AGC's 2022 Tech PE Year-End Report

The COVID Hangover is Pulling Us Down, but Opportunities Abound in the Tech World

Presented by: AGC Partners

Ben Howe, CEO

January 2023

The COVID Tech Spending Boom, Now Bust, Will Continue to Dampen Revenue Growth and Valuations In 2023

The epic global COVID shutdown in ‘20 and the historic government, consumer, and business spending spree of ‘21 and ‘22 leave us with massive economic uncertainty as we head into ‘23. Recession, high inflation / interest rates, housing and office markets in steep decline, and an end to government stimulus are just a few of the challenges facing us in ‘23. China, which has a self-inflicted economic slowdown, still thinks it can control COVID (Fauci flashbacks) – maybe not given its recent easing of widely protested zero-COVID policies. This might be an omen of what’s to come between the Chinese people and Xi’s Communist party. Putin’s war and Europe’s energy crisis are ugly realities, but hopefully they can be brought to an end sooner rather than later. Layoffs across the tech sector are mounting and will continue into ‘23, but it’s not clear how much they will hurt consumer and business demand. I highlight these concerns and uncertainties because companies across the world have started to defer, cut back, or cancel technology purchases. The digital world and corporate software got a massive lift from COVID and all the stimulus, but now those same forces are working against us. Corporate buyers have a much higher bar for not only buying new technology, but also adding to or maintaining recently deployed technology. Accordingly, most technology companies will cut their ‘23 forecasts over the next three months, or else they risk disappointing investors come quarter end. This same dynamic will play out for all of ‘23.

Don’t get me wrong on the long-term productivity and growth opportunities for the tech industry. Software and tech more broadly, particularly in the U.S., have been and will be the primary drivers of innovation, human advancement, employment, GDP growth, and wealth creation. Consumer tech successes, from Apple and Twitter to startups, can drive their new hot products across hundreds of millions of users in months, if not days. Business software leaders are putting up 30%+ growth on 20% margins with the ability to add new customers at a small fraction of the costs that non-IP-based industries must spend. Thoma’s $8.4B acquisition of Coupa at a 9.8x revenue multiple and a 77% premium is a bold statement of conviction in the SaaS industry by one of the best. The current private and public market correction, along with the Darwinian triage that is powering across the investment landscape, will bring about far healthier tech businesses across the globe.

The three related questions that will heavily influence the private and public SaaS M&A market are: i. What are the expected growth rates for various sectors in ‘23 and beyond? ii. What is the long-term underlying profitability of these businesses? iii. What is our new risk-free cost of capital? On the latter, Western governments have taken control of interest rates going back to the great recession in 2008. Just recently, they lost control of interest rates after over-stimulating with extended zero percent interest rate policy, two rounds of quantitative easing, and $5.4 trillion in deficit spending from ’21-’23. 10% inflation has the 30-year treasury at 3.9%, which may be the new risk-free rate. It is tough to say where we come out here because we are in uncharted waters with government-controlled rates that have created runaway inflation, unchecked deficit spending, and $31T in U.S. government debt.

Predicting the valuations of SaaS companies was a bit more difficult when growth rates and multiples went off the charts in ‘21. Those days have passed and as we stand today, the 160 largest public SaaS companies in the U.S. and Europe are trading at 5.2x trailing 12-month revenues. Let me caveat that SaaS companies come in all shapes and sizes, as do their respective valuations. Characteristics that matter are: technology leadership, scale, size of market and growth rate, mission critical functionality, gross profit and long-term operating profit, management team, customer satisfaction and retention to name a few. Other than the higher quality deals where the hoards of cash on the sidelines are bidding them up, median private tech M&A multiples are now coming in at 5x-8x, a premium to the public markets.

Rule of 40 is Driving Valuation

SaaS Index Ro40 Range	Median EV/’22 Rev. Multiple	Median EV/ ’23 EBITDA Multiple	# of Companies
>60%	10.3x	23x	17
50-59%	8.0x	20x	20
40-49%	6.3x	30x	32
30-39%	6.1x	27x	23
20-29%	3.7x	23x	26
10-19%	2.3x	21x	16
<10%	2.4x	28x	26
Median:	5.0x	22x	

Breakdown by Sector/Geography

SaaS Index Sector/Geography	EV/’22 Rev.	EV/’23 EBITDA	Ro40	# of Companies
Cloud Infra	9.7x	20x	54%	7
CFO Suite	8.2x	28x	35%	7
Cybersecurity	6.5x	35x	48%	16
HCIT	6.5x	24x	26%	7
DevOps	6.2x	37x	40%	8
FinTech	5.0x	26x	25%	10
Europe	4.5x	15x	48%	12
MarTech	3.2x	16x	27%	17
Median:	5.0x	22x	35%	

Source: Pitchbook, AGC’s Public SaaS 160 Index. As of 12/30/22 market close.

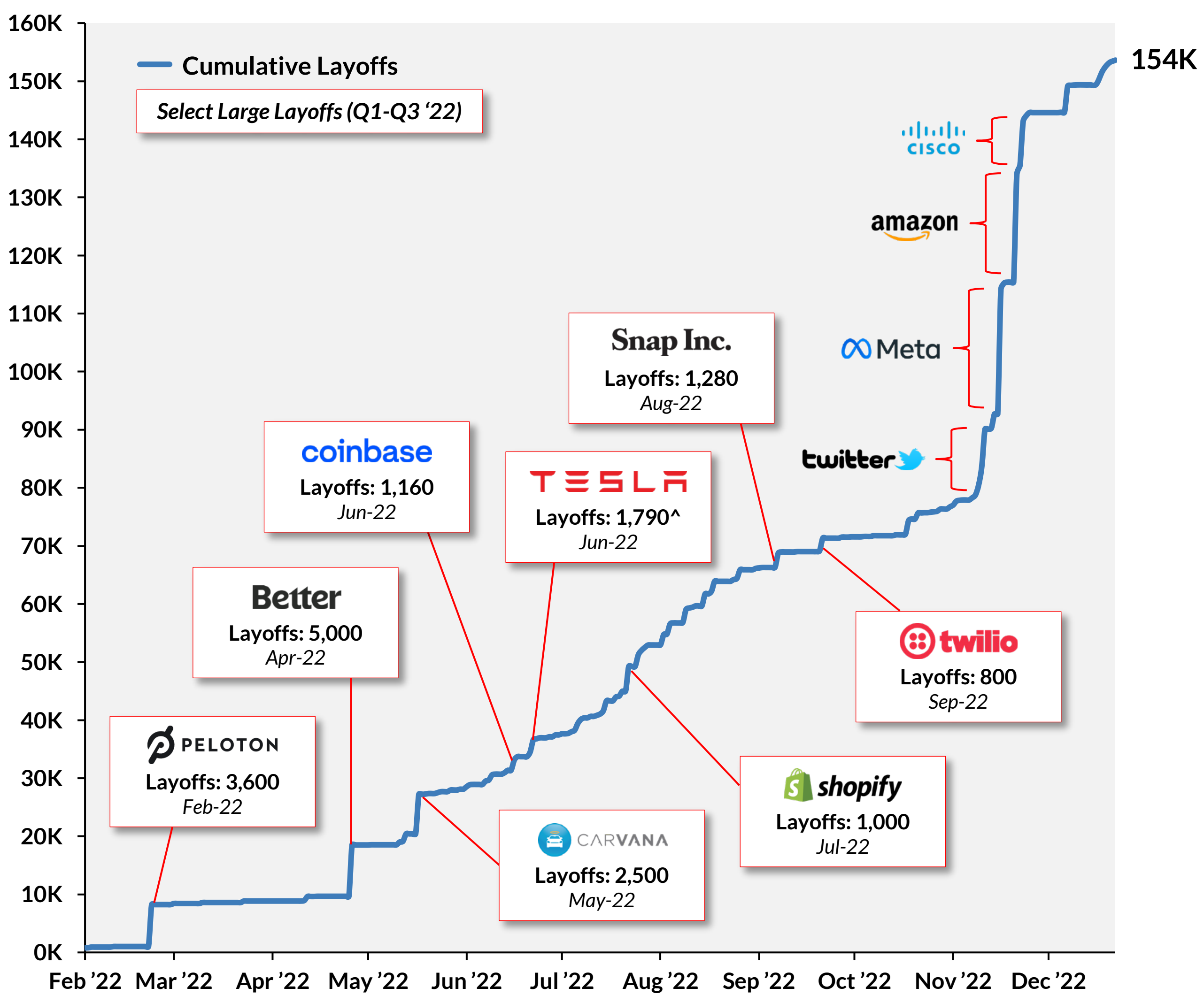
Global Tech Companies Slash Headcount by 150K+ in 2022 – With More to Come

Notable Q4 2022 Layoffs

Date	Company	Industry	# of Employees	% of Workforce
12/12	PLURALSIGHT	*EdTech*	400	20%
12/6	weedmaps	*Cannabis Tech*	175	25%
12/6	doma	*PropTech*	825*	26%^
11/30	kraken	*Cryptocurrency*	1,100	30%
11/30	DOORDASH	*Food Delivery, eCommerce*	1,250	6%
11/16	cisco	*Enterprise Software*	4,100	5%
11/15	Own {backup}	*Enterprise Software*	170	17%
11/15	asana	*Enterprise Software*	180	9%
11/15	UiPath	*Artificial Intelligence*	451	10%^
11/14	sema4	*AI, Healthcare*	750*	48%^
11/14	amazon	*E-commerce, SaaS*	10,000	3%
11/11	veev	*PropTech*	100	30%
11/9	Meta	*Social Media*	11,000	13%
11/9	REDFIN	*PropTech*	1,332*	9%
11/7	salesforce	*Enterprise Software*	1,090	1%^
11/7	zendesk	*Enterprise Software*	350	5%
11/4	twitter	*Social Media*	3,700	50%^
11/3	stripe	*Fintech*	1,050	14%^
11/3	lyft	*Transportation*	760	13%^
11/2	Opendoor	*PropTech*	550	18%
10/26	Zillow	*PropTech*	300	5%
10/24	snyk	*Cybersecurity*	220*	14%^
10/11	NOOM	*Digital Health*	1,095*	25%^

**Includes smaller rounds of layoffs made earlier in the year.*
^Estimated based on press releases and LinkedIn employee counts prior to layoff date.

Cumulative Number of Tech Company Layoffs (2022)



Source: Crunchbase, Layoffs.fyi. As of 12/30/22.

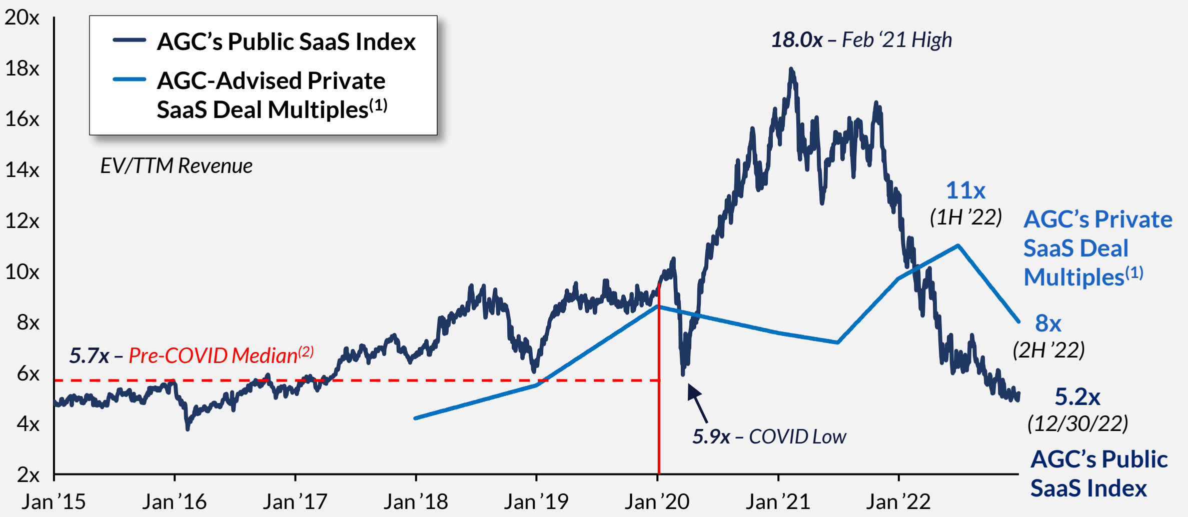
SaaS Private Valuations are Settling In at 5x-8x Revenue, A Premium to Public Valuations

Take a CEO and Company like Jay Chaudhry and Zscaler and you see top performance on all the aforementioned SaaS company characteristics. As a result, you see a 13x LTM revenue multiple in the darkest SaaS days. Zscaler has been putting up these numbers for over 10 years. While it is a great role model, its revenue multiple is out of reach for most similar performing, but much younger private SaaS companies. That said, we closed deals in Q4 in double digits on current contracted annual run rate revenue. AGC's Public SaaS Index, which reached a high of 18x in '21, is now at 5.2x trailing revenues, very close to the 6-year median of 5.7x pre-COVID. As per the SaaS 160 chart, valuations are highly correlated to a balance of growth and profitability. Sustained 60%+ growth with high but efficient spend like Zscaler will still generate mid-teens revenue multiples. On the flip side, okay growth with high, inefficient burn will bring your revenue multiple crashing down to 1-2x revenues. We currently have 30+ deals in market and while we are closing them, the pricing is coming in at the mid-to-high single digits on current CARR for most of them.

So, as we sit here today, what is a $10M, $100M, or $1B quality SaaS company worth? It depends on way too many variables for anyone to say in the abstract. I can say with certainty that the 11x we achieved in the first half of '22 on 16 SaaS deals is looking more like 7x in the second half with a far greater spread on outcomes. Auditors of PE portfolio valuations for year-end '22 should throw out the M&A and private company investment bubble valuations of the last two years and stick to the current public market and recent private M&A deal values. Higher cost of capital and lower growth will mix it up with historic levels of tech dry powder and a dearth of quality tech companies for sale, making for very interesting valuation negotiations for the next several quarters.

Source: Pitchbook, AGC's Public SaaS 160 Index. As of 12/30/22 market close.

AGC's Public SaaS 160 Index Valuation Trend



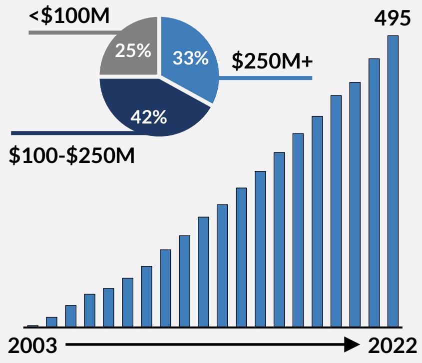
AGC Powering Through The Chop

AGC's has sustained strong momentum in these tough markets. With 42 deals closed in '22 at a median revenue multiple of 9x and 30 new engagements signed up since July '22, AGC is the most active technology investment bank.

Recently, we represented JMI, K1, Kayne, Level, Luminate, NEA, Riverside, Silversmith, Thoma Bravo and Vista on transactions ranging from roughly $200M to over $1B.

We have built the leading global technology investment bank focused on middle market M&A and growth financings with 495 transactions completed since inception. We are the market SaaS leader with 171 transactions since 2010.

Cumulative Deal Count and EV Breakout:



(1) Represents trailing six-month median on AGC-advised private deals. 2H '22 multiple based on 11 SaaS deals closed or signed since July '22.

(2) Represents median between 2014-2019.

What Is A Solid SaaS Company Worth Today – A Lot!

Key Objectives of the Buyout Analysis

- Establish the baseline valuation for a top tier SaaS business with steady state revenue growth of 30% and EBITDA margins of 20%.
- Determine the implied entry and exit EBITDA and Revenue multiples to achieve 25% IRR over a 5-year hold period, assuming a conservative market average exit value.

Results from the "Steady State" Growth Case

- Over a 5-year investment period, the implied entry multiple to achieve 25% IRR is 7x Revenue and 34x EBITDA.
- Fast growing and efficient SaaS businesses with 50% Rule of 40 [30% Growth + 20% EBITDA Margin] will trade at a premium valuation and mega multiple.

Takeaways from the Sensitivity Analysis

- Holding IRR fixed at 25% while adjusting the revenue growth and EBITDA margin assumptions demonstrates that valuations can reach as high as 19x Revenue for the 80% Rule of 40 companies.
- A 20% margin business with 10% to 50% revenue growth can trade anywhere from 3x to 13x Revenue and 17x to 65x EBITDA.
- Most of these public SaaS companies will be taking down their numbers, so their current EV/'23 EBITDA multiple of 22x is actually higher – maybe much higher.

Key Model Assumptions(2):

30% REVENUE GROWTH

20% EBITDA MARGIN

5X LEVERAGE RATIO

7% INTEREST RATE

5X EXIT REVENUE MULTIPLE

23X EXIT EBITDA MULTIPLE (1)

25% IRR IN 5 YEARS

Valuation Results:

7X IMPLIED ENTRY REVENUE MULTIPLE

34X IMPLIED ENTRY EBITDA MULTIPLE

AGC's Magic SaaS Quadrant:

Revenue Growth / *EBITDA Margin* — ENTRY REVENUE MULTIPLE

EBITDA Margin	10%	20%	30%	40%	50%
10%	2x	2x	3x	5x	6x
20%	3x	5x	7x	9x	13x
30%	5x	7x	10x	14x	19x

ENTRY EBITDA MULTIPLE

EBITDA Margin	10%	20%	30%	40%	50%
20%	17x	24x	34x	47x	65x

Financial Forecast ($M)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Income Statement						
Revenue	$20	$26	$34	$44	$57	$74
Revenue Growth		*30%*	*30%*	*30%*	*30%*	*30%*
EBITDA	$4	$5	$7	$9	$11	$15
EBITDA Margin	*20%*	*20%*	*20%*	*20%*	*20%*	*20%*
Free Cash Flow (Before Debt Paydown)		**$3**	**$4**	**$6**	**$8**	**$11**
Less: Repayment		(3)	(4)	(6)	(7)	-
Cash Flow		-	-	-	**$2**	**$11**

Entry Valuation ($M)	
Entry Equity Value	**$115**
(-) Cash	-
(+) Debt	$20
Entry Enterprise Value	**$135**
Entry EBITDA	$4
Implied Revenue Multiple	**7x**
Implied EBITDA Multiple	**34x**

Returns Calculation ($M)	
Revenue Exit Multiple	5x
EBITDA Exit Multiple	23x
Enterprise Value	**$337**
(+) Cash	13
(-) Debt	0
Equity Value	**$350**
Initial Equity	**$115**
MoM	**3.1x**

(1) AGC assumed an EBITDA multiple of 23x upon exit based on the median EV/EBITDA.

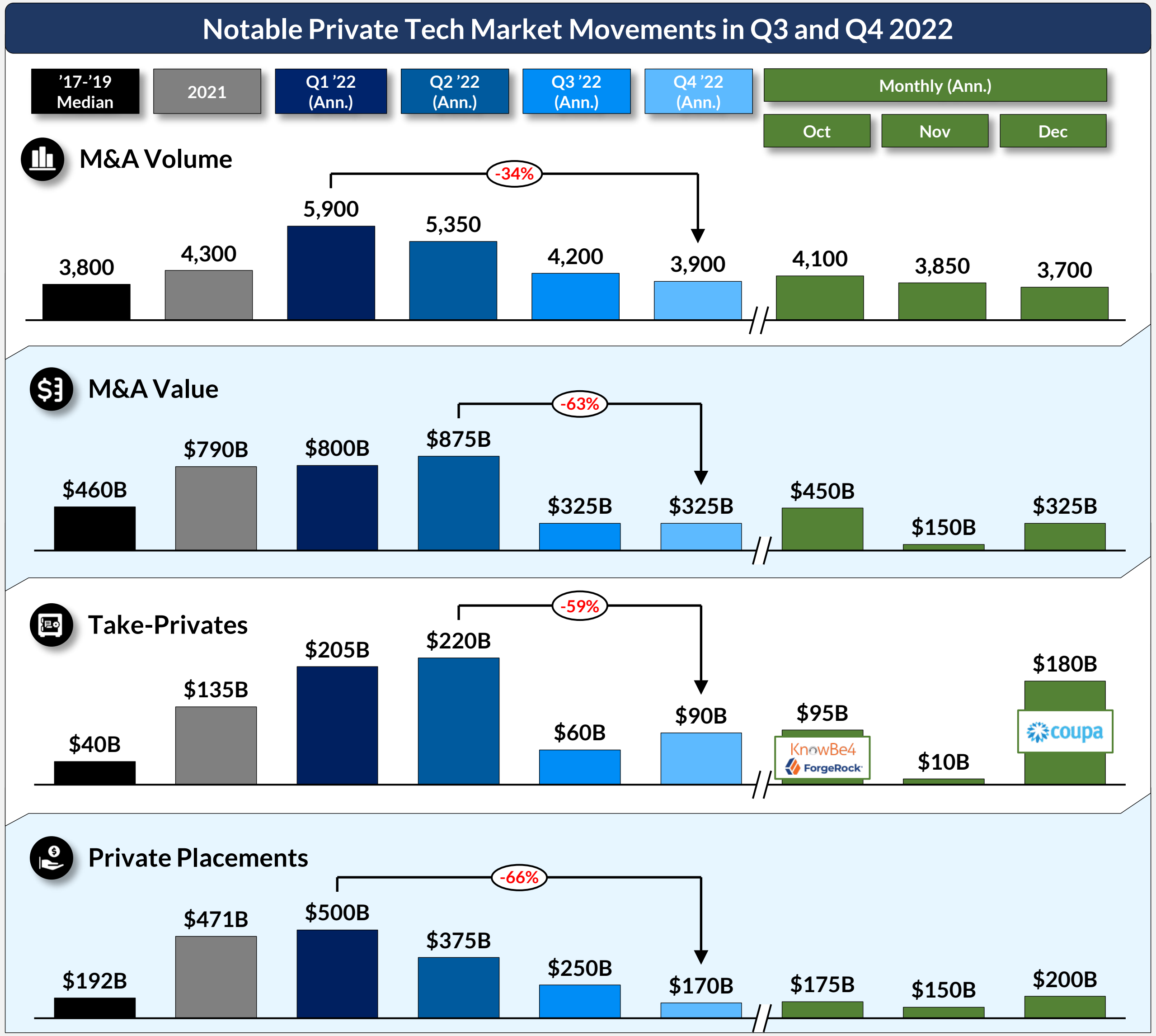
(2) Other assumptions include No Cash, No Debt, and 25% Corporate Tax Rate.

Tech Capital Markets Slow Way Down As Take-Privates Perk Up

Although we reached historic highs in 1H '22, M&A transactions hit strong macro headwinds in 2H '22, slowing deal volume by 34% and deal value by 63%. PEs are slowing their typical pace of bringing portcos to market, and strategics are more engaged, but with a sense that they finally have the upper hand. Tech transaction volume peaked in Q1 '22 at an annual run rate of 5,900 and we are now running at 3,900, which is in line with pre-COVID levels. Big deals are harder to get approved, so we are even lower on a deal value basis for the year – particularly if we scrap the Microsoft / Activision-Blizzard deal in Q1.

Debt markets have pulled way back, leverage ratios have dropped from 7x to 4x (and 2x on ARR-based loans), and the blended cost moved from 6-7% to 11-12% with 3% origination fees. Companies going to market need to be more conservative on projections in the face of a likely recession. In this more cautious environment, aggressive inbound outreach (like a contractor knocking on your door looking to buy your house) is actually generating some deal activity – but you better be a very well qualified contractor ☺. The premium deals we are bringing to auction are typically founder-owned or controlled where the founder feels great about her/his business and wants to transact on this side of whatever is coming and not wait until '24.

Tech take-privates have slowed because many of the deals done early in '22 were overpriced, which crushed the lenders and spooked the LPs. Moreover, many stocks are down 50% from their 52-week high, which puts the boards in a tough position when approving a deal at a discount to their recent stock price. That said, there are many public tech companies that would be better off private and there is $1.3T of PE firepower thinking about making that happen. In '22, there were 36 tech take-privates at a median value of $2B. Thoma's take-private of Coupa follows Vista's acquisitions of KnowBe4 in October for $4.3B at a 14.9x revenue multiple and Avalara in August for $8.4B at a 10.6x revenue multiple. Even with higher cost of debt and tougher times ahead, we expect to see a growing number of take-privates as we progress through '23.



Source: Pitchbook, 451 Research. As of 12/30/22.

Highly Speculative IPOs, SPACs & Crypto Lost Nearly $3T in Value in 2022

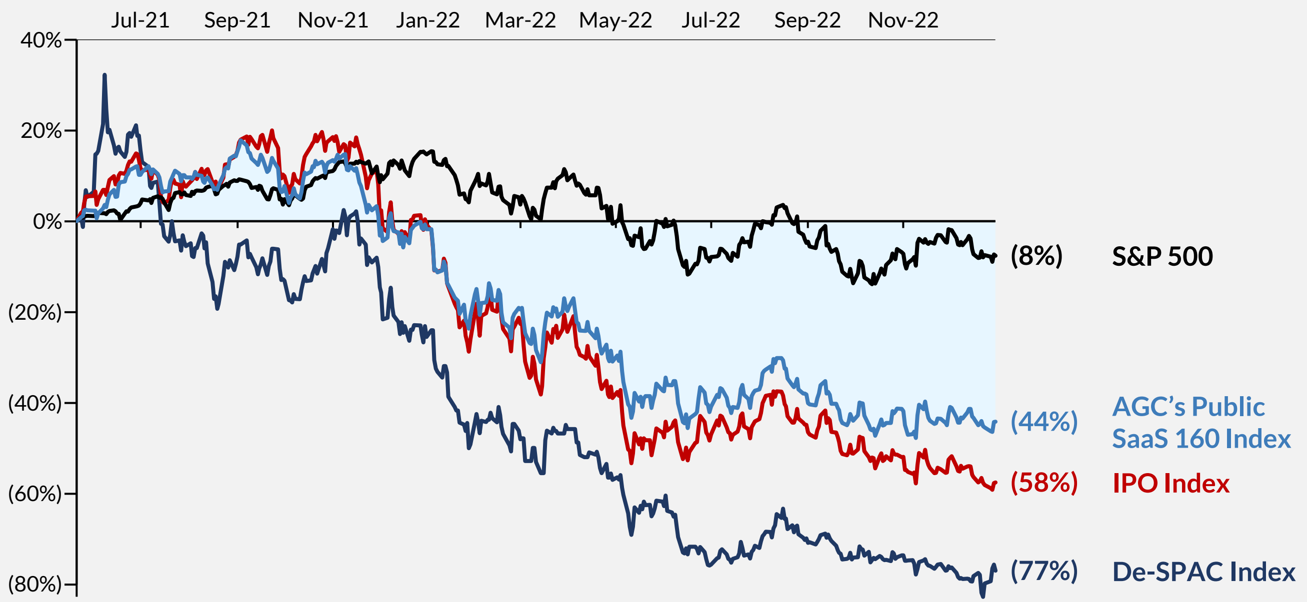
The IPO COVID boom brought 235 companies to market raising $200B. Today, 206 of those companies are trading below their IPO prices, and the median is down 58%. There have only been 15 U.S.-listed tech IPOs since July, raising barely over $1B. The market will knock out a few more tech IPOs over the next six months, but most of the tech unicorns do not have a sufficiently strong financial track record of both growth and profitability to go public in this new, more discerning marketplace.

Tech SPACs, which were the rage of Wall Street in ‘21, turned into zombies scaring away most would-be sellers. In all, they completed 620 IPOs raising $175B and 220 M&A transactions worth $550B. Only 12 of the 220 completed tech SPACs are trading above their $10 offer prices and the median is down 77%. Across all sectors, there are still 480 hung SPAC IPOs with $125B soon to be returned to IPO investors. The few SPAC acquisitions that are still closing are typically trading down dramatically after close with de minimis cash due to 90% redemptions. The only real benefit to the selling shareholders is to be public, which is not much fun these days.

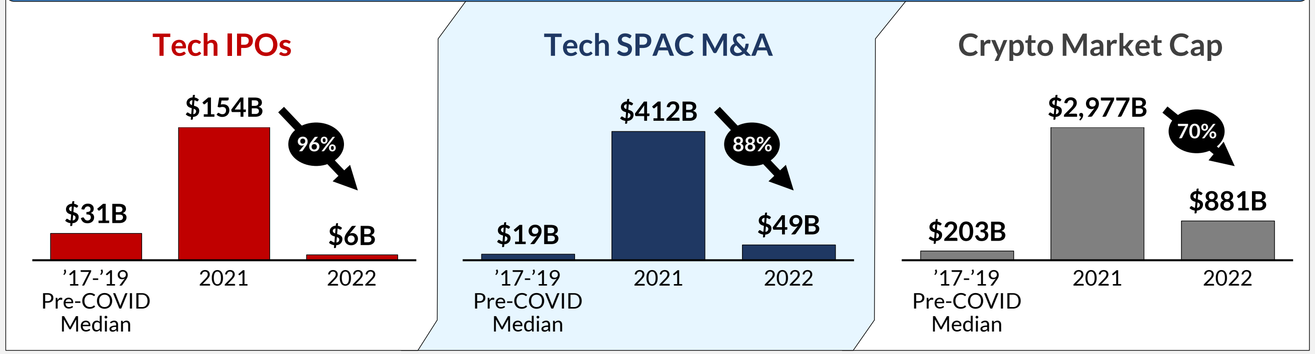
The crypto market, which took off across the globe in ‘18 and ‘19, rose to roughly $3T in total value at its peak in ‘21 before experiencing a steep and steady decline, punctuated by FTX’s $32B bankruptcy. Sam Bankman-Fried handed out tens of millions to politicians and regulators helping to prevent regulation on a massive financial market of unsupervised startups managing other people’s money with effectively no rules or government oversight. The SEC was a passive observer as this obvious disaster played out in slow motion. Blockchain and global cryptocurrencies will not disappear with the jailing of Bankman-Fried, but will rise from the ashes to play a significant role in both global technology and financial markets.

In total, the class of ’20-’21 tech IPOs lost $600B in value, closed tech SPACs shed $350B in value, and more than $2T of crypto market cap evaporated in ‘22.

De-SPAC and IPO Performance Relative to Broader Indices (Since May 2021)



Public Tech Markets Are On Life Support



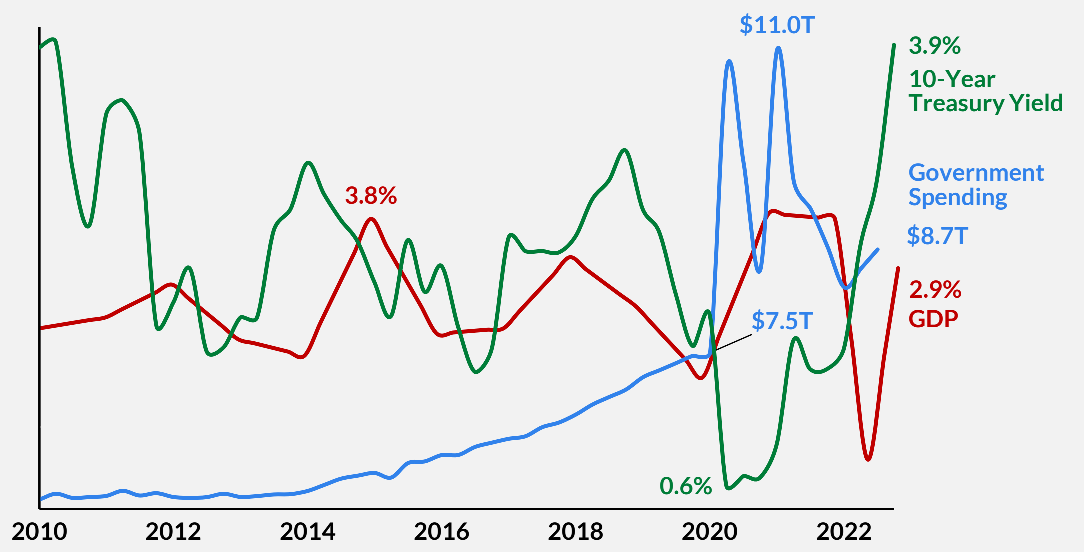
Source: Pitchbook, 451 Research, SPAC Research, AXS De-SPAC Index, Renaissance IPO Index, CoinMarketCap. As of 12/30/22 market close.

Macroeconomic Headwinds Impacting the Tech World

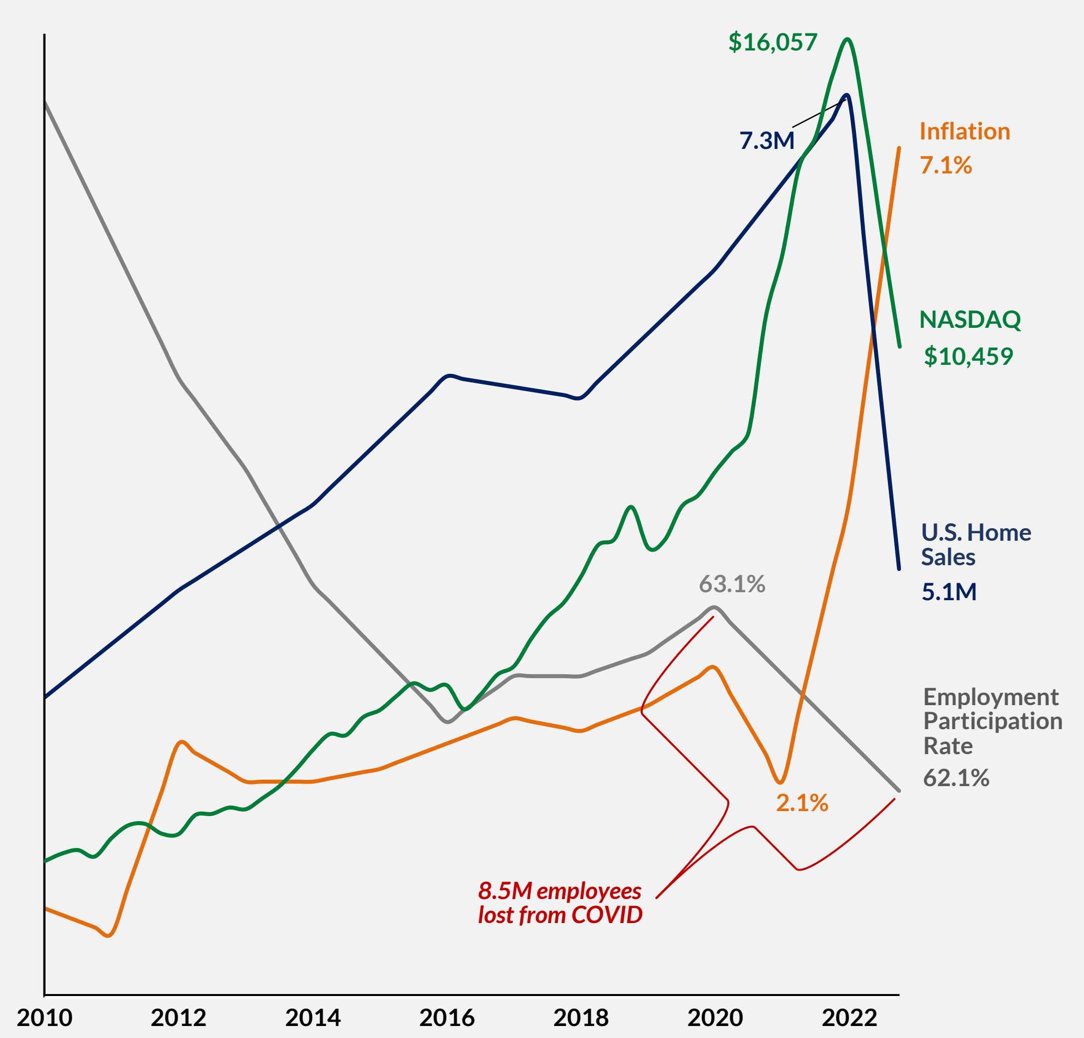
Business and consumer demand was locked down for a COVID year, creating a tidal wave of built-up demand and spending for '21 and 1H '22, and now a subsequent GDP recession projected for '23. At the same time, a historic increase in government spending (from $7.5T to $11T) juiced the economy with $6T of stimulus, and interest rates (lowered near zero by the Fed) created free capital and drove asset values, stocks, real estate, and crypto across the economy to bubble levels.

The result is inflation just off a 40-year high, U.S. home sales at '12 levels, the NASDAQ down 35% off its all-time high in Nov '21, and the employment participation rate down to 62.1%, a 44-year low with 8.5M employees lost from COVID.

How We Got Here



Global Stagnation is Here – How Bad for How Long?



Sources: IMF World Economic Outlook Oct. 2022, Federal Reserve Economic Data. NASDAQ level and treasury yield as of 12/30/22 market close.

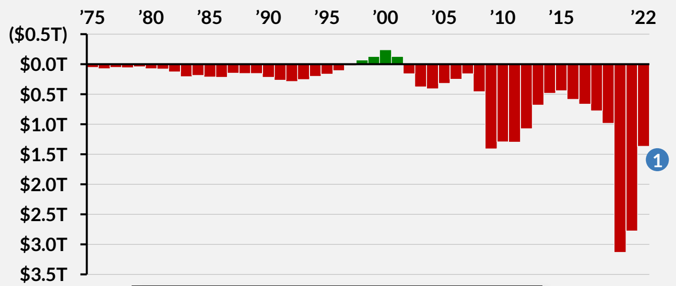
U.S. Government Plunges Deep Into Massive Deficits and Debt

Our financial fiduciary governance report card reveals how the top 20 nations by GDP managed their debt in ‘22. The U.S. and China both earned “F”s across the board due to deficits of $1T+ and high government debt to tax revenue multiples. In fact, China saw its GDP growth fall from a historical 35-year median of 9% to 3% in ’22, which is what forced the Communist Party to go deep on deficit spending.

It’s not a coincidence that the three largest economies – U.S., China, and Japan – were the most irresponsible with deficit spending and excessive debt loads. The Bigs figure they will not be challenged by the capital markets, rating agencies, media, etc. – too big to fail. The smaller countries are more dependent on global capital markets and have far less flexibility in their fiscal discretion and discipline. Roughly 46% of the U.S.’ $31T in debt is now held by the Fed, government trust and retirement funds including military, as well as state and local pensions, meaning we are buying roughly half of our own deficits with our government-controlled entities and pension funds. I hope we are too big to fail ☺. Foreign investors as holders of our debt have dropped from 33% in ’12 to 24% today. The U.S. debt load is so large that our smaller country friends can no longer fund our debt problem.

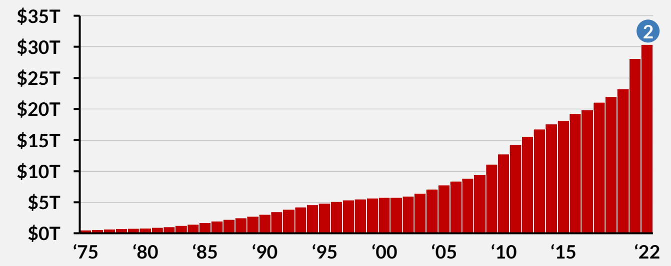
As Congress negotiates another mega increase to the U.S. government debt cap and deficit spending, the U.S. hits dangerous levels of debt, record level of interest payments on that debt, record deficit spending as a percentage of tax income, and record total debt to tax income ratios. When comparing the U.S. to the top 20 global country economies, the U.S. ranks worst as it relates to their debt load relative to the four core debt metrics. Our debt has ballooned to roughly $31T. If you use the 70-year average government interest rate of 5% (very close to the current interest rate) on our current debt, you have $1.2T in interest-only payments against a federal tax income of roughly $5T. Simple math says that 25% of our government income will have to go to servicing our mega debt load. Equally concerning is that the U.S. in ‘22 had a deficit spending of 28% greater than tax income. With the U.S. government borrowing trillions more every year than they bring in and increasing their debt and interest payments, we are mortgaging away our future tax revenues for current spending programs.

U.S. Deficit Tracker



Annual U.S. Federal Deficit ($B)

Total U.S. Federal Public Debt Tracker



Total U.S. Public Debt ($B)

2022 U.S. Financial Governance Report Card

Grading Key: A | B | C | F

GDP Rank	Country	2022 GDP $B USD	(Deficit) as % of Tax Revenue	(Deficit) $B USD	Govt. Debt / Tax Revenue	2022 Gross Debt $B USD
1.	United States	$25,035	(28%)	($1,370) 1	6x	$30,569 2
2.	China	18,321	(36%)	(1,631)	3x	14,088
3.	Japan	4,301	(22%)	(339)	7x	11,350
4.	Germany	4,031	(7%)	(134)	2x	2,867
5.	India	3,469	(52%)	(343)	4x	2,893
6.	United Kingdom	3,198	(12%)	(137)	2x	2,782
7.	France	2,778	(10%)	(142)	2x	3,107
8.	Canada	2,200	(5%)	(47)	3x	2,249
9.	Russia	2,133	(7%)	(49)	0x	345
10.	Italy	1,997	(11%)	(109)	3x	2,940
11.	Iran	1,974	(50%)	(83)	4x	674
12.	Brazil	1,895	(18%)	(110)	3x	1,671
13.	Korea	1,734	(7%)	(31)	2x	938
14.	Australia	1,725	(10%)	(59)	2x	979
15.	Mexico	1,425	(15%)	(54)	2x	809
16.	Spain	1,390	(11%)	(69)	3x	1,579
17.	Indonesia	1,289	(26%)	(50)	3x	527
18.	Saudi Arabia	1,011	17%	55	1x	250
19.	Netherlands	991	(2%)	(7)	1x	478
20.	Turkey	853	(14%)	(36)	1x	320
	Medians:	$1,985	(11%)	($76)	2x	$1,625

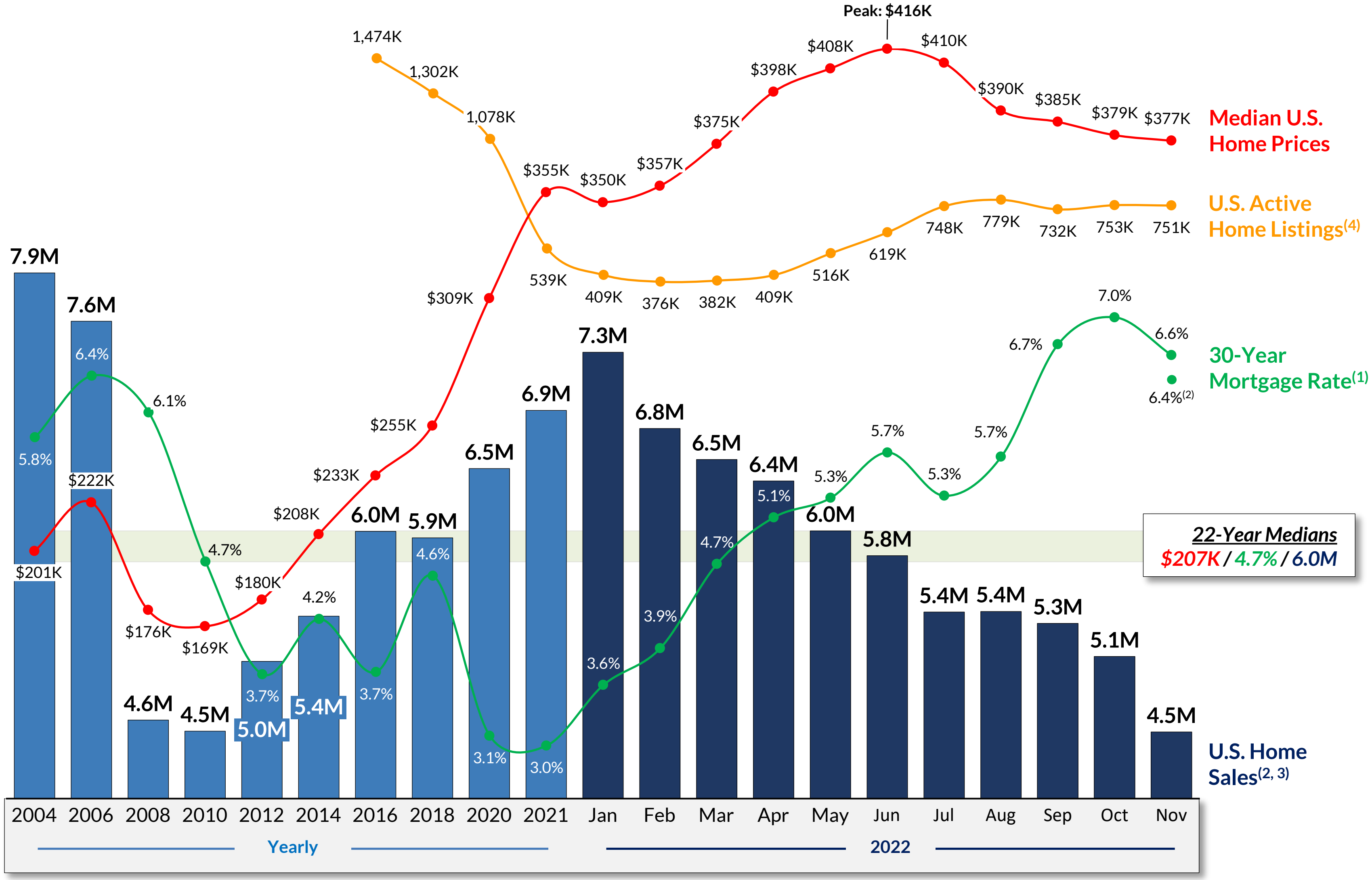
Sources: IMF World Economic Outlook Oct. 2022, Federal Reserve Economic Data. Trackers from 1975-2022.

U.S. Residential Housing, Representing $43T in Assets, Is Going South After a 12-Year Run

The U.S. residential boom started way back in '10 when home sales, volume, and pricing took off after the Great Recession. **Home sales**, which were at roughly 4.5M annually in '10, peaked in Jan '22 at 7.3M but have fallen hard over the last 11 months to a lowly annual run rate of 4.5M. This takes us all the way back to '10 transaction volumes, and it feels like we are going to keep going lower.

Home prices also bottomed in '10 at $169K and have rocketed since then, peaking in Jun '22 at $416K. Home prices increased 63% from $255K to $416K during COVID. Homeowners across the country now can't afford to give up their low interest rate mortgages, nor are they very excited about selling their house at a lower price than their neighbors just sold for – so home sales will continue to fall.

The November stats show that prices fell to $377K and **mortgage rates** remained high at 6.6%, a 3x move from their COVID low of ~2%. We are also seeing job security concerns, rising available home inventory levels, and sliding home sales and prices that will continue for quarters, if not years.



Sources: US Census Bureau, FRED, TradingEconomics.

(1) *Mortgage Rates are calculated as the simple average of month ending interest rates for each year. For November 2022, the interest rate shown is the month ending rate. Household debt based on St. Louis Fed estimates.*

(2) *Existing home and new home transaction volumes as of November 31, 2022. Median Home Price as of November 31, 2022. The final Mortgage Rate Point represents 30-Year rate as of December 30th, 2022.*

(3) *U.S. Home Sales are calculated as the simple average of the sum of seasonally adjusted, annualized, new and existing home sales for each month in a given year. Median Price is based on period-ending price.*

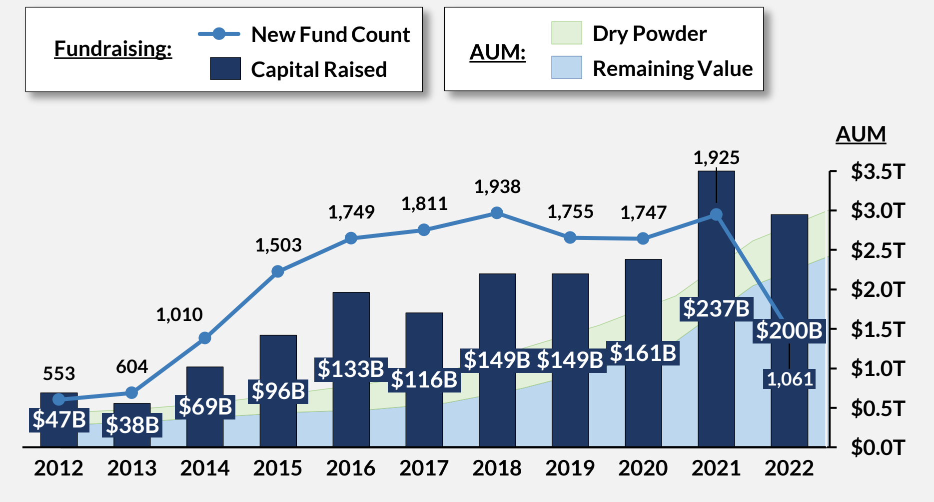
(4) *Data from Realtor.com and FRED. The final U.S. Active Listing number represents amount as of November 31, 2022.*

50,000 VC-Backed Tech Companies – Many of Which Are Rethinking 2023

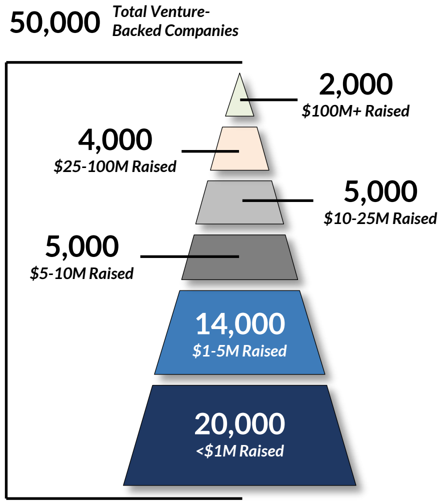
The tech venture world took off way back in ‘14, and COVID took it well beyond what we old folks experienced in the 2000 dot-com bubble. To compare, in ‘98 and ‘99, there were 2,700 tech VC investments and $22B total invested compared to 51,000 investments and $712B invested in ‘21 and ‘22. Back in 2012, $29B was invested in venture, and that number peaked at $413B in ‘21. These funds currently manage roughly 50,000 VC-backed tech companies. Over that period, many billion-dollar success stories were created from scratch. Now, we are only in the very early days of this latest tech crash and just beginning to understand the extent of the wreckage. Many of the same mistakes were made, but on a 32x scale. Chasing the next Twitter or Zscaler, some LPs dumped billions into unproven investors who did the same with unproven entrepreneurs with inadequate infrastructure or oversight. Most of these companies will be sold or shut down, and most of the survivors will need to drastically change their ways and dramatically reduce their valuations to secure funding and continue their missions. Fortunately, or unfortunately for the noise in the system, many of these venture-backed companies completed large funding rounds in the last year, so they have the staying power – capital overhang = longer hangover in VC land! There are currently 9,000 active venture funds with 30,000 portfolio investments of $1M or greater. Many great companies will emerge from the ruins, but spray and pray will not be a universal formula for success this time around.

Venture growth funds have stepped onto a bigger stage and emerged as contenders for investing in hyper-scaling young private tech companies, often doing deals with limited due diligence, 30-day closings, standard preferred terms, and sky-high valuations. The days of venture capital checks capping out at $20M strictly for primary investment have been blown away by new age venture funds. The venture growth minority check now rivals the PE majority check with a higher valuation and the lure of not giving up control.

Tech VC Fundraising and Total AUM by Year



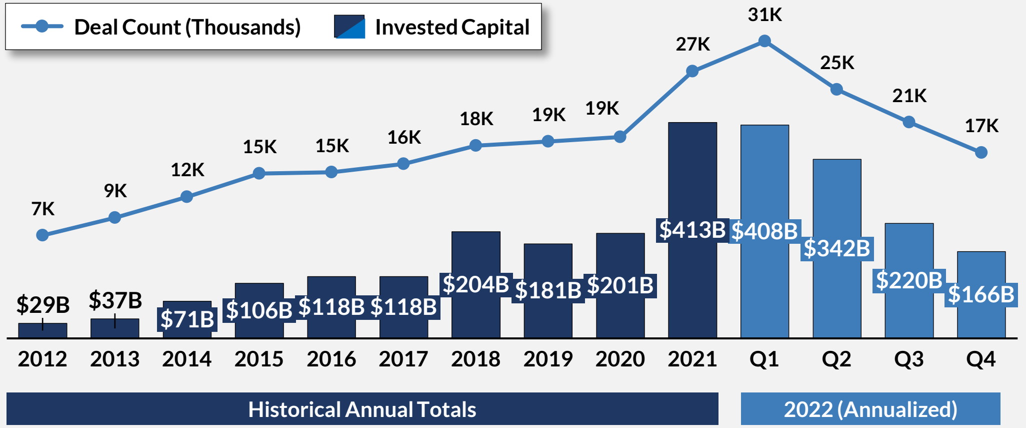
VC Tech Company Universe



Tech VC Capital Invested by Year / Quarter

Time Period Comparison

	1998-1999	*2021-2022*
# of VC Investments	2,714	51,049
	19x	
Total VC $ Invested	$22B	$712B
	32x	



Source: Pitchbook. As of 12/30/22. “Tech VC Capital Invested” encompasses all VC rounds in Information Technology globally per Pitchbook. “Tech VC Funds” are defined as those whose managers employ a tech investment strategy per Pitchbook. AUM includes non-tech assets.

2022 PE Leaders Raise Massive War Chests for Great SaaS Hunting in 2023

The global technology PE industry stands strong in the midst of this global and capital markets hurricane. While the sun was shining bright on Tech land, Tech PE firms raised over $400B billion across 300 funds between ‘20 and ‘22. The top 300 Tech PE funds have over $1.5T in AUM with 4,500 portcos and more dry powder than ever before. Having recently talked to dozens of Tech PE Partners, it is clear that the industry is taking a significant pause (in St. Barths, Yellowstone, and the Austrian Alps 😉) to better understand how these macro headwinds are impacting their core markets and underlying portfolio companies’ performance in the near, intermediate, and long term. As part of that recalibration, they are also trying to understand where private and public market valuations will play out in the long term.

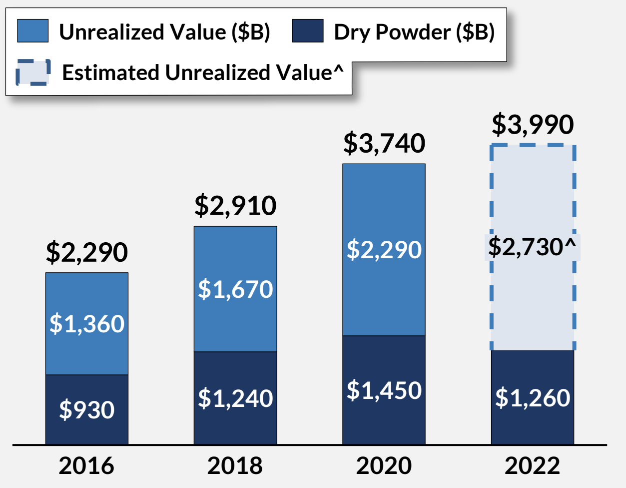
In AGC’s annual survey of the top 40 tech PE firms, the usual suspects held on to their leadership roles, including Thoma, Vista, TA, Silver Lake, Hg and Insight. On fund raising since ‘16, Thoma leads with $79B and Vista is in second at $59B. For the first time ever, tech PEs broke the $20B single fund barrier with not just one fund, but four funds in ‘22. Pitchbook estimates PE AUM at $4 trillion with $1.3 trillion in dry powder. Now there will be some markdowns on those unrealized valuations, but the dry powder is committed and available for acquisitions.

Largest Tech-Focused PE Funds[1]

- THOMABRAVO — **$24.3B** / *Dec-22*
- VISTA — **$20.0B*** / *Open*
- INSIGHT PARTNERS — **$20.0B** / *Feb-22*
- SILVERLAKE — **$20.0B** / *Jan-21*
- CLEARLAKE — **$14.1B** / *May-22*

**Estimated target/fund size. Not yet closed.*

PE AUM + Dry Powder Breakout[2]



Tech-Focused PEs by Total Raised Since 2016

Rank	PE Firm	Funds Raised ($B)
1.	THOMABRAVO	$79.0B
2.	VISTA	$58.7B
3.	CLEARLAKE	$38.9B
4.	SILVERLAKE	$37.5B
5.	Hg	$36.8B
6.	INSIGHT PARTNERS	$36.7B
7.	TA	$33.1B
8.	FP FRANCISCO PARTNERS	$30.4B
9.	GENERAL ATLANTIC	$28.6B
10.	VERITAS CAPITAL	$22.5B
11.	SUMMIT PARTNERS	$19.1B
12.	PROVIDENCEEQUITY	$12.0B
13.	PSG PROVIDENCE STRATEGIC GROWTH	$9.9B
14.	GI PARTNERS	$9.3B
15.	Great Hill PARTNERS	$9.0B

Note: Totals include target amounts on open funds.

(1) *Source: Pitchbook, PE Hub, Bloomberg. “Tech-Focused PEs” are defined as those historically allocating 50%+ to the tech sector and pursuing a growth equity or buyout strategy for 50%+ of closed funds.*

(2) *Source: Pitchbook Q3 2022 Private Market Fundraising Report.*
^Unrealized value estimate based on 9% median growth rate of unrealized value between 2010-2021.

Hg, TA, Vista, Thoma, and Insight Take The Lead in Global Tech Acquiring

From Jan '20 through Dec '22, PE funds and their portfolio companies bought 4,200 tech companies, accounting for 32% of all tech M&A transactions. That's a significant increase from the 1,200 PE-led deals at 12% of the tech M&A market from '10-'12.

The five most active tech PE firms – Hg, TA, Vista, Thoma Bravo, and Insight – are relentless in their programmatic efforts to build organically and through acquisitions. They seek out and compete hard for platform companies that have the size, market leadership, and management on which they can build. Over the five-year period tracked, these five firms alone combined for 1,142 add-ons and 227 platform acquisitions, a 5 to 1 split with add-ons creating a powerful multiplier effect. Thoma Bravo and Vista lead the way in platform acquisitions with 59 and 56, respectively, since '18. Hg trails closely behind with 47.

In most PE platform deals, the PE selling holds on to a significant ownership position looking to piggy-back on the new PE owner's ambitions of building a much bigger company. These PEs and Port Cos are now paying 5-15x current ARR – often more generous than the strategics. Out of the 4,400 PE tech deals completed by the top 40 PEs since '18, 1,000 were platform deals, representing 23% of the total.

Top Tech PE Acquirers by Total Deal Count (2018-2022)

Rank	Firm	Total Deal Count[1]
1.	Hg	342
2.	TA	342
3.	Vista	278
4.	Thoma Bravo	214
5.	Insight Partners	193
6.	FP Francisco Partners	169
7.	AKKR	149
8.	PSG	141
9.	GI Partners	129
10.	Clearlake	127
11.	Main Capital Partners	126
12.	Carlyle	126
13.	KKR	117
14.	Battery	115
15.	K1	111
16.	EQT	104
17.	Advent International	100
18.	Marlin Equity Partners	98
19.	Genstar	90
20.	Apax	89

Platform
Add-On

Platform Deal Leaders (2018-2022)

Rank	Firm	Platform Deal Count[2]
1.	Thoma Bravo	59
2.	Vista	56
3.	Hg	47
4.	TA	42
5.	Main Capital Partners	41
6.	FP Francisco Partners	40
7.	AKKR	37
8.	Marlin Equity Partners	37
9.	KKR	34
10.	PSG	30
11.	Carlyle	30
12.	LLR Partners	29
13.	K1	28
14.	abry partners	27
15.	Clearlake	26
16.	Battery	26
17.	H.I.G. Capital	26
18.	EQT	25
19.	Great Hill Partners	25
20.	Blackstone	25

Source: 451 Research, Pitchbook, Company Reports. For the period 1/1/18 through 12/30/22. "PE Tech Acquisitions" are defined as control transactions with a PE firm as buyer and tech company as target. Excludes consortium-led transactions (three buyers or more) and portfolio company mergers.

(1) Rankings based on total deal count, then by platform count.
(2) Rankings based on platform count, then by total deal count.

AGC's Tech PE Survey – 2022 Results

Total Deal Count (Jan-Dec 2022)

Rank	Firm	Total Count[1]
1.	Hg	90
2.	TA	89
3.	VISTA	54
4.	THOMABRAVO	46
5.	MAIN CAPITAL PARTNERS	43
6.	AKKR ACCEL-KKR	33
7.	PSG	33
8. CARLYLE	CARLYLE	33
9.	INSIGHT PARTNERS	30
10.	CLEARLAKE	27
11.	KKR	26
12.	FP FRANCISCO PARTNERS	26
13.	EQT	25
14.	GI PARTNERS	24
15.	K1	21
16.	Battery	21
17.	Apax	20
18.	TPG	19
19.	Advent International GLOBAL PRIVATE EQUITY	17
20.	abry partners	16
21.	MARLIN EQUITY PARTNERS	15
22.	GENSTAR CAPITAL	15
23.	LLR Partners	14
24.	Great Hill PARTNERS	14
25.	H.I.G. CAPITAL	13
26.	Riverside	13
27.	PROVIDENCE EQUITY	13
28.	AQUILINE	13
29.	ALPINE	12
30.	WARBURG PINCUS	12
31.	Blackstone	12
32.	BainCapital	11
33.	STG	10
34.	CVC	10
35.	RUBICON technology partners	10
36.	SILVERLAKE	10
37.	HGGC	10
38.	montagu	9
39.		9
40.	MADISON DEARBORN PARTNERS	8

Platform Deal Count (Jan-Dec 2022)

Rank	Firm	Platform Count[2]
1.	MAIN CAPITAL PARTNERS	17
2.	VISTA	13
3.	THOMABRAVO	12
4.	TA	11
5.	Hg	9
6.	AKKR ACCEL-KKR	7
7.	KKR	7
8.	H.I.G. CAPITAL	7
9.	FP FRANCISCO PARTNERS	6
10.	K1	5
11.	Advent International GLOBAL PRIVATE EQUITY	5
12.	abry partners	5
13.	Riverside	5
14.	ALPINE	5
15.	PSG	4
16.	CLEARLAKE	4
17.	EQT	4
18.	Apax	4
19.	LLR Partners	4
20.	BainCapital	4
21.	GI PARTNERS	3
22.	Battery	3
23.	TPG	3
24.	MARLIN EQUITY PARTNERS	3
25.	PROVIDENCE EQUITY	3
26.	STG	3
27.	CVC	3
28.	CARLYLE	2
29.	GENSTAR CAPITAL	2
30.	Great Hill PARTNERS	2
31.	WARBURG PINCUS	2
32.	RUBICON technology partners	2
33.	montagu	2
34.	NMC New Mountain Capital	2
35.	MADISON DEARBORN PARTNERS	2
36.	ARDIAN	2
37.	INSIGHT PARTNERS	1
38.	Blackstone	1
39.	SILVERLAKE	1
40.	HELLMAN & FRIEDMAN	1

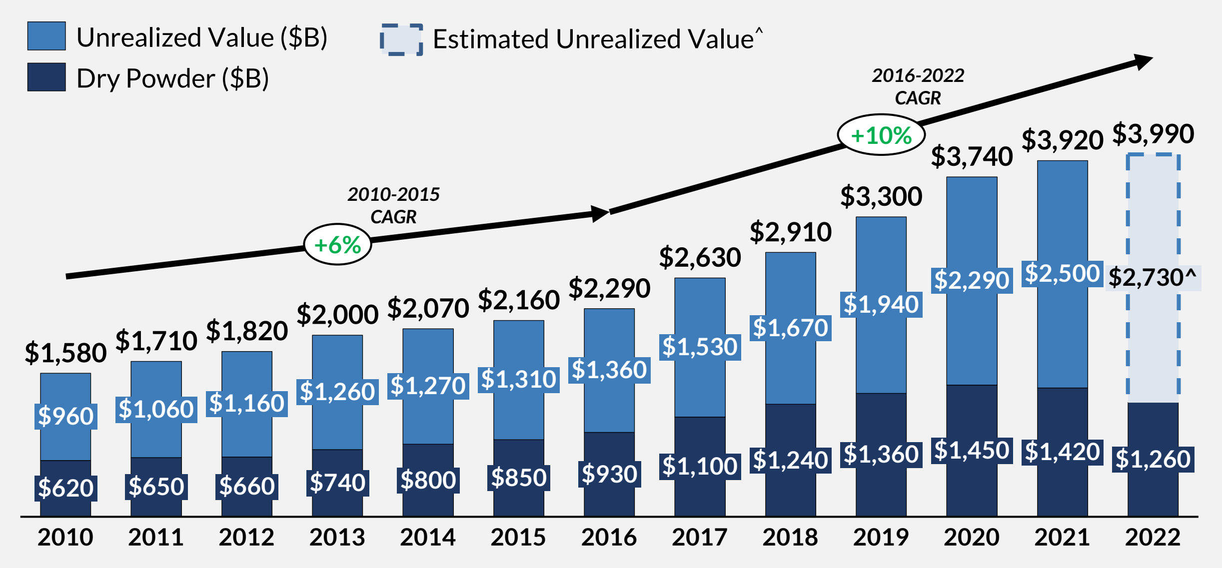
Source: 451 Research, Pitchbook, Company Reports. For the period 1/1/18 through 12/30/22. "PE Tech Acquisitions" are defined as control transactions with a PE firm as buyer and tech company as target. Excludes consortium-led transactions (three buyers or more) and portfolio company mergers.

(1) Rankings based on total deal count, then by platform count.
(2) Rankings based on platform count, then by total deal count.

$4.0T in Assets, $1.3T in Dry Powder, and 4,500 Tech Portcos

Over the past fifteen years, private equity as an asset class has experienced tremendous growth. According to Pitchbook, AUMs are now nearly $4.0T with ~$1.3T in Dry Powder. AUM growth picked up significantly from ‘16-’20, rebounding from a slowdown over the previous six years. At a CAGR of 13% from ‘16-’20, AUMs were on track to exceed $5T by ‘24, but that timeline is likely pushed out given the slowdown in ‘22 and into ‘23. The top 250 tech PE funds have now amassed 2,000 tech portcos via platform acquisitions and another 2,500 via non-control stakes, amounting to a total universe of ~4,500 companies backed by the top tech PEs.

Private Equity AUM and Dry Powder (2010-2022)



Active Tech Portfolio Count[1]

Rank	PE Firm	Portcos
1.	VISTA	59
2.	PSG Providence Strategic Growth	58
3.	TA	55
4.	INSIGHT PARTNERS	52
5.	THOMABRAVO	51
6.	Riverside	46
7.	CARLYLE	42
8.	AKKR Accel-KKR	41
9.	MAIN CAPITAL PARTNERS	41
10.	KKR	38
11.	FP Francisco Partners	36
12.	Marlin Equity Partners	36
13.	Blackstone	33
14.	Serent Capital	33
15.	TPG	33

Rank	PE Firm	Portcos
16.	ARDIAN	32
17.	Hg	32
18.	LLR Partners	31
19.	SUMMIT PARTNERS	29
20.	Warburg Pincus	29
21.	CLEARLAKE	28
22.	K1	28
23.	verdane	28
24.	Advent International Global Private Equity	27
25.	H.I.G. Capital	25
26.	JMI	25
27.	abry partners	24
28.	PROVIDENCE EQUITY	24
29.	EQT	23
30.	Battery	22

Source: Pitchbook Q3 2022 Private Market Fundraising Report.
^Unrealized value estimate based on 9% median growth rate of unrealized value between 2010-2021.

(1) *Represents actively held tech portfolio companies acquired via Buyout/LBO or PE Growth round per Pitchbook.*

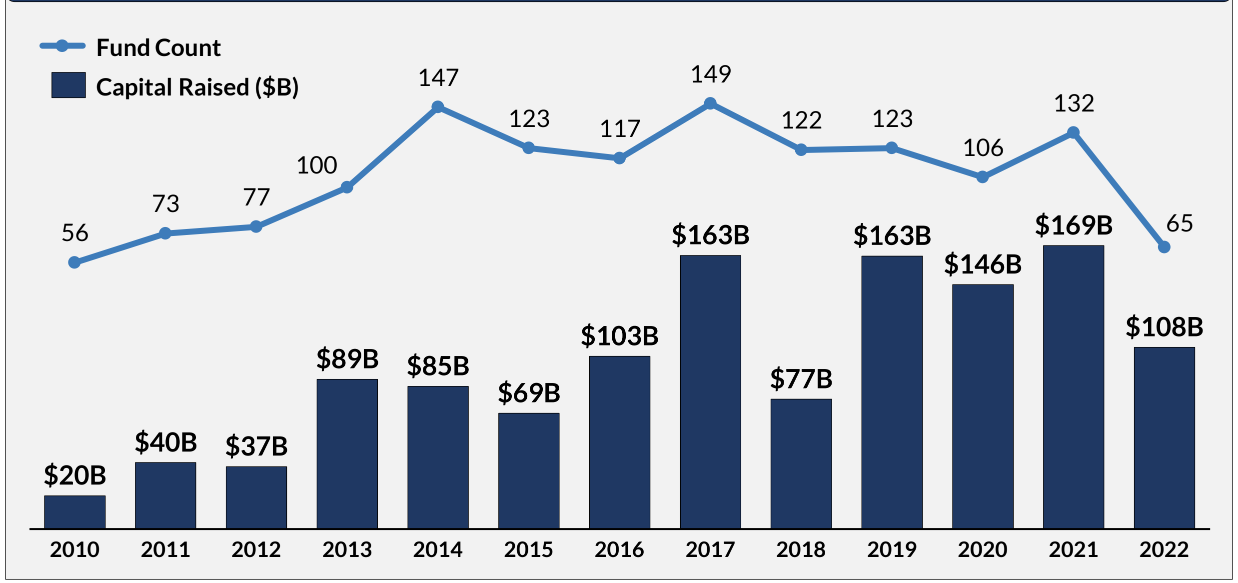
Total Funds Raised by Tech-Focused PEs

Accelerated investor demand has allowed these 30 PEs to raise over $500B in tech PE funds since ‘16. Thoma and Vista have separated themselves from the pack at $79B and $59B, respectively, thanks to frequent fundraising and massive fund step-ups.

Thoma’s four flagship funds raised since ‘16 have increased from $7.6B to $24.3B in size, while Vista’s three have stepped up from $11.1B to $20B. Both firms have likewise grown their smaller-check funds more than 300% since inception.

Powered by massive flagship funds of their own, Clearlake, Silver Lake and Insight are mainstays at the top, while Hg is a relative newcomer with a multi-fund strategy bifurcated based on check size.

Number of Tech PE Funds Closed and Capital Raised by Year



Total Funds Raised by Tech-Focused PEs Since 2016

Rank	PE Firm	Raised ($M)
1.	THOMABRAVO	$79,014
2.	VISTA	58,700
3.	CLEARLAKE	38,935
4.	SILVERLAKE	37,450
5.	Hg	36,814
6.	INSIGHT PARTNERS	36,729
7.	TA	33,132
8.	FP FRANCISCO PARTNERS	30,440
9.	GENERAL ATLANTIC	28,556
10.	VERITAS CAPITAL	22,500
11.	SUMMIT PARTNERS	19,120
12.	PROVIDENCEEQUITY	12,000
13.	PSG PROVIDENCE STRATEGIC GROWTH	9,940
14.	GI PARTNERS	9,325
15.	Great Hill PARTNERS	9,038

Rank	PE Firm	Raised ($M)
16.	AKKR ACCEL-KKR	$8,676
17.	SIRIS	7,500
18.	GENERAL CATALYST	6,310
19.	K1	6,298
20.	TCV	5,960
21.	SPECTRUM EQUITY	5,806
22.	Battery	5,731
23.	BregalSagemount	4,960
24.	JMI	4,930
25.	ALPINE	4,193
26.	Montagu	3,890
27.	RUBICON technology partners	3,806
28.	STG SYMPHONY TECHNOLOGY GROUP	3,710
29.	AQUILINE	3,699
30.	MAIN CAPITAL PARTNERS	3,485

Source: PitchBook, PE Hub, Bloomberg. “Tech-Focused PEs” are defined as those historically allocating 50%+ to the tech sector and pursuing a growth equity or buyout strategy for 50%+ of closed funds.

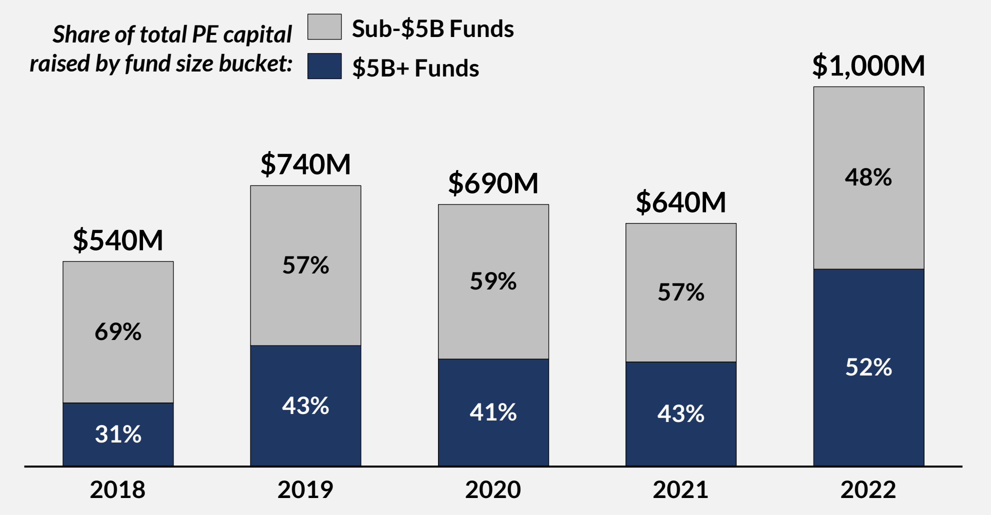
Note: Totals include target amounts on open funds, and only funds with PE strategies.

New Tech PE Funds: The Big Keep Getting Bigger

The upper end of PE fund sizes has increased from $10B-$12B in ‘18 to $20B-$27B today. Thoma leads the way for the pure tech PEs at $24.3B followed by Vista, Insight and Silver Lake at $20B each, and the big buyout PEs are expected to funnel sizeable chunks of their $25B+ funds into the tech ecosystem. Thoma just announced the completion of fundraising for its latest three tech-focused buyout funds (Fund XV, Discover IV, and Explore II) totaling more than $32B in capital commitments, with each fund surpassing its target.

The average PE fund size has nearly doubled from $540M in ‘18 to $1B in ‘22. Large funds’ share of total PE capital raised has likewise increased to 52% in ‘22, up from 31% in ‘18. In a year where overall PE fundraising was down, the mega-funds have kept the pedal down.

Average PE Fund Size ($M) by Year



Latest Tech PE Funds (By Firm, Launched or Closed Since 2020)

PE Firm	Size ($M)	Date
Carlyle	$27,000*	Open
Blackstone	25,500	Jan-20
Apollo	25,000*	Open
Advent International	25,000	May-22
CVC	24,800	Jul-20
Hellman & Friedman	24,400	Jul-21
Thoma Bravo	24,300	Dec-22
EQT	22,800*	Open
Vista	20,000*	Open
Insight Partners	20,000	Feb-22
Silver Lake	20,000	Jan-21
KKR	19,000	Apr-22
Warburg Pincus	17,000*	Open
Permira	16,000*	Open
Clearlake	14,100	May-22

PE Firm	Size ($M)	Date
Cinven	$13,600*	Open
FP Francisco Partners	13,500	Jul-22
Apax	13,000*	Open
TA	12,500	Jun-21
Bain Capital	11,800	Apr-21
Genstar Capital	11,700	Oct-22
Hg	11,000	Nov-22
Veritas Capital	10,650	Oct-22
NMC New Mountain Capital	9,650	Jan-21
Stone Point Capital	9,100	Jun-22
Nordic Capital	8,800	Oct-22
Summit Partners	8,350	Oct-21
General Atlantic	7,800	Nov-21
GTCR	7,500	Nov-20
Berkshire Partners	6,500	Dec-21

Indicates Tech-Focused PEs

*Estimated target/fund size. Not yet closed.

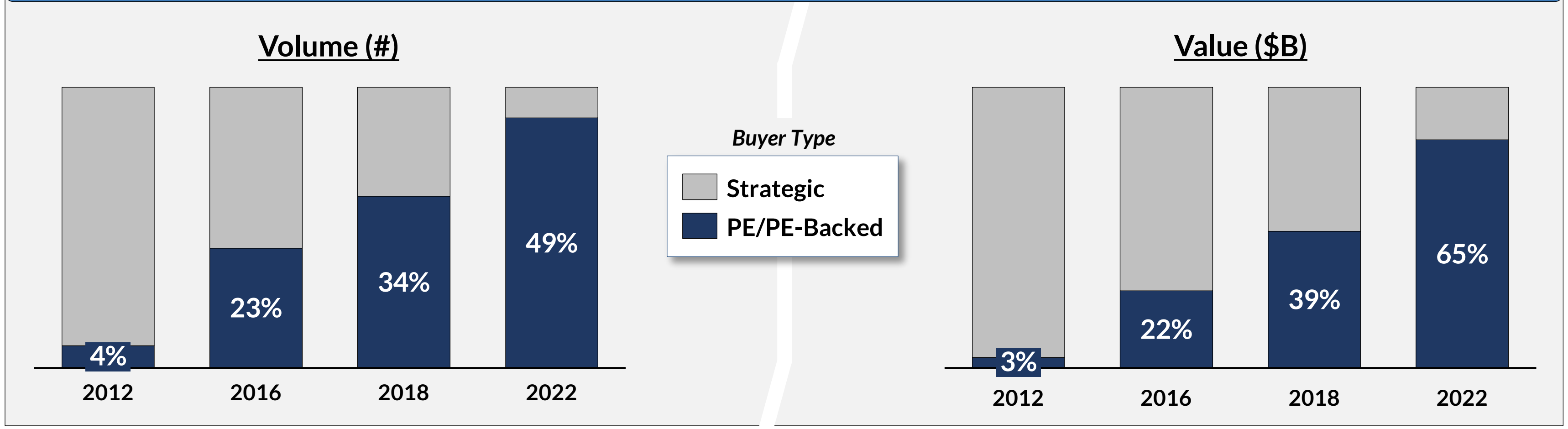
Source: PitchBook, PE Hub, Bloomberg. Includes the latest fund for select private equity firms closed or launched during the period 1/1/20 through 12/30/22.
“Tech-Focused PEs” are defined as those historically allocating 50%+ to the tech sector and pursuing a growth equity or buyout strategy for 50%+ of closed funds.

Tech PEs Will Drive Half of High Value SaaS Deals in 2023

Private Equity has become the power player in the global tech world, competing toe-to-toe with the strategic community and rocking the landscape across hundreds of technology markets and thousands of companies. The top ten most acquisitive PEs combined for 2,082 deals since ‘18, four times the tally of the top ten strategics at 524. Most of the tech Titan deals are acqui-hires below $100M.

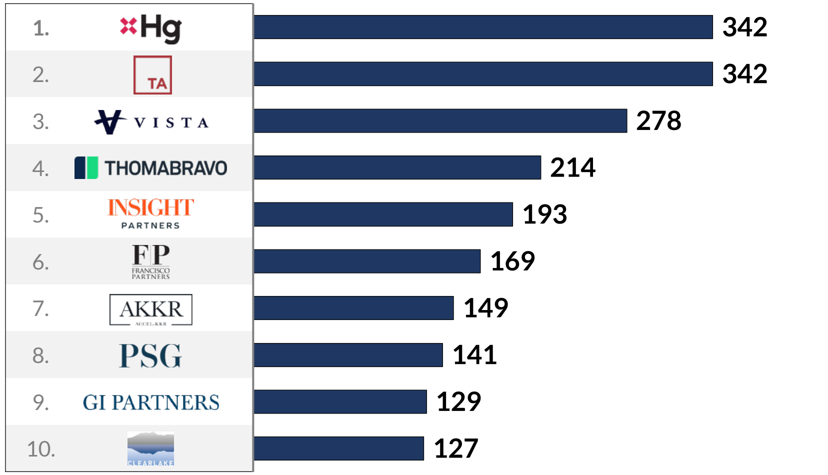
Private equity is taking over more of the high end of the tech SaaS M&A market. 49% of the deals done in our world ($50M-$1.5B in EV at a revenue multiple of 4x or higher) in ’22 were PE-led – that compares to a mere 4% of that M&A market by PEs back in ‘12.

Share of Tech M&A on $50M-$1.5B Deals with 4x+ Revenue Multiples

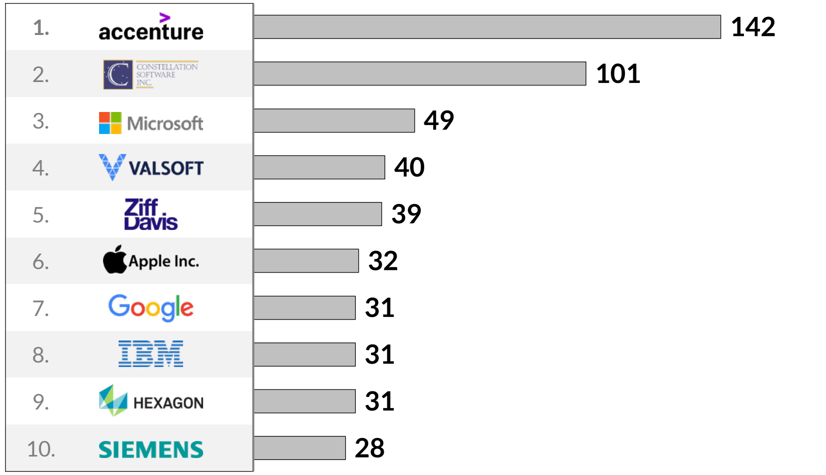


Note: Strategic bars not to scale. As of 12/30/22.

Top Tech PE Acquirers (2018-2022)



Top Strategic Tech Acquirers (2018-2022)



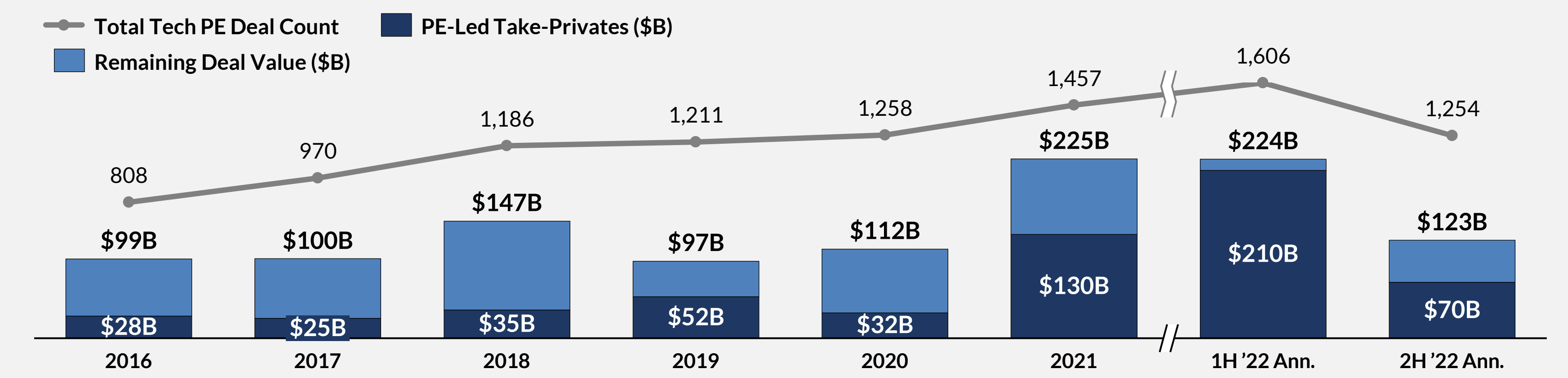
Note: Top acquirer rankings by deal count for the period 1/1/18-12/30/22.

Source: Pitchbook, 451 Research, Company Filings.

Take-Privates Represent 80% of Tech PE Deal Value in 2022

PE funds completed nearly 1,500 tech acquisitions in ’21 representing $225B in disclosed value, and ’22 ended up at an equal level of volume and $174B in value. Take-privates were responsible for 80% of tech PE deal value in ’22 – in fact, all but 2 targets of the 24 largest deals featured below (Athena Health and Quest) were public companies at the time of acquisition.

PE Tech M&A Trend



Largest PE Tech M&A Deals Since 2021

Acquirer	Bain Capital / H&F	Vista / Elliott	Brookfield / Elliott	KKR / Global Infrastructure Partners	Advent International / Permira	Thoma Bravo	Blackstone	DigitalBridge / ifm	Thoma Bravo	Hellman & Friedman / Permira	Vista	Brookfield
Target	athenahealth	citrix	Nielsen	CyrusOne	McAfee	proofpoint	QTS	switch	Anaplan	zendesk	Avalara	CDK Global
EV ($M)	$17,000	$16,500	$16,000	$15,000	$14,085	$12,324	$11,291	$11,000	$10,437	$10,200	$8,400	$8,300
Mult.	ND	5.2x	2.5x	13.0x	4.6x	11.3x	20.1x	17.6x	17.6x	7.1x	10.6x	4.8x
Date	Nov-21	Jan-22	Mar-22	Nov-21	Nov-21	Apr-21	Jun-21	May-22	Mar-22	Jun-22	Aug-22	Apr-22

Acquirer	Thoma Bravo	Stone Point Capital / Insight Partners	Nordic / Insight Partners	Thoma Bravo	Veritas Capital (1)	Thoma Bravo	Insight Partners (1)	Thoma Bravo	KKR / Clayton Dubilier & Rice	Permira	Clearlake	Clearlake
Target	coupa	CoreLogic	inovalon	SailPoint	perspecta	stamps.com	datto	Medallia	Cloudera	mimecast	Quest	cornerstone
EV ($M)	$8,000	$8,000	$7,321	$6,900	$6,701	$6,600	$6,200	$6,116	$5,617	$5,516	$5,400	$5,200
Mult.	9.8x	11.0x (2)	10.2x	14.4x	1.5x	8.3x	8.9x	12.3x	6.4x	10.0x	4.9x	6.3x
Date	Dec-22	Jun-21	Aug-21	Apr-22	Jan-21	Jul-21	Apr-22	Jul-21	Jun-21	Dec-21	Nov-21	Aug-21

Indicates non-take private deals

Source: 451 Research. Deal counts for the period 1/1/21 through 12/30/22.

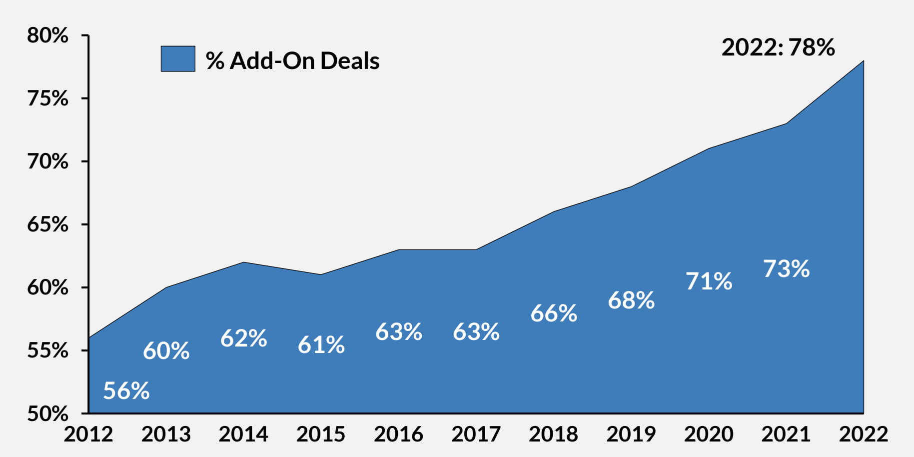
(1) *Add-on deal (Veritas via Peraton, Insight via Kayesa).*
(2) *EV/EBITDA multiple. All other multiples are EV/Revenue.*

Hyper Consolidators of the Tech World Drive Up Add-On Deals

Hyper buyers have seen massive value creation through infrastructure leverage, cost cutting, buying at private multiples, and selling at public IPO valuations, sometimes 2-3x the private values.

It is typical for these PE platforms to buy a growing but unprofitable $50 million revenue SaaS company and in short order morph it into a $20 million EBITDA profitable division. Most of these add-on acquisitions that AGC is involved in are done with 100% debt and feature the lowest rates and close to the highest leverage ratios that you will find in the growth market. For the first time, lenders are allowing pro-forma synergy adjustments in calculating EBITDA and debt capacity.

Add-On PE Deal Count (As a % of Buyouts)



Cumulative Acquisitions Since 2010 While PE-Owned

	PE-Backed Acquirer	Sponsor(s)	# of Add-Ons
1.	VISMA	Hg	165
2.	access	Hg, TA	61
3.	EG	FP Francisco Partners	43
4.	aptean	TA, Vista	42
5.	mri Real Estate Software	GI Partners, TA	42
6.	helpsystems	HGGC, TA	37
7.	TeamSystem	Hellman & Friedman	37
8.	FULLSTEAM	Hellman & Friedman	36
9.	CIVICA	Partners Group	32
10.	IRIS	Hg	29
11.	ClearCourse	Aquiline	28
12.	eci	Apax, LGP	25
13.	team.blue	Hg	25
14.	infor	Koch Equity Development	23
15.	LUTECH	Apax	23

Source: Pitchbook. As of 9/30/22. Excludes platforms that have been exited and are no longer PE-owned, and non-tech add-ons.

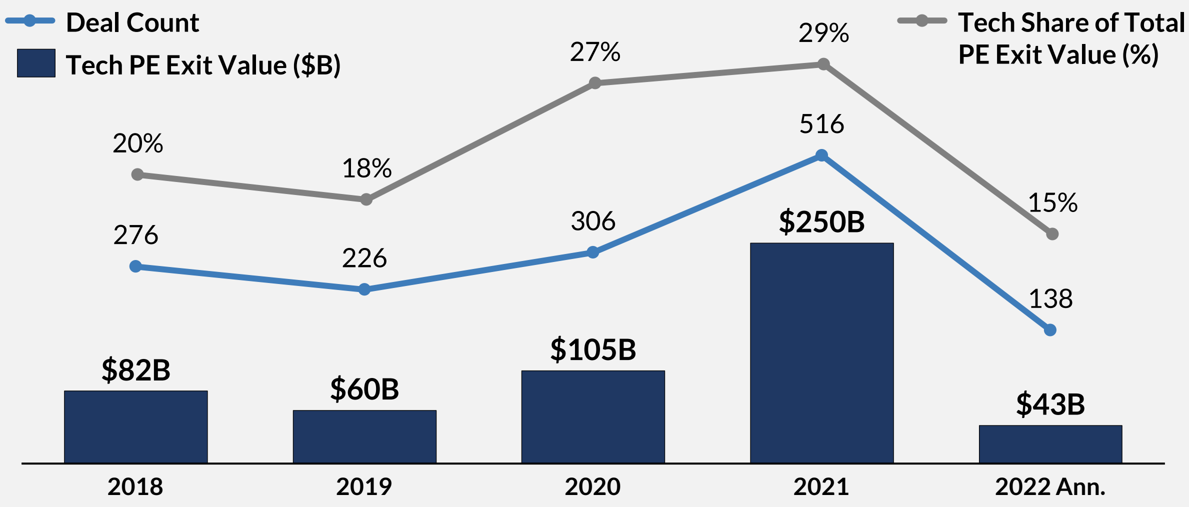
Exit Activity Plummets as PEs Hold Onto Portcos For the Time Being

The balance of the tech PE exit landscape shifted massively over the last two years – mostly due to SPACs, which juiced PE exits via public listing from 10% in '19 to 33% in '20 and 28% in '21.

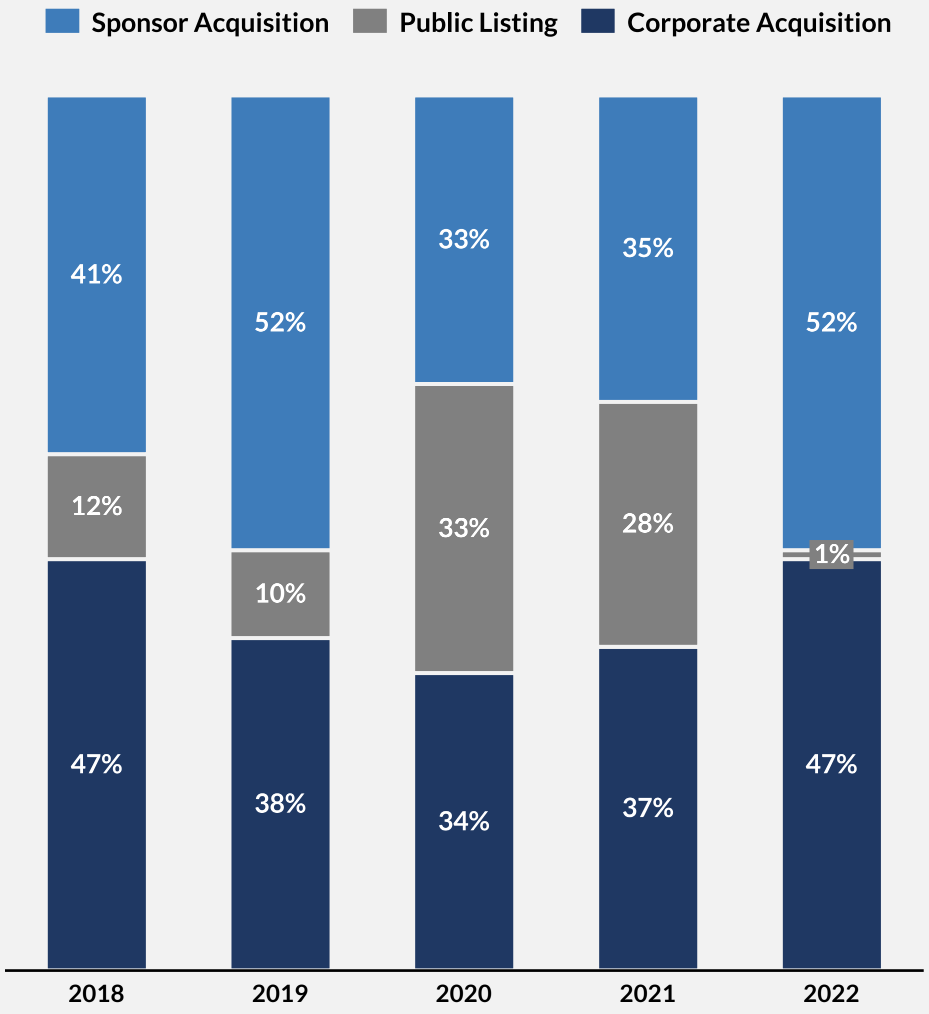
The aggregate annual value of tech PE exits bumped along between \$40B-\$80B from '16 to '19 before rising to \$105B in '20 and spiking to \$250B in '21.

Exit activity reverted to pre-COVID levels in '22, though, with PEs largely holding onto their portcos and waiting for clearer skies. This is especially true for tech PEs, which were responsible for just 15% of exit value in '22.

Tech PE Exit Value by Type



Share of PE Exit Value by Type



Source: Pitchbook Q3 2022 U.S. PE Breakdown.

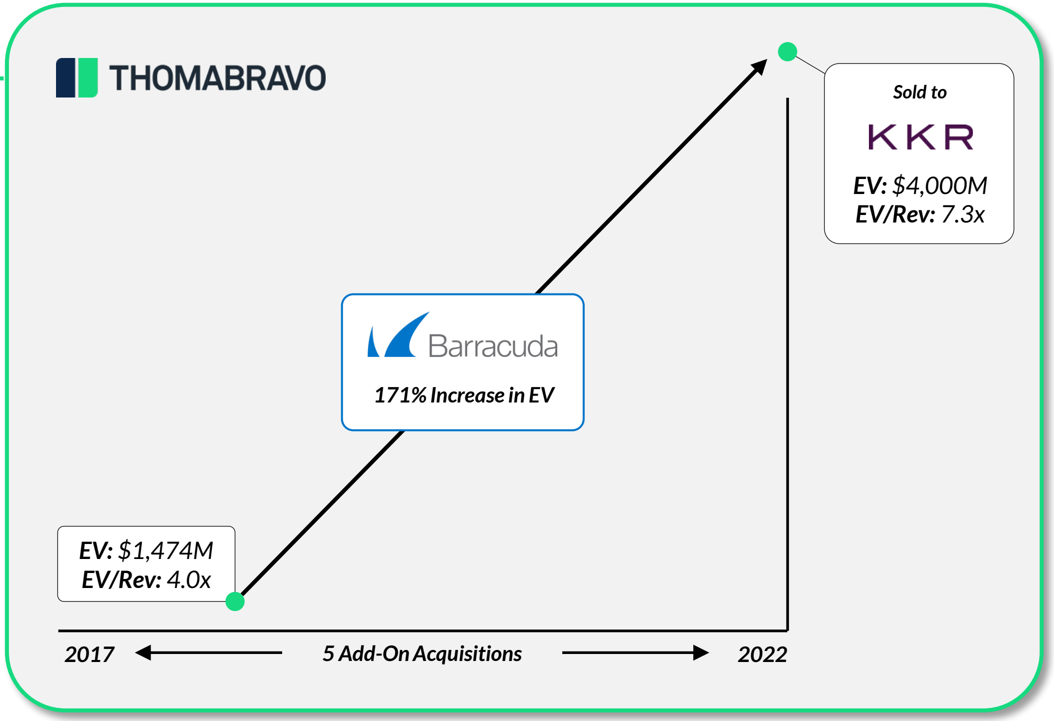
Tech PE Exits to PEs

Largest Disclosed PE-to-PE Exits Since 2021

Date	Target	EV ($M)	EV/Rev.	Seller(s)		Buyer(s)
Apr-22	Barracuda	$4,000	7.3x	Thoma Bravo	to	KKR
Apr-22	WatchGuard	$1,500	4.6x	Francisco Partners	to	Vector Capital
Mar-22	Veracode	$2,500	8.3x	Thoma Bravo	to	TA
Nov-21	athenahealth	$17,000	ND	Veritas Capital, Elliott	to	Bain Capital, Hellman & Friedman
Nov-21	Quest	$5,400	4.9x	Francisco Partners, Elliott	to	Clearlake
Jun-21	McGraw Hill Education	$4,500	ND	Apollo	to	Platinum Equity
Jun-21	Simplifi	$1,500	15.0x	GTCR	to	Blackstone
Apr-21	Enverus	$4,250	ND	Genstar Capital	to	Hellman & Friedman
Mar-21	precisely	$3,600	6.0x	Centerbridge	to	TA, Clearlake
Mar-21	Unit4	$2,000	ND	Advent International	to	TA

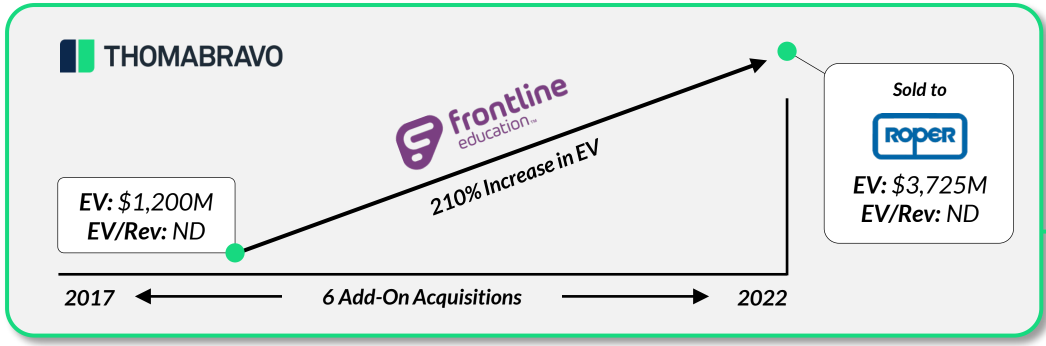
In talking with the largest and most active PE funds, it is clear that a very large percentage of their returns have come from add-on acquisitions. The value creation from these add-on acquisitions will make PE portcos arguably the best buyers in these down markets.

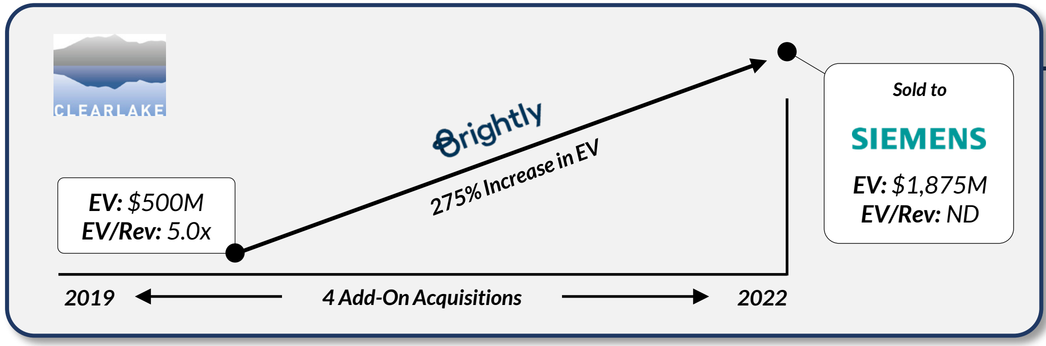
Thoma is well versed in the buy-and-build strategy, having completed 11 add-on acquisitions between their two recently exited portcos Barracuda and Frontline that drove significant revenue and margin growth.

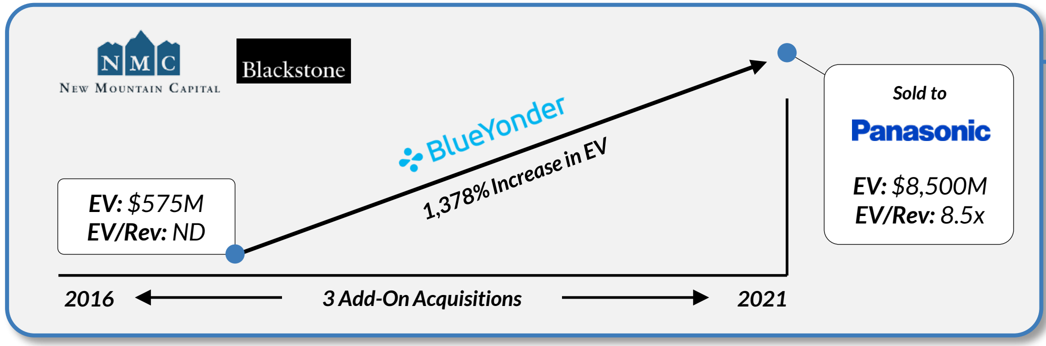


Source: Pitchbook, 451 Research. As of 12/30/22.

Tech PE Exits to Strategics







Largest Disclosed PE Exits to Strategics (Since 2021)

Date	Target	EV ($M)	EV/Rev.	Seller(s)		Buyer(s)
Dec-22	TRANSPOREON	$1,981	ND	Hg	to	Trimble
Aug-22	frontline education	$3,725	ND	THOMABRAVO	to	ROPER
Aug-22	Brightly	$1,875	ND	CLEARLAKE	to	SIEMENS
Jan-22	WNDRVR	$4,300	ND	TPG	to	APTIV
Jan-22	cloudmed	$4,089	ND	NMC New Mountain Capital	to	R1
Jan-22	TERACO Africa's Data Centre	$3,091	ND	Berkshire Partners	to	DIGITAL REALTY
Oct-21	SIRIUS	$2,500	ND	Clayton Dubilier & Rice	to	CDW
Sep-21	neustar	$3,100	ND	GOLDEN GATE CAPITAL	to	TransUnion
Sep-21	PATHWIRE	$1,900	ND	THOMABRAVO	to	sinch
Jul-21	TRANSPLACE	$2,250	ND	TPG	to	Uber Freight
Jun-21	PLEX	$2,220	ND	FP Francisco Partners	to	Rockwell Automation
Apr-21	BlueYonder	$8,500	8.5x	NMC New Mountain Capital, Blackstone	to	Panasonic
Mar-21	GlobalLogic	$8,500	11.0x	Partners Group	to	HITACHI
Mar-21	TechData	$7,241	ND	APOLLO	to	TD SYNNEX
Mar-21	ITIVITI	$2,528	9.4x	NORDIC CAPITAL	to	Broadridge
Jan-21	Topco	$2,250	16.1x	VISTA	to	citrix

Source: Pitchbook, 451 Research. As of 12/30/22.

AGC Rises To Global Leadership in Overall Tech and SaaS Deal Making

AGC is Powering Through the Headwinds

- Median revenue multiple of 9x on our 42 deals in '22
- 30 new engagements since July
- 495 closed deals makes AGC #1 in SaaS and #1 in tech
- 21 Partners with our newest joining in Vancouver next month
- Nearly doubled business in '21 and closed '22 with solid growth

AGCPARTNERS
LEADING SOFTWARE TECHNOLOGY BANK WITH GLOBAL REACH

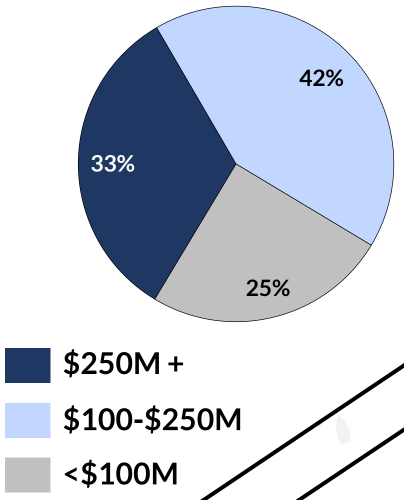
451 Research 12-Year SaaS Rankings(1)

	Firm	# Trans.
1.	AGC Partners	171
2.	William Blair	148
3.	Raymond James	114
4.	Houlihan Lokey	83
5.	Morgan Stanley	83

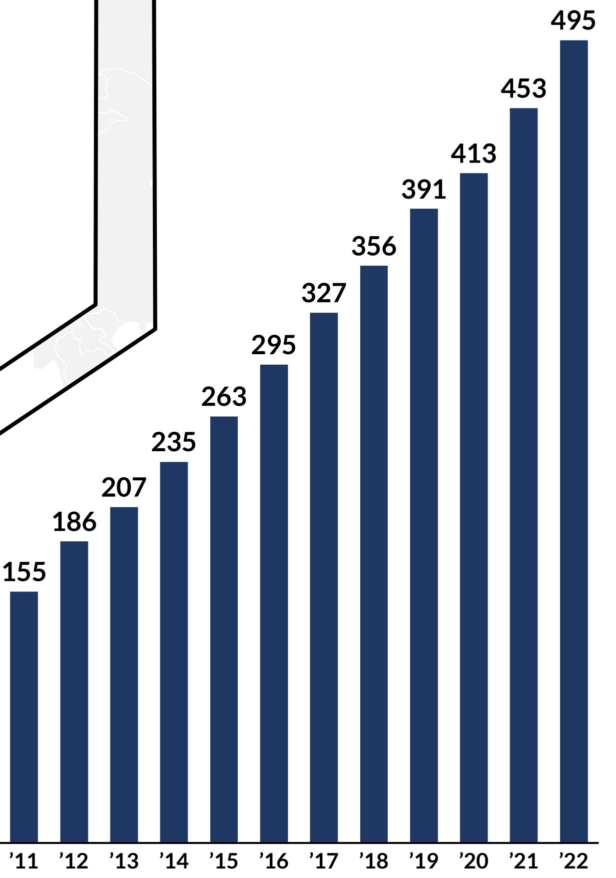
Top Sell-Side Tech Deal Makers in 2019-22(2)

	Firm	# Trans.
1.	AGC Partners	116
2.	Raymond James	81
3.	Canaccord Genuity	79
4.	Goldman Sachs	79
5.	William Blair	78

AGC Deals by Enterprise Value Breakout



AGC Cumulative Deal Count Since 2003



(1) 451 Research deal count based on all SaaS related Sell-Side transactions since 2010. Excludes co-managed deals.
(2) 451 Research deal count based on all disclosed technology related Sell-Side transactions from 2019-2022. Excludes co-managed deals.

AGC Is All About The Results

42 Deals Closed in 2022 With Transaction Values Ranging From $50M - $1B+ Across All Hot Sectors

Client	Investor / Buyer	Value
instaclustr	NetApp	$500M+ EV Sale
PANZURA	Kayne Anderson Capital Advisors, L.P.; CIBC	$80M Raise
prosperoware	LITERA; Hg	ND
Credly	Pearson	$220M EV Sale
Tempo; origo	DIVERSIS CAPITAL	$600M EV Sale
People Data Labs	CRAFT	$45M Raise
circle CARDIOVASCULAR IMAGING	THOMABRAVO	ND
PDFTRON	THOMABRAVO	ND
TASKTOP	planview; TA; TPG	ND
PDFTRON (1); THOMABRAVO	ITEXT (1)	ND (1)
Security Platform	Google	ND
LEVEL access; JMI	essential ACCESSIBILITY; KKR	ND
GHO CAPITAL (1)	SAPIO SCIENCES (1)	ND (1)

82
Deals Closed in the Last 24 Months

12x
Median Revenue Multiple(2)

15
Deals Closed in Q3 '22 – Not Slowing Down Despite Headwinds

Client	Investor / Buyer	Value
greenphire	THOMABRAVO	$1B+ EV Sale
crossinx	unifiedpost GROUP	$120M EV Sale
labarchives Better Science	InsightfulScience; INSIGHT PARTNERS	ND
ordergroove	PRIMUS	$100M Raise
ActivTrak	SAPPHIRE VENTURES	$50M Raise
chaos	TA; LEA PARTNERS	ND
Cylindo	chaos; TA; LEA PARTNERS	ND
Floify	Porch	$100M EV Sale
FILES.COM	RIVERWOOD CAPITAL	$47M Raise
Perceptyx	TCV	ND
Buildium	REALPAGE; Sumeru	$580M EV Sale
promon	GROCAPITAL	ND
LifeImage	Intelerad; Hg	ND

(1) *Indicates buyside engagement – iText acquired by PDFTron, GHO Capital invested in Sapio Sciences.*
(2) *Across transactions featured on this slide.*

AGC's Extensive Experience Representing & Selling Into Top PEs

Private Equity Platform Deals

Panzura	Financed by	Kayne Anderson Capital Advisors, L.P.
Riviera Partners, a Portfolio Company of Kayne Anderson Capital Advisors, L.P.	Financed by	Insight Partners
Promon	Acquired by	GroCapital
PDFTron, a Portfolio Company of Silversmith	Acquired by	Thoma Bravo
GuidePoint Security	Financed by	ABS Capital Partners
Flashpoint	Acquired by	Audax Group
ComplySci, a Portfolio Company of Vista	Acquired by	K1
Greenphire, a Portfolio Company of Riverside	Acquired by	Thoma Bravo
Tasktop, a Portfolio Company of Elsewhere Partners	Acquired by	Sumeru
True Office Learning	Acquired by	learningpool, a Portfolio Company of Marlin Equity Partners
chaos	Acquired by	TA, LEA Partners
ActivTrak, a Portfolio Company of Elsewhere Partners	Financed by	Sapphire Ventures
Memsource	Acquired by	Carlyle
Comply365, a Portfolio Company of Luminate	Acquired by	Liberty Hall Capital Partners
Dental Intelligence, a Portfolio Company of K1	Acquired by	Blue Star Innovation Partners, PSG Providence Strategic Growth
Beezy	Financed by	Goldman Sachs
Thought Industries	Acquired by	Luminate
Perceptyx	Acquired by	TCV
Keyfactor	Acquired by	Insight Partners
Criteria, a Portfolio Company of Level Equity	Acquired by	Sumeru

Sold to a Strategic Partner

instaclustr, a Portfolio Company of Level Equity, Bailador	Acquired by	NetApp
AccountantsWorld	Acquired by	IRIS, a Portfolio Company of Hg
labarchives Better Science	Acquired by	InsightfulScience, a Portfolio Company of Insight Partners
Beezy, a Portfolio Company of Goldman Sachs	Acquired by	Appspace, a Portfolio Company of LLR
LiquidFrameworks, a Portfolio Company of Luminate	Acquired by	ServiceMax, a Portfolio Company of Silver Lake
InteliSecure, a Portfolio Company of Frontier Growth	Acquired by	proofpoint.
Fixflo	Acquired by	Aareon, a Portfolio Company of Advent International
Tasktop, a Portfolio Company of Sumeru	Acquired by	planview, a Portfolio Company of TA, TPG
Vanilla, a Portfolio Company of Level Equity	Acquired by	higher logic, a Portfolio Company of JMI
e.fundamentals	Acquired by	CommerceIQ, a Portfolio Company of Insight Partners, SoftBank
Cylindo	Acquired by	chaos, a Portfolio Company of TA, LEA Partners
menufy	Acquired by	HungerRush, a Portfolio Company of CapStreet
prosperoware	Acquired by	Litera, a Portfolio Company of Hg
cerdant	Acquired by	Logically, a Portfolio Company of Riverside
Ruckit	Acquired by	Command Alkon, a Portfolio Company of Thoma Bravo
Auction mobility	Acquired by	atg Auction Technology Group, a Portfolio Company of TA
Buildium, a Portfolio Company of Sumeru	Acquired by	RealPage, a Portfolio Company of Thoma Bravo
SnapGene	Acquired by	GraphPad, a Portfolio Company of Insight Partners
distil networks	Acquired by	imperva, a Portfolio Company of Thoma Bravo
bookboon	Acquired by	access, a Portfolio Company of TA, Hg

Deep Domain Knowledge: ~215 Market Leading Private Tech Sector Reports

Partner Led From Start to Finish

- ~215 industry thought pieces published by AGC Partners covering Vertical Software, Cyber Security, Infrastructure, Internet, HCIT, FinTech, and **60+ subsectors**
- Partner-led and authored, with 6-person AGC research team working on perfecting each piece, going deep on the market, TAM, key trends, challenges, M&A and financings activity
- Developed and implemented over 18 years proprietary processes and procedures that will typically unearth **200-300 leading private companies** in each sector

Industry Leading Research Covering the Most Coveted Private Sectors of Technology

Vertical Software

Automotive
Building / Engineering
CRM / CXM
C-Suite
Education
Food/Restaurant
GovTech
Healthcare
HR Tech
Insurance
Legal
Public Sector
Real Estate
Travel & Leisure

Cyber Security

APT
CASB
Cybersecurity
Endpoint
IAM
IOT / SCADA
Network
Security Orchestration
Security Services
Threat Intelligence
User Behavior Analytics
Vulnerability

Infrastructure

AI
BI / Analytics
Big Data
Cloud Computing
Communication
Data Center
DevOps
Energy & Industrial
ERP / Supply Chain
Internet of Things
IT Services
Mobility Solutions
Smart Cities
Storage

Internet

AdTech
Augmented Reality
Consumer
E-Commerce
Food Tech
Gaming
Internet
Marketplaces
MarTech
Mobile
Social
Retail
Virtual Reality

HCIT

Clinical Decision Support
Clinical Trials
Dental Solutions
EHR
Genomics Data Mgmt.
HIS
Payer Solutions
Pharma Analytics
PMS
Precision Medicine
RCM / Payment Solutions
Telehealth

FinTech & Payments

Blockchain
Digital Lending
FinTech Market Updates
Mobile App Monetization
Mobile Money
Payments
Remittance / Money Transfer

Selected Annual Partner Authored Whitepapers

SPAC Report

The SPAC world just had its first Cannabis tech deal at $300M EV and 20x its $15M in revenue. Do you think the Fed Reserve and current administration might be stimulating the economy a little too much?

Supply Chain, Ecommerce & ERP Software

Public SCM & ERP software companies are still enjoying high valuations after a run up during the pandemic. Pandemic-driven dynamics are accelerating previous high-growth trends in transportation and eCommerce and driving more investment and M&A deals?

Real Estate Tech

Driven by the economics of scarcity, the wave of PropTech M&A and capital markets activity that kicked in during 2H '20 has accelerated to a pitch unimaginable just 12 months ago

HR Software

Strategic buyers and investors have a keen focus on the work / HR software sector as a central area for outsized investment over the next 12-18 months as a sector that has outperformed in an increasingly challenging economic environment

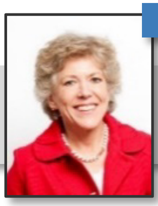
PE Report

In the post-COVID world, the sun has shined on tech, and tech PE funds have been making a ton of hay. There are now over 300 tech PE funds with 3,700 portcos and over $1.5T under management

C Suite

The pandemic forced businesses to leverage available technologies to replace manual processes and the results were very compelling, with productivity increasing to levels not seen in some time

Led by 21 AGC Partners With Deep Sector Specialization



Maria Lewis Kussmaul
Boston

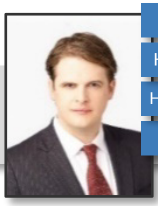
- Cyber Security

Jon Guido
Boston

- C-Suite

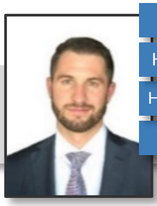
Linda Gridley
New York

- Digital Media
- eCommerce
- MarTech



Mike Parker
Chicago

- Vertical SaaS
- HR Tech / EdTech
- HCIT / Life Sciences
- Infra / Cloud



Tristan Snyder
Dallas

- Vertical SaaS
- HR Tech / EdTech
- HCIT / Life Sciences
- Infra / Cloud

Meg McGurk
Florida

- Defense Tech

Hugh Hoffman
Minneapolis

- HCIT
- Life Sciences
- Vertical SaaS

Doug Hurst
New York

- C-Suite

Sean Tucker
London

- Europe
- Vertical SaaS

Charlie Schopp
Boston

- Vertical SaaS
- PropTech
- HCIT

Eric Davis
Boston

- Cyber Security
- Data Privacy

Russ Workman
Boston

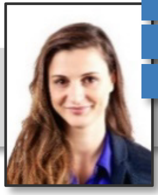
- Defense Tech
- Cyber Security

Dennis Rourke
Boston

- Supply Chain
- Fintech

Fred Joseph
Boston

- Infra / Cloud
- IoT



Elena Marcus
Los Angeles

- Digital Media
- 3D / Gaming
- Vertical SaaS

Michael Howe
New York

- DevOps
- Infra / Cloud
- Big Data

Rob Buxton
San Francisco

- Infra / Cloud
- Mobility
- Vertical SaaS

Nate Hennings
San Francisco

- Gaming
- Digital Media
- MarTech

Steven Willis
Denver

- Vertical SaaS
- EdTech

Jon Weibrecht
Boston

- Fintech
- PropTech
- Vertical SaaS

Ben Howe
Boston

- Vertical SaaS
- Cyber Security
- HCIT
- MarTech

CEO & Buyer Testimonials

"The AGC team's ***deep understanding of the market*** *and* ***strong relationships*** *with both investors and buyers facilitated exceptional market engagement and a fantastic outcome for our Company."*

Peter Lilley, Co-Founder & CEO / instaclustr

"Deals of this scale and complexity necessitate both strong tactical execution and sage counsel on nuanced issues – ***AGC provided both****!"*

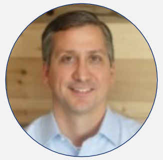
Ben Levin, CEO / LEVEL EQUITY

"In a tough, competitive market, their ***execution is A+*** *and their* ***integrity is even higher****."*

A.J. Rohde, Senior Partner / THOMABRAVO

"I can't speak more highly of the tenacity AGC brought… the deal absolutely ***would not have happened without AGC.****"*

Richard Addi, CEO / EXOSTAR



*"****The AGC team was simply extraordinary****. They dig in, roll up their sleeves, and work hard."*

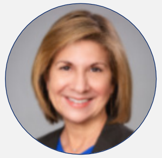
Jim Quagliaroli, Co-Founder, Managing Partner / SILVERSMITH

"Selecting AGC was the best decision I made. AGC got smart about who we are and ***worked harder than anyone I had ever seen****."*

Weston Lunsford, Founder & CEO / di. DENTALINTELLIGENCE

"AGC went ***above and beyond in every respect*** *to ensure we completed a transaction that exceeded all expectations."*

John Borland, Founder & CEO / Perceptyx

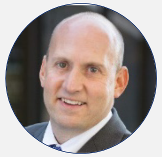


"AGC's expertise was ***invaluable in helping us navigate strong investor interest*** *and connect with a great partner."*

Rita Selvaggi, CEO / ActivTrak

"At the start of our engagement Ben promised that ***no one works harder than the team at AGC****, and he was right."*

Michael Monteiro, CEO / Buildium



"AGC proved ***highly effective*** *in efficiently delivering a* ***superior outcome*** *for our partnership and employees."*

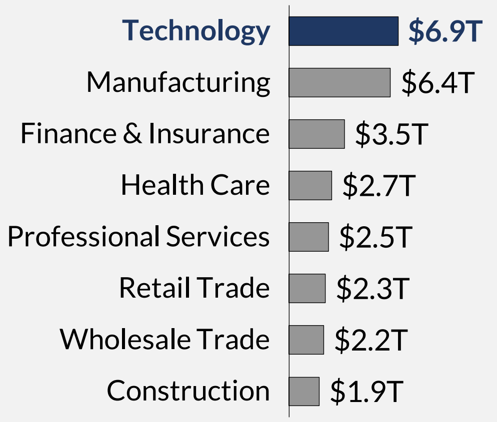
Mike Volk, Managing Partner | GUIDEPOINT SECURITY

Appendix

AGC's 2022 Tech PE Year-End Report

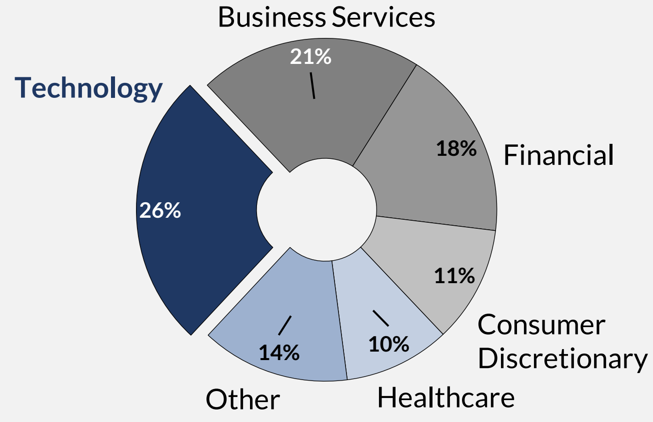
Tech Remains the Sandbox of Choice

#1 in U.S. Industry GDP



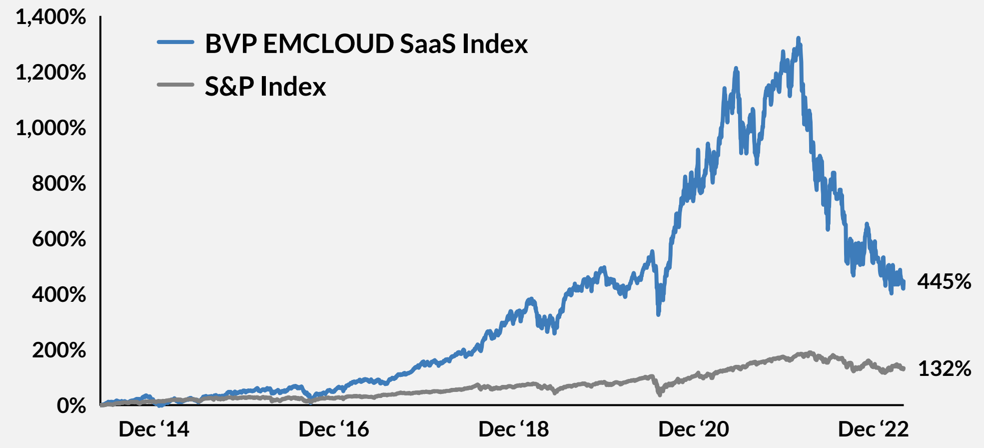
Source: St. Louis Federal Reserve Data (Q4 '21).

#1 in '22 M&A



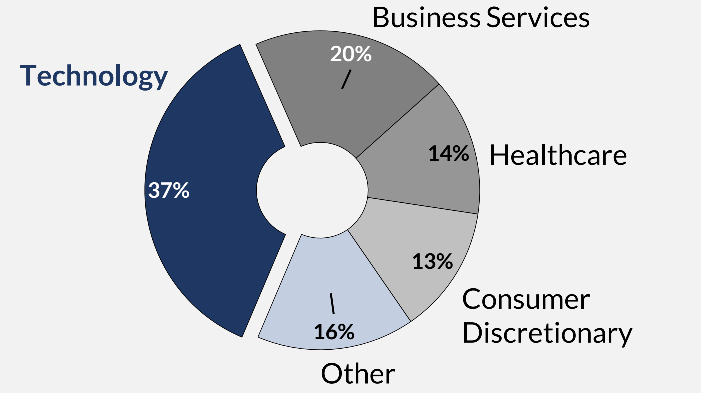
Source: Pitchbook. Reflects '22 M&A activity placements as of 12/30/22.

#1 Wealth Creator in Public Markets



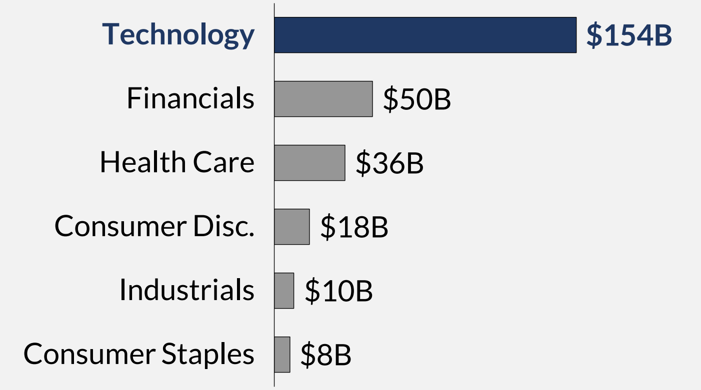
Sources: Pitchbook, BVP Emerging Cloud Index. As of 12/30/22 market close.

#1 in '22 Private Placements



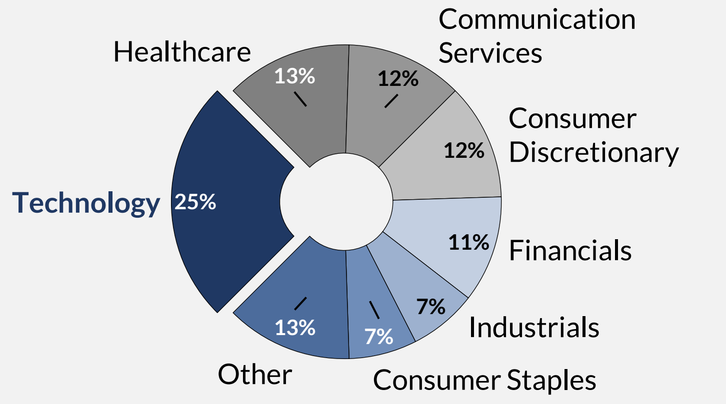
Source: Pitchbook. Reflects '22 private placement activity as of 12/30/22.

#1 in '21 IPO Proceeds



Source: Pitchbook. Reflects CY21 IPOs.

#1 in S&P 500 by Value



Source: S&P Global. As of Q4 '22.

Tech Has Risen to Dominate the Mega Cap and HEC-DowJones Ranking

Largest Public Companies by Market Cap

2008	2022
ExxonMobil $406B	Apple Inc. $2,311B
Walmart $219B	aramco $2,092B
P&G $185B	Microsoft $1,763B
Microsoft $173B	Alphabet $1,303B
Johnson & Johnson $166B	amazon $1,172B
General Electric $161B	TESLA $691B

HEC - DowJones PE Performance Rankings

	2015	2017	2019	2021
1.	VISTA	THOMABRAVO	THOMABRAVO	AKKR ACCEL-KKR
2.	ODYSSEY INVESTMENT PARTNERS	WATERLAND PRIVATE EQUITY INVESTMENTS	CLAYTON DUBILIER & RICE	FP FRANCISCO PARTNERS
3.	WATERLAND PRIVATE EQUITY INVESTMENTS	HELLMAN & FRIEDMAN	GENSTAR CAPITAL	TA ASSOCIATES
4.	ENDEAVOUR	Platinum Equity	WATERLAND PRIVATE EQUITY INVESTMENTS	VITRUVIAN PARTNERS
5.	Advent International GLOBAL PRIVATE EQUITY	VISTA	HELLMAN & FRIEDMAN	Great Hill PARTNERS
6.	CLAYTON DUBILIER & RICE	CLAYTON DUBILIER & RICE	VISTA	GENSTAR CAPITAL
7.	Platinum Equity	Advent International GLOBAL PRIVATE EQUITY	VERITAS CAPITAL	HELLMAN & FRIEDMAN
8.	Berkshire Partners	GTCR	Platinum Equity	CLAYTON DUBILIER & RICE
9.	abry partners	abry partners	AMERICAN SECURITIES	THOMABRAVO
10.	astorg	APOLLO	Great Hill PARTNERS	Hg

Indicates Tech Companies and Tech-Focused PEs

Source: PitchBook, HEC - DowJones. "Tech Focused PEs" are defined as those historically allocating 50%+ to the tech sector and pursuing a growth equity or buyout strategy for 50%+ of closed funds.

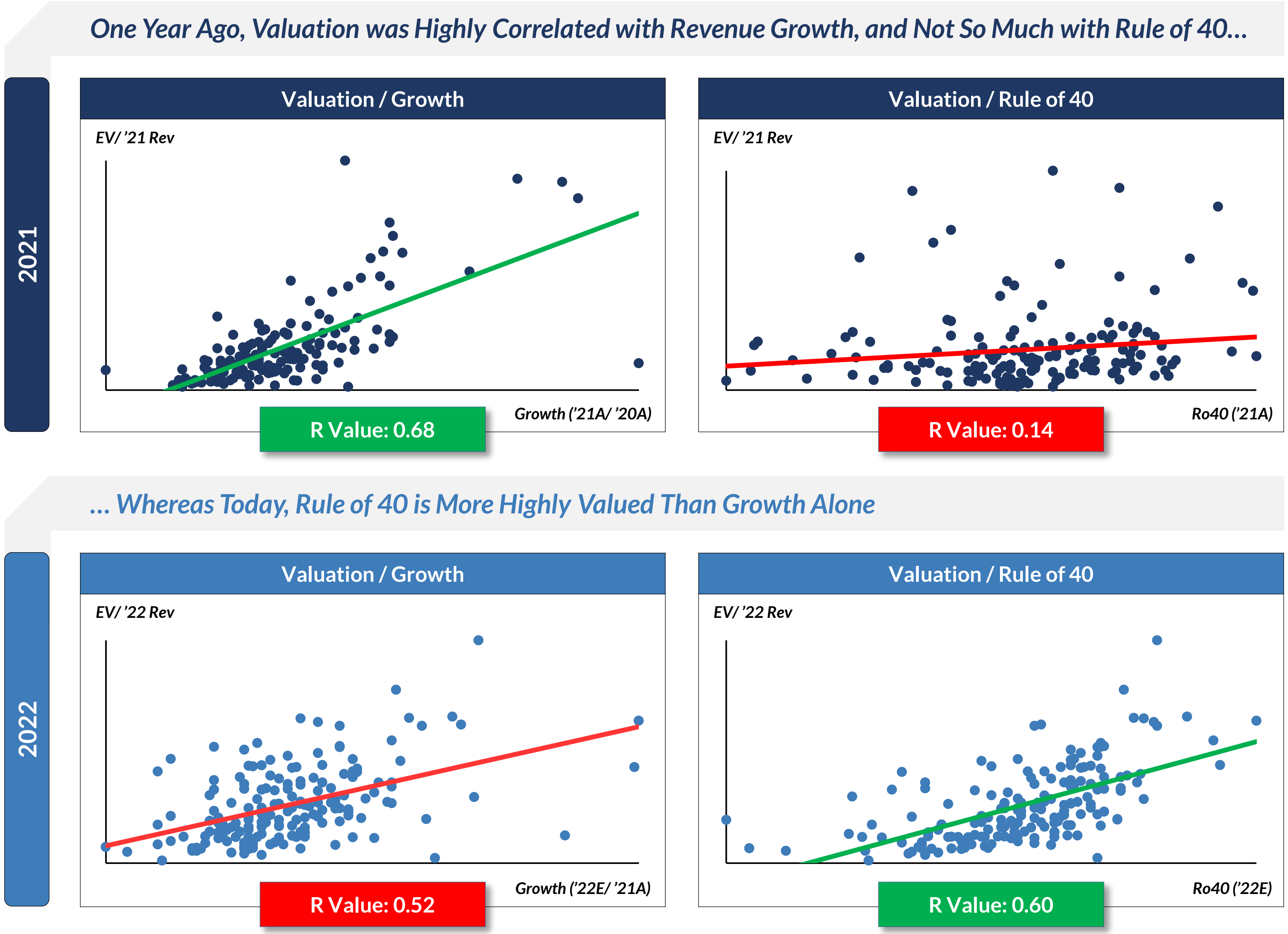
AGC's Public SaaS Index: Rule of 40 and Profitability Are King

In tracking the top public SaaS companies, AGC has assembled a truly vast market data set that speaks volumes about what is guiding valuations in today's SaaS ecosystem.

In a massive shift from last year, Rule of 40 is now more highly valued than growth alone. The R-value signifying the correlation between valuation and revenue growth is now 0.52 compared to 0.68 in Nov '21, while the correlation between valuation and Rule of 40 has risen from 0.14 to 0.60.

The correlation between Rule of 40 and revenue multiple is stunning. Those with a Rule of 40 above 60% trade at a median multiple of ~10x compared to ~2x for the unprofitable bottom dwellers below 10%.

SaaS CEOs and Boards often debate the balance between profit margins and growth. Over the last year, the market has delivered a clear verdict in favor of profitability, as the 50 most profitable companies in AGC's Public SaaS Index have significantly outperformed the 50 fastest growers when charted against each other. Investors evidently found comfort in more mature companies – i.e. those with more seasoned profitability – during the correction.



Source: Pitchbook. Data points represent constituents of AGC's Public SaaS 160 Index. As of 12/30/21 and 12/30/22 market closes.

Top SaaS Companies Hold Their Own Against the Tech Bigs

AGC's Public SaaS Index – Top 10 by Market Cap

Company	Market Cap ($B)	1-YR. Return	EV/'22 Rev.	'22 Rev Growth	'22 Ro40	EV/'23 EBITDA
Adobe	$156	(41%)	8.8x	12%	61%	16x
salesforce	133	(48%)	4.3x	17%	50%	12x
servicenow	78	(41%)	10.6x	23%	54%	28x
snowflake	46	(58%)	20.7x	68%	74%	NM
Roper	46	(12%)	9.4x	(7%)	33%	21x
workday	43	(39%)	6.6x	21%	46%	21x
paloalto networks	42	(25%)	6.9x	27%	48%	23x
AUTODESK	40	(34%)	8.3x	14%	52%	20x
Constellation Software Inc.	33	(16%)	5.3x	29%	54%	17x
ATLASSIAN	33	(67%)	10.3x	30%	49%	48x
Median:	**$44**	**(40%)**	**8.6x**	**22%**	**51%**	**21x**

Tech Bigs

Company	Market Cap ($B)	1-YR. Return	EV/'22 Rev.	'22 Rev Growth	'22 Ro40	EV/'23 EBITDA
Apple	$2,067	(27%)	5.4x	4%	39%	15x
Microsoft	1,788	(29%)	8.5x	11%	61%	16x
Google	1,145	(39%)	3.7x	10%	49%	9x
amazon	857	(50%)	1.8x	9%	23%	11x
Tencent 腾讯	410	(22%)	5.3x	(7%)	23%	15x
tsmc	379	(38%)	4.9x	29%	96%	7x
NVIDIA	360	(51%)	13.3x	0%	39%	27x
Meta	320	(65%)	2.6x	(2%)	42%	6x
SAMSUNG	295	(34%)	0.9x	(2%)	26%	4x
Alibaba.com	234	(28%)	1.6x	(1%)	18%	7x
Median:	**$394**	**(36%)**	**4.3x**	**2%**	**39%**	**10x**

Source: Pitchbook. As of 12/30/22 market close.

Tech SPACs Are Still Getting Deals Done, But At Much Lower Numbers

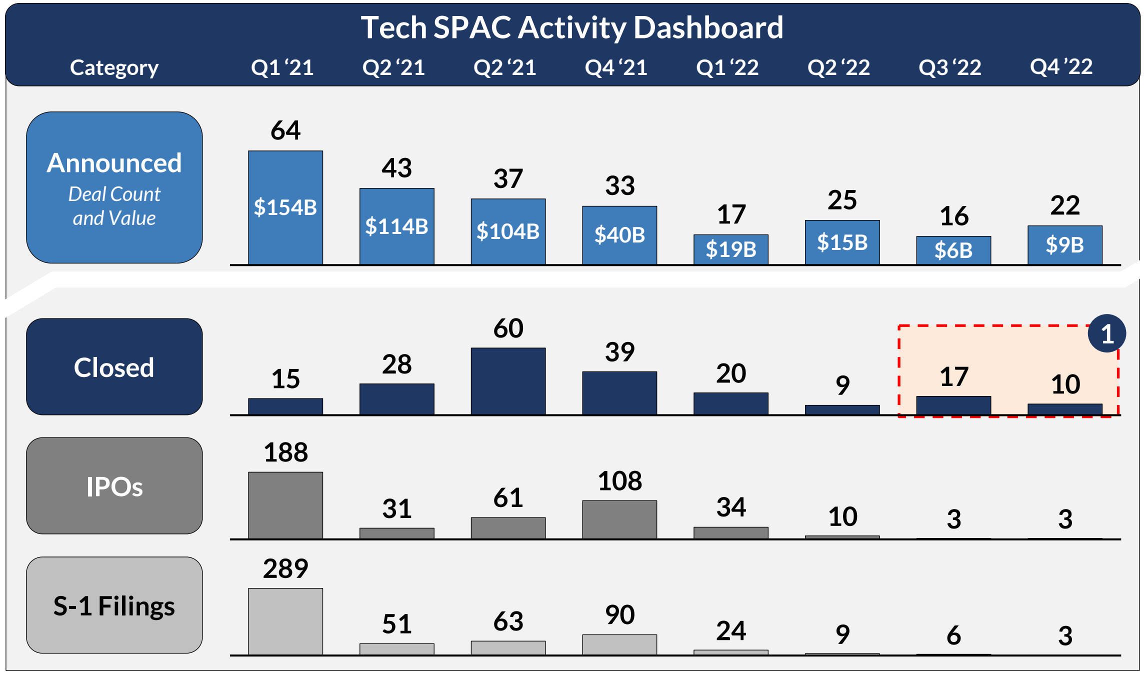
Tech SPACs with announced deals struggled to close in '22 while 480 SPACs remain on the hunt for an acquisition target, armed with $125B of cumulative firepower. The concern is that much of that capital will be returned to investors, as nearly half of the 480 have liquidation deadlines in the first quarter of '23.

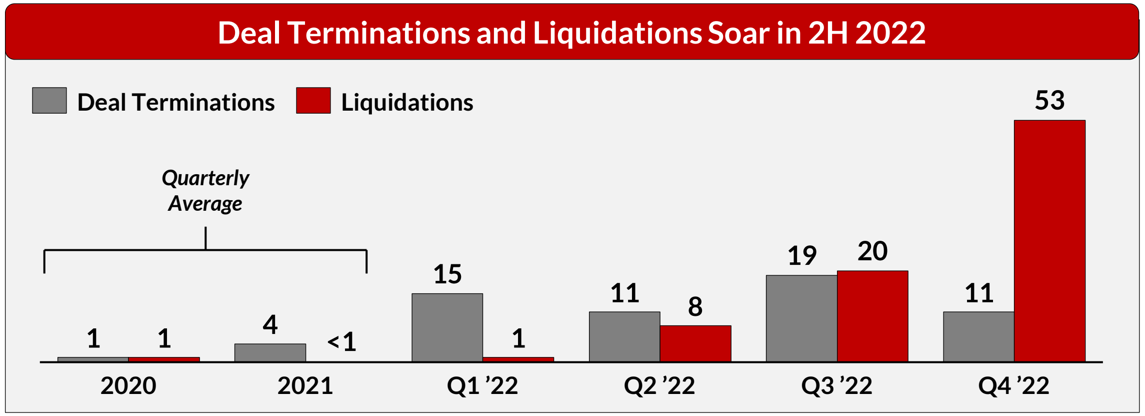
Deal terminations and liquidations have been disrupting the SPAC world to the tune of 53 liquidations in the fourth quarter. Several more SPACs have filed proxies to hold shareholder votes and move their deadlines up so they can liquidate early.

De-SPACs that have closed since mid-Sep '22 are already down 57% with barely any cash post-redemption.

1 Select 2H 2022 SPAC Closings – Detail

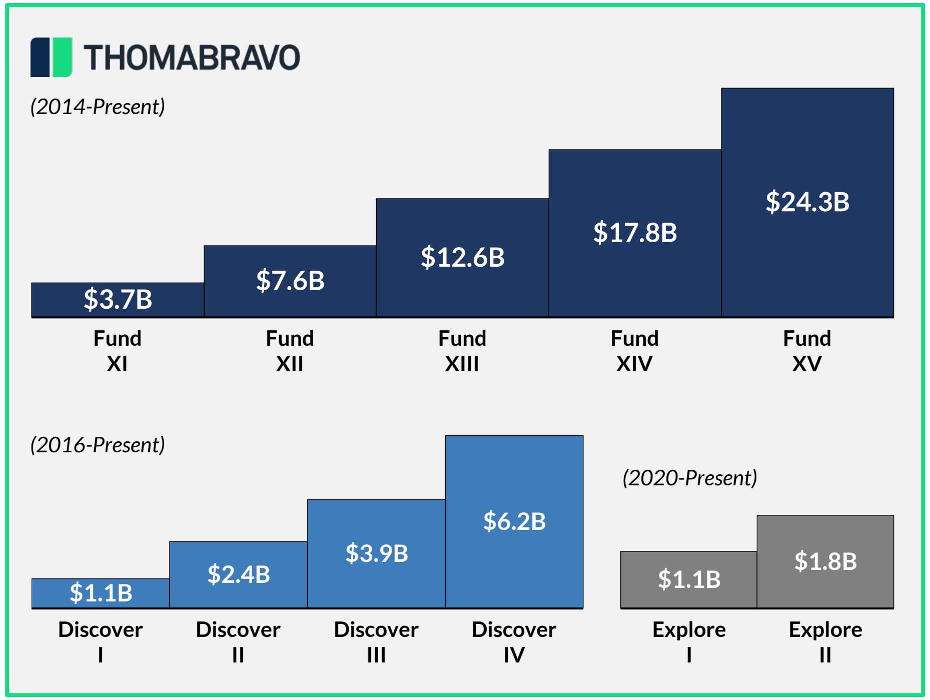
Date	Company	Sector	Performance Since IPO	Redemption	Cash at Close ($M)	TTM Rev. ($M)	TTM EBITDA Margin
12/19	MariaDB	*Database Software*	(60%)	99%	$107	$47	(92%)
12/9	getaround	*Carsharing Platform*	(93%)	94%	228	62	(126%)
11/30	CARAVELLE	*Clean Tech*	(87%)	99%	60	Pre-Rev	NM
11/23	TEMPO	*Electronics*	(92%)	ND	330*	Pre-Rev	NM
11/22	Grindr	*Social Network*	(54%)	98%	106	173	46%
11/18	Appreciate	*PropTech*	(89%)	ND	330*	45	(26%)
10/27	SatixFy	*IoT*	(22%)	ND	350*	14	(124%)
10/27	Selina	*Hospitality Tech*	(73%)	ND	192*	Pre-Rev	NM
10/25	PERFECT	*Beauty Tech*	(29%)	ND	280*	47	9%
10/7	dragonfly	*Clean Tech*	19%	80%	26	79	2%
9/27	LiveWire	*EV/Auto Tech*	(52%)	93%	28	46	(141%)
9/21	presto	*Restaurant Tech*	(77%)	95%	69	30	(73%)
9/16	rumble	*Digital Media*	(41%)	1%	382	Pre-Rev	NM
9/14	amprius	*Clean Tech*	(21%)	72%	94	Pre-Rev	NM
**Less undisclosed redemptions*		**Medians:**	(57%)	94%	$149*	$47	(73%)

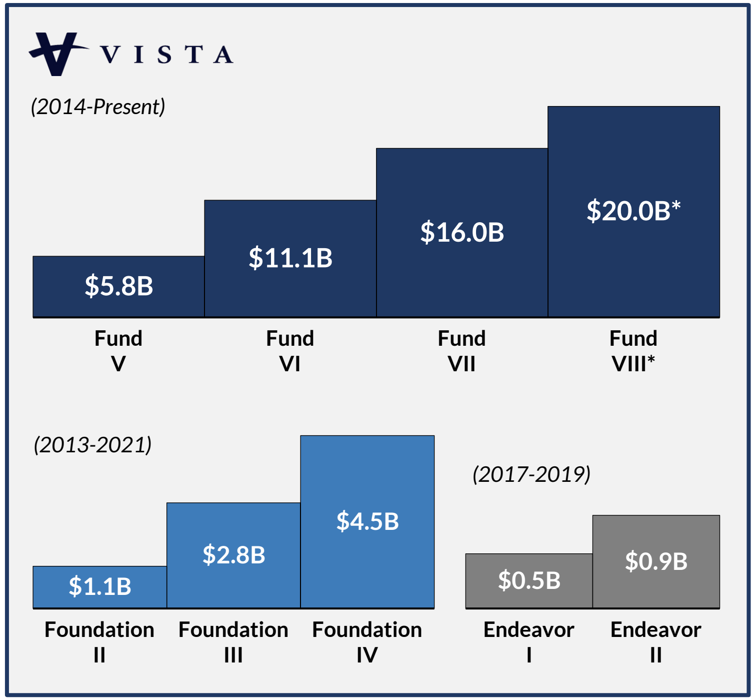


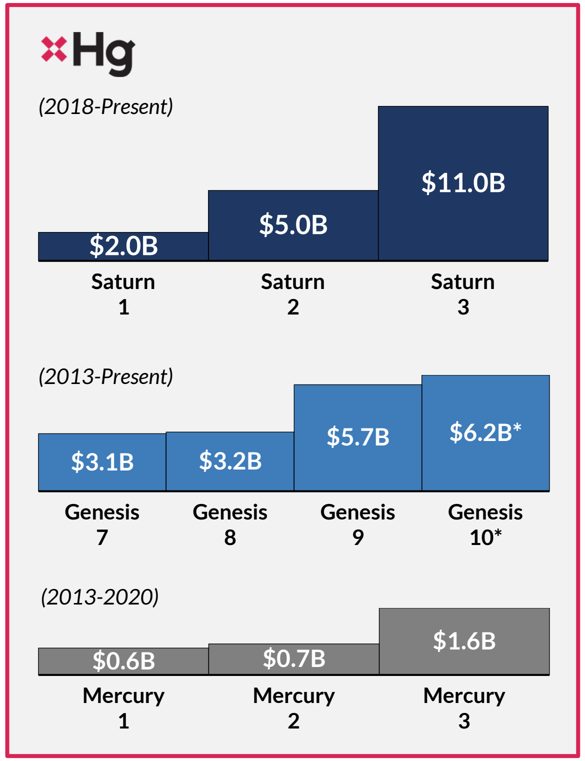


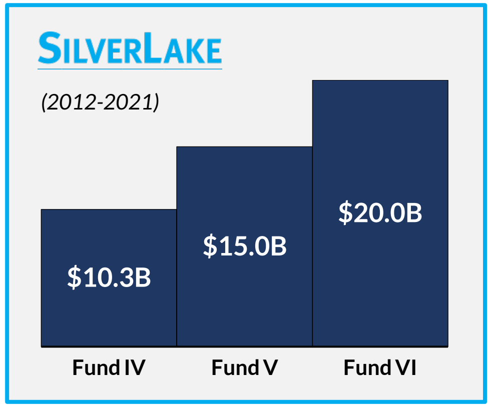
Source: SPAC Research, SPAC Insider, AXS De-SPAC Index. SPAC activity and pricing as of 12/30/22 market close.

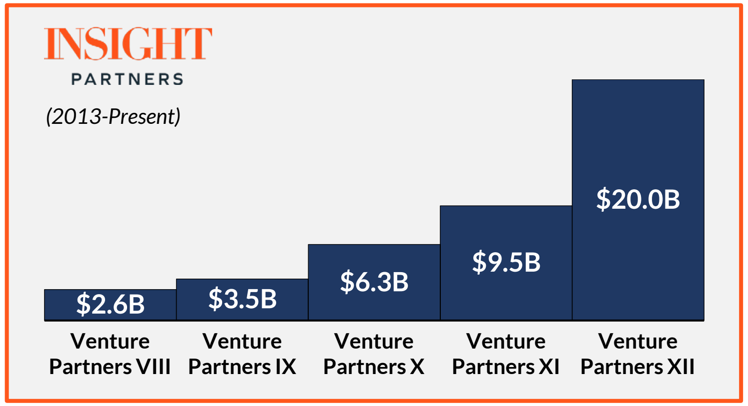
Notable Fund Step Ups for Tech-Focused PE Firms

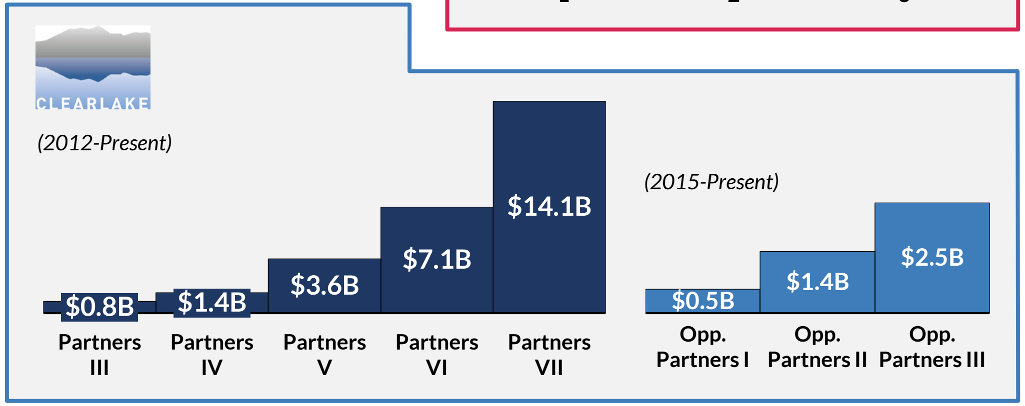












Source: PitchBook, PE Hub, Bloomberg. Includes select private equity funds closed or launched during the period 1/1/20 through 12/30/22. "Tech-Focused PEs" are defined as those historically allocating 50%+ to the tech sector and pursuing a growth equity or buyout strategy for 50%+ of closed funds.

**Estimated target/fund size. Not yet closed.*

Middle Market Funds Raised by PEs Since 2020

Several top PEs are moving capital towards the middle market to complement their large buyout funds, including Hg with its Genesis Fund, Thoma with its Discover Fund, and Vista with its Foundation Fund. These vehicles enable larger PEs to remain competitive in the middle-market while simultaneously chasing bigger deals with their larger-cap/flagship funds.

Notable growth funds that closed in the second half of '22 include Francisco Partners' Agility Fund III, EQT's Growth Fund, and Bain Capital's Tech Opportunities Fund II, which came in oversubscribed at $2B, 33% larger than its target.

The more traditional middle-market players with sub-$6B flagship funds remain extremely efficient deployers of capital, as evidenced by Main, AKKR, Marlin, PSG, LLR, K1, and Abry all ranking within the top 15 in tech platform acquisitions since '18.

Selected Middle Market Tech Funds (Launched or Closed Since 2020)

PE Firm	Size ($M)	Date
Providence Equity	$6,000*	Open
Thomas H. Lee Partners	5,600	Oct-21
TCV	5,500*	Open
Madison Dearborn Partners	5,000	May-21
WCAS	5,000*	Open
Audax Group	4,750*	Open
Great Hill Partners	4,650	Feb-22
Vitruvian Partners	4,570	Jul-20
PSG Providence Strategic Growth	4,500	Sep-21
K1	4,013	Dec-21
Siris	4,000*	Open
GI Partners	3,900	Jun-21
Charlesbank	3,750	Jan-21
Sixth Street	3,600	Nov-22
Battery	3,080	Jul-22
AKKR	2,850	Jan-20
HGGC	2,540	Jun-22
BregalSagemount	2,500	Sep-22
Main Capital Partners	2,345	Oct-21

PE Firm	Size ($M)	Date
FTV Capital	$2,300	Mar-22
Alpine	2,250	Sep-21
Spectrum Equity	2,209	Aug-22
JMI	2,030*	Open
Rubicon Technology Partners	2,000*	Open
STG Symphony Technology Group	2,000	Nov-20
Peak Rock Capital	2,000	Apr-21
LLR Partners	1,800	Oct-20
bv Investment Partners	1,500*	Open
Thompson Street Capital Partners	1,500	Aug-22
Cove Hill Partners	1,500	Jul-20
Silversmith	1,340	Jul-22
Sumeru	1,300	Nov-22
Corsair	1,250*	Open
Luminate	1,000	Jun-21
GreyLion	900*	Open
Marlin Equity Partners	900*	Open
Level Equity	775	Dec-21
Kayne Anderson Capital Advisors, L.P.	600	Dec-20

Selected Mid-Cap Funds From PE Bigs

PE Firm	Fund Name	Size ($M)
Hg	*Genesis 10*	$6,240*
Thoma Bravo	*Discover Fund IV*	6,200
Vista	*Foundation Fund IV*	4,500
Advent International	*Global Technology Fund II*	4,000
Permira	*Growth Opp. Fund II*	4,000
TPG	*Growth Fund V*	4,000
Francisco Partners	*Agility Fund III*	3,300
HIG Capital	*Middle Market LBO Fund III*	3,100
Blackstone	*Growth II*	3,000*
Carlyle	*Europe Tech. Partners V*	2,700*
Clearlake	*Opportunities Partners III*	2,500
EQT	*Growth Fund*	2,408
Ardian	*Expansion Fund V*	2,369
Aquiline	*Financial Services Fund IV*	2,044
Bain Capital	*Tech Opportunities Fund II*	2,000
GTCR	*Strategic Growth Fund*	2,000
Apax	*Digital Fund II*	1,750
KKR	*Next Gen. Tech. Growth Fund III*	1,360*

Source: PitchBook, PE Hub, Bloomberg. Includes select private equity funds closed or launched during the period 1/1/20 through 12/30/22.
"Tech PE Funds" are defined as funds managed by Tech Focused PE Managers, plus one-off sector funds run by generalist mangers.

**Estimated target/fund size. Not yet closed.*

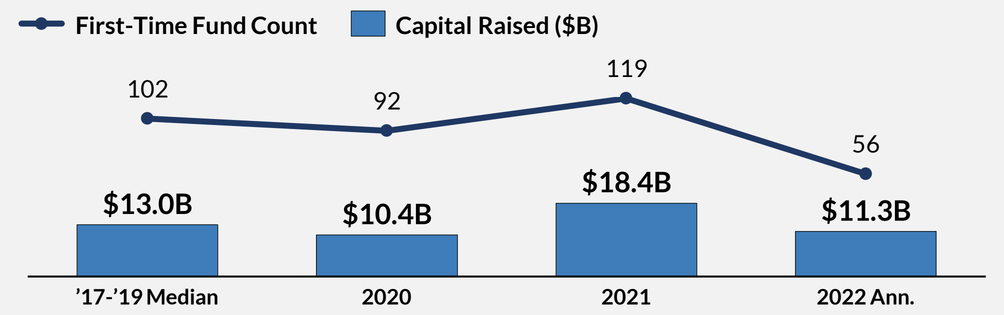
The First Time Funds Keep Coming With Impressive Lineage

The asset management industry is replete with examples of smaller funds outperforming larger funds, which often outgrow their ability to generate excess returns due to far fewer large-scale opportunities and fund partners becoming spread over too many deals, watering down their effectiveness on any given portfolio company.

Larger PEs with 100+ portfolio companies can only provide so much oversight to each individual investment, whereas a new firm can devote 100% of its time to a much smaller group of investments. This translates to increased management and resources at the ground level for companies that are highly management sensitive and hungry for such expertise. As maiden funds and talent continue to spin out from the larger players, it will create healthy competition for capital and investment targets alike.

Several firms featured to the right have already parlayed the success of their maiden fund into a second fund, including Crosspoint (Fund II opened Apr '22) and Brighton Park, which just closed on a $1.8B second fund in Nov '22.

First-Time PE Fundraising Activity



Notable Maiden Tech PE Funds (Launched or Closed Since 2020)

PE Firm	Fund Name	Size ($M)	Date	Lineage
LIBERTY Strategic Capital	Liberty Strategic Capital Fund	$2,500	Sep-21	*Steven Mnuchin (Goldman, U.S. Treasury Dept.)*
RECOGNIZE	Recognize Partners I	1,300	Jan-22	*Charles Phillips (Oracle), Francisco D'Souza (Cognizant), David Wasserman (CD&R)*
CROSSPOINT CAPITAL	Crosspoint Capital Fund I	1,300	Apr-21	*Greg Clark (Symantec), Ian Loring (Bain Capital)*
AVANCE	Avance Investment Partners	1,100	Sep-22	*Luis Zaldivar, David Perez, Erik Scott (Palladium)*
BRIGHTON PARK CAPITAL	Brighton Park Capital Fund I	1,100	Nov-20	*Mark Dzialga (General Atlantic), Zachary Gut (Apax)*
OCEANSOUND PARTNERS	OceanSound Partners Fund	780	Feb-22	*Joe Benavides (Veritas), Ted Coons (TCV)*
tidemark	Tidemark Capital Fund I	575	Jul-21	*Dave Yuan (TCV)*
EQUALITY ASSET MANAGEMENT	Equality Private Equity Partners I	500	Nov-21	*Jeffrey Del Papa (TA), Thomas Roberts (Summit)*
SAVANT GROWTH	Savant Growth Fund I	500	Feb-21	*Javier Rojas, Eric Filipek (Broadview, Kennet)*
AMERICAN PACIFIC GROUP	American Pacific Group Fund I	450	Feb-20	*Fraser Preston (H.I.G.)*
Crest Rock Partners	Crest Rock Fund I	400	Jan-21	*Jeff Carnes, Steve Johnson (Marlin)*
INVICTUS	Invictus Growth Fund I	322	Nov-22	*John DeLoche, William Nettles (Pilot Growth)*
CLEARHAVEN PARTNERS	Clearhaven Opportunities Fund I	312	Dec-20	*Michelle Noon (Riverside Partners, Thoma), Kevin Wood (Clearlake)*
CUADRILLA CAPITAL	Cuadrilla Capital Fund I	300*	Open	*Michael T. Richards (Marlin, Vicente), Jonah Sulak (Marlin), Vikram Abraham (Clearlake)*
NEXA EQUITY	Nexa Equity Fund I	300*	Open	*Vlad Besprozvany (Insight, Thoma)*
TELEO CAPITAL	Teleo Capital	250	Nov-20	*George Kase (Marlin), Andy Martinez (Marlin, Foundation)*
VERTICA CAPITAL PARTNERS	Vertica Capital Partners I	205	Mar-20	*Philip Vorobeychik (Insight)*

Source: Pitchbook, PE Hub. For the period 1/1/20 through 12/30/22.

**Estimated target/fund size. Not yet closed.*

Tech PE Industry: Building Blocks for Value Creation

1.	**Add-On Acquisitions**	The largest and most successful PEs are deploying capital and intellectual firepower across portfolio companies at accelerating rates, driving inorganic growth through aggressive M&A roll-up strategies.
2.	**Operational Playbook**	PEs optimize every aspect of a company: enhancing/replacing management, revamping go-to-market efforts, turbo hiring, digital marketing, adjusting prices, moving up and down market and re-branding are all on the table.
3.	**Overlay New Products**	PEs have become better at selling new products to an existing customer base. For example, a SaaS company selling accounting software to building owners can double revenues by overlaying a payments and insurance offering.
4.	**Knowing What You Are Buying**	PE teams conduct thorough due diligence to make sure they know the company and all of its pitfalls. Starting off with unexpected baggage at high valuation levels is real trouble.
5.	**Direct Cost Improvements**	PE consulting teams with vast company and operating experience are examining every meaningful cost to find a better or cheaper way. Rent, hosting, virtual employees, and office sharing are all considerations.
6.	**Utilizing Financial Leverage**	PE firms' tight relationships with banking and debt funds - i.e. those that provide higher debt levels at a lower cost of capital and allow pro-forma synergy adjustments in calculating the EBITDA and debt capacity – have dried up amidst the current higher-rate environment. PEs have adapted by employing private debt, which can still finance up to 50% of the purchase price and enable PEs to continue doing larger deals.

AGC's Tech PE Survey – Platform Deals and Tech AUM

Definition of Terms

"Tech-Focused PEs" are defined as those historically allocating 50%+ to the tech sector and pursuing a growth equity or buyout strategy for 50%+ of all closed funds.

"Tech PE Funds" are defined as funds managed by Tech Focused PE Managers, plus one-off sector funds run by generalist mangers.

"PE Tech Acquisitions" are defined as control transactions with a PE firm as buyer and tech company as target. Excludes consortium-led transactions (three buyers or more) and portfolio company mergers.

"Tech Capital Under Management" is based on total reported AUMs and the estimated percentage of total assets dedicated to PE strategies and earmarked for tech investment.

"Tech Transactions" include announced and reported transactions only and exclude communication network and service providers.

Platform Deal Ranking (2018-2022)

Rank	Firm	Count
1.	Thoma	59
2.	Vista	56
3.	Hg	47
4.	TA	42
5.	Main	41
6.	Francisco	40
7.	AKKR	37
8.	Marlin	37
9.	KKR	34
10.	PSG	30
11.	Carlyle	30
12.	LLR	29
13.	K1	28
14.	ABRY	27
15.	Clearlake	26
16.	Battery	26
17.	H.I.G.	26
18.	EQT	25
19.	Great Hill	25
20.	Blackstone	25

Rank	Firm	Count
21.	Advent	24
22.	Alpine	24
23.	STG	24
24.	Insight	23
25.	Apax	21
26.	Bain	21
27.	Warburg	20
28.	Riverside	20
29.	CVC	19
30.	GI	18
31.	Prov. Equity	16
32.	TPG	16
33.	MDCP	14
34.	Ardian	14
35.	Aquiline	13
36.	GTCR	13
37.	Rubicon	12
38.	Stone Point	12
39.	Silver Lake	11
40.	Montagu	11

Tech AUMs for Select Tech-Focused PEs

Rank	Firm	AUM ($M)
1.	THOMABRAVO	$120,000
2.	VISTA	94,000
3.	INSIGHT PARTNERS	90,000
4.	SILVERLAKE	66,000
5.	CLEARLAKE	46,800
6.	FP FRANCISCO PARTNERS	45,000
7.	GENERAL ATLANTIC	36,000
8.	TA	33,800
9.	Hg	28,800
10.	TCV	23,300

Rank	Firm	AUM ($M)
11.	PROVIDENCE EQUITY	$19,200
12.	VERITAS CAPITAL	17,000
13.	AKKR ACCEL-KKR	14,000
14.	Great Hill PARTNERS	13,400
15.	PSG PROVIDENCE STRATEGIC GROWTH	13,400
16.	K1	13,200
17.	GI PARTNERS	13,100
18.	SUMMIT PARTNERS	12,800
19.	Battery	8,900
20.	MARLIN EQUITY PARTNERS	8,100

Source: 451 Research, Pitchbook, Company Reports, PE Hub, Bloomberg. For the period 1/1/18 through 12/30/22.

AGC's Tech PE Survey – Total Deal Summary (2018-2022)

Rank	Firm	Total Deal Count	Platform	Add-On
1.	Hg	342	47	295
2.	TA	342	42	300
3.	Vista	278	56	222
4.	Thoma	214	59	155
5.	Insight	193	23	170
6.	Francisco	169	40	129
7.	AKKR	149	37	112
8.	PSG	141	30	111
9.	GI	129	18	111
10.	Clearlake	127	26	101
11.	Main	126	41	85
12.	Carlyle	126	30	96
13.	KKR	117	34	83
14.	Battery	115	26	89
15.	K1	111	28	83
16.	EQT	104	25	79
17.	Advent	100	24	76
18.	Marlin	98	37	61
19.	Genstar	90	8	82
20.	Apax	89	21	68

Rank	Firm	Total Deal Count	Platform	Add-On
21.	Aquiline	85	13	72
22.	Great Hill	81	25	56
23.	ABRY	80	27	53
24.	Blackstone	73	25	48
25.	Alpine	73	24	49
26.	Warburg	72	20	52
27.	Providence Equity	72	16	56
28.	LLR	70	29	41
29.	H.I.G.	67	26	41
30.	TPG	67	16	51
31.	Riverside	65	20	45
32.	Silver Lake	56	11	45
33.	New Mountain	55	9	46
34.	Bain	52	21	31
35.	CVC	51	19	32
36.	Rubicon	51	12	39
37.	MDCP	48	14	34
38.	Stone Point	47	12	35
39.	HGGC	46	5	41
40.	Ardian	44	14	30

Rank	Firm	Total Deal Count	Platform	Add-On
41.	GTCR	44	13	31
42.	STG	42	24	18
43.	H&F	39	7	32
44.	Montagu	35	11	24
45.	Apollo	33	5	28

Year	Total Deal Count	Platform	Add-On
2018	814	223	591
2019	696	179	517
2020	840	186	654
2021	1,300	298	1,002
2022	958	184	774
Total:	4,608	1,070	3,538

Source: 451 Research, Pitchbook, Company Reports. For the period 1/1/18 through 12/30/22. "PE Tech Acquisitions" are defined as control transactions with a PE firm as buyer and tech company as target. Excludes consortium-led transactions (three buyers or more) and portfolio company mergers.

Diverse Range of Investment Criteria Across the Tech PE Ecosystem

Buyout Check Size

Large		Midsize				Small		
Advent	Golden Gate	ABRY	GreyLion	Mubadala	STG	Catalyst	Kayne Anderson	Pine Island
Apax	GTCR	Accel-KKR	Gryphon	Norwest	Sumeru	Clarion	Klass	Rainier
Apollo	H&F	Alpine	Guggenheim	Novacap	Susquehanna	Clearhaven	Leeds Equity	Resurgens
Ardian	HgCapital	AlpInvest	HarbourVest	Oak Hill	TCV	Cohere	Lineage	RLH
Ares	Insight	Aquiline	HGGC	Pamlico	THL	Diversis	Long Ridge	Serent
Bain Capital	KKR	Audax	HIG	Pamplona	Thompson Street	EOS	Main Street	SFW
Blackstone	New Mountain	Battery	ICONIQ	Parthenon	True Wind	Equality	Mainsail	SNH
Brookfield	Permira	Berkshire	Inflexion	Peak Rock	Vector	Falfurrias	Mauve	SSM
Carlyle	Platinum	Bregal Sagemount	JMI	Primus	Waud	Frontier	MPE	Staley
Cinven	Silver Lake	Brighton Park	K1	Providence Equity	WCAS	Gauge	MS Expansion	Staple Street
Clearlake	Stone Point	Centerbridge	Liberty Strategic	PSG		Gemspring	New Capital	Sunstone
CVC	Summit	Charlesbank	Lightyear	Revelstoke		Halyard	NewSpring	Sverica
Elliot	TA	Court Square	Littlejohn & Co.	Riverside Co.	ABS	Highbar	Nexa	Teleo
EQT	Thoma Bravo	Cove Hill	Livingbridge	Riverside Partners	Avesi	HKW	NexPhase	TZP
Francisco	TPG	Crosspoint	LLR	Rubicon	Baird	Insignia	NextEquity	Verdane
General Atlantic	Veritas	FFL	Luminate	Sageview	Bertram	Investcorp	Northlane	Vertica
Genstar	Vista	FTV	Madison Dearborn	Silversmith	BlackFin	Invictus	Parallax	VSS
Warburg Pincus		GI Partners	Main Capital	Siris	Bow River	JMC	ParkerGale	Westbridge
		Great Hill	Marlin	Spectrum	BV	Kaltroco	Pike Street	WestView

Note: This is a representative universe – if your firm is not featured or bucketed improperly, feel free to email (htheodore@agcpartners.com) for consideration).

Disclosure

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