time period.



Source: Tech Crunch, WSJ.

Barriers and Opportunities for Non-Institutional Investors

For investors pursuing direct investments in Venture Capital the options largely fall into two categories: Traditional Structures and Private Market Platforms. A third option, Replication, would give you indirect access to the performance of the venture capital category, without owning venture capital based companies.

Option	Examples	Challenges
TRADITIONAL STRUCTURE Direct Private Funds Private Funds-of-Funds (FoFs)	**DIRECT FUNDS** Sequoia Kleiner Perkins Andreesen Horowitz **FoFs** Adams Street HarbourVest Hamilton Lane	• Highly illiquid, 8-10+ year holding periods • Single manager and vintage risk • High fees • Limited scalability • Limited access to the best managers • Unpredictable capital calls and distributions
PRIVATE MARKET EXCHANGE PLATFORMS *Intermediaries matching up buyers and sellers of private market interests.*	Forge CapLight Equity Zen	• High fees • Opacity and information asymmetry • Lack of price discovery • No set/market clearing price • Inconsistent liquidity
REPLICATION *Indexing designed to mimic returns of the VC industry via more liquid holdings*	FTSE VC (TRVCI), formerly known as Thomson Reuters Venture Capital Index	• The appearance of greater volatility than traditional private investments • Precision of replication portfolio • Market cap-weighted index results in late stage companies driving returns more than an equal-weighted index.

Each of these approaches to VC investing leads to different benefits and challenges. Decisions will ultimately be driven by the set of tradeoffs each investor is willing to make.

A Lookback at Venture Capital Performance

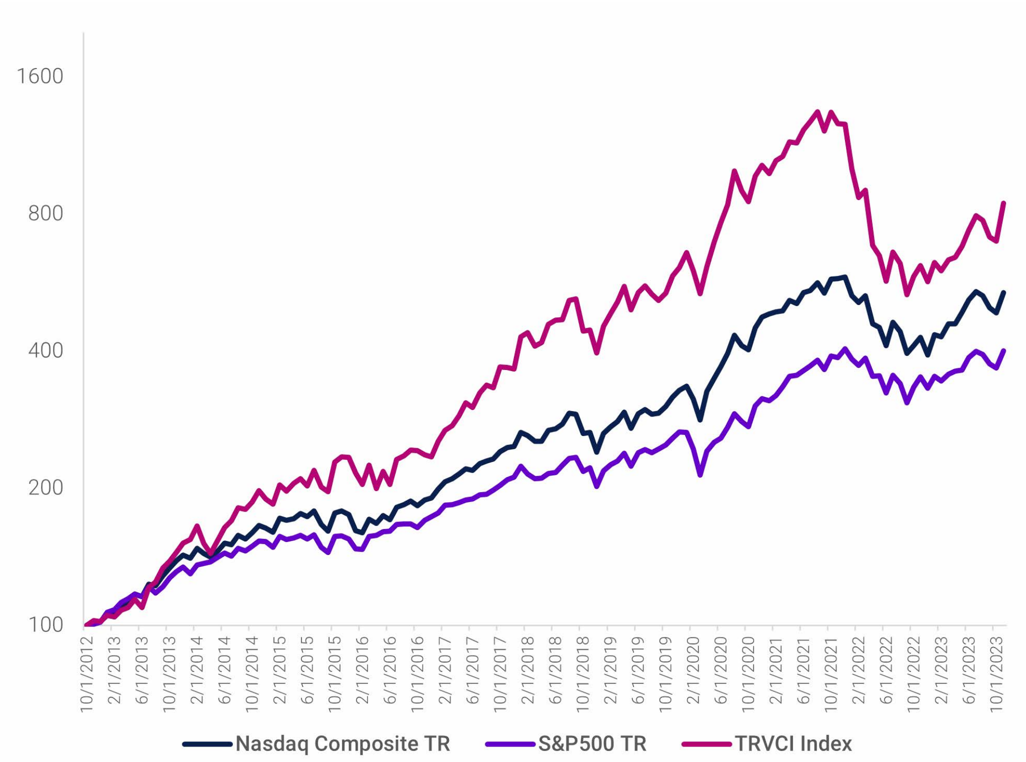
About TRVCI

The Venture Capital universe comprises a huge number of companies in a variety of stages of their lifecycles. With no central marketplace nor universal means to value each enterprise regularly, quantifying the overall performance of the industry is a challenge. One measuring tool is the TRVCI index, originally known as Thomson Reuters Venture Capital Index and currently called the FSTE VC Index. This benchmark was designed to track the aggregate performance of private U.S. companies backed by Venture Capital.

TRVCI was developed in 2012 by research firm DSC Quantitative Group. It is comprised of approximately 150 publicly listed securities optimized to replicate the risk/return profile of the VC industry using extensive Thomoson Reuters/FTSE data about the valuations of venture capital-backed companies.

Venture Capital Aggregate Performance from October 2012 - October 2023

Comparing performance over the 11-year period ending October 2023, VC Index generated an annualized returns of 21.23% (744.67% cumulative), while the S&P 500 returned 13.33% (300.36%) and Nasdaq 16.38% (437.17%).



Source: DSC Quantitative. VC Index is the FTSE Venture Capital Index (TRVCI). Return data is represented logarithmically to account for compounding. Past performance is not a guarantee of future results.

Global Private Capital Performance by Year

Reviewing the yearly returns of various forms of private capital for the decade ending in 2021, Venture Capital was the highest performer for 7 out of 10 years. Keep in mind that VC is a risky asset class and may have years, like 2016, where it underperforms other asset classes.

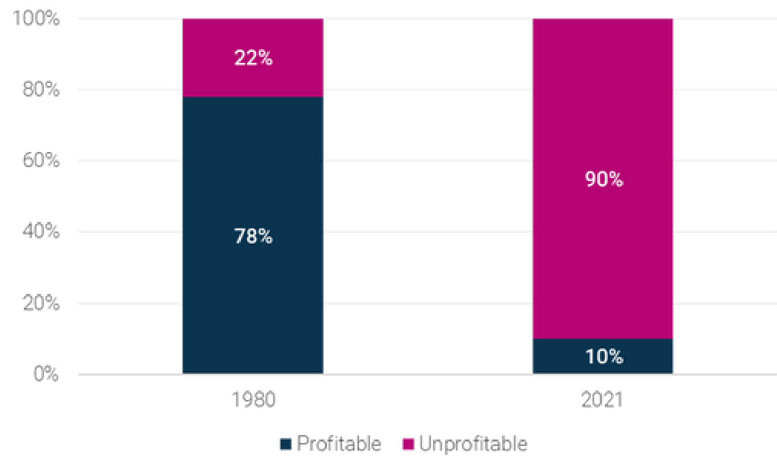
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Senior 27%	Venture Capital 26%	Venture Capital 24%	Venture Capital 15%	Natural Resources 21%	Buyout 23%	Venture Capital 21%	Venture Capital 19%	Venture Capital 56%	Venture Capital 49%
Distressed 18%	Buyout 19%	Real Estate 13%	Real Estate 10%	Buyout 12%	Infrastructure 19%	Buyout 9%	Buyout 17%	Expansion Capital 28%	Buyout 37%
Buyout 14%	Expansion Capital 19%	Expansion Capital 13%	Expansion Capital 9%	Distressed 10%	Expansion Capital 17%	Infrastructure 9%	Expansion Capital 15%	Buyout 24%	Expansion Capital 27%
Mezzanine 11%	Distressed 18%	Mezzanine 11%	Buyout 9%	Senior 9%	Venture Capital 15%	Expansion Capital 7%	Mezzanine 10%	Mezzanine 9%	Natural Resources 26%
Real Estate 9%	Real Estate 14%	Buyout 10%	Infrastructure 5%	Expansion Capital 8%	Real Estate 14%	Mezzanine 7%	Senior 9%	Infrastructure 8%	Real Estate 22%
Infrastructure 8%	Senior 13%	Distressed 9%	Mezzanine 5%	Infrastructure 8%	Mezzanine 13%	Real Estate 7%	Real Estate 8%	Distressed 7%	Distressed 20%
Venture Capital 8%	Mezzanine 12%	Infrastructure 9%	Senior 3%	Mezzanine 8%	Senior 11%	Senior 6%	Infrastructure 8%	Senior 6%	Mezzanine 15%
Expansion Capital 5%	Infrastructure 9%	Senior 5%	Distressed -1%	Real Estate 7%	Distressed 10%	Distressed 3%	Distressed 5%	Real Estate 1%	Infrastructure 12%
Natural Resources 5%	Natural Resources 9%	Natural Resources 0%	Natural Resources -16%	Venture Capital 1%	Natural Resources 7%	Natural Resources -4%	Natural Resources -8%	Natural Resources -9%	Senior 8%

Source: Burgiss data as of 12/31/2021. The Burgiss Senior, Distressed, Buyout, Mezzanine, Real Estate, Infrastructure, Venture Capital, Expansion Capital and Natural Resources return data is derived from proprietary Burgiss analysis. Past performance is not a guarantee of future results.

Venture Capital in 2022

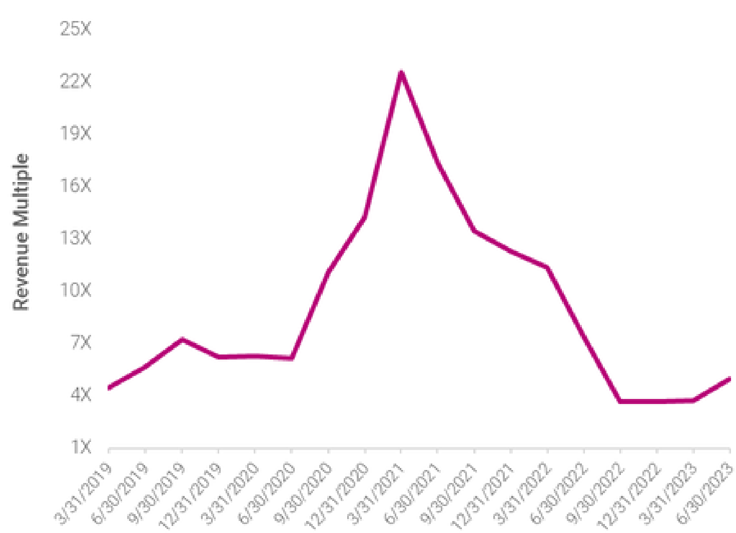
Venture Capital had quite a challenging year in 2022, as did the overall equity markets in the face of post-pandemic economic stressors, including supply chain issues and inflation. The percentage of profitable VC-backed companies dropped from 78% in 1980 to just 10% by 2021.

Percentage of Profitable VC-Backed IPOs



Source: Jay Ritter, Professor, University of Florida. Past performance is not a guarantee of future results.

Enterprise Value-to-Revenue Multiples of VC-Backed IPOs



Source: Pitchbook data as of 7/31/2023. Based on analysis of companies in PitchBook's VC-backed IPO Index. Past performance is not a guarantee of future results.

Back in 2019, VC-backed companies that had recently gone public had an enterprise value of around 5x their revenue. According to Pitchbook data depicted above, valuations skyrocketed to unprecedentedly high multiples from mid-2020 through 2021 reaching over 22x. IPO valuations have since returned to normal pre-pandemic levels of around 5x.

CHAPTER IX

What's Ahead for Venture Capital

While it's not possible to predict when the IPO market will normalize and return to a healthy level of new companies going public, we recognize the market moves in cycles. What we can likely anticipate with greater certainty is that the Venture Capital industry will continue to identify and support young, upstart businesses with significant new technologies and ambitious business ideas that will disrupt incumbents and innovate in ways that will change the landscape of commerce. The necessary inputs for these business – daring and bold entrepreneurs, available capital sources, and investors focused on identifying and nurturing these firms – are still in place and constantly on the lookout for the next breakout technology, disruptive business idea, and management team to guide them.

AXS Investments

AXS Investments is a leading alternative investment manager providing a diversified family of alternative investments for growth, income and diversification. The firm empowers investors to diversify their portfolios with investments previously available only to the largest institutional and high-net-worth investors. The investor-friendly AXS funds are time-tested, liquid, transparent and managed by high pedigreed portfolio managers with long and strong track records. For more information, visit www.axsinvestments.com.