Rothschild & Co
Global Advisory

Growth Equity Update

June 2023 – Edition 15

- Mixed Q1 2023 trends in VC valuations. Pitchbook data indicates that European Q1 early stage VC deal valuations are robust but that late stage valuations have declined sharply yoy
- US law firm Fenwick & West's quarterly survey of VC valuation trends in Silicon Valley shows in Q1 (177 deal sample) 73% were up, 18% flat and 9% were down rounds. Fenwick & West's measurement of the average percentage price change between rounds shows the steepest reductions were in Series C (87% in Q4 2022 to 28% in Q1 2023) and Series E (12% to 2%)
- Valuations are impacted by slowing revenue growth, in part a result of higher interest rates causing companies to focus on profitability and cash. Kruze Consulting has a report charting the 2021/22 slowdown in revenue growth in fintech (2021 > 500% revenue growth/ 2022 70%), SaaS (+100%/c60%), eCommerce (c85%/6%) with Healthcare 20% in both years
- In valuation terms a two tier market has appeared in VC – generative AI and everything else. The median value of a generative AI start-up was three times that of start-ups overall in Q1 2023
- We look at the biggest VC raises 2023 ytd - in the US three of the top ten raises (and six of the top twenty) are in generative AI. In Europe the list is led by ClimateTech with almost $1bn in raises
- US Venture debt raises have averaged $5.5bn in the last four quarters - we update on the market
- Stubborn inflation may imply a *'higher for longer'* interest rate cycle. NASDAQ is up 26%, the S&P 500 10% , STOXX 600 Europe 7% and the FTSE 100 is flat ytd. The Refinitiv Venture Capital Index was up 7% in May and is now up 20% ytd and 5% in the last year.

Valuation trends in venture capital

Late stage valuations remain under pressure

Europe: Pitchbook's recently published report on European Q1 VC valuations indicates mixed trends. Early stage valuations are pretty robust yoy with both angel and seed in reasonable shape. Early median VC valuations dipped yoy but median late stage grew – albeit helped by one high-priced outlier deal. Venture growth, the most mature stage, saw median valuation drop 41% yoy.

The key findings from Pitchbook's Q1 2023 European VC valuation are:

Angel and seed valuations robust: Angel valuations in Europe were solid with the median valuation in Q1 2023 pacing at €3.7m, above the €3m for the equivalent period in 2022. The median Q1 seed valuation was flat at €5.5m.

Median early-stage valuations dip: Valuations here averaged €5.5m, equivalent to a 15% qoq drop. Pitchbook reports that the median early-stage valuation step-up is running at 1.4x in Q1 2023, well down from its 2.0x reading in 2022. Average deal value is pacing in line with 2022's €1.8m.

Median late-stage valuations rise: Q1 2023 saw the median late-stage valuation increase 27% to €13.4m. The yoy numbers were helped by German solar panel business Enpal raising €215m at a €2.2bn pre-money valuation.

Venture growth valuations – sharp fall: Pitchbook reports that the median venture-growth valuation fell to €25.3m in Q1 2023, a yoy decline of 41%. Deal value in this category rose 20% yoy to €10m.

Pitchbook makes four more observations of note:

Non-traditional investor participation has dwindled. Activity involving non-traditional investors peaked in Q4 2021 and has steadily declined since then. In Q1 deal value with non-traditional investor participation fell 65% yoy, registering a new post Q4 2021 low.

19% down rounds: Pitchbook records that in Q1 2023 the proportion of down rounds edged up to 19%, having finished 2022 at a decade low of 15%.

The VC exit market remains subdued: In Q1 the median exit valuation decreased 35% YoY but was up sharply on Q4 2022. Acquisition activity is more prominent than public listings.

Unicorn valuations flat: In Q1 2023 the aggregate post-money valuation of all Europe-based unicorns was €471bn, unchanged from the end 2022 level.

Silicon Valley Valuation trends

An interesting report from the Silicon Valley based legal firm Fenwick & West which produces a quarterly survey on valuation trends in VC, specifically aimed at companies based in and around Silicon Valley.

The key findings of its Q1 2023 survey of 177 venture financings closed by companies headquartered in Silicon Valley were:

The Q1 2023 data shows the total number of financings up 5% on the prior quarter, from 169 to 177. The biggest sequential quarter movement was in Series B financings, from 36 in Q4 2022 to 56 in Q1 2023, up 56%.

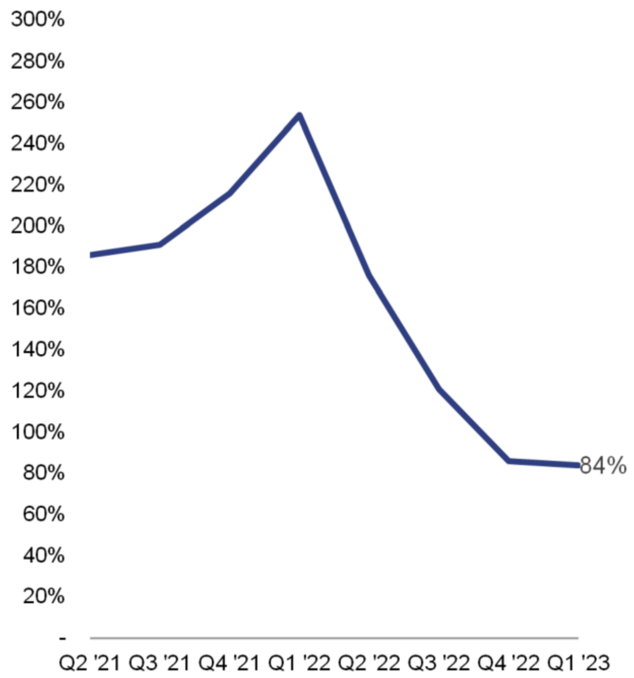
Deal value in North America was much lower yoy in Q1 . According to Crunchbase, the value decline was 46% yoy to $46.3bn, down 13% from Q4 2022. This fed through to the Silicon Valley fundraising , with a fall in the average deal value across all series in Q1.

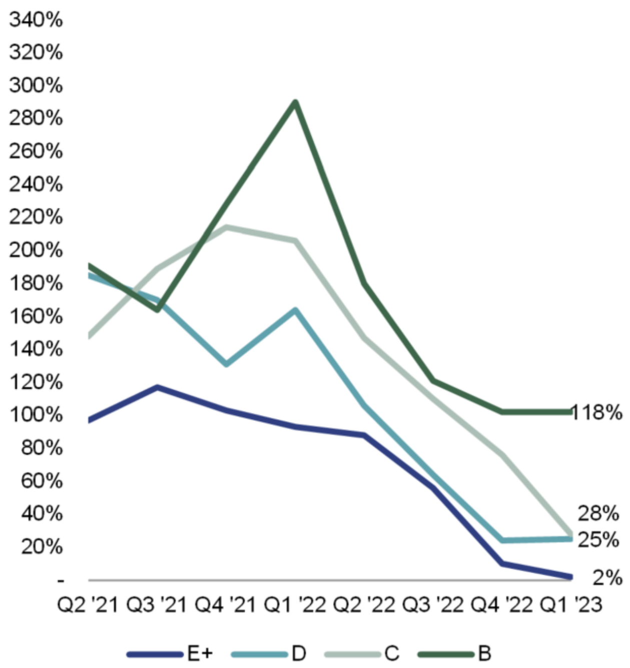
Fenwick produces its Venture Capital Barometer™. This captures the average percentage change in price per share when companies raise funds and compares it with the prior round of financing. Overall the barometer in Q1 sat at 84% which compares with a long run average of 74%.

The steepest reductions in average price change were in Series C and Series E financings. The average price change for Series C financings reduced from 87% in Q4 2022 to 28% in Q1 2023. Series E financings reduced from a 12% average price change to a 2% average price change quarter over quarter.

US Q1 Fund raises – Magnitude of price change

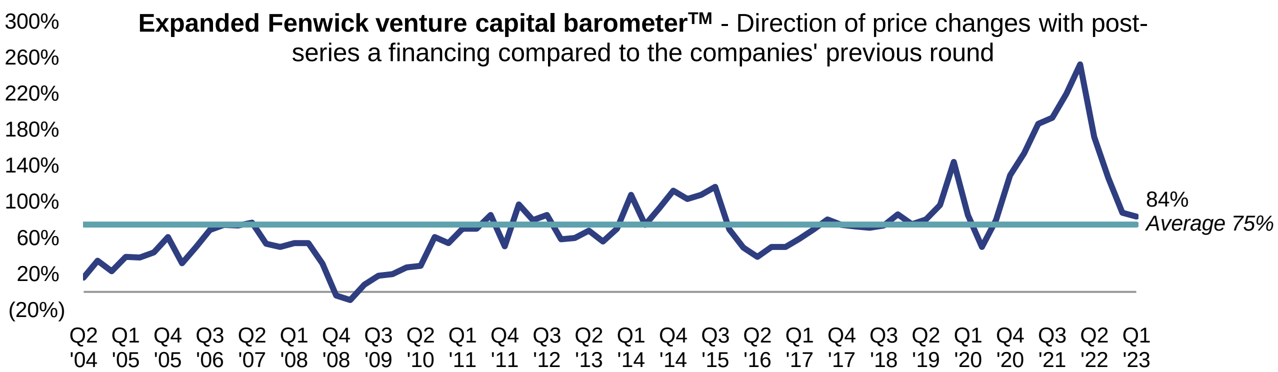
Magnitude of price change. Average percentage change between the price per share at which companies raised funds in a quarter and the price per share at which the companies raised funds in their prior round of financing. Calculation includes all rounds (up, down and flat). Results are not weighted based on the amount raised in the financing. Left hand chart is the overall result. Right hand chart shows the results by Series.





Source: Fenwick & West

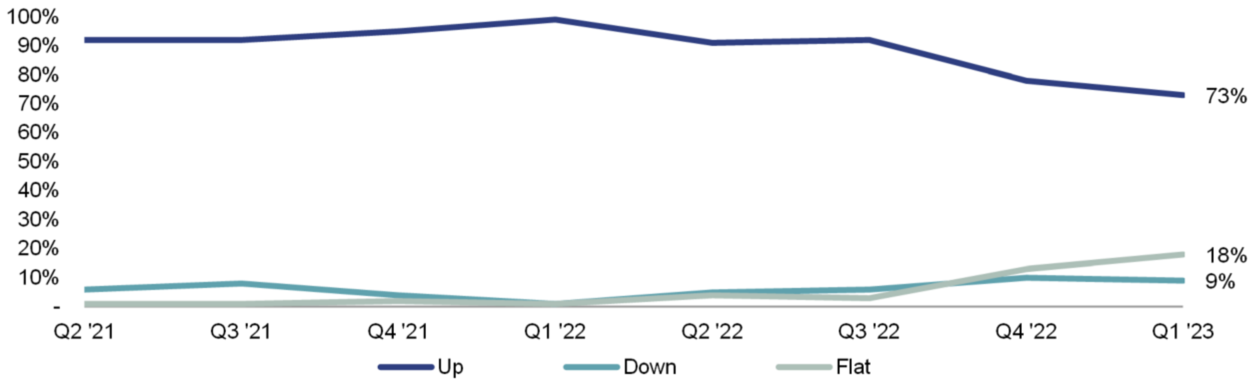
Looking at the longer time series, the directional change in valuations has fallen back from its peak in late 2021 to near to the long run valuation change level.



Source: Fenwick & West

For Q1 Fenwick identified, from its sample of 177, that 73% of the rounds were up rounds, 18% were flat and 9% were down rounds. The percentage of up rounds has rolled steadily off the top since the virtual 100% numbers in Q4 21/ Q1 22.

Price Change- Direction of price changes with post Series A financings compared to the companies' previous rounds (Fenwick & West Survey)



Source: Fenwick & West

Fenwick also breaks out this data by industry. Software saw the greatest percentage of up rounds in the quarter with the median price change also the highest at 70%. The barometer change (directional trend) was highest in Internet/Digital Media.

Aggregate Industry results for Q1 2023

Industry	Up Rounds	Down Rounds	Flat Rounds	Barometer	Median Price Change	Post-Series A Financings
Software	89%	6%	6%	95%	70%	36
Hardware	73%	-	27%	56%	24%	15
Life Sciences	50%	15%	35%	60%	6%	20
Internet/Digital Media	71%	14%	14%	156%	31%	7
Other	63%	25%	13%	87%	61%	8
Total, All Industries	**73%**	**9%**	**17%**	**84%**	**36%**	**86**

Source: Fenwick & West

Down round results by industry - percent of down rounds each quarter, broken out by industry

Down Rounds	Q2 '21	Q3 '21	Q4 '21	Q1 '22	Q2 '22	Q3 '22	Q4 '22	Q1 '23
Software	6%	4%	2%	-	5%	9%	4%	6%
Hardware	13%	27%	18%	-	14%	9%	14%	-
Life Sciences	4%	14%	10%	8%	-	-	15%	15%
Internet/Digital Media	6%	-	-	-	-	-	14%	14%
Other	7%	10%	-	-	6%	-	10%	25%
Total, All Industries	**6%**	**8%**	**4%**	**1%**	**5%**	**6%**	**10%**	**9%**

Source: Fenwick & West

What this appears to indicate is a slow rowing back from the VC heights of 2021. Companies, both public and private, are focusing on profitability and positive cash flow rather than on maximising revenue growth. This, plus the significant amounts of money raised in 2021 and H21 2022, means that the number of companies looking to fund raise in current market conditions is much reduced. Many companies are reluctant to raise funds and there are a lot of internal rounds. Investors report relatively few attractive funding rounds in the mid stages of Growth equity and substantial competition when such opportunities do appear.

The result is that the proportion of up rounds remains relatively high and, with the self-selection of mainly strong stories looking to raise, valuation trends have also remained surprisingly robust.

The slowdown of revenue growth: Elsewhere multiples are being compressed as investors factor in the impact of higher interest rates and as companies slow revenue growth to focus instead on greater profitability and cash flow generation. This effect is picked up in a report by accounting firm Kruze Consulting, reviewed by Pitchbook. Using data drawn from its 750 clients ranging from seed to Series C Kruze charts the slowdown in revenue growth seen across 2022 relative to 2021 in four *'fast growth'* sectors – software; eCommerce, Healthcare and fintech/crypto.

The chart shows the startling growth in fintech in 2021 with more than 500% yoy revenue growth. In 2022 revenue growth slowed to 70% with yoy revenue growth starting to fall rapidly in the last quarter of the year.

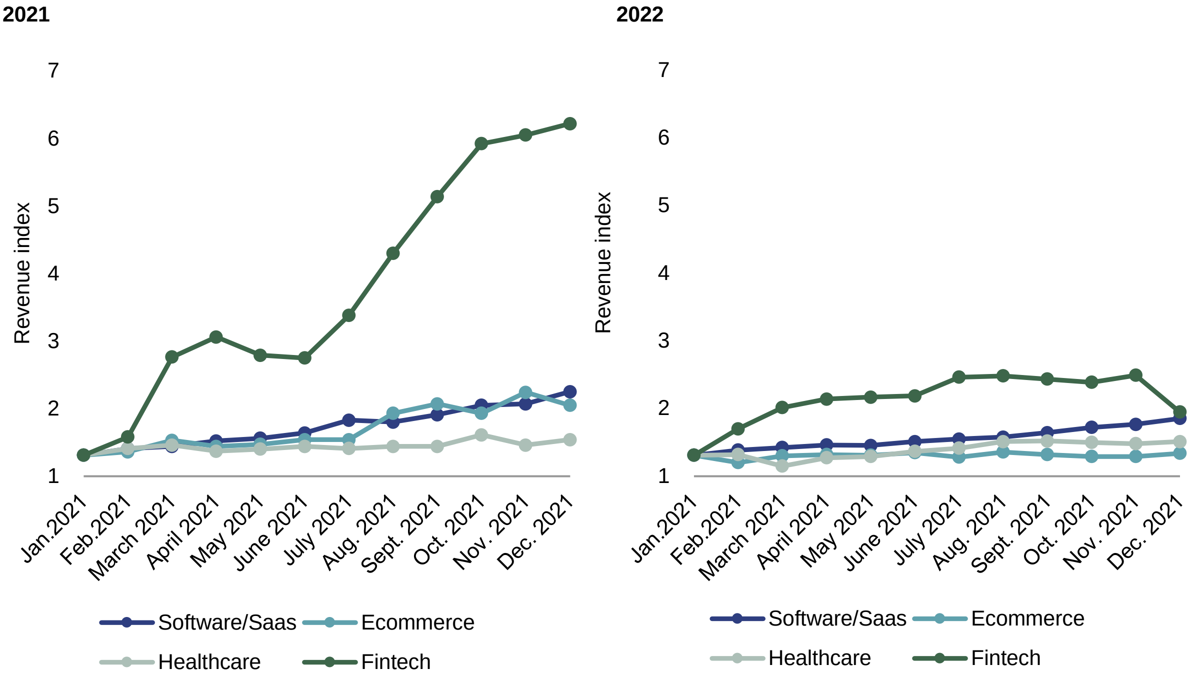
SaaS companies saw revenues double in 2021 before revenue growth fell back to c60% in 2022.

The eCommerce revenue slowdown was yet more dramatic with c85% revenue growth in 2021 slowing to just 6% in 2022.

Healthcare bucked the trend, growing at just over 20% in both 2021 and 2022.

The challenge for valuations is clear. Many companies that will have raised on high multiples of revenue in 2021 and the first half of 2022 are now seeing sharply slowing revenue growth, putting pressure on valuation and reducing the desirability of raising again.

Revenue growth by subsector indexed to January 2021 and 2022. An index of 2 means revenue grew 100% since January of that year.

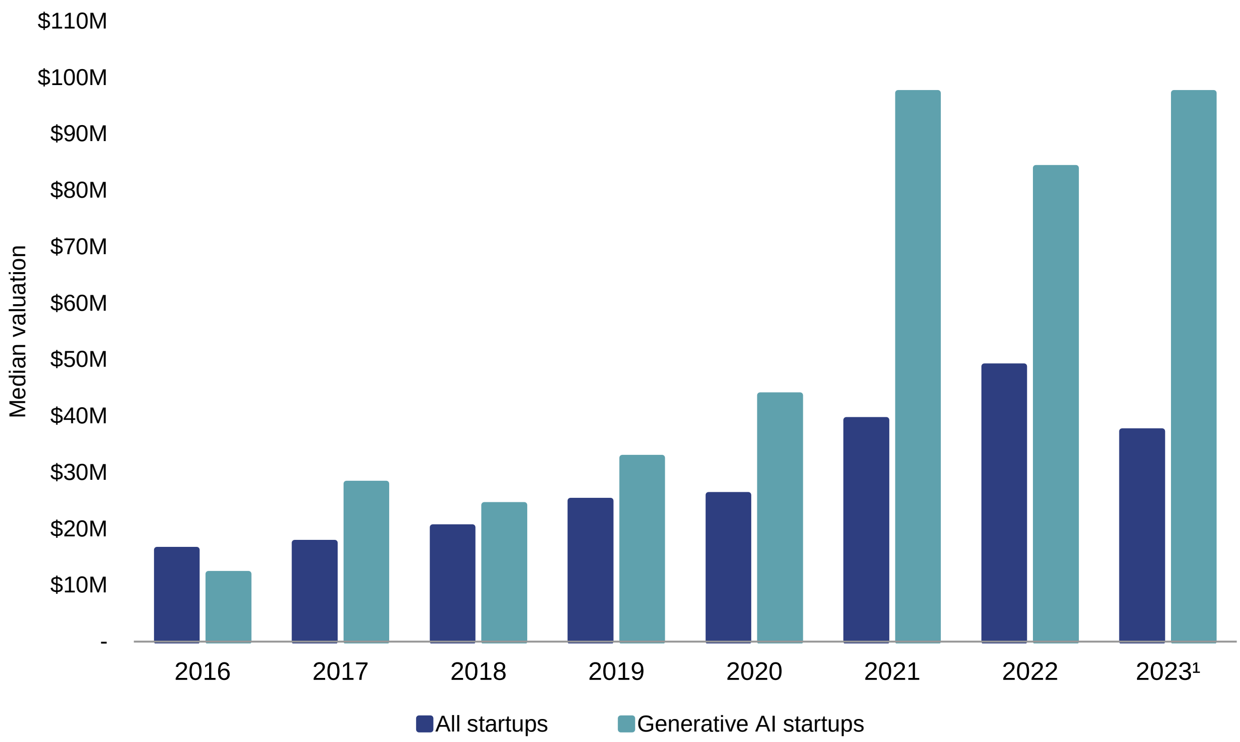


Source: Kruze Consulting, Pitchbook

A league of its own - Generative AI: There is, of course, one sector bucking the trend in terms of valuation – generative AI and the companies that support it. We wrote about generative AI in the last Growth Equity Update. It seems clear that in valuation terms a two tier market has appeared in venture capital – generative AI and everything else.

Pitchbook data catches this nicely. The next chart shows the early stage pre-money valuations of generative AI start-ups compared with all start-ups. The median value of a generative AI start-up in Q1 2023 was around three times that of start-ups overall.

Median early-stage pre-money valuations of generative AI compared to all startups



Source: PitchBook data
Geography: US
1 . As of May 18, 2023

A feature of AI companies is that, while the technology and applications potential is very substantial, many of even the most prominent AI companies have little at present in the way of revenues. ***OpenAI***, the biggest of the generative AI unicorns, anticipates c$200m revenue in 2023. It recently raised money from VC firms including Sequoia Capital, Andreessen Horowitz, Thrive and K2 Global at a $29bn valuation – implying that it commanded a 2023 revenue multiple of 145x.

Anthropic, the second largest generative AI unicorn saw a $300m round value the business at $4.1bn in March. The company has nominal revenues.

Coreweave has just raised $200m in a Series B+ round led by Magnetar Capital, just one month after it raised $221m in a Series B also led by Magnetar. The company offers cloud infrastructure for generative AI companies and is part owned by NVIDIA. The company was valued at $2bn – around 70x 2022 revenues.

At the start of June ***Lightmatter***, a developer of photonic light-powered semiconductors designed to speed up artificial intelligence driven computations, raised $154m, tripling its previous valuation to $720m from the $240m attained in its $80m 2021 Series B in May 2021.

The Information reports that ***Rewind,*** a company which records and makes meetings, emails and other electronic interactions searchable has raised $15m at a $350m valuation in a round led by NEA. Rewind has revenue of less than $1m meaning its implied multiple is c350x sales.

Together, a business developing open source generative AI, launched in June 2022. It is focused on building a cloud platform for running open source models that the co-founders claim will offer scalable compute at *"dramatically lower"* prices than vendors like Google Cloud and AWS. Despite the absence of revenues it raised $20m in a seed round led by Lux Capital in May.

LangChain was founded in October 2022 as an open-source library that provides developers with the tools to build applications powered by large language models. In April 2023 it announced a $10m seed funding round led by Benchmark giving it a valuation of $50m. Within weeks it raised a further round led by Sequoia valuing the business at $200m. It has nominal revenues.

Generative AI companies and the associated businesses are being valued on the expectation of very substantial revenue growth. As yet the vast majority of VC money – around 80% of the capital employed in the industry – has gone to the 'platforms'- the creators of the large language models - notably OpenAI, Anthropic and their peers. Only 20% of the funding has gone to the creators of the 'apps' in generative AI – the industry specific would-be *'category killers'* looking to apply generative AI to transform industries. In the future much of the value in AI is likely to reside in these businesses. As in the period after the development of mobile phone based apps it is likely to take 2-3 years for the ultimate winners in each of these industries to start to emerge. In the meantime the market is willing to spread its bets in what, for the moment, are *'revenue-light'* businesses in anticipation of that category killer emerging.

The biggest raises of 2023

US dominated by generative AI; Europe by CleanTech

Using Crunchbase data we look at the biggest ($100m+) US growth equity raises year to date to the start of June.

The most notable feature of the US data is that three of the top ten raises (and six of the top twenty) are in generative AI. The largest deal is the $10bn invested in Chat GPT company **OpenAI** in January by Microsoft. OpenAI also appears at number 17 in the top 20 raises with a follow on investment by VC firms including Sequoia Capital, Andreessen Horowitz, Thrive and K2 Global at a c$29bn valuation. The spin off from Alphabet, **Sandbox AQ** – part AI, part quantum computing, raised $500m in February. **Anthropic** raised $450m in March 2023 in a round led by Spark Capital at a valuation of $4.1bn. It previously attracted a $3bn investment from Microsoft in February. **Adept AI**, a pre revenue business founded in 2022, raised $350m in a March 2023 Series B round led by General Catalyst and Spark Capital at a post money valuation of $1bn. Just outside the top 20 the $221m raise by **Coreweave**, a supplier of cloud computing infrastructure servicing the demands of generative AI companies, is riding the same wave of enthusiasm for the sector.

Fintech is less prominent in 2023 to date with just two of the top 20 raises. This included the $6.5bn down round conducted by **Stripe** in March, 47% below its peak valuation of in March 2021 and carried out in order to deal with the issue of its restricted stock units *'to provide liquidity to current and former employees and address employee withholding tax obligations related to equity awards.'* **Clear Street** raised $270m from Prysm Capital valuing the New York based independent prime broker at $2bn. Clear Street has developed a cloud-based prime brokerage and clearing system designed, in the words of CEO Chris Pento, to '*replace the outdated infrastructure being used across capital markets.'*

Two other sectors stand out in fundraising terms. The most heavily represented sector by number of deals is biotech with 21 of the top 85 US VC deals by size in the first five months of the year. The biggest raise was the $401m for cell and gene therapy company, Elevate Bio led by AyurMaya Capital Management in May. ReNAgade Therapeutic raised $300m from MPM BioImpact and F2 Ventures in April. It is the largest US Series A funding to date in 2023. ReNAgade, based in Cambridge, Massachusetts aims to *"address major limitations in RNA [ribonucleic acid] therapeutics by enabling the delivery of RNA medicines to previously inaccessible tissues and cells in the body."*

CleanTech has seen four $100m plus raises (Gradiant $225m – water and wastewater projects), Palmetto ($150m – solar panels), Amogy ($139m- ammonia based clean energy), Boston Metal ($120m-decarbonising steel production). More widely defined there were also raises from Our Next Energy ($300m -battery technology), Ohmium International ($250m - green hydrogen solutions) and Silicon Ranch Company ($385m - solar and carbon solutions).

2023's Largest US Venture capital raises ($100m plus) to the start of June

	Company	Amount	Lead Investors	Valuation	industry	Date
1	OpenAI	10000	Microsoft	n/a	Artificial intelligence	January
2	Stripe	6500	n/a	50,000	Fintech	March
3	Generate Capital	924	n/a	n/a	Energy	January
4	SandboxAQ	500	n/a	n/a	Artifical intelligence	February
5	Lessen	500	n/a	2000	Real estate	January
6	Rippling	500	Greenoaks	n/a	Human resources	March
7	Anthropic	450	Spark Capital	4100	Artificial intelligence	May
8	Netskope	401	Morgan Stanley Tactical Value	n/a	Cybersecurity	January
9	ElevateBio	401	AyurMaya Capital Management	n/a	Biotech	May
10	Silicon Ranch Corp.	385	n/a	n/a	Renewable energy	January
11	Monogram Health	375	n/a	n/a	Healthcare	January
12	Adept AI	350	General Catalyst, Spark Capital	1000	Artificial intelligence	March
13	Zipline	330	n/a	4200	Drones	April
14	Our Next Energy	300	Franklin Templeton, Fifth Wall	1200	Energy	February
15	Anthropic	300	Google	n/a	Artificial intelligence	February
16	Wiz	300	Lightspeed Venture Partners	10000	Cybersecurity	February
17	OpenAI	300	n/a	28000	Artificial intelligence	April
18	ReNAgade Therapeutic	300	MPM BioImpact, F2 Ventures	n/a	Biotech	May
19	EquipmentShare	290	BDT Capital Partners	n/a	Construction	April
20	Clear Street	270	Prysm Capital	2000	Fintech	April
21	Orbital Therapeutics	270	Arch Venture Partners	n/a	Biotech	April
22	Ohmium International	250	TPG Rise Climate	n/a	Energy	April
23	Skydio	230	Linse Capital	2200	Drones	February
24	Gradiant	225	BoltRock Holdings, Centaurus	1000	Cleantech	May
25	CoreWeave	221	Magnetar Capital	n/a	Cloud	April
26	HeartFlow	215	Bain Capital Life Sciences	n/a	Health care	April
27	Paradigm	203	ARCH Venture General Catalyst	n/a	Healthcare	January
28	ShiftMed	200	Panoramic Ventures	n/a	Healthcare	February
29	CARGO Therapeutics	200	Third Rock, RTW , Perceptive Xontogeny	n/a	Biotech	March
30	Astranis	200	Andreessen Horowitz	1600	Space	April
31	Kite	200	Juxtapose, Blackstone Group	n/a	E-commerce	April
32	Aera Therapeutics	193	ARCHs, GV and Lux Capital	n/a	Biotech	February
33	Deepwatch	180	n/a	n/a	Cybersecurity	February
34	Gravie	179	General Atlantic	n/a	Insurance	March
35	Asimov	175	Canada Pension Plan Investment Board	n/a	Biotech	January
36	Human Interest	160	BlackRock	n/a	Financial services	January
37	TORL BioTherapeutics	158	Goldman Sachs Asset Management	n/a	Biotech	April
38	Pathalys Pharma	150	Abingworth	n/a	Biotech	January
39	Colossal Biosciences	150	US Innovative Technology Fund	1000	Biotech	January
40	Palmetto	150	TPG Rise Climate	n/a	Cleantech	March
41	Character.AI	150	Andreessen Horowitz	1000	Artificial intelligence	March
42	Noah Medical	150	Softbank Vision Fund, Prosperity7	n/a	Health diagnostic	April
43	Tipalti	150	G Squared	n/a	Fintech	May
44	Carmot Therapeutics	150	Deep Track Capital	n/a	Biotech	May
45	Amogy	139	SK Innovation	n/a	Cleantech	March
46	Chroma Medicine	135	GV	n/a	Biotech	March
47	Restaurant365	135	KKR, L Catterton	1000	Accounting	May
48	Juniper Square	133	Owl Rock	n/a	Financial services	February
49	ID.me	132	Viking Global Investors	n/a	Identity management	April
50	Tonal	130	L Catterton, Cobalt, Dragoneer, Kindred	n/a	Fitness	April
51	Xpansiv	125	n/a	n/a	Financial services	January
52	Flare Therapeutics	123	GordonMD, Pfizer Venture	n/a	Biotech	March
53	Boston Metal	120	ArcelorMittal	n/a	Cleantech	January
54	Soci	120	JMI Equity	n/a	Marketing	March
55	Chronosphere	115	GV	n/a	Analytics	January
56	Tools For Humanity	115	Blockchain Capital	3000	Cryptocurrency	May
57	Altruist	112	Insight Partners, Adams Street Partners	n/a	Fintech	April
58	Fever	110	Goldman Sachs	1800	Media	January
59	Via	110	83North	3500	Transportation	February
60	Consensus	110	Sumeru Equity Partners	n/a	SaaS	March
61	Bicara Therapeutics	108	Red Tree, RA Capital Management	n/a	Biotech	March
62	Vedanta Biosciences	106	AXA IM Alts, AMR Action Fund	n/a	Biotech	April
63	R-Zero	105	CDPQ	n/a	Biotech	February
64	Impel	104	Silversmith Capital Partners	n/a	Automotive	January
65	Metagenomi	100	Novo Holdings,Catalio, Symbiosis	n/a	Biotech	February
66	Synthekine	100	The Column Group	n/a	Biotech	March
67	Carbon Health	100	CVS Health Ventures	n/a	Healthcare	April
68	Mill	100	n/a	n/a	Enviromental consulting	May
69	LeafLink	100	CPMG, L2 Ventures, Nosara Capital	n/a	Cannabis	February
70	Vox Media	100	Penske Media	500	Digital media	February
71	Vytalize Health	100	Enhanced Healthcare , Monroe Capital	n/a	Healthcare	February
72	Paratus Sciences	100	Polaris , ARCH, ClavystBio, EcoR1	n/a	Biotech	February
73	Humane	100	Kindred Ventures	n/a	Artifical intelligence	March
74	Rapport Therapeutics	100	Third Rock, Arch, Johnson & Johnson	n/a	Biotech	April
75	Cybereason	100	SoftBank	n/a	Cybersecurity	April
76	AlphaSense	100	n/a	1800	Analytics	April
77	Pinecone	100	Andreessen Horowitz	750	Database	April
78	Ursa Major,	100	BlackRock, Space Capital	n/a	Aerospace	April
79	Mavenir	100	Siris	n/a	Network software	May
80	UVeye	100	Hanaco VC	n/a	Automotive	May
81	Avenue One	100	WestCap	1000	Property management	May
82	Boundless Bio	100	Leaps by Bayer, RA Capital	n/a	Biotech	May
83	Eagle Eye Networks	100	SECOM	n/a	Security	May
84	Ray Therapeutics	100	Novo Holdings A/S	n/a	Biotech	May
85	Zip	100	Y Combinator	1500	Procurement	May

Source Crunchbase

Europe has seen 27 $100m plus raises to the start of June. The European list is led by ClimateTech with almost $1bn in raises. There have been two substantial deals for electric vehicle (EV) charging station businesses, Driveco ($262m) and JOLT Energy ($165m). The largest ClimateTech raise has been for the photovoltaics leasing firm Enpal ($228m).

Software deals have raised just over $900m in total in Europe in the first five months of the year. There have been two big travel software platform deals (Hostaway $175m and Travelport $200m). A notable raise was the oversubscribed $129m Quantexa Series E. Quantexa uses AI tools in tackling fraud, identity management, KYC, money laundering detection and compliance. The round valued the business at $1.8bn.

There was one large AI raise, the $250m for Builder.ai with Microsoft taking an undisclosed stake. Builder.ai's Natasha coding platform claims to build automated software apps faster and at considerably lower cost than traditional methods. The Qatar Investment Authority led the $250m raise in May . Previously Microsoft had taken an undisclosed stake in the business with the aim of integrating the Natasha platform into Microsoft Teams.

Fintech remained well supported with the $250m of funding for the eToro social trading platform the largest raise. There has been a steady flow of biotech raises amounting to c$0.5bn in total.

2023's Largest European VC raises to date

	Company	Amount $m	Lead investors	Valuation	Industry	Date	Country
1	Driveco	262	APG, Mirova, and Corsica Sole.		Climate Tech	May-23	France
2	eToro	250	ION Group, SoftBank Vision Fund 2	$3.5bn	Fintech	Mar-23	UK
3	Builder AI	250	Qatar Investment Authority (QIA),		AI/Software	May-23	UK
4	Enpal	228	TPG Rise Climate,Westly Group	$2.35bn	ClimateTech	Jan-23	Germany
5	Travelport	200	Siris Capital Group,Elliott Management.		Software	Mar-23	UK
6	EV Chargers	200	Denham Capital.		Evs/Climate Tech	Mar-23	UK
7	Hostaway	175	PSG		Software/Travel	Jun-23	Finland
8	Isar Aerospace	165	7-Industries, Bayern Kapital, Earlybird		Satellite	Mar-23	Germany
9	JOLT Energy	165	Infrared Capital		Climate Tech	May-23	Germany
10	Distalmotion	150	Revival Healthcare Capital.		Medical Devices	Apr-23	Switzerland
11	Oxbotica	140	Aioi Nissay Dowa Insurance, ENEOS IP		AV Software	Jan-23	UK
12	Amolyt Pharma	138	Sofinnova Partners, Intermediate Capital		Biotech	Jan-23	France
13	Hemab Therapeutics	135	Access BiotechDeep Track, Avoro		Biotech	Feb-23	Denmark
14	APK	130	MIG Capital, LyondellBasell, KIRKBI		ClimateTech	Feb-23	Germany
15	Quantexa	129	GIC, Warburg Pincus, Dawn Capital,	$1.8bn	Software	Apr-23	UK
16	Merchant Money	115	Barclays Bank PLC , Quilam Capital.		Fintech	Feb-23	UK
17	Noema Pharma	112	Forbion and Jeito Capital		Biotech	Mar-23	Switzerland
18	Patient 21	108	Pitango, Bertelsmann Inv., Artian		Software/Health	May-23	Germany
19	Gropyus	107	Vonovia		Construction	Jan-23	Austria
20	Pasqal	107	Temasek, BPIFrance		Quantum Computing	Jan-23	France
21	IntegrityNext	106	EQT Growth		Software	Mar-23	Germany
22	Alentis Therapeutics	105	Jeito Capital,Novo, RA Capital		Biotech	Apr-23	Switzerland
23	Ledger	100	True Global Ventures, Cite Gestion		Fintech/blockchain	Mar-23	France
24	Terrapay	100	IFC, Prime Ventures, Partech Africa		Fintech	Apr-23	UK
25	Maltego	100	Charlesbank Technology		Software	Apr-23	Germany
26	UVeye	100	Hanaco VC, GM Ventures		Software	May-23	Israel
27	CorePower	100	Onomichi Dockyard, Imabari		Climate Tech	May-23	UK

Source: FINSMES, TechCrunch, R&Co

Markets – NASDAQ bull market; S&P 500 nearly there

Inflationary pressures stubbornly persist but public markets grind higher

To the start of June NASDAQ continues to lead the way, now up 26% ytd and up 6% over the last year.

With relief from fears over regional banks and the debt ceiling, the S&P 500 is up 10% ytd and 1% in the last twelve months. Debate rages over the health of the rally given it has been driven by a small number of mega cap stocks. Nevertheless the S&P 500, up 19% since its lows of October 2022, is virtually in bull market territory. It has outperformed the STOXX 600 Europe, which is up 7% ytd.

The FTSE 100 hit its peak in early April, up 6% on the year and has since fallen back to be flat ytd. It is also flat over 12 months.

The Refinitiv Venture Capital Index, which seeks to monitor the real time performance of the VC industry and whose performance is partly driven by the moves in public markets and particularly tech heavy indices like NASDAQ, was up 7% in May and to the start of June is up 20% ytd and 5% in the last year. It remains 45% below its late November 2021 peak.

Public market movements at a sector level are captivated by consideration of potential winners and losers from the generative AI phenomenon. Redburn Atlantic's recent note *'AI in Seven Sectors : Holidays to Hits to Healthcare'* for instance, outlined positive effects of generative AI take up for ***Cloud*** companies, notably for the hyperscalers, Microsoft (which has also invested in Coreweave) and AWS; for ***wealth management*** businesses and for ***Medtech*** with radiology potentially transformed by advances in software and processing power and advances also in remote monitoring and digital health. Redburn also anticipates generative AI being a tailwind to ***cybersecurity***. It judges that potential beneficiaries include ***Online Travel Agents*** (OTAs) where generative AI may fracture Google's stranglehold on search and greatly reduce customer acquisition costs. ***Pharma*** companies are expected to benefit from improving efficiency of clinical trials and determination of drug candidates, better R&D resource allocation and reduced litigation risk on patent infringement.

There is debate as to how much generative AI might benefit ***banks*** – it may help to improve credit scoring processes. ***Advertising agencies*** are highlighting the potential productivity benefits that may accrue in labour intensive areas like Creative but, as with the banks, the assumption is that most of this benefit will ultimately accrue to the end -customer.

One area where Redburn sees generative AI as unequivocally negative for incumbents is the ***music industry*** as it poses significant threats to copyright owners. For music rights-holders, the immediate threat lies in the quantity of music generative AI can create, potentially diluting the market share of the existing copyright owners.

AI Impacts across selected sectors

Positive	Neutral	Negative
Cloud	Ad Agencies	Music majors
High net-worth wealth	Banks	
MedTech	Images	
Online travel agencies		
Pharma		

Source: Redburn

Inflationary pressures persist: At the macro level high inflation continues to fight a strong rear-guard action, particularly **in the UK**. Although headline inflation has fallen (CPI was at 7.8% in April down from 8.9% in March), the April figure for core inflation (excluding food, alcohol, tobacco and energy prices), jumped to 6.8%, up from 6.2% in March. According to a global FT survey of inflation increases, the UK's rise was the third highest out of 33 countries surveyed – only Argentina and South Sudan saw higher increases. The UK Chancellor has indicated that he would support further interest rate rises to tame inflation. The market now appears to anticipate UK rates at c5.5% by the end of 2023. The current rate is 4.5%.

In the US the headline April inflation figure was 4.9% down from a peak of 9.1% but barely changed on the 5% figure for March. The core inflation number fell 10bps to 5.5%.

The April increase in the separately reported annual Core PCE Price Index, the Federal Reserve's preferred gauge of inflation, remains stubbornly high and edged up in April to 4.7% from 4.6% in March. US consumer spending is robust and the May non-farm payrolls saw the addition of 339,000 jobs against market expectations of c200,000. The expectation remains that the Fed will pause interest rate increases at its June 14 meeting although some have suggested this may be temporary with a chance that rates could resume upwards at the July 26 session if the inflation data remains unfavourable.

Eurozone consumer prices rose 6.1% in May, a fall from the 7% of April and better than the 6.3% of market forecasts. Core inflation (ex-energy/food) fell from 5.6% to 5.3%. The expectation though remains that interest rates will rise by another 25bps to 3.5% at the next ECB meeting in June.

As Rothschild & Co strategist Kevin Gardiner therefore observes in his markets summary (see exhibit) the current trends on disinflation remain patchy with core interest rates remaining stubbornly high. The impact is that, while US interest rates may be close to a peak, there is still some way to go in the UK and Europe. Earlier hopes in the market that US interest rates might be on an actual downtrend by the second half of 2023 appear to have been wiped out. The expectation now is of a *'higher for longer'* interest rate cycle while inflation remains well above most central banks' target level of 2%.

"In London we can be a big fish in a relatively modest sized pond."

WE Soda CEO Alasdair Warren

IPO activity remains sluggish but the logjam shows some signs of shifting. Notably at the end of May the London market was able to announce the intended listing of chemicals company WE Soda. The world's largest producer of natural soda ash it is aiming to raise c$800m and for a valuation of up to $8.5bn. At that level it would be eligible for the FTSE 100. The deal is targeted to close at the end of June. WE Soda CEO Alasdair Warren commented *"In London we can be a big fish in a relatively modest sized pond."*

Earlier in May the UK saw the SPAC, Admiral Acquisition, raise $550m.

In the US the performance of this year's largest IPO to date, Kenvue, has remained strong. The consumer arm of Johnson & Johnson had an upsized $3.8bn IPO offering in May with the stock, placed at $22 per share on May 8th now standing at $25.5. The market awaits the flotation of Arm. Softbank has submitted a draft registration statement for the flotation of Arm to the SEC although the timing of the proposed IPO remains uncertain.

Rothschild & Co strategist Kevin Gardiner summarises the current key drivers of the market in this graphic:

GROWTH *Neutral*	*Credit fears fade* A mixture of prompt intervention and systemic resilience has calmed banking nerves, with few signs of dramatic credit constraints. Meanwhile, business surveys remain resilient – albeit more so in services than manufacturing – and energy prices have fallen further. This leaves monetary policy as the main cyclical obstacle – but far from an insurmountable one
INFLATION *Neutral*	*Disinflation is patchy* As banking risk has faded, inflation risk has firmed a little. Headline rates are still falling, and poised to fall more sharply again during H2, but underlying rates are proving sticky – particularly in the UK, where core inflation has hit a new high. Nonetheless, wages remain remarkably subdued in the circumstances, and the chances of a prolonged 'seventies-style episode still look to us to be slim
POLICY *Negative*	*Interest rates: nearly there now* Central banks realised in 2022 that their credibility was at stake, and acted decisively to raise nominal interest rates. If anything, policy rates in the US are now above "normal", and the tightening cycle is almost done (the ECB and Bank of England have a little more work to do). However, with core inflation sticky, we doubt that rates will start to fall as quickly as money markets expect: we see them plateau-ing in 2023
GEOPOLITICS *Negative*	*Geopolitical risk still high* Escalation in Ukraine is still possible, particularly as Western countries provide more munitions, and China may yet decide to arm Russia. Potentially (even) more alarming is the China-US face-off over Taiwan, where the threat to world trade and peace dwarfs even that posed in Ukraine, but we think President Xi is aware of China's best interests, and will remain patient. Meanwhile, US political dysfunction remains very visible: the risk of debt default may have been kicked into touch again, but a dispiriting 2024 presidential campaign looms
VALUATIONS *Neutral*	*Valuations are balanced* Long-term stock market valuations (cyclically-adjusted PE ratios) remain inexpensive, and the near-term outlook for profitability has improved as banking risk has faded and Q1 earnings have beaten expectations. Valuations support plausible projected returns comfortably ahead of likely inflation (even though the latter may stay more elevated than it used to be). Bonds are more reasonably valued than for many years, albeit still a little expensive in Europe
CANARIES / RISKS *Neutral*	*Diversification remains important* Markets settled rather quickly after banking nerves resurfaced, but risk likely remains elevated and we would not be surprised at renewed volatility. The withdrawal of the free 'Fed put' as interest rates have normalised makes traditional options relatively more expensive, but bond-based diversification is becoming relatively cheaper. We remain unconvinced that cryptocurrencies offer anything here

Source: Rothschild & Co

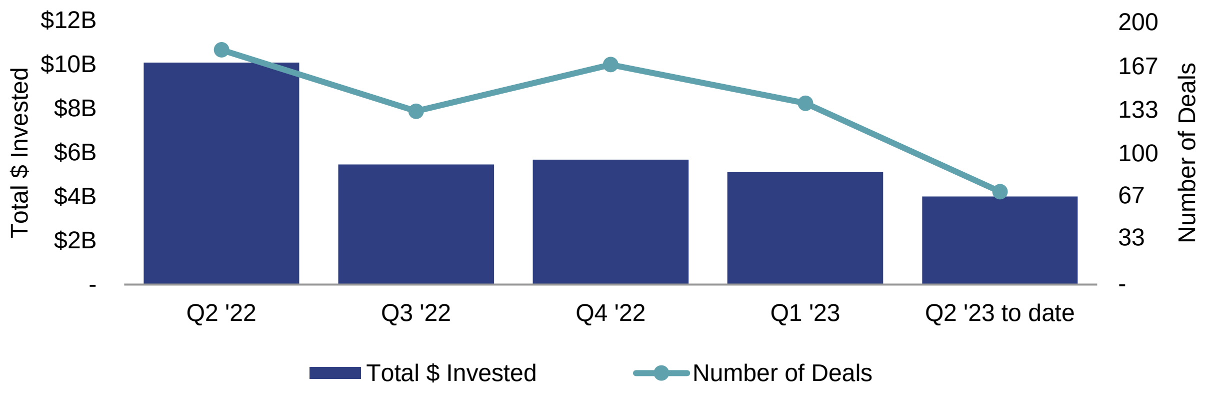
State of the venture debt market

The demise of Silicon Valley Bank does not appear to have choked off the supply of venture debt to VC backed companies.

Data from CrunchBase indicates that Venture debt raises in the US have averaged about $5.5bn per quarter in the last three quarters and are on track to do the same in the current quarter. The demise of Silicon Valley Bank in early March does not appear to have greatly affected the development of the venture debt market.

There have been some notable substantial venture debt raises in recent weeks with publicly announced deals including raises by Fivetran ($125m from Vista Credit Partners); Tipalti ($150m from JPMorgan Chase Bank) and 8fig ($100m from First Citizens- the new owner of the US business of SVB).

Debt financing to US VC backed start -ups



Source : Crunchbase

Nevertheless market participants report that the venture debt market remains tricky for borrowers. Late stage companies are tempted to use venture debt given the need to remain well capitalised during the hiatus in the IPO market and given uncertainty over valuations.

Late stage companies though find some obstacles when raising venture debt. Participants in the market report that the multiples of annual recurring revenue that lenders are willing to offer have reduced - standing at c1x-1.25x versus as much as 2x in 2022. It appears lenders are cautious given the IPO market remains mainly closed and with the pace of late stage equity rounds having slowed.

In early stage venture debt Silicon Valley Bank was an influential participant. SVB would provide credit to early stage business based on their sponsors rather than just on the underlying business fundamentals. Private venture debt lenders appear less willing to take up the slack given the perceived high risk and relative lack of collateral of early stage businesses.

Some of the activity is being picked up by Business Development Companies (BDCs) . BDCs , created as an entity in the US in the early 1980s, are closed end funds that specialise in investments in developing (or financially distressed) businesses. They are typically listed and open to retail investors.

A Pitchbook report looking at the progress of five publicly listed BDCs (Hercules Capital, Horizon Technology, Runway Growth Capital, Trinity Capital and TriplePoint Venture Growth) indicates that these businesses are benefitting from favourable pricing trends and strong demand. In Q1 2023 the largest of these, Hercules Capital, saw net investment income rise 83% yoy. The other BDCs also enjoyed year-over-year net income growth. Even so Pitchbook reports that Venture debt BDCs have become more cautious with lending since the middle of 2022. As well as additional scrutiny the trend is now to secure warrants as part of the loan package for additional protection.

As a reminder the key elements of venture debt deal conditions tend to be:

• ***Loan size and interest rate:*** This naturally varies dependent on the company and market conditions. Generally the longer dated the debt, the more expensive it tends to be. Typically the interest rate will be expressed as a floating rate over LIBOR (or what will shortly be SOFR). As an indicator, venture debt rates may typically be expected to be in the mid-high teens.

• ***Tranches***: Venture debt is typically released in instalments according to a pre-established schedule or via set triggers pre-agreed by lender and borrower.

• ***Covenants:*** There are various stipulations attached to the debt to ensure that the company is remaining within pre agreed operating tramlines. They may involve revenue and profitability targets, debt-to-revenue ratios and regulations around the issuing of new debt.

• ***Warrants:*** These are rights to future equity in the business. The extent of the warrants can vary widely. Typically lenders will demand equity equal to a percentage of the total credit. This could be in the range of 10%-15% but could be much higher. It gives the lender an interest in the upside of the business.

Investor Feedback

We monitor feedback from venture capital investors on the state of the market. The key themes we are seeing are;

(i) Investors are seeing activity and value in seed and early-stage rounds

(ii) Attractive opportunities in later stage rounds are fewer and investors report a lot of internal rounds

'*General environment is slow…Deal flow getting a bit better but generally slow.*'

(iii) There is a sense that well placed companies continue to defer raises in 2023

(iv) Many investors we speak to observe they are looking at opportunities and [are] open for business right now

(v) Investors observe that valuation expectations are often still too high, and that founders' expectations have not fully adjusted.

Investment house Numis carried out a survey of 200 senior executives at mainly European high-growth companies in late May/early June. Its key findings were:

Companies

Virtually all the companies surveyed expect to raise capital in the next 18 months.

63% of the companies surveyed think they will raise in the next twelve months.

77% of companies said they have a funding runway of between 12 and 24 months. Only 10% had a runway of less than 12 months.

Fewer than half of the companies surveyed plan to IPO in the next two years. A third have delayed their IPO ambitions.

More than half consider M&A the best exit strategy.

Investors

Numis also surveyed 205 predominantly US-based general partners.

90% of the investors surveyed are set to increase their volume of investments over the next six months compared to the last six.

80% of investors expect to see valuations increase over the next six months.

Investors see financing risks in their current portfolio as the number one hurdle going forward.

Our views on the state of the venture capital markets

Since the start of 2022 we have seen sharp falls in the public markets on the back of a combination of global inflation, rising interest rates, and increased geopolitical risk. The Refinitiv Venture Capital Index, which seeks to monitor the real time performance of the venture capital industry fell 55% in 2022. YTD in 2023 it is up 20% meaning the total fall since the start of 2022 is now 45%. Our summary of the outlook is:

▪ The deterioration in the interest rate, inflation and macro-economic environment has had a sharp impact on valuations in private markets. The scale of the fall in the Refinitiv VC index in 2022 was much more substantial than the 33% fall on NASDAQ. This has been reflected in some big valuation falls on some high-profile VC rounds

▪ There is substantial dry powder in the VC industry. This may now be prioritised to supporting existing rather than new investments

▪ Best-in-class companies, addressing critical rather than nice-to-have requirements, continue to attract support. There are still hotspots for investment notably in artificial intelligence, fintech, climate tech and software. Certain investors remain very active in the space with substantial funds to deploy

▪ There will likely be a growing number of down rounds in 2023, albeit the substantial fund raising of 2021 and the ability of companies to eke out existing resources may limit the immediate number of these. There is the expectation of a crunch point, perhaps as early as H2 2023, when companies will need to raise again but where the environment for fundraising is still not receptive

▪ The speed of the investment process has slowed considerably. The volume of new deals has reduced. The level of diligence on new deals has stepped up

▪ In recent months the number of big late-stage deals has slowed down substantially. The strongest part of the market in terms of appetite appears to be in Seed and Series A where there is less immediate pressure on valuation

▪ Funding for the VCs themselves remains strong which is a positive indicator into 2023

▪ The dislocation caused by the collapse of Silicon Valley Bank may further hamper conditions in the venture capital market

▪ Valuation priorities have shifted with investors moving away from a growth and revenue multiple emphasis. There is a sharper focus on the path to profitability and positive free cash flow and an emphasis on DCF and comparative based multiples.

Rothschild & Co: Selected deals in Growth Equity and Private Capital

A selection of recent deals on which we have advised.

Skyroot: $51m Series B

- Sole adviser on its Series B raise of INR 4,030m (US$51m) from GIC Private Limited and LK Advisers
- Looking to 'uberize' space for small satellite operators, Skyroot will use its differentiated solid propulsion technology to offer on-demand, affordable launch vehicles. It plans its first orbital launch by early 2023

YuLife: c $800m Series C

- Adviser to YuLife on its investment by T Rowe Price
- TRP's first ever private investment in European FinTech
- The Series C extension values YuLife at c.$800m, a 3x uplift from its valuation at its Series B announced in July 2021

Carsome: US$290m Series E

- US$290m Series E fundraise led by SeaTown Holdings International and 65 Equity Partners Holdings
- The funding round brought Carsome's valuation to US$1.69bn, cementing its position as Malaysia's first and largest tech unicorn
- Follows US$170m Series D2 round in Sept 2021, on which we also advised

Marwyn Acquisition Company II: £500m equity raise

- Advised Marwyn Acquisition Company II on the launch of its equity raise, by way of a 12-month placing programme
- The company will seek to raise up to £500m during the next twelve months from equity investors in a structure which is distinct from the typical 'SPAC' structure

FL Entertainment: €7.2bn combination with Pegasus Entrepreneurs and simultaneous c€550m equity raising

- FL Entertainment is composed of Banijay, largest independent content producer globally, and Betclic Everest Group, Europe's fastest-growing sports betting platform. Pegasus is an Amsterdam-listed SPAC
- Largest ever European SPAC business combination an PIPE raising

Insight Partners: strategic investment in Precisely

- Led investment in a recap of Precisely Software Incorporated, in an investor group that will also include Partners Group, Clearlake Capital, TA Associates, and Centerbridge Partners
- Precisely is a leading data integrity and infrastructure software company

Kpler: Minority stake Acquisition

- Adviser to Five Arrows Growth Capital and Insight Partners on joint acquisition of a minority stake in Kpler Holding S.A. from its founders
- Consisted of acquisition of c.30% of secondary share capital of Kpler plus primary investment of €20m
- Kpler is a leading SaaS provider of data and analytics to energy markets

Harmay: US$90m Series D

- Advised Harmay on its US$90m Series D equity financing from a group of leading Chinese and global growth equity /venture capital funds
- Harmay is a premium beauty retailer
- Raise was led by QY Capital (an entity related to Alibaba New Retail Fund) plus existing investors

SEBA Bank: CHF110m raise

- Advised on fundraising co-led by a consortium of new investors specialised in blockchain and fintech including Altive, Ordway Selections and Summer Capital
- DeFi Technologies, leader in decentralized finance, and Alameda Research, a global cryptocurrency quantitative trading firm, also participated

First Digital Bank: US$120m capital raise

- Advised on capital raise through a syndicate of investors including Tencent, SBI Investment Co, Julius Baer, and West Coast Equity Partners
- First bank to receive a banking license in Israel for over 42 years and first neobank in Israel

Fibrus: £270m seven-year debt package

- Advised on package comprising a £200m capex facility, £20m revolving facility and up to £50m uncommitted accordion facility
- Fibrus is an alternative provider of full fibre network infrastructure and broadband in rural UK
- Highly active in European fibre infrastructure: our 7th debt financing mandate in UK fibre in last 3 years

Neuberger: US$4.8bn valuation Getty Images combination

- Advised on business combination valuing Getty at an enterprise value of US $4.8bn, equivalent to 15.2x enterprise value to 2022E Adj. EBITDA of US $315m
- CC Neuberger Principal Holdings II is a special purpose acquisition company that completed its IPO in July 2020, raising US $828m in proceeds

Azerion: €1,300m enterprise value combination with EFIC1

- Advised on combination with European FinTeach IPO Company 1 B.V - a SPAC that raised c.€382m through IPO on Euronext Amsterdam in 2021
- Azerion provides solutions to automate purchase and sale of digital advertising inventory
- Landmark transaction - one of the largest de-SPAC transactions across Europe to date

Gousto: £240m primary and secondary rounds

- £70m primary financing for food delivery company Gousto with Softbank Vision Fund 2 in Jan '22
- In Feb '22 secondary component of £170m from institutional investors including SoftBank, Grosvenor Food & AgTech, Railpen and Fidelity
- Valued Gousto at £1.2bn on a pre-money basis

GreenWay: €85m Series C

- Advised Greenway Infrastructure on its €85m Series C fundraise
- Led by a consortium of infrastructure funds including Generation Capital and Helios Energy Investments. The transaction is the first known investment by an infrastructure fund in an EV charging network in Central and Eastern Europe

Diabeloop: €37m Series C

- Advised on its €37m Series C capital raise
- Following extensive investor outreach, LBO France was chosen to lead the raise jointly with existing investors including Supernova Invest, AGIR à dom., CEMAG INVEST and Odyssée VenturesA
- Diabeloop provides automated insulin delivery system and handset facilitating diabetes management

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