

Venture Pulse 042022

Global analysis of venture funding

January 18, 2023



Welcome message

Welcome to the Q4'22 edition of *Venture Pulse* — KPMG Private Enterprise's quarterly report highlighting the key trends, opportunities, and challenges facing the VC market globally and in key jurisdictions around the world.

It was a challenging 2022 for VC investment globally, despite strong fundraising activity and a major amount of dry power available in the market. The ongoing conflict in the Ukraine, rapidly rising interest rates, high levels of inflation, and concerns about a global recession all combined to drive VC investment down, particularly in the second half of the year. Global VC investment in Q4'22 was down significantly quarter-over-quarter — and less than half the record level set during Q4'21.

VC investment in all regions fell quarter-over-quarter. The Americas continued to account for the largest share of VC investment globally during Q4'22, with the US accounting for the vast majority of this investment. Asia came a distant second, despite attracting six \$500 million + megadeals this quarter. Europe experienced the sharpest drop in VC investment compared to Q3'22, dropping almost 40 percent in Q4'22.

The alternative energy and electric vehicles spaces attracted significant interest from investors in all regions during Q4'22. In addition to large raises by GAC Aion (\$2.56 billion), US-based TerraPower raised \$830 million and Form Energy

raised \$450 million, China-based SPIC Hydrogen Energy raised \$631 million, China-based Voyah Car Technology raise \$631 million, Estonia-based Sunly raised \$196 million, and Belgium-based Tree Energy Solutions raised \$129 million. Fintech also remained highly attractive to VC investors globally, in addition to B2B solutions and healthcare and biotech.

Heading into Q1'23, VC investment globally is expected to remain subdued given the uncertainty in the market. Down rounds will likely become more prevalent as companies are forced to raise capital despite the less-than-optimal market conditions. M&A activity could also pick up as companies begin to run out of cash and fail to attract new investment.

In this quarter's edition of *Venture Pulse*, we examine these and a number of other global and regional trends, including:

- The continued focus on cost-cutting and cash preservation
- The relative resilience of early-stage funding activity
- The funding challenges faced by unicorn companies
- The continued strength of fundraising globally

We hope you find this edition of Venture Pulse insightful. If you would like to discuss any of the results in more detail, please contact a KPMG adviser in your area.



You know KPMG. You might not know KPMG Private Enterprise.

KPMG Private Enterprise advisers in KPMG firms around the world are dedicated to working with you and your business, no matter where you are in your growth journey — whether you're looking to reach new heights, embrace technology, plan for an exit, or manage the transition of wealth or your business to the next generation.



Jonathan Lavender Global Head KPMG Private Enterprise KPMG International



Conor Moore
Head of KPMG Private Enterprise in the
Americas,
Global Leader, Emerging Giants, KPMG
Private Enterprise, KPMG International &
Partner, KPMG in the US



Lindsay Hull
Senior Director, Emerging Giants Global
Network, KPMG Private Enterprise,
KPMG International

Contents

Global

- VC investment slows to \$75.6 billion across 7641 deals
- Corporate VC participation dropped for 4th consecutive quarter
- Venture backed exit activity remains subdued
- Global fundraising slows year over year
- Chinese companies attract 6 of top 10 deals globally

Americas

- VC-backed companies fall to \$39.2 billion across 3322 deals
- Down-rounds decline as investors wait on sidelines
- Canadian VC remains resilient, propelled by mega deals
- VC deal value in Brazil drops for 4th consecutive quarter
- Largest 10 deals in Americas all come from the United States





34





Europe

- Investment drops again to \$12.9 billion invested on 1936 deals
- VC invested in Series A remains remarkable strong
- Corporate VC participation cools for 3rd consecutive quarter
- Exits slide to record lows
- VC Fundraising remains remarkably robust
- Top 10 deals spread among 7 different countries

US

- VC deal value plummets to \$36 billion across 2935 deals
- Investment in B2B, software and energy hold steady
- Corporate VC drops to lowest levels since Q4'19
- Exits slide to lowest quarterly tally in years
- \$1 billion+ Mega-funds experience record year

Asia

- Venture Capital investment drops slightly \$22.6 billion across 2157 deals
- Later stage valuations cool on a YoY basis
- First-time funds grow their proportion of volume
- Australia continues to attract significant deal value outperforms Q3
- Chinese companies raise 7 of largest 10 deals in Asia



Global VC investment falls to less than half of Q4'21 peak during Q4'22

VC investment globally dropped for the fourth straight quarter in Q4'22. While the total of VC investment looked particularly weak compared to the record quarterly high set during the same quarter last year, it remained comparable to investment levels seen prior to the onset of the COVID-19 pandemic.

Challenging global macroeconomic conditions drive trends across regions

The war in the Ukraine, high rates of inflation, rapidly rising interest rates, soaring energy prices, the looming threat of a global recession, and other macroeconomic factors combined to create a storm of challenges both within the global VC market and more broadly during Q4'22. These concerns drove a significant amount of alignment in major investment trends across regions, overshadowing many more localized concerns during the quarter.

VC investment declines in key regions

VC investment in both the Americas and Asia dropped for the fourth straight quarter in Q4'22, while Europe experienced a third quarter of declining investment. Late stage VC investment saw the sharpest drop amidst falling valuations and concerns about the profitability and sustainability of business models given worsening global economic conditions. China accounted for the majority of \$500 million+ megadeals this quarter, including a \$2.56 billion raise by GAC Aion, a \$1 billion raise by SHEIN, a \$631 million deal by SPIC Hydrogen Energy, a \$631 million deal by Voyah Car Technology, a \$562 million deal by ESWIN Material and \$537 million going to Fei Hong Technology.

Fundraising activity remains strong in 2022

2022 was the third-highest year for global fundraising activity, driven by robust fundraising in the US and very strong fundraising activity in Europe. Fundraising in Asia was the polar opposite, falling for the fourth-straight year — to the lowest level seen since 2014.

The number of VC funds dropped considerably during 2023, while average fund size grew considerably. The shift reflects LPs focusing their investments on funds managed by proven fund managers with extended track records of success rather than on first time funds.

Cost-cutting becomes a key priority as companies preserve cash and VC investors focus on profitability

In Q4'22, numerous global technology companies, announced significant cost-cutting measures — primarily headcount reductions and the reduction of real estate footprints. In the VC market, such efforts also became the norm this quarter as startups worked to preserve cash, delay new funding rounds, and respond to pressure from their investors to become more efficient. The prioritization on cost-cutting extended across companies operating in a wide variety of sectors.

B2B and business productivity solutions — already a strong area of VC investment — will likely continue to gain steam over the next few quarters as both corporates and more mature startups look for ways to streamline their operations, bring more efficiencies into their business, and get more value from every dollar.

Energy sector very robust among global VC investors

2022 saw global VC investor interest in everything energy-related grow very rapidly, driven in part by a number of governments moving to prioritize energy independence and numerous companies considering energy alternatives and ways to become more efficient amidst soaring energy costs. In Q4'22, energy was an incredibly hot sector for VC investment, with numerous subsectors attracting large ticket sizes, including alternative energy vehicles, battery technologies, and alternative power generation and distribution technologies. Broader cleantech and ESG-related solutions also saw strong interest from VC investors.



Global VC investment falls to less than half of Q4'21 peak during Q4'22, cont'd.

China attracted several of the largest funding rounds in the Energy sector during Q4'22, with EV and EV battery companies attracting the largest deals, including: GAC Aion (\$2.56 billion), SPIC Hydrogen Energy (\$631 million), Voyah Car Technology (\$631 million), BYVIN Auto (\$444 million), Hithium (\$280 million). Other jurisdictions saw a broader range of energy companies attracting VC investment. In the US, innovative nuclear power company TerraPower raised \$830 million, while Seattle-based battery manufacturer Group 14 landed \$614 million and renewable energy battery storage company Form Energy raised \$450 million. In Europe, Sweden-based electric freight vehicle company Einride raised \$500 million, followed Volta Trucks (\$295 million), France-based battery company Verkor (\$245.9 million), Estonia-based renewable energy infrastructure company Sunly (\$196 million), and Belgium-based hydrogen energy company Tree Energy Solutions (\$122 million).

In wake of FTX meltdown, crypto-focused VC investments come under intense scrutiny

The bankruptcy of Americas-based FTX in the later half of Q4'22 put a significant amount of scrutiny on the diligence processes of VC firms and investors with respect to their investments in crypto-focused companies — and enhanced calls for regulations to govern sector activities in many jurisdictions. The sudden collapse of a highly valued company backed by smart money will likely have a ripple effect on the VC market — with many VC firms expected to re-evaluate their due diligence and investment decision-making, not only for investments in crypto companies, but on a broader basis as well.

Existing crypto-focused startups are also expected to feel significant pressure to prove their business case and value as VC investors become more gun shy about writing checks. The next few quarters could see a shakeout in the space as less proven crypto companies fail to survive.

Unicorn companies facing significant pressure as IPO window remains shut and valuations tumble

Given the challenging market conditions, IPO activity among VC-backed companies globally stalled significantly over the course of 2022, including in the Americas, Europe, and much of Asia. China was a major exception, likely due to its capital market being less interconnected with the global economy.

The lack of IPO opportunities has caused many unicorn companies to struggle, particularly those that had been planning for exits. During Q4'22, numerous unicorns laid off significant percentages of employees, reduced their real estate footprint, and undertook other cost-reduction initiatives in order to free up and conserve cash, improve profitability, and delay the need to raise additional funding at potentially much lower valuation levels.

Trends to watch for in Q1'23

Looking ahead to Q1'23, the VC market globally is expected to remain challenged, with consumer-focused businesses expected to see the most strain. The IPO window, particularly in the US will likely remain closed well into 2023, with little to suggest it will reopen fully in the first half of the year. As companies run out of cash, there will likely be an increasing number of down rounds and an in increase in M&A activity. Globally, there could also be a number of unicorn deaths over the next few quarters.

Given the ongoing energy crisis in Europe and concerns about sustainability and climate change, the broader energy sector will likely remain very hot, with investors continuing to make big bets on alternative energy technologies, electric and hydrogen powered vehicles, and battery storage.

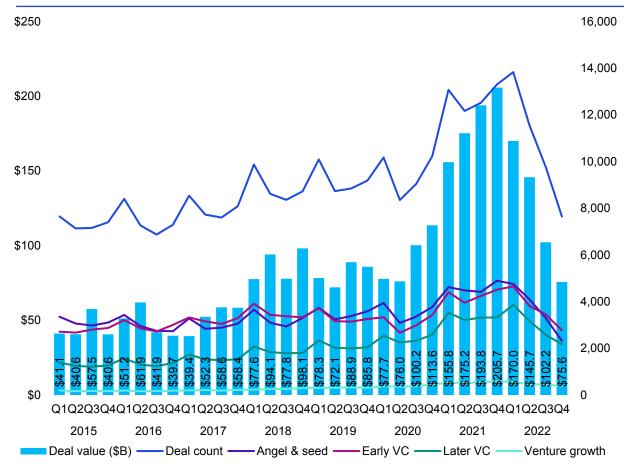
On a global basis, cybersecurity, B2B solutions will likely remain very attractive areas of VC investment in Q1'23, in addition to health and biotech, regtech, and solutions with military applications. Investments in artificial intelligence are also expected to grow long-term, particularly in game changing areas like generative AI and conversational AI.



Venture investment continues to slide

Global venture financing

2015-Q4'22



2022 concluded with a continuation of the inexorable decline in venture dealmaking worldwide. As volatility in public equities surged and monetary regimes tightened, concerns around economic growth prospects and the level of valuations began to exert a toll throughout all of last year. Now, as in any downturn, it remains to be seen which arenas remain active as venture fund managers grapple with complex, murky scenarios. Key trends to look for include:

- How much geopolitical turmoil will continue to impact key production and supply chains, as well as close off markets
- Navigation of the complicated valuation environment given high dry powder levels yet materially slowing business conditions
- Still-intense competition for talent even amid an increasingly choppy labor market
- Challenging technical frontiers advancing that require implementation across product and service suites, e.g., cybersecurity concern ratcheting up further

2022 ended with the VC market globally still weathering quite the storm of challenges — from rising interest rates, depressed valuations, and the lack of IPO exits to the ramifications of the ongoing geopolitical issues. But there were some bright spots. Soaring energy costs sparked a significant uptick in VC investment in new energy alternatives, electric vehicles, and cleantech. Regtech and business productivity also saw strong VC investment in Q4'22, along with cybersecurity and defence. Heading into 2023, the acceleration of investment in energy alternatives is particularly exciting as such investment is critical for meeting the world's climate change targets.



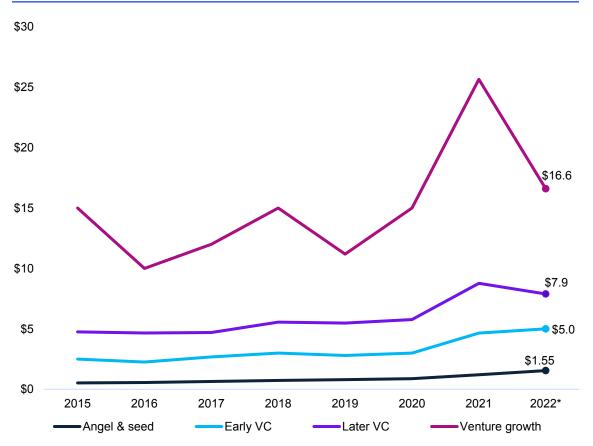
Jonathan Lavender Global Head KPMG Private Enterprise KPMG International



Slight signs of a correction

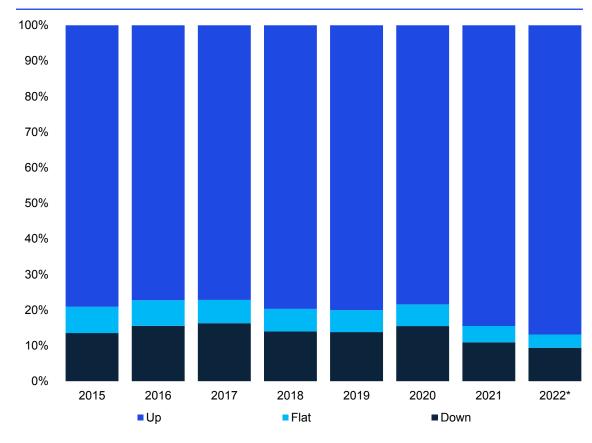
Global median deal size (\$M) by stage

2015–2022*



Global up, flat or down rounds

2015-2022*

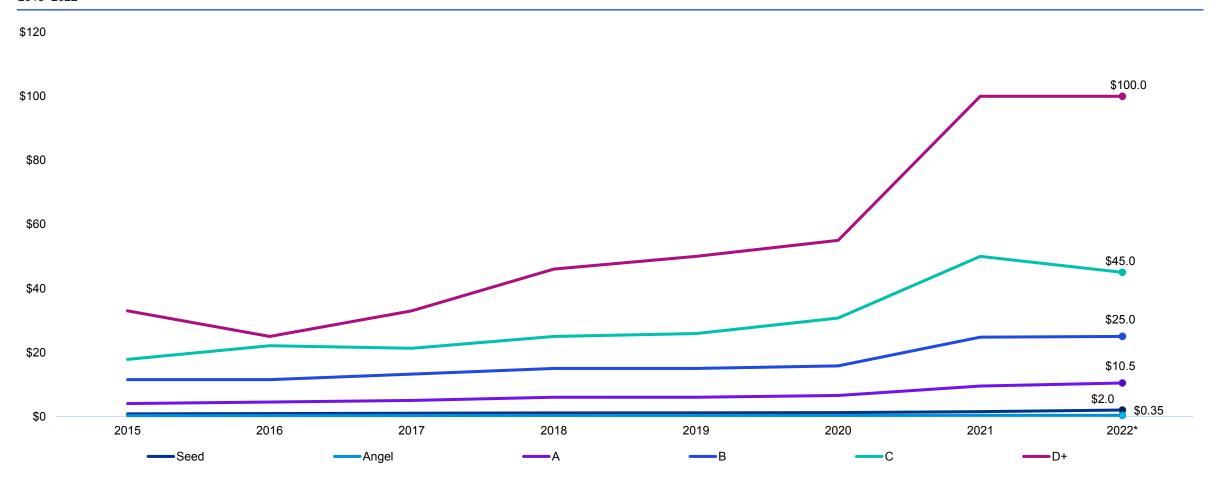




High dry powder continues to provide pricing support

Global median deal size (\$M) by series

2015-2022*

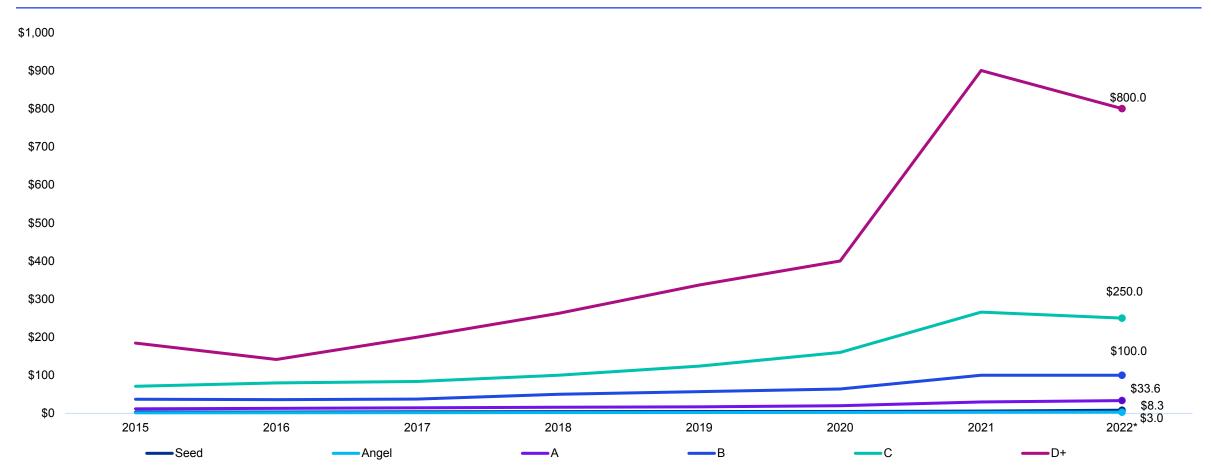




Latest-stage valuations finally decline

Global median pre-money valuation (\$M) by series

2015-2022*

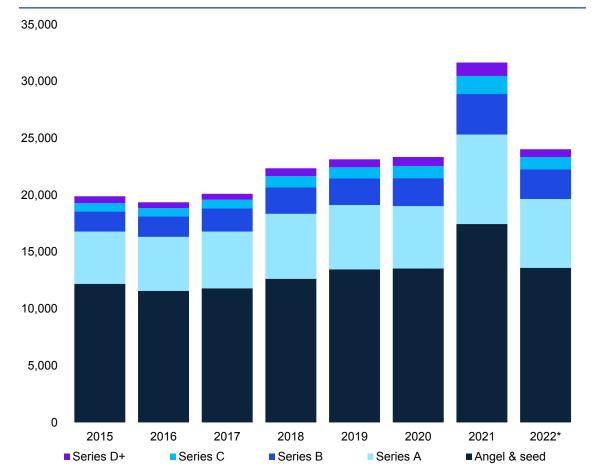




After outlier years, proportions normalize

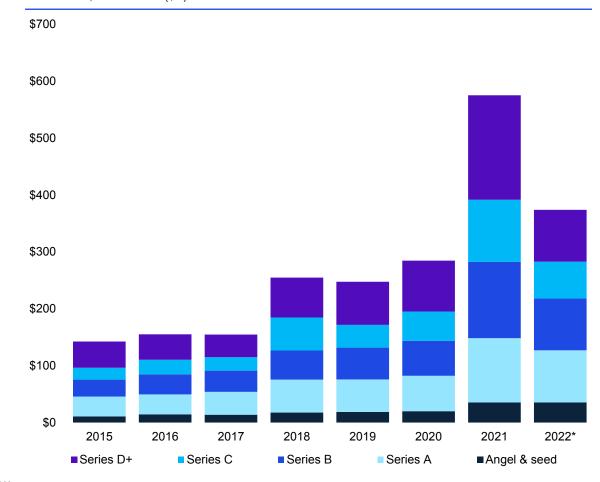


2015-2022*, number of closed deals



Global deal share by series

2015-2022*, VC invested (\$B)

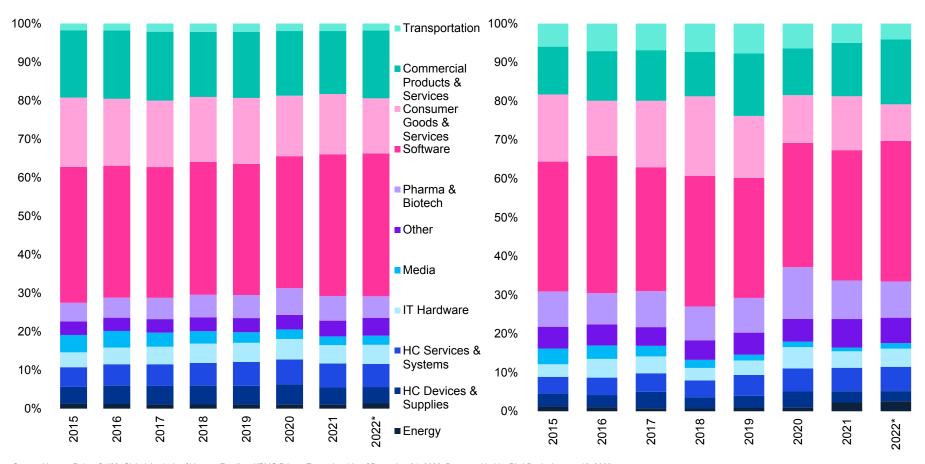




Software reclaims predominance

Global financing trends to VC-backed companies by sector 2015–2022*, number of closed deals

Global financing trends to VC-backed companies by sector 2015–2022*, VC invested (\$B)



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



There's been a real proliferation of energy companies among the top deals in Q4'22. There are two reasons for this. First, if there's a space that VC investors globally continue to believe they should be putting money into, it's energy or climate-related tech. And second, because a number of other sectors have been depressed, the acceleration in the energy space is particularly noticeable.

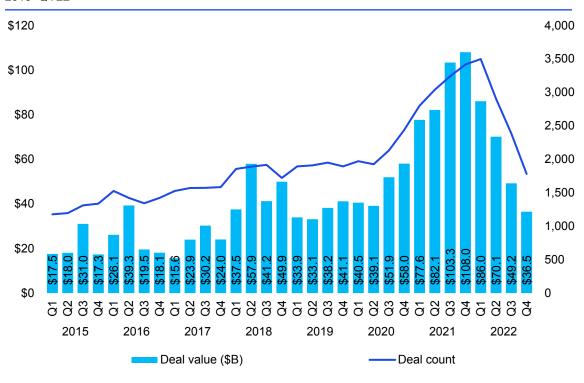


Conor Moore

Head of KPMG Private Enterprise in the Americas, Global Leader, Emerging Giants, KPMG Private Enterprise, KPMG International & Partner, KPMG in the US

Corporates & first-time deal flow pull back as well

Corporate VC participation in global venture deals 2015–Q4'22

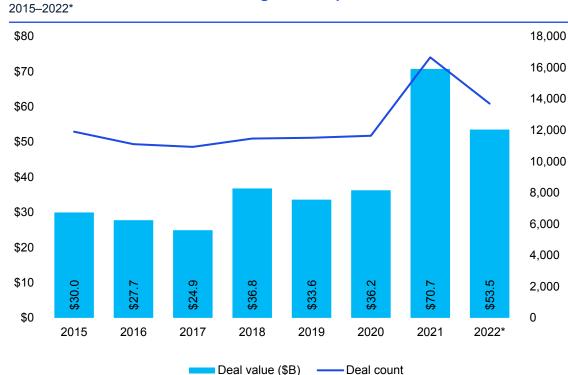


Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

Note: The capital invested is the sum of all the round values in which corporate venture capital investors participated, not the amount that corporate venture capital arms invested themselves. Likewise, deal count is the number of rounds in which corporate venture firms participated.

Corporate players joined in the fewest rounds in close to two years amid the general pullback, largely due to growing caution and reassessment of strategic priorities.

Global first-time venture financings of companies



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

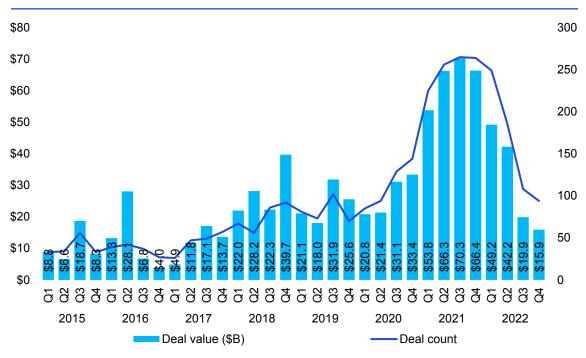
Volatility and subsequent caution took a toll on first-time VC financing volume, although it is important to stress that VC invested in such deals still remained guite high.



Exits remained subdued

Global unicorn rounds

2015-Q4'22



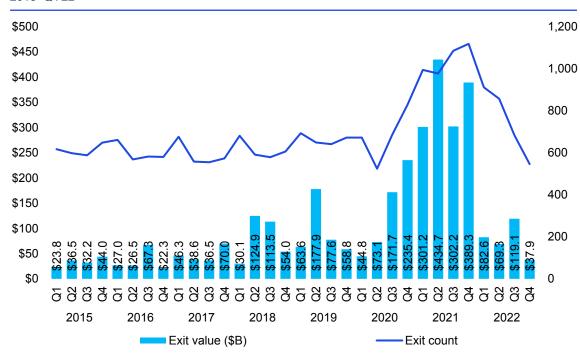
Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

Note: PitchBook defines a unicorn venture financing as a VC round that generates a post-money valuation of \$1 billion or more. These are not necessarily first-time unicorn financing rounds, but also include further rounds raised by existing unicorns that maintain at least that valuation of \$1 billion or more.

Unicorn rounds fell to their lowest level in terms of volume and aggregate financing value in quite some time, on par roughly with early 2020 and 2019 levels. This decline is a telltale sign of marked caution.

Global venture-backed exit activity

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

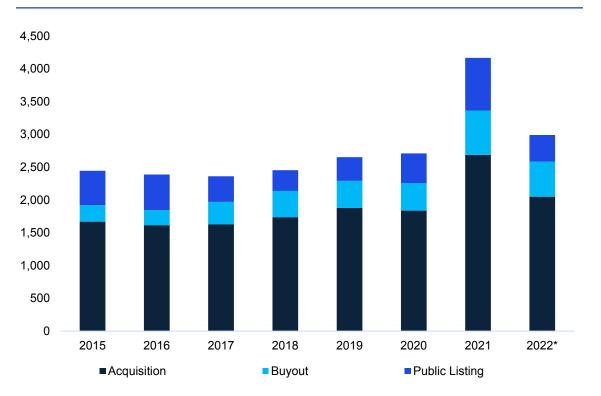
Note: Exit value for initial public offerings is based on post-IPO valuation, not the size of the offering itself.

Exits closed last year on a very subdued note in terms of count and aggregate value, primarily due to caution in public markets and retrenching by maturing VC-backed companies that were preparing for significant liquidity events.

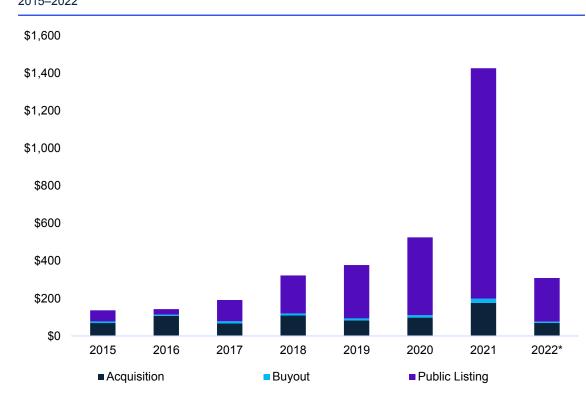


Exits slide overall, with marked declines in public listings





Global venture-backed exit activity (\$B) by type 2015–2022*



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

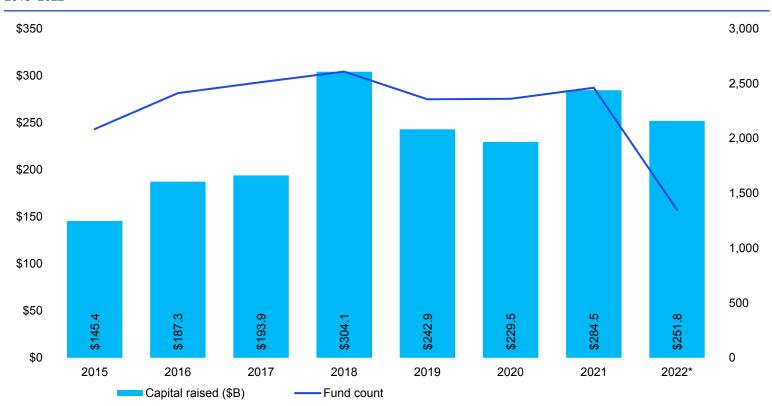
The bulk of exit value's decline was driven by a slide in public listings by count, while buyouts held a bit more resiliently due to opportunistic buying by PE firms. Market volatility will continue to exert an impact on public listings in general for some time until some stability occurs, while M&A is going to become the primary driver of aggregate exit value in all likelihood.



Allocators stayed active at a historically high level

Global venture fundraising

2015-2022*



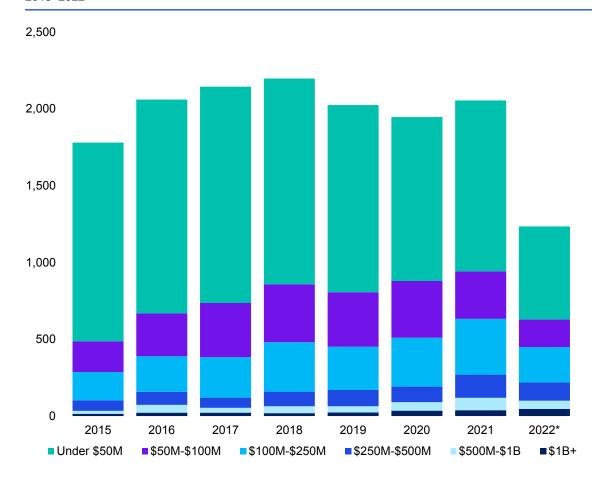
For some time now, the exposure to private markets has been a key theme for allocators of capital worldwide, and VC is no exception, even during a year of marked volatility. 2022 caps an elevated period for allocations since 2018, although it is worth noting fund counts dropped this year signaling a potential coming retrenching.

At the end of the year, allocators still kept piling into exposure to venture, with just over \$250 billion committed to the asset class.

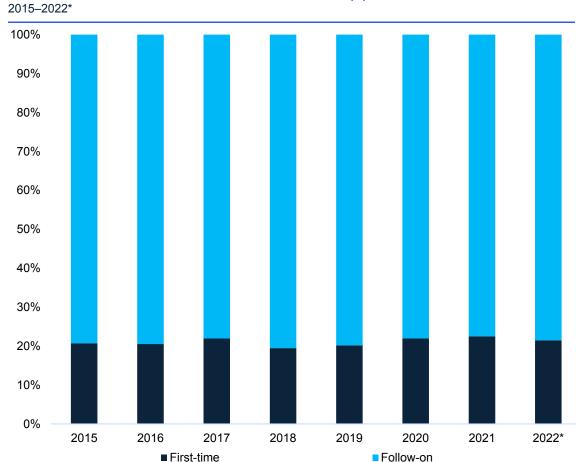


As fundraising slides, smaller firms lose out





Global first-time vs. follow-on venture funds (#)





Cleantech is key draw in final quarter of 2022

Top 10 global financings in Q4'22



- **1. GAC Aion** \$2.6B, Guangzhou, China Automotive Series A
- 2. Anduril \$1.5B, Costa Mesa, US Aerospace & defense Series E
- 3. SHEIN \$1B, Nanjing, China Retail Series F
- 4. TerraPower \$830M, Bellevue, US Cleantech Late-stage VC
- 5. SPIC Hydrogen Energy \$631M, Beijing, China Cleantech Series B
- **6.** Voyah Car Technology \$630.8M, Wuhan, China Cleantech Series A
- 7. Group14 Technologies \$614M, Woodinville, US Cleantech Series C
- 8. ESWIN Material \$562.1M, Xi'an, China Semiconductors— Series C
- 9. Fei Hong Technology \$537.5M, Beijing, China Robotics Early-stage VC
- **10. Einride** \$500M, Stockholm, Sweden Automotive Series C

In Q4'22, US VC-backed companies raised \$36.2B across 2,935 deals



Despite US fundraising activity hitting record high, VC investment drops further in Q4'22

Both the number of VC deals and the total of VC investment in the US continued to fall in Q4'22, with VC investment dropping to less than a third of the amount raised during the record quarter experienced during Q4'21. While there continued to be a wealth of dry powder in the VC market, many VC investors pulled back from making major investments.

Increasing focus on energy, and ESG investments

Over the past year, the US government has implemented legislation quite favourable to the development of the EV ecosystem and to the development of energy infrastructure more broadly. This support has helped spur additional interest and VC investment in the space. During Q4'22, alternative energy and battery storage saw significant interest from VC investors in the US. Aerospace and Defense company Anduril raised \$1.5 billion followed by Nuclear innovation company TerraPower raised \$830 million during the quarter, while energy storage company Form Energy raised \$450 million.

Renewed interest in cleantech and ESG has also helped drive investment in the US, both directly in ESG-focused solutions and in regtech solutions as companies look for better ways to understand and report on their energy efficiency and ESG activities and, in certain cases, manage their regulatory reporting requirements.

Other sectors that remained attractive to VC investors during Q4'22 included military and space-focused solutions, B2B solutions, and health and biotech.

Threshold-valued unicorns working to avoid down rounds

During Q4'22, the US VC market continued to see startups looking for ways to obtain funds without taking a hit to their valuations. A number of companies held flat rounds or conducted an extension of an existing funding round in order to raise bridge funding and potentially avoid the negativity associated with holding a true down round. The pressure to maintain an existing valuation is particularly true among companies hovering at the \$1 billion unicorn company threshold given the negative publicity and employee morale that would likely result from losing unicorn status. The quest to maintain a valuation could lead companies to accept much more stringent deal terms, such as multiple liquidation preferences or ratchets, heading into Q1'23.

VC fundraising in US reaches record high in 2022

Fundraising activity in the US reached a record high in 2022, although the number of funds being raised sank dramatically compared to 2022. This likely reflects both established VC firms raising larger funds and LPs making bigger bets on proven VC firms and fund managers rather than on riskier first time fundraising opportunities. During Q4'22, the time horizon for fundraising noticeably moved out, with funds taking longer to fully capitalize than has been seen in recent years. As a result, total fundraising will likely begin to fall heading into 2023.

Cost reduction becoming normal for late stage companies; early stage companies less affected

After an extended period of time where growth was king and revenue was the top concern, many late stage and unicorn companies in the US have been forced to rein in their costs during 2022 and to heighten their focus on profitability. Q4'22 was no exception as tech companies laying off significant percentages of their workforces became normal rather than noteworthy as they worked to conserve their cash while delaying their next funding round or waiting for the IPO window to open again. This focus on cash management, combined with the downward pressure on valuations, has likely led to the big drop in investment for late stage deals.

By comparison, the drop in VC investment at earlier deal stages was much less significant. This likely reflects the inability of many Series A and B companies to delay funding rounds given they are often operating in a bare-bones capacity aimed to get the most from every dollar.



Despite US fundraising activity hitting record high, VC investment drops further in Q4'22, cont'd.

Exit activity drops to five-year low as IPOs remain non-existent and bump in M&A fails to materialize

Exit activity took a significant hit over the course of 2022, dropping to a multi-year low by the end of Q4'22. IPO activity in the US remained stalled as the public markets continued to weather the storm of high inflation, rising interest rates, and macroeconomic uncertainty and the valuations of many late stage companies faced continued downward pressure.

M&A activity remained far more subdued than predicted last quarter, likely driven by investors holding back to see if valuations drop further and companies undertaking significant cost-cutting activities in order to avoid running out of cash and being forced to sell under less-than-optimal conditions.

Trends to watch for in Q1'23

Looking forward to Q1'23, VC investment in the US is expected to remain subdued, except in high priority sectors, including energy and B2B solutions. We could also see large pension and sovereign wealth funds examining their investment allocations — which could affect VC investment levels later in 2023.

Given the number of tech sector layoffs occurring in the US, particularly in Silicon Valley, talent will likely be an area to watch over the next few quarters to see how talent costs are affected or whether there is an upswell in new startups.

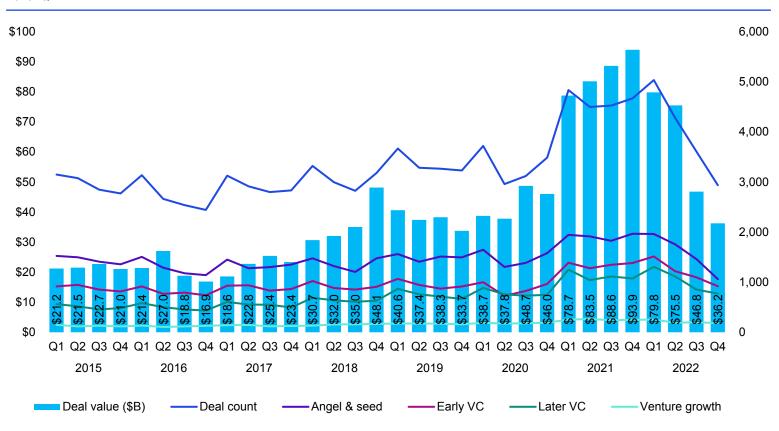
IPO activity is expected to remain dead well into 2023 in the US as companies continue to delay exits. Down rounds will likely become more common as late stage companies run out of runway to delay new funding rounds. This could cause a number of unicorn companies to lose their status as their valuations drop below the \$1 billion threshold — or accept less-than-optimal deal conditions (e.g., rachets) in order to maintain their position.



Q4 2022 caps the first down year in some time

Venture financing in the US

2015-Q4'22

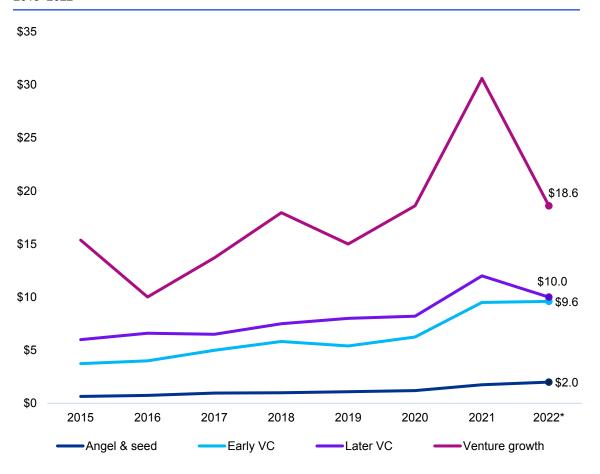


Even if Q4 2022 figures tick upward somewhat in coming months, as further data is processed that currently is unavailable or unknown, 2022 will turn in the first down year in some time for US venture. Given the maturation of the industry as well as the unicorn phenomenon, any correction or cooling in valuations is likely to still result in some larger financings to serve as transitional rounds, or bridges of capital in the worst case. The slowdown spans all stages, indicating a general aura of caution pervading the venture landscape for the time being.

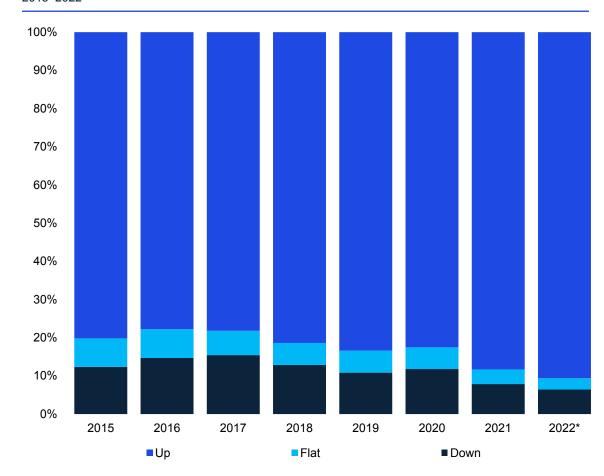


Growth & late-stage figures contract

Median deal size (\$M) by stage in the US 2015–2022*



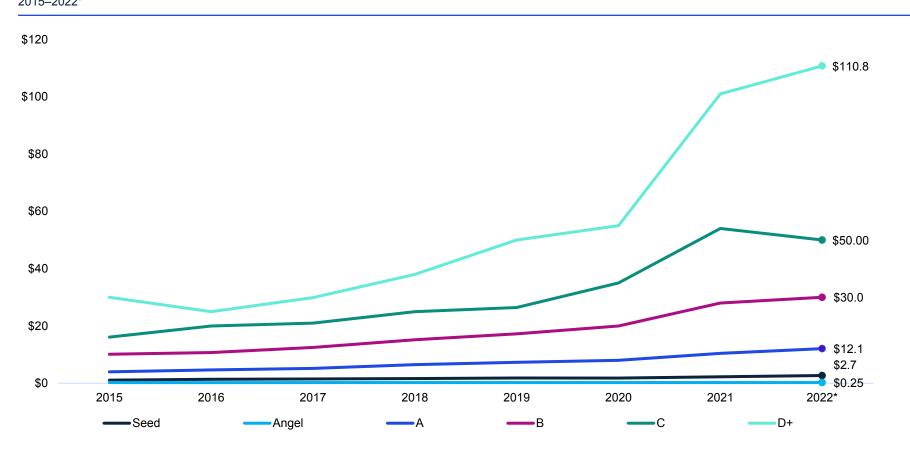
Up, flat or down rounds in the US 2015–2022*





Deal sizes begin to flatten

Median deal size (\$M) by series in the US 2015-2022*



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023 Note: Figures rounded in some cases for legibility.



A lot of companies that achieved unicorn status (\$1 billion+ valuation) in the US are going to face challenges in H1'23, particularly those right at the \$1 billion mark. These companies worked hard to reach that valuation and resulting status in the market. Now they'll be working as hard, if not harder, to maintain their position in the herd. Investors may likely to have all the leverage and it will likely require companies looking to raise more funding and keep their unicorn status to give up a lot including added voting rights

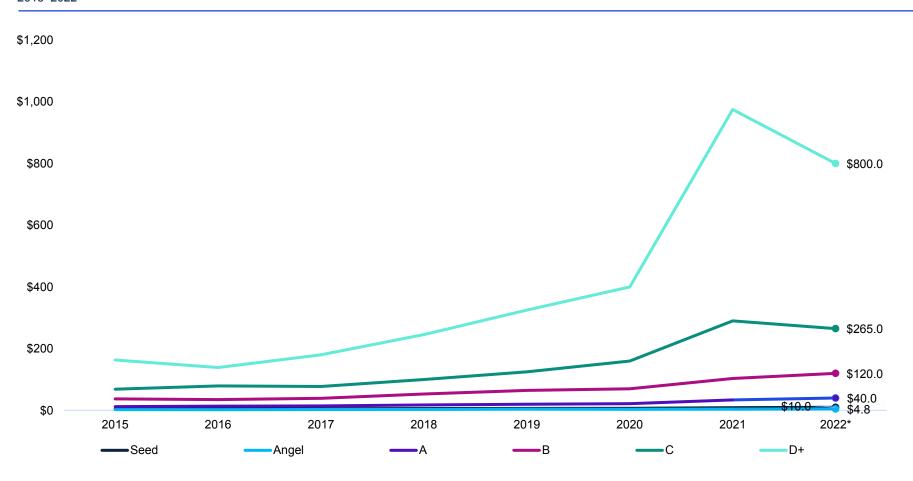
and liquidation preferences.



Jules Walker Senior Director **Business Development**

Valuations hold steady at elevated levels for now

Median pre-money valuation (\$M) by series in the US 2015–2022*



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

Note: Figures rounded in some cases for legibility



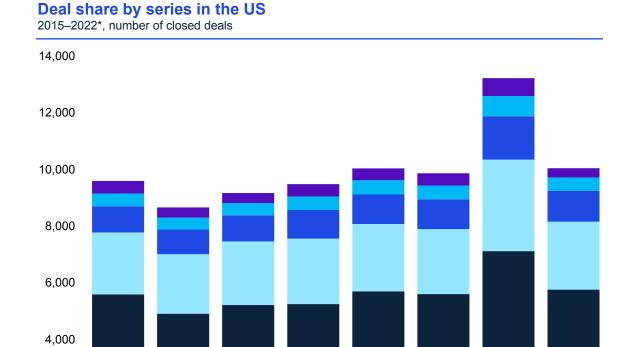
On a global basis, we continue to see downward pressure on valuations however, the overall number of recorded down-rounds remains low relative to previous years.

Many companies continue to hold off new fundraising efforts in hopes of better times and higher valuations. We anticipate there will likely be an increase in down-rounds during the first half of 2022, as these companies exhaust their cash reserves.



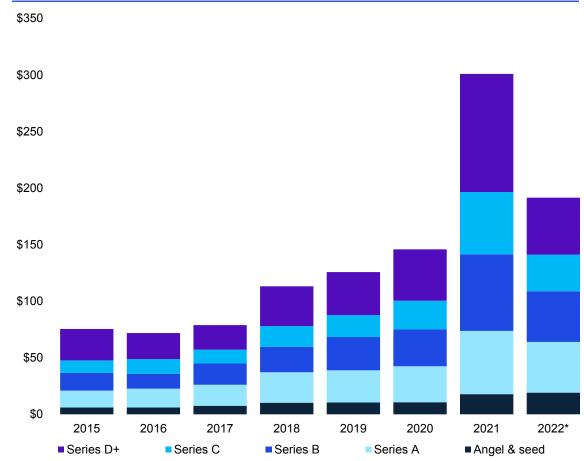
Sam Lush
Director, Private Equity
Group
KPMG in the US

Even VC invested proportions correct to closer to historical norms



Deal share by series in the US

2015–2022*, VC invested (\$B)



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

2019

2020

Series A

2021

■ Angel & seed

2022*

2018

Series B



2015

Series D+

2016

Series C

2017

2,000

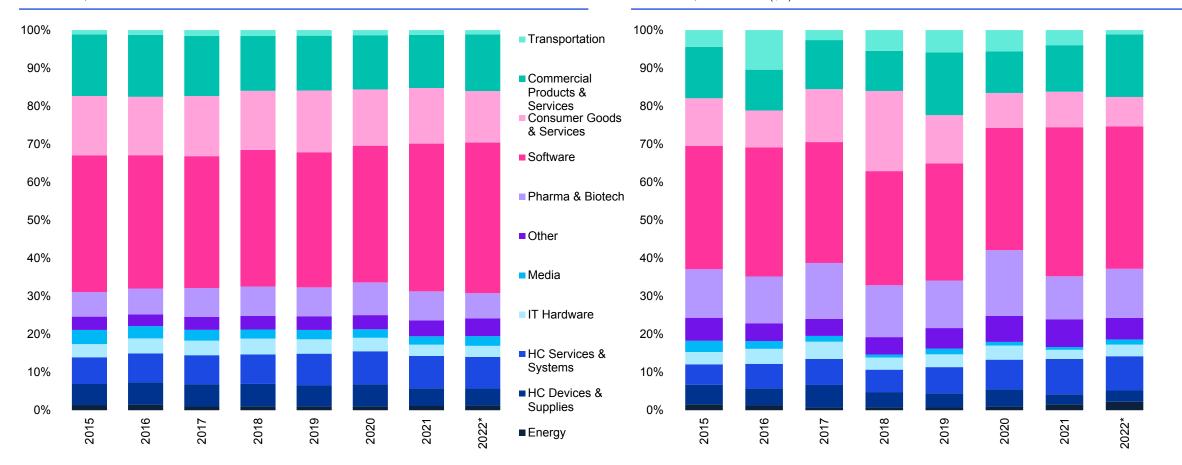
B2B, software & energy holding strong

Venture financing by sector in the US

2015-2022*, number of closed deals

Venture financing by sector in the US

2015-2022*, VC invested (\$B)

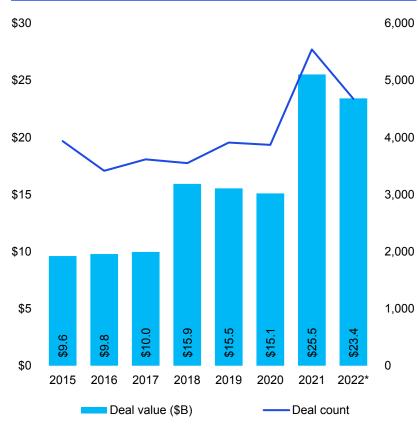




Although down from 2021 highs, first-time financing is robust







One interesting question here in the US is 'what will happen with all the newly unemployed developers, technologists, and the like?' Will they start their own companies? Will they accept lower salaries? Will they move to some other location or embrace remote work? We don't have the answer right now, but it could be quite exciting, particularly if it means a new cohort of startups appear in 2023.

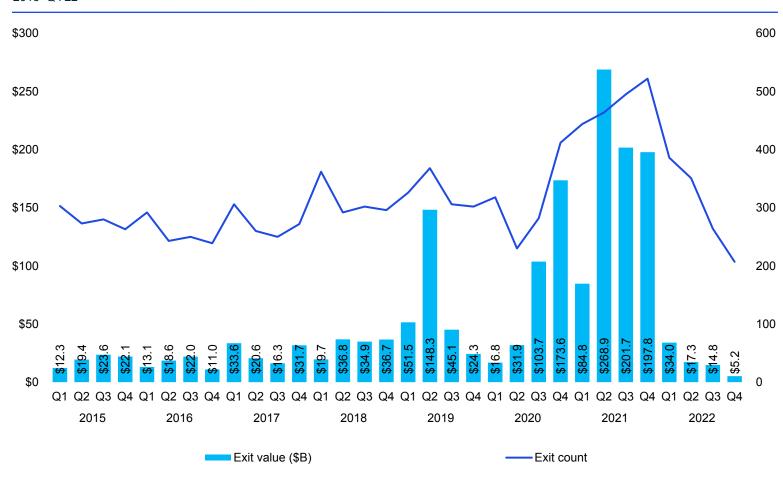


Peter Kehrli
Partner
KPMG in the US



Exits slide to lowest quarterly tally in years

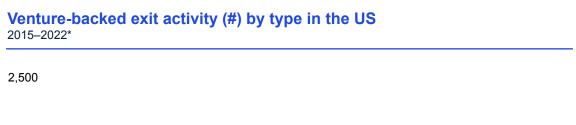
Venture-backed exit activity in the US 2015–Q4'22

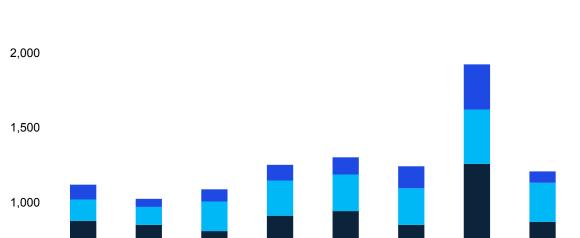


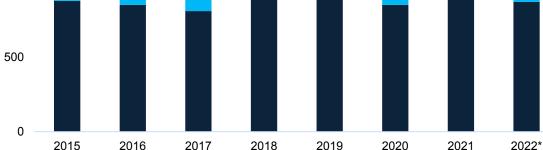
After the lofty heights of exits in 2020 and 2021, a potentially likely regression has now developed further into a skid. The final quarter of 2022 saw the lowest count of exits completed in years, culminating in lower exit value than recorded in a single quarter since the start of 2015. Should this trend persist, liquidity concerns may become even more of a crunch going forward, but for now the slowdown in exits is not yet overly concerning until it stretches further along.



After historic highs, exit value contracts sharply

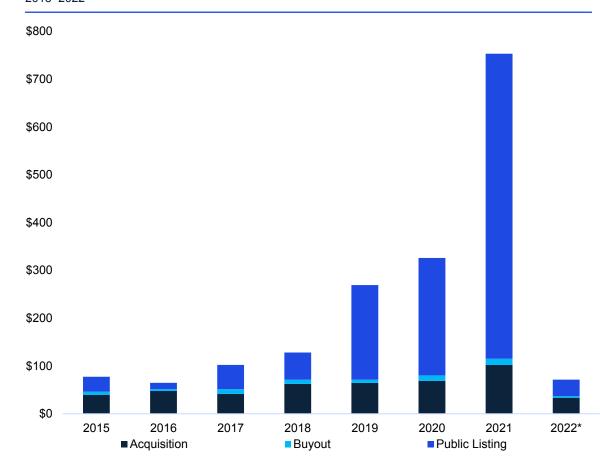






Buyout

Venture-backed exit activity (\$B) by type in the US 2015–2022*



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023

■ Public Listing

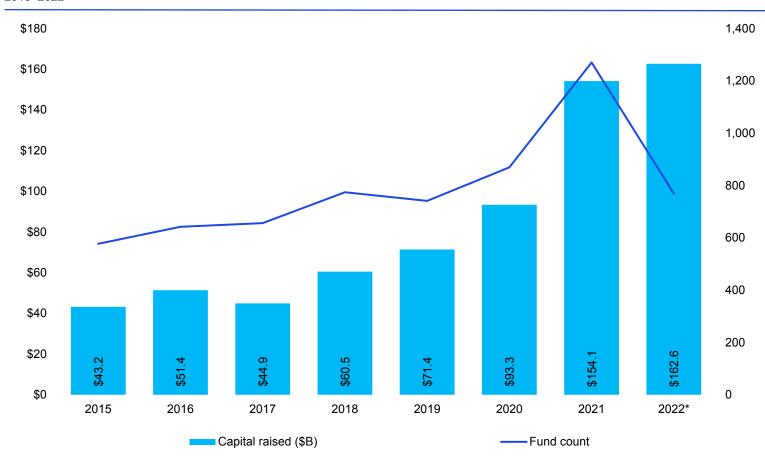


Acquisition

2022 hits new all-time high for capital commitments

US venture fundraising

2015-2022*



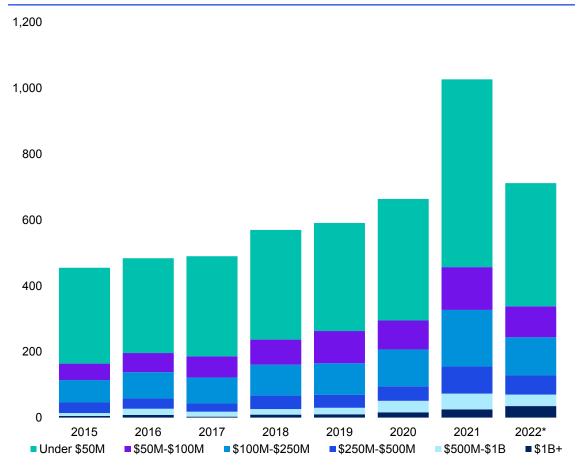
Regardless of budding concerns around the asset class's performance durability, capital allocators continue to pledge commitments to VC fund managers at such a clip that 2022 ended up with a record sum even as the number of fund closures slid significantly. More experienced and larger managers are winning out in processes for now, but it is worth noting first-time funds also still closed healthy sums.

... even as fundraising volume has slowed drastically, 2022 has already set a new high for capital committed, surpassing \$160 billion.

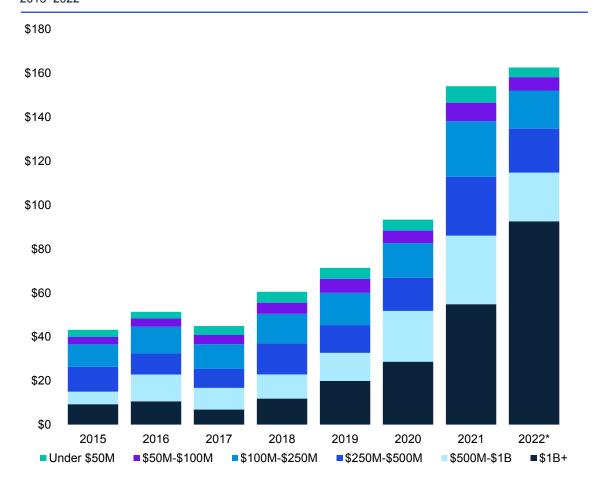


Mega-funds record banner year

Venture fundraising (#) by size in the US 2015–2022*



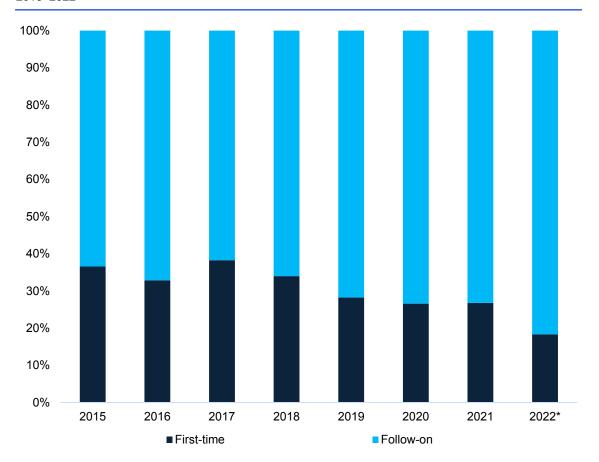
Venture fundraising (\$B) by size in the US 2015–2022*



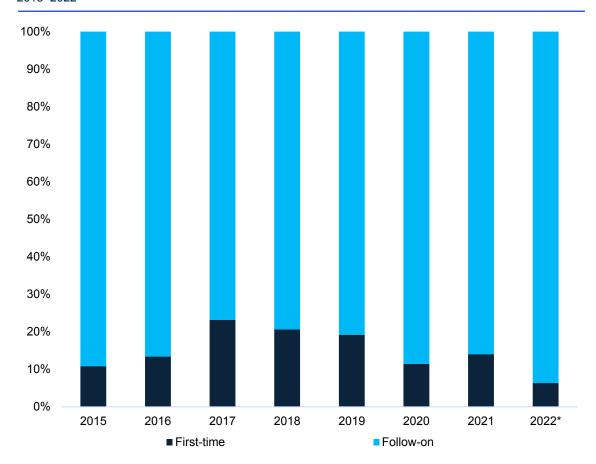


First-time commitments contract

First-time vs. follow-on funds (#) in the US 2015–2022*

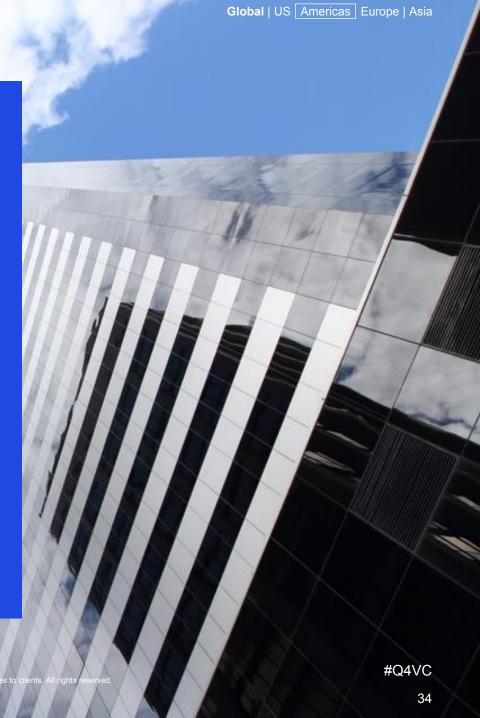


First-time vs. follow-on funds (\$B) in the US 2015–2022*





In Q4'22, VC-backed companies in the Americas raised \$39.2B across 3.322 deals



Americas sees VC investment and the number of VC deals slide for the fourth-straight quarter

Both VC investment and the number of VC deals in the Americas fell for the fourth consecutive quarter in Q4'22 as the level of investment fell in most jurisdictions, including the US, Brazil, and Mexico. Similar to VC investment trends seen globally, ongoing concerns related to high inflation, rising interest rates, declining valuations, and a potential recession continued to affect VC investor sentiment across the Americas during the quarter.

Number of megadeals falls in Americas, particularly in the US

Despite a significant amount of dry powder, VC investors in the Americas took a conservative approach to their investments during Q4'22. This likely contributed to a much smaller number of very large funding rounds, including \$100 million+ megadeals. As the largest VC market in the world, the US bore the brunt of this decline; during Q4'22, the US only attracted three deals over \$500 million: a \$1.5 billion deal by Anduril, an \$830 million raise by alterative energy innovator TerraPower and a \$614 million deal by Seattle-based battery manufacturer Group14 Technologies.

Outside of the US, few companies attracted large funding rounds. Brazil-based exchange receivables company Cerc raised \$101 million during Q4'22 — the only startup in Latin America to attract a \$100 million+ funding round. The largest deal in Canada was a \$318 million raise by emissions adsorption solutions provider Svante, while the largest deal in Mexico was \$60 million of funding for expense management software maker Mendel.

Crypto companies facing stronger scrutiny and due diligence from VC investors

Over the past two years, crypto companies in the Americas have received a significant amount of interest and funding from VC investors in the Americas, including follow-on investors and those motivated by the fear-of-missing-out (FOMO). The well-publicized collapse of Bahamas-based digital exchange FTX — once valued at \$32 billion — in Q4'22 put a significant amount of scrutiny on investor decision-making related to the space. It has also driven many VC investors in the US, Americas, and globally to review, improve, and enhance their due diligence platforms and processes.

Credit-focused fintechs gaining attractiveness in Brazil

Given rising interest rates, geopolitical uncertainties, the Q4'22 national election, and an economic slowdown, many companies in Brazil have started to face credit and balance sheet challenges. This has led to growing VC investor interest in credit-focused fintech companies, including startups looking to provide better credit tools and structures, new credit business models, and data analytics to support credit decision making.

Fintech more broadly continued to be the most attractive area for investment in Brazil during Q4'22, followed by cloud and cyber solutions and agritech. Interest in cross-sector offerings also grew, such as companies focused on agri-fintech or agri-biotech.

VC investment in Canada remains relatively solid in Q4'22 as government enhances startup supports

VC investment in Canada increased slightly quarter-over-quarter. While the level of investment was much lower in Q4'22 compared to the same quarter in 2021, the total remained in line with investment levels seen in quarters prior to 2021.

Canada continued to see strong government support for the VC market ecosystem this quarter. The Business Development Bank of Canada launched several new funds in Q4'22: a \$400 million climate tech fund focused on supporting the development and growth of technologies needed for Canada to achieve Net Zero and a \$300 million fund focused on supporting women entrepreneurs with companies at the Seed and Series A and B levels.



Americas sees VC investment and the number of VC deals slide for the fourth-straight quarter, cont'd.

Disparate maturity of VC markets in region causing unique variations in investment trends

The US is the most mature VC market in the world; during Q4'22, late stage deals there saw the biggest decline in funding as companies worked to push back new funding rounds to 2023 and VC investors took more time to evaluate potential deals — while earlier deal stages showed some resilience to the investment pullback.

Comparatively, VC investment in Brazil and across much of Latin America focused primarily on companies raising Series A and later rounds, while companies looking for Seed and Pre-Seed funding continued to struggle. Macroeconomic conditions will be challenging in 2023 the vast difference in the maturity between the VC markets in the US, Brazil, and other countries in the region is likely contributing to the unique investment priorities seen within individual countries.

Trends to watch for in Q1'23

Heading into Q1'23, VC investment across the Americas is expected to remain relatively soft given ongoing global macroeconomic concerns. Deals will likely take more time to complete as VC investors conduct more due diligence and put a laser focus on profitability and business model sustainability.

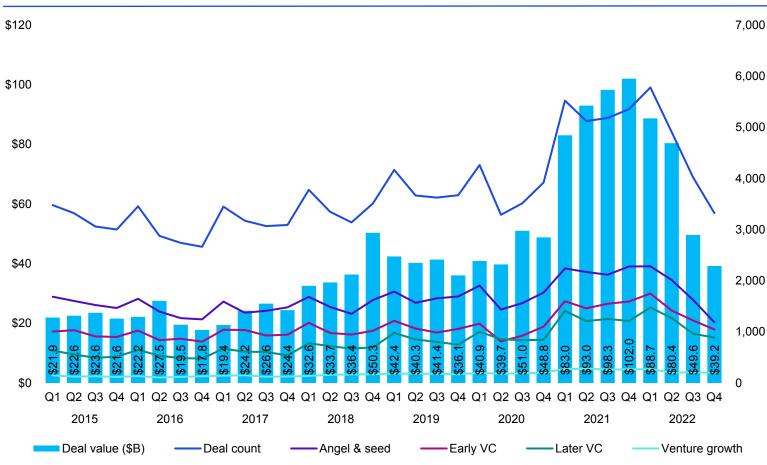
The change in government in Brazil could see investors acting with more caution in Q1'23, while they get a stronger sense of what the new regime's priorities will be. Fintech is expected to remain the hottest sector for investment in Brazil, followed by cybersecurity, B2B cloud solutions, and agritech.



Back half of 2022 sees marked slides

Venture financing in the Americas





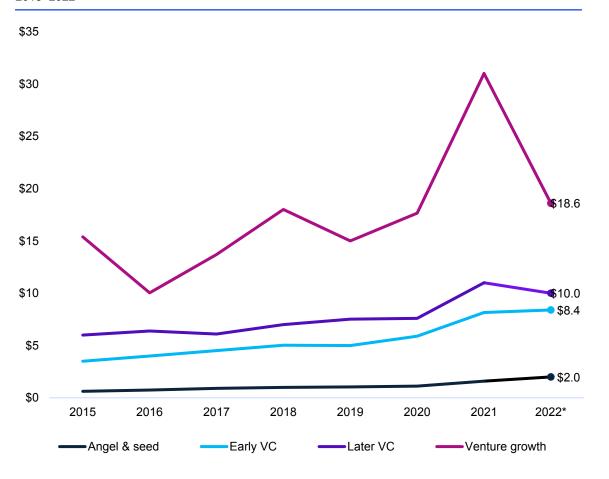
All in all, dealmaking in the Americas has slowed back to historical averages after the record-breaking run across 2021 and the first half of 2022. Caution is on the rise across the board as economic prospects and global uncertainty.

malthough figures are still healthy compared to even 2020 levels, 2022 saw softening in the pace of dealmaking overall, back to quarterly tallies reminiscent of the late 2010s.

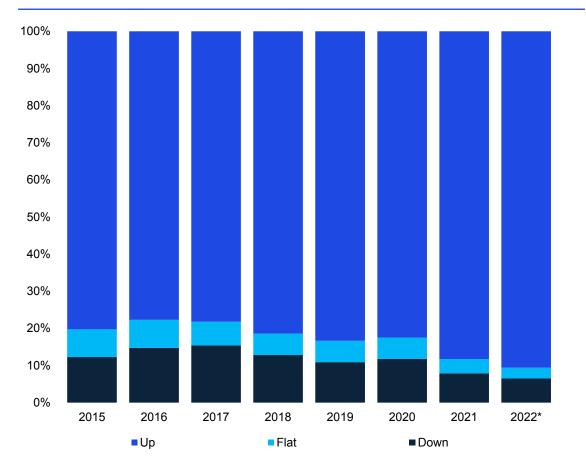


As the late-stage softens, up rounds still dominate

Median deal size (\$M) by stage in the Americas 2015–2022*



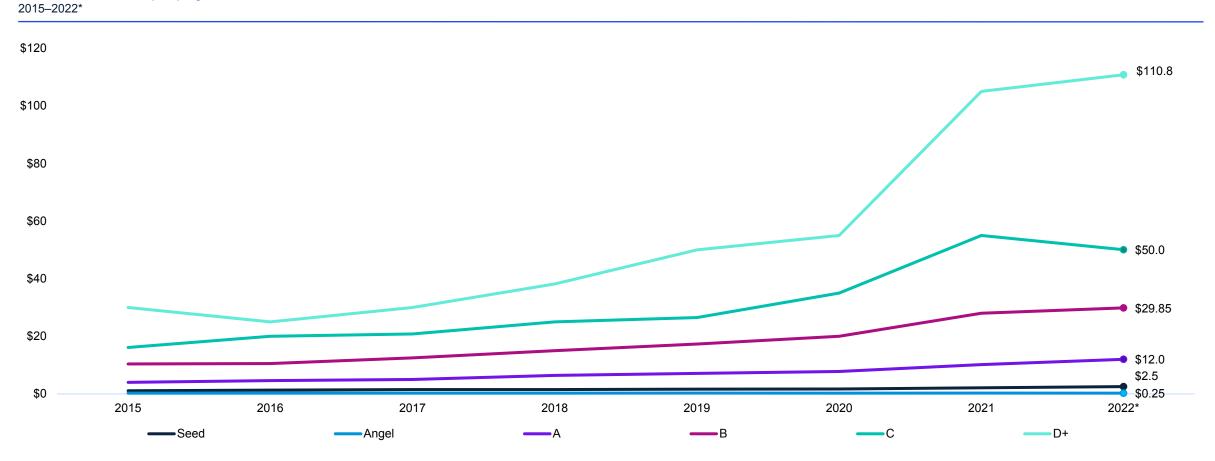
Up, flat or down rounds in the Americas 2015–2022*





Financing sizes remain bolstered by dry powder levels

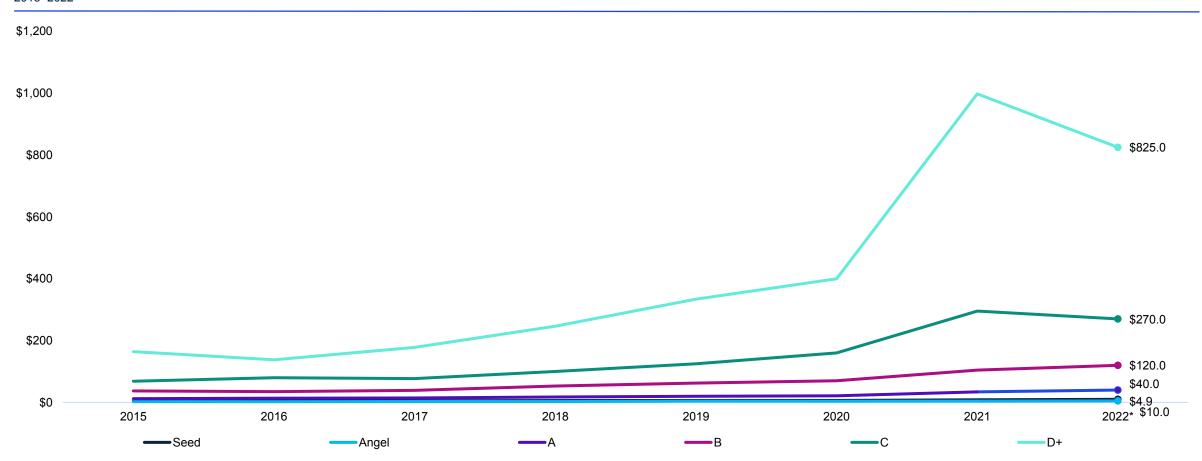
Median deal size (\$M) by series in the Americas





Valuations decline at the highest levels

Median pre-money valuation (\$M) by series in the Americas 2015–2022*

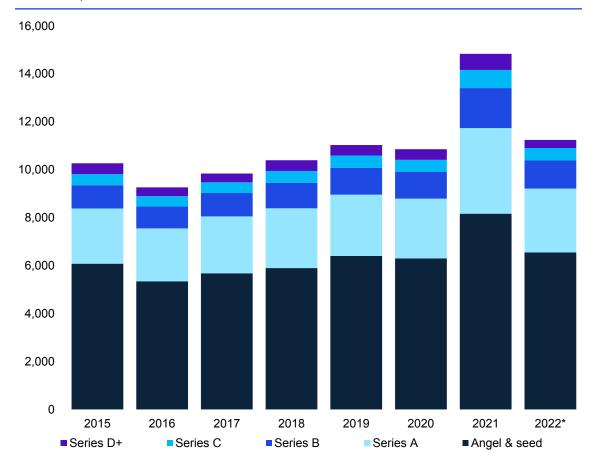




Proportions normalize after atypical year

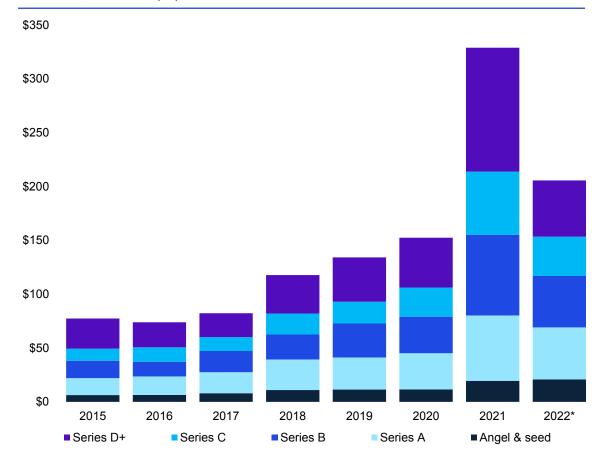
Deal share by series in the Americas

2015-2022*, number of closed deals



Deal share by series in the Americas

2015-2022*, VC invested (\$B)



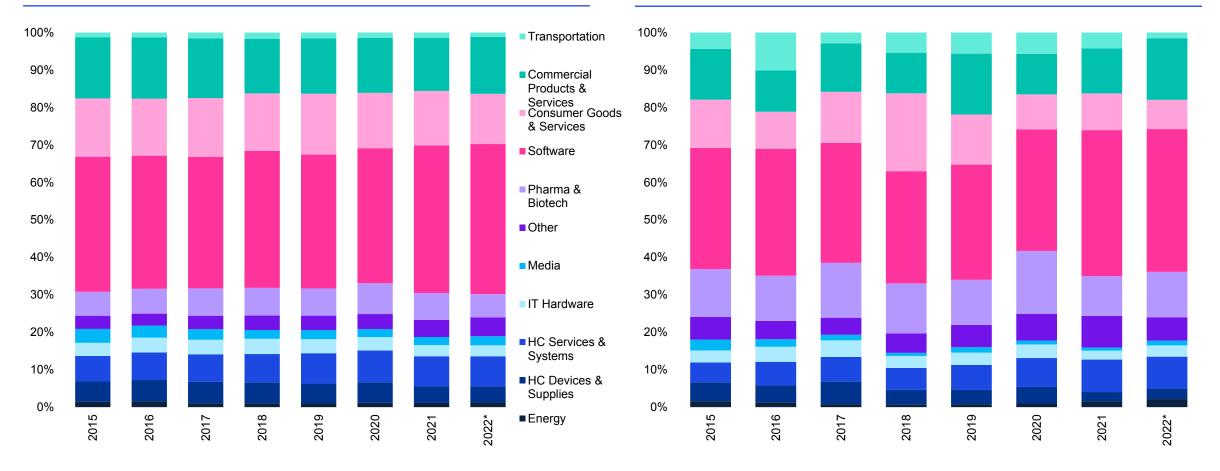


Software continues to remain predominant

Venture financing of VC-backed companies by sector in the Americas

2015-2022*, # of closed deals

Venture financing of VC-backed companies by sector in the Americas 2015–2022*, VC invested (\$B)

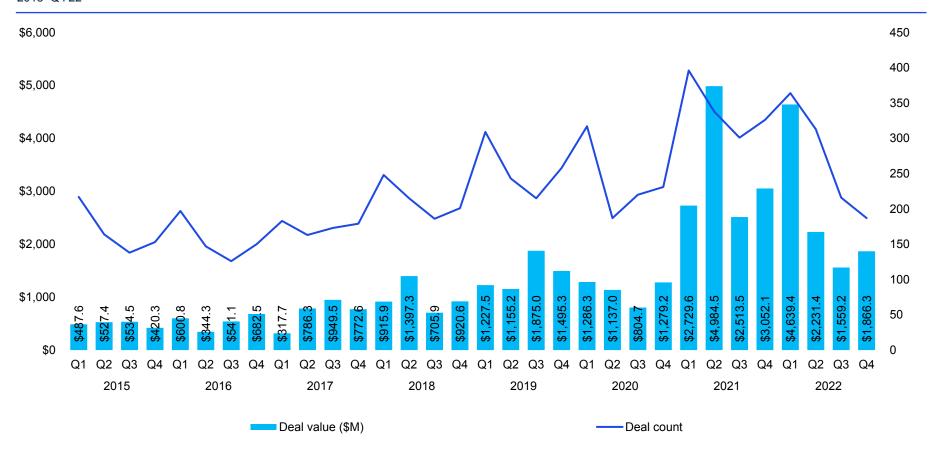




Canadian VC invested stays healthy even as volume slides

Venture financing in Canada

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



VC investment in Canada rose slightly quarter-over-quarter, showing resilience compared to many other jurisdictions around the world. Strong seed and early-stage deals--a mainstay of Canada's VC market this year--likely helped keep VC investment relatively stable. While US investors continue to drive much of the VC investment in Canada, it's hoped new government investment funds will help boost investment in 2023.

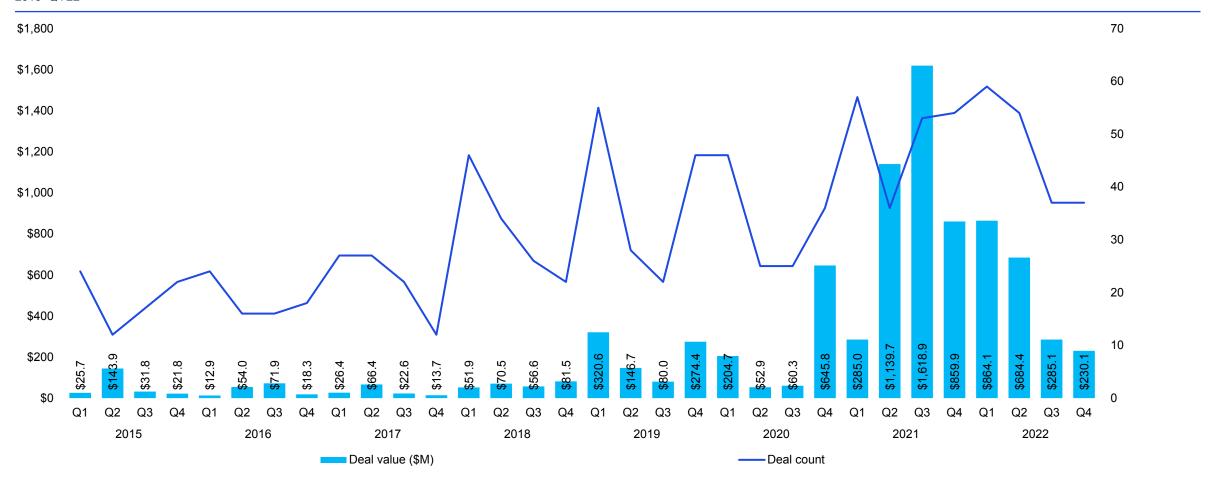


Sunil Mistry
Partner, KPMG Private Enterprise,
Technology, Media &
Telecommunications (TMT)
KPMG in Canada #Q4VC

Mexico sees plateau appear in activity, at subdued level

Venture financing in Mexico

2015-Q4'22

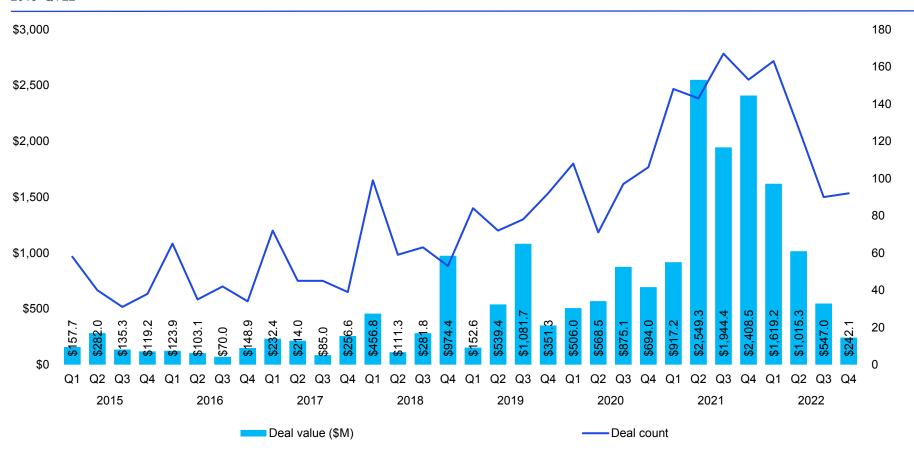




Volume flatlines as VC invested stays muted

Venture financing in Brazil

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



Startups in Brazil shifted their priorities from driving growth to generating cash and cash preservation during Q4'22. VC investors helped drive some of this shift, putting a higher priority on the sustainability of business models and on the ability of startups to grow in a consistent manner given current economic conditions.

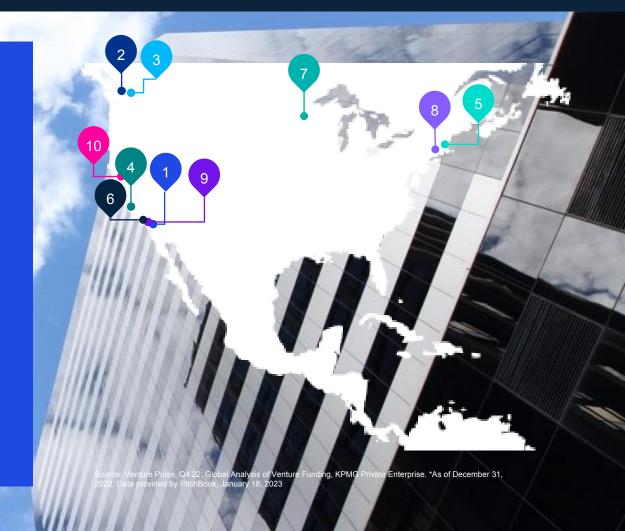


Rodrigo Guedes
Managing Director
KPMG in Brazil

Domestic plays remain a draw

Top 10 financings in Q4'22 in Americas

- 1. Anduril \$1.5B, Costa Mesa, US Aerospace & defense Series E
- **2. TerraPower** \$830M, Bellevue, US Cleantech *Late-stage VC*
- 3. Group14 Technologies \$614M, Woodinville, US Cleantech Series C
- 4. Atlantic Holding \$485.1M, Menlo Park, US B2B Series A
- **5. Form Energy** \$450M, Somerville, US Cleantech Series E
- 6. Tryllian \$414.6M, Los Angeles, US Fintech Late-stage VC
- 7. Arctic Wolf \$401M, Eden Prairie, US Cybersecurity Late-stage VC
- 8. Queen of Raw \$400M, New York, US Fintech Late-stage VC
- 9. ServiceTitan \$365M, Glendale, US Fintech Series H
- 10. Cyara \$350M, Redwood City, US Marketing tech Series B





VC investment in Europe drops sharply as energy crisis deepens

VC investment in Europe plummeted to a two-year low in Q4'22, amidst an environment of high inflation, rising interest rates, the ongoing war in the Ukraine, and skyrocketing energy prices. Compared to recent quarters, the largest deals in Europe during Q4'22 were substantially smaller — although still sizeable and geographically diverse — led by three deals in the electric vehicle and mobility ecosystem - a \$500 million raise by Sweden-based Einride, a \$295 million raise by Sweden's Volta Trucks and a \$245.9 million rase by French battery producer Verkor.

VC investors in Europe prioritizing companies in their own portfolios

During Q4'22, VC investors across Europe showed increasing caution, putting a significant amount of pressure on their portfolio companies to cut costs and reduce their spend. While mature startups undertook the most publicised cost-cutting measures in Europe during the quarter, primarily major headcount reductions and reductions in real estate, the later part of Q4'22 saw a wave of smaller VC backed startups starting to follow suit.

Average Seed stage deal size in Europe grows significantly in 2022

Over the course of 2022, the average Seed stage deal size in Europe soared quite significantly as US investors found real value in European companies. US investors in the region typically invested larger amounts into deals than their European counterparts because of the comparatively low valuations of companies to be had in Europe. The declining value of the Euro against the US dollar also offered a unique opportunity for US investors to buy European companies at very reasonable prices.

Energy crisis creates VC market winners and losers

The ongoing energy crisis in Europe continued to put a major spotlight on companies operating in the renewable energy and energy storage spaces, spurring strong investment in a wide range of companies. In addition to the large raise by Verkor, Estonia-based renewable energy infrastructure company Sunly raised \$196 million, Belgium-based hydrogen energy company Tree Energy Solutions raised \$129 million, and Norway-based renewable energy financing company Empower New Energy raised \$74 million.

Europe also saw significant investments in ESG and energy-adjacent businesses during Q4'22, including a \$113 million raise by Norway-based Reetec — which manufactures minerals used in EV motors and wind turbines in an environmentally sustainable way.

After big drop in Q3'22, VC investment in the UK remains subdued

Investor sentiment in the UK remained subdued during Q4'22, driven both by global macroeconomic factors and by the uncertain domestic political situation experienced during the quarter. While many sectors saw VC investment plummet, the UK saw several pockets of strong activity, including sustainability, gaming, and health and biotech. A number of fintech subsectors also continued to attract VC investors and corporates — including regtech, cybersecurity, and B2B solutions — while others, including BNPL, struggled. With BNPL regulations expected in the UK during 2023, the BNPL space could see smaller startups fail or be acquired by larger players over the next few quarters.

VC investment slows in Germany; B2C takes biggest hit

Germany saw VC investment slow considerably in Q4'22 as valuations dropped and more companies accepted flat rounds. The largest deal of the quarter was quite small compared to recent quarters: a \$101.7 million raise by travel search engine platform company Holidu.

The B2C and D2C spaces in Germany felt enormous pressure in Q4'22, forced to juggle rising interest rates, high inflation, and declining demand. The B2B space faired much better among VC investors, with investment particularly focused on solutions aimed at helping companies digitize, become more efficient, or reduce costs. Fintech and energy were also strong areas of VC investment in Q4'22. With funding becoming harder to attract, some startups have started looking for strategic buyers, which could lead to more M&A activity in Q1'23. Longer term, Germany could see additional investment as corporates look to conduct more value creation domestically.



VC investment in Europe drops sharply as energy crisis deepens, cont'd.

VC investment in Israel remains relatively quiet in Q4'22

VC investment in Israel remained relatively quiet in Q4'22 as a number of companies held down rounds or made serious efforts to cut headcount in order to reduce costs in order to appease their investors. Such cost-cutting was industry agnostic, with companies even in highly resilient sectors like cybersecurity making reductions. Some founders in Israel closed down companies entirely, returning funding to their investors in order to sustain their future credibility. M&A activity in Israel was almost dead in Q4'22; if this trend continues, there could be a major impact on the startup economy in Israel as it is quite reliant on new money coming in — particularly from US investors and corporates. Despite challenges, several industries will likely continue to see investment in Israel, including any solutions with military applications.

Ireland's tech ecosystem remains strong despite some setbacks

VC investment in Ireland remained steady quarter-over-quarter, led by a raise by Tines, Carrick Therapeutics and Vaultree. The country was not, however, immune to industry cost-cutting particularly from large corporates looking to reduce headcount and their global real estate footprint. In Q4'22, Meta announced plans to reduce headcount in Ireland by approximately 350 as part of a global initiative, and plans to scale back the real estate footprint of its EMEA headquarters in Dublin.

Nordics region remains attractive to VC investors in Q4'22

The Nordics region continued to attract solid interest from VC investors in Q4'22 in terms on deal value, most prominently in the energy and electric vehicle space, despite a drop in total VC investment. In addition to Sweden's Einride(\$500 million) and Volta Trucks (\$295 million), Norway-based food delivery platform Oda raised \$151 million — although the latter was at a substantially lower valuation than the company's previous funding round. Trends in the Nordics region are lagging a bit behind vs. for example the US. This could result in softer investment in Q1'23 as the VC market in the region sees more impact from the global downturn and the runways of the companies start to shorten.

Trends to watch for in Q1'23

Looking forward to Q1'23, VC investment in Europe is expected to remain relatively soft, with no end in sight to many of the challenging factors affecting the VC market. While many sectors will likely face challenges over the next quarter, VC investment will likely continue apace in high priority areas, including energy, energy security, and ESG. While interest over the near-term is expected to focus on energy independence and energy alternatives, interest in cleantech will likely accelerate as countries in the region work to meet their decarbonization targets.

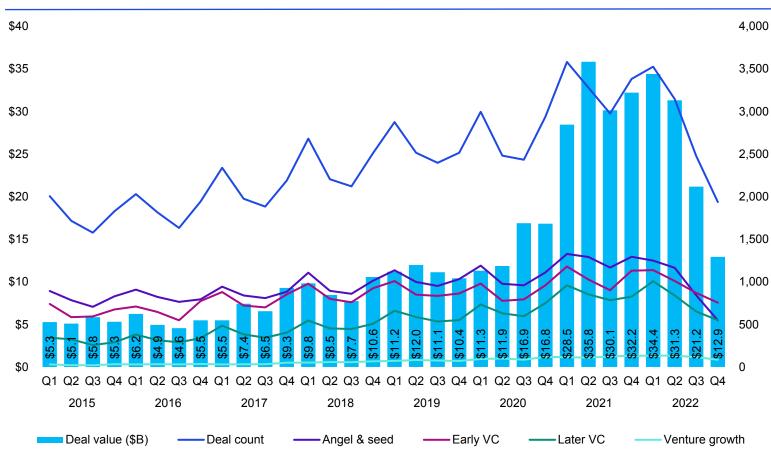
Interest in lending solutions could also pick up as companies struggle to access cash and startups look for innovative options to avoid down rounds.



VC activity slides further to conclude 2022

Venture financing in Europe

2015-Q4'22



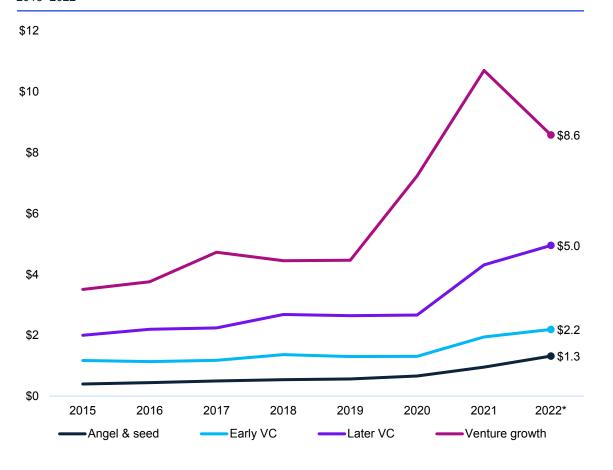
A sustained six-quarter stretch of elevated venture activity has concluded with the diminishing tallies during the back half of 2022. Caution is on the rise although the environment remains complex with still-elevated levels of dry powder contrasted against a volatile array of risks and murky economic prospects.

... the impact of volatility both economic and political is finally being felt, yet European startup ecosystems still saw a healthy quarter of activity relative to longer-term averages...

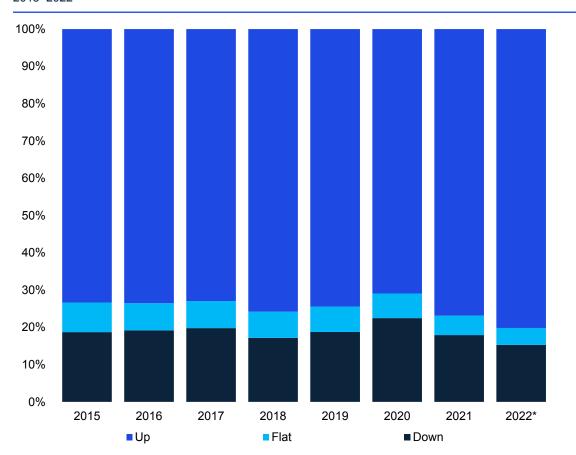


Venture growth sees figures slide

Median deal size (\$M) by stage in Europe 2015–2022*



Up, flat or down rounds in Europe 2015–2022*

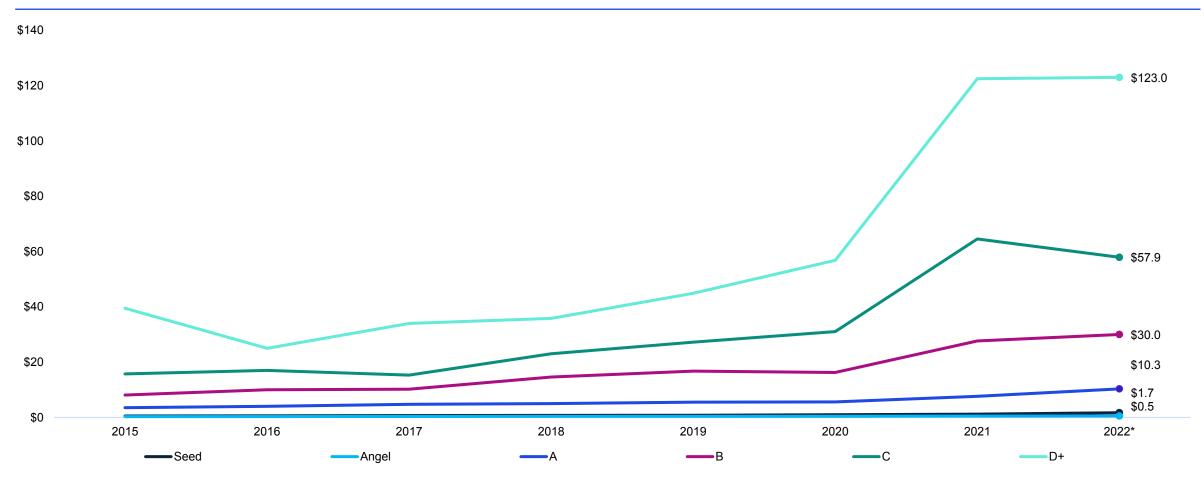




Deal size metrics flatten out

Median deal size (\$M) by series in Europe

2015-2022*

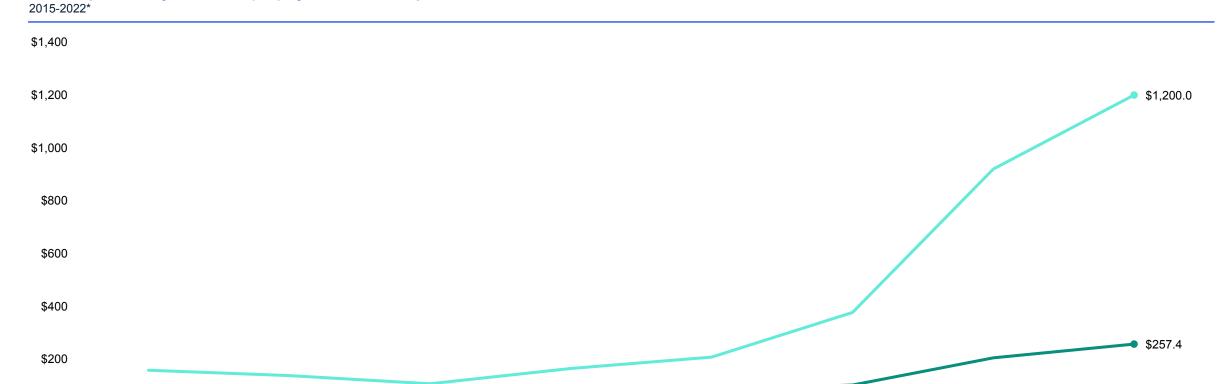




Valuations remain unaffected or flatten out

2016

Median pre-money valuation (\$M) by series in Europe



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023. The figures for Series D or later valuations in 2015 and 2017 are based on non-normative population sizes.

2018

2017

Angel



\$0

2015

Seed

2022*

2019

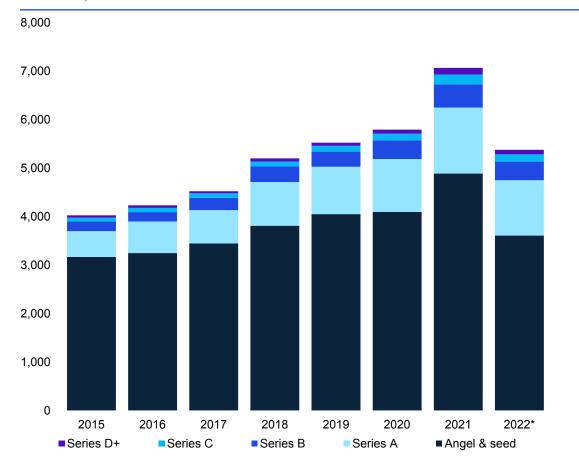
2020

2021

VC invested at Series A remains remarkably strong

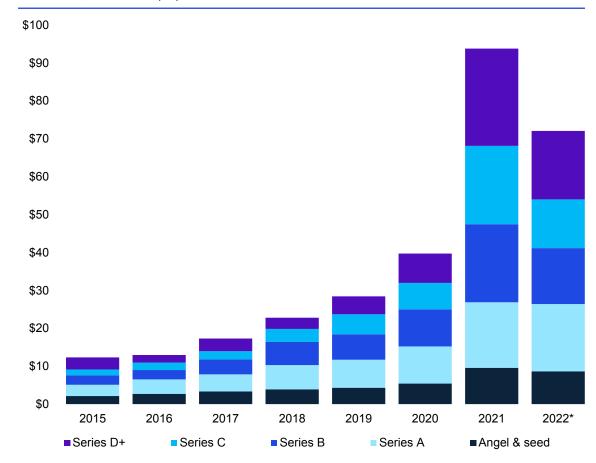
Deal share by series in Europe

2015-2022*, number of closed deals



Deal share by series in Europe

2015-2022*, VC invested (\$B)





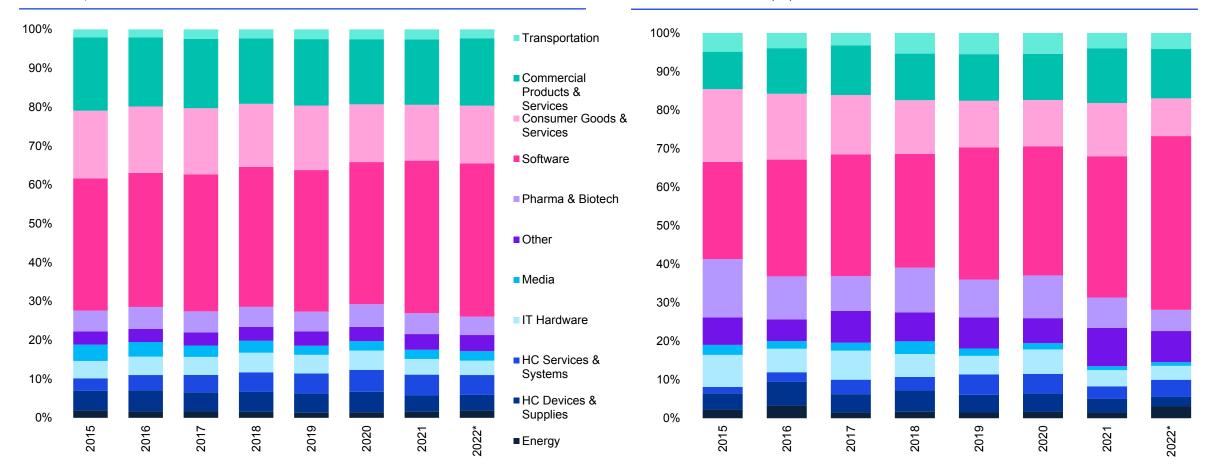
Software regains plurality of VC invested

European venture financings by sector

2015-2022*, number of closed deals

European venture financings by sector

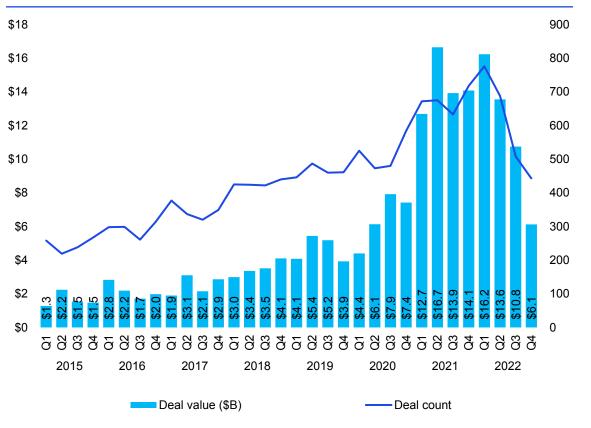
2015-2022*, VC invested (\$B)



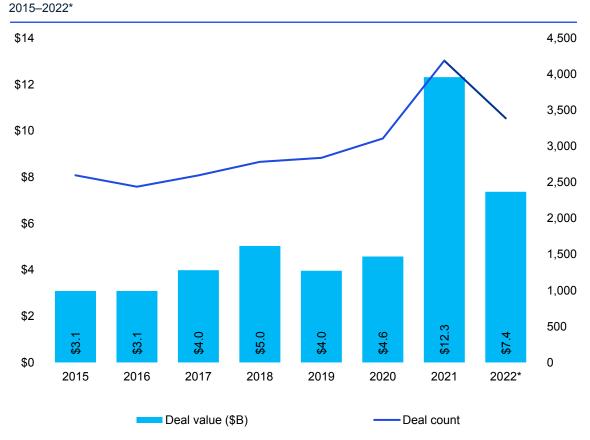


First-time financing VC invested tally impresses





First-time venture financings of companies in Europe

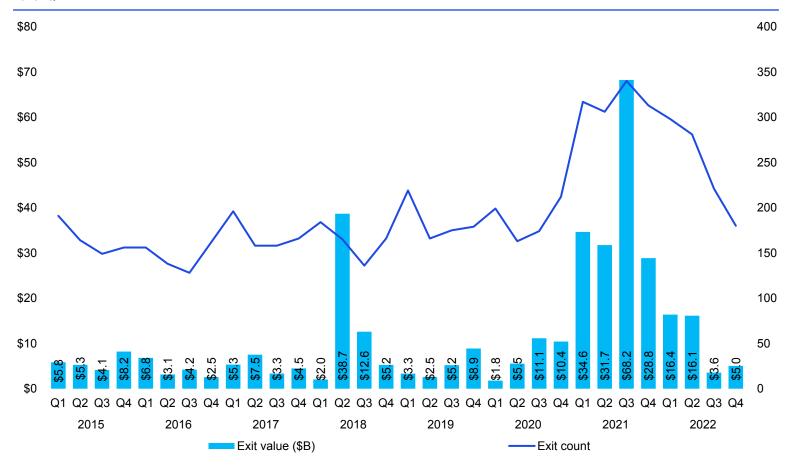




Exits slide back to lows seen in the 2010s

Venture-backed exit activity in Europe

2015-Q4'22



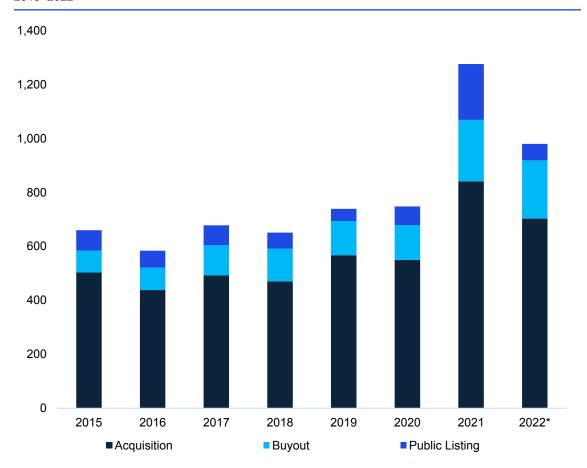
Exit volume and value both remained subdued at best in the back half of 2022. It remains to be seen how protracted this stretch of sluggish selling may be, due to the uptick in caution on the part of fund managers and executives alike.

... after a strong stretch for exit value, a clear slowdown is evident, while prospects remain murky.

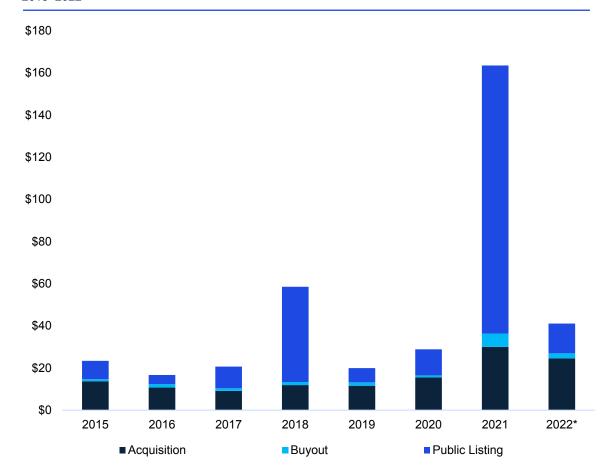


M&A drives bulk of exit value in 2022, returning to historical norms

Venture-backed exit activity (#) by type in Europe 2015–2022*



Venture-backed exit activity (\$B) by type in Europe 2015–2022*

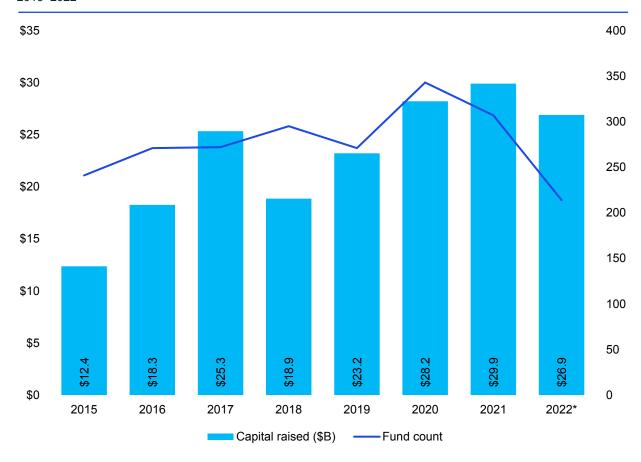




Healthy fundraising still signals optimism, even if now tempered

European venture fundraising

2015-2022*



The past three years have seen healthy tallies for capital commitments to venture coffers, which could still exert an upward pressure on dealmaking metrics going forward.

... at **nearly \$27 billion**, 2022 still saw fund managers rake in plenty of capital commitments to fuel dealmaking in years to come. Investors in the UK are definitely being more cautious — not just funds, but also family offices and even individuals — and debt has been much more expensive as well. This is a challenge as there are a lot of businesses out there looking for funding at the moment. That said, we're still seeing startups raising money and funds putting money out. But there's definitely been a flight to quality. Unless a company can really prove the strength of their story and technology play, they are going to struggle.

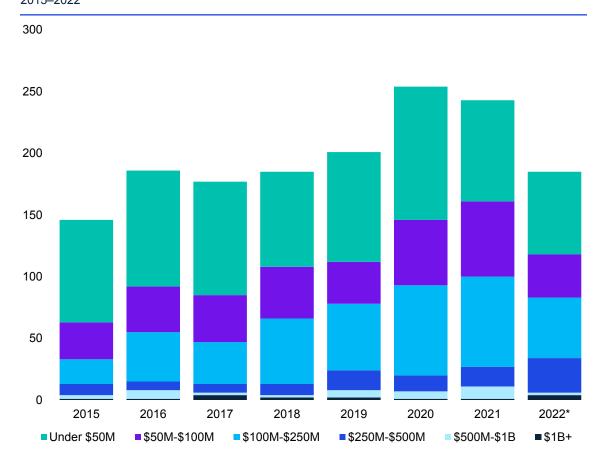


Robert Baxter
Head of Corporate Finance
KPMG in the UK

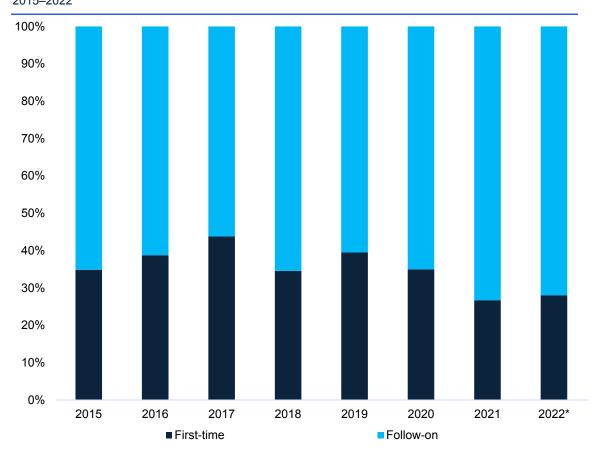


Midsized to larger funds see growth in proportion of volume





First-time vs. follow-on venture funds (#) in Europe 2015–2022*

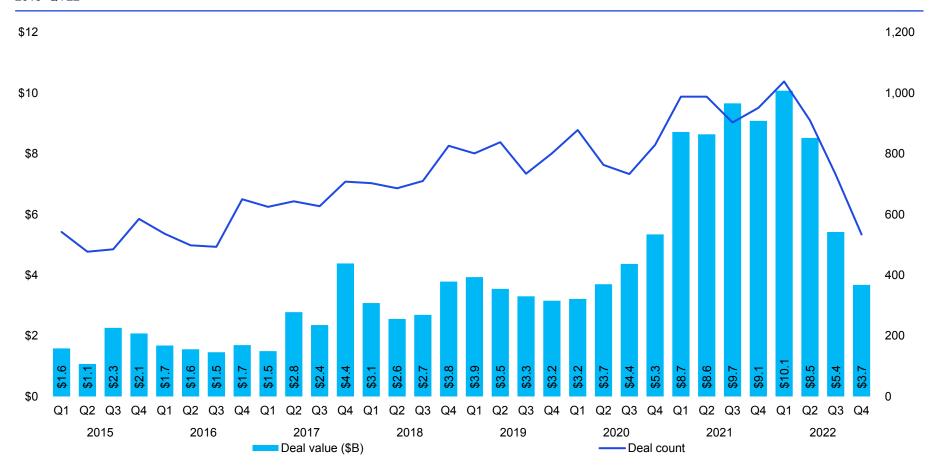




UK sees slowdown

Venture financing in the United Kingdom

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



Thinking about 2023, there is some sense that IPO activity could make a broad return in the second-half of the year, with some pockets of activity even before that. ESG businesses could be particularly compelling; while we might not see IPOs in the space right away, we could start to see companies beginning the work required to become IPO ready.

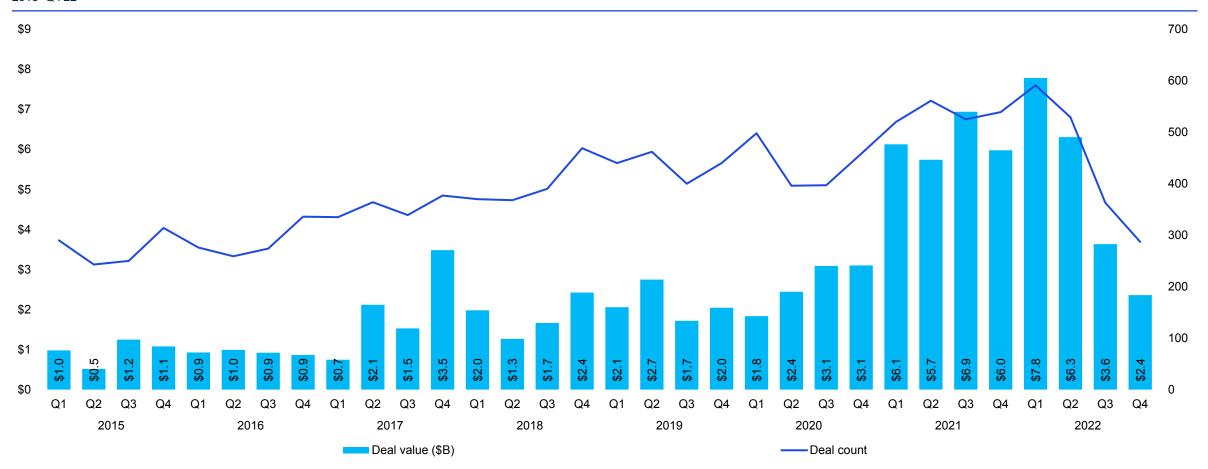


Warren Middleton
Lead Partner for Emerging Giants,
Center of Excellence in the UK
KPMG in the UK

London hits low last seen pre-2020

Venture financing in London

2015-Q4'22

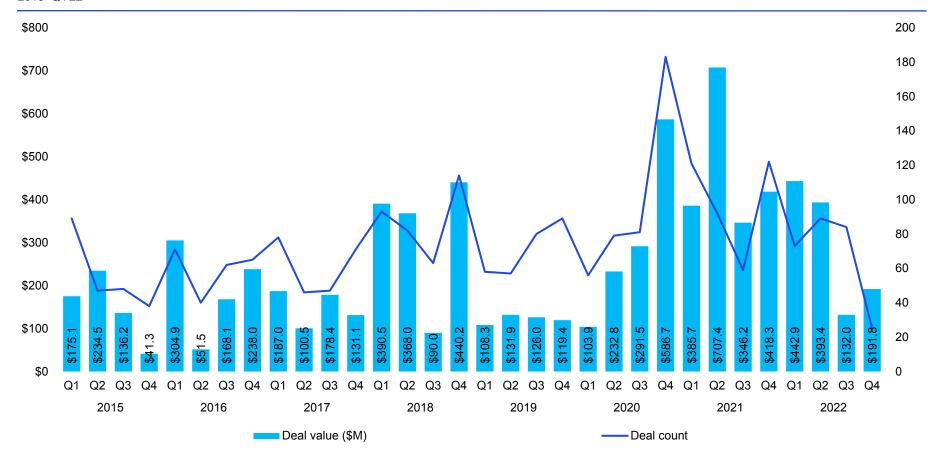




Ireland sees VC invested tick up yet volume remains low

Venture financing in Ireland

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



While VC investment has returned to the levels seen prior to 2021, the market itself hasn't simply returned to the way it was in 2019 or 2020. Our geopolitical and economic circumstances have changed fundamentally and in an incredibly short period of time. Both companies and VC investors are working to understand what those shifts mean and how best to respond.

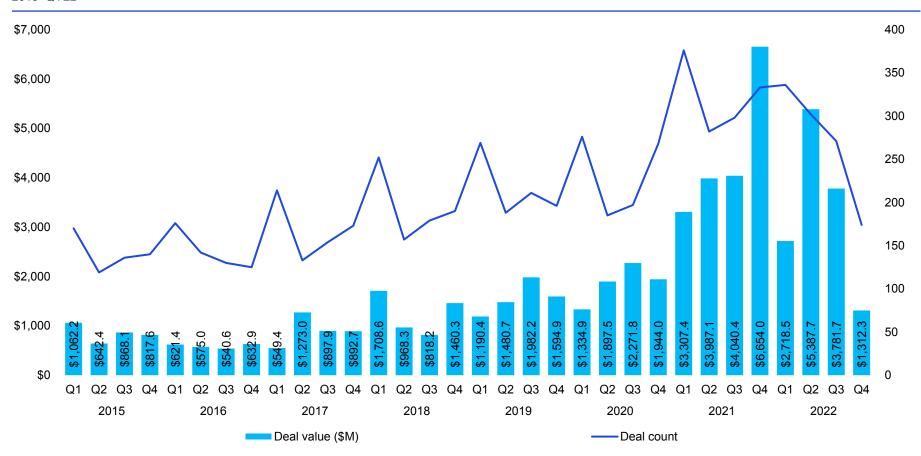


Anna Scally
Partner, Head of Technology &
Media & Fintech Lead
KPMG in Ireland

A distinct slide to close the year

Venture financing in Germany

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



In the coming year, I believe we are going to see more value creation in Germany. Historically, a lot has been designed here and produced elsewhere, but now we have technologies like 3D printing and moulding techniques. Companies don't need hundreds of people; they just need space. In 2023 we should see more investment in this space — in smart manufacturing that capitalizes on German engineering capabilities.

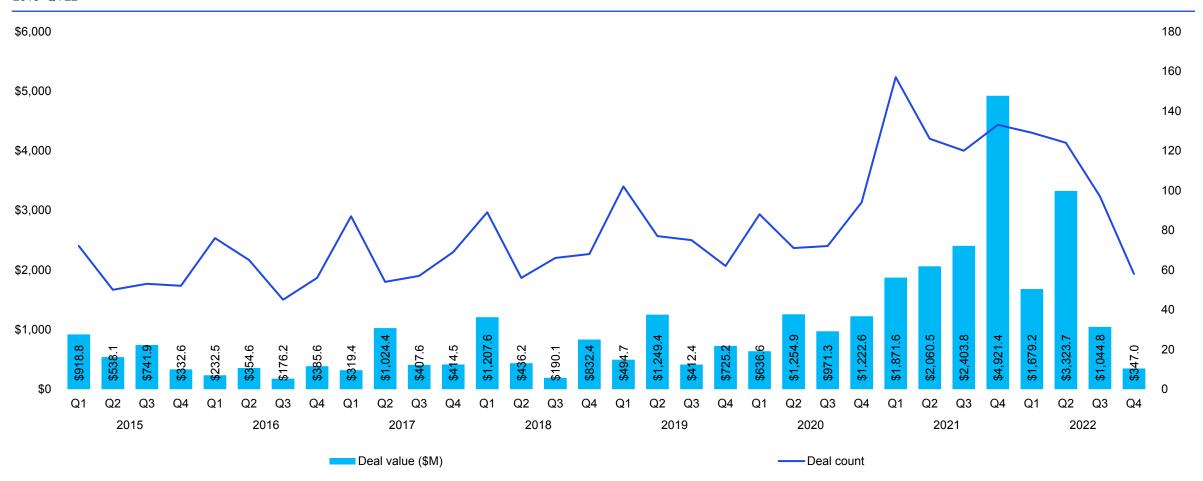


Dr. Ashkan Kalantary Deal Advisory, M&A GrowthTech & Ventures #Q4VC **KPMG** in Germany

2022 sees tallies slide further at its end

Venture financing in Berlin

2015-Q4'22

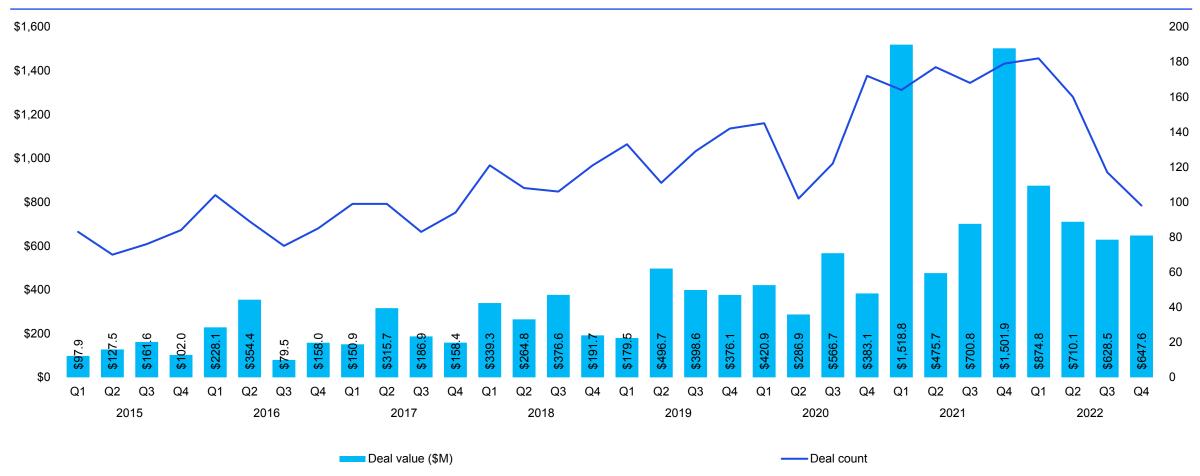




Spain's Q4 results compare favorably to historical tallies

Venture financing in Spain

2015-Q4'22

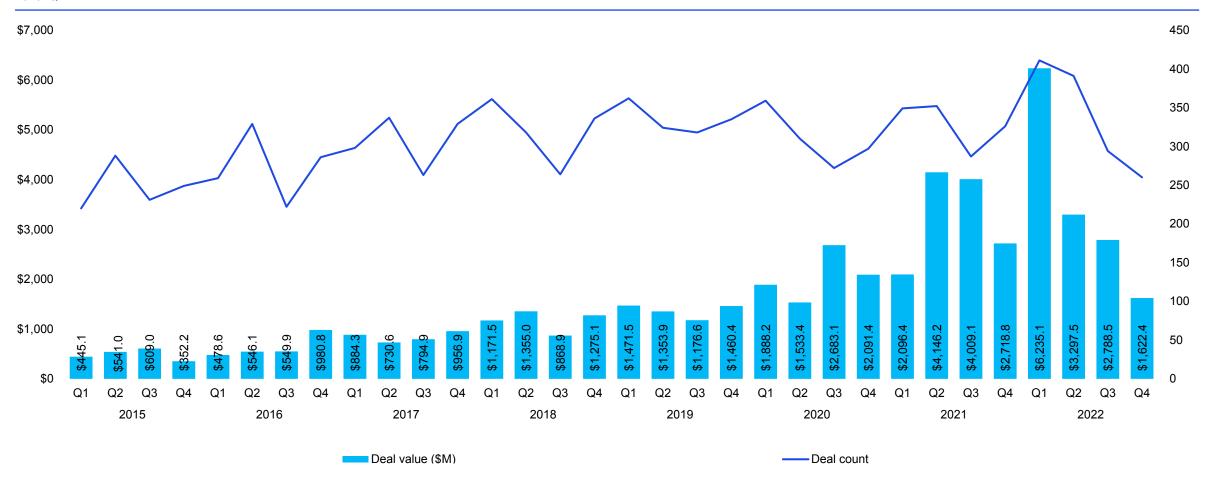




Activity slumps to levels seen in late 2010s

Venture financing in France



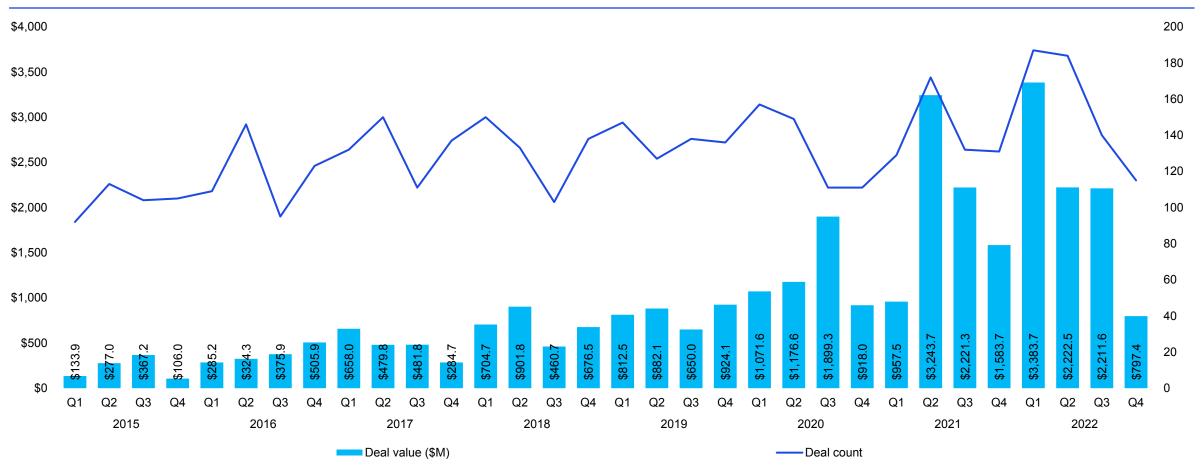




Paris has a potentially temporary slowdown

Venture financing in Paris



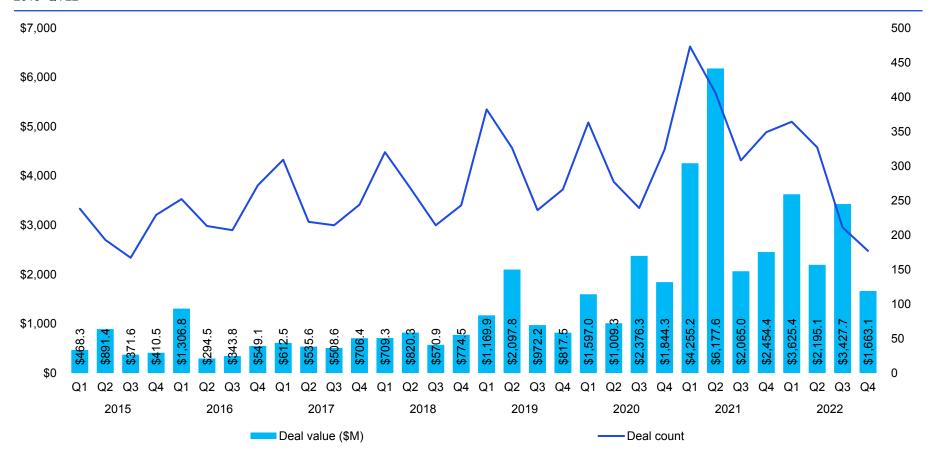




After some outlier quarters, 2022 ends on subdued note

Venture financing in the Nordics

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



Q4'22 was quite reflective of the VC market in the Nordics region historically with a handful of bigger growth rounds. This was a bit surprising, but the VC market here often lags a bit behind the US trends-wise, so Q1'23 could also show more of a freeze in growth rounds. That said, there shouldn't be much of a drop in first financings because there are quite a lot of rather fresh local preseed/seed funds and the valuations on this stage haven't been as high as elsewhere.



Jussi Paski Head of Startup Services KPMG in Finland

Much like elsewhere, 2022 closes on muted figures

Venture financing in Israel

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



Looking forward to 2023, we will likely see a "new normal" emerging in terms of valuations and M&A. Investment volumes will be adjusted to current companies' valuations, while some of the dry powder originally intended for the tech sector by institutional investors will be shifted to more options. Proper path to profitability, as well as the business model's sustainability, will take center stage in companies' valuations in addition to growth of ARR. In addition, contrary to the trend of 2021, public companies may look to turn private, as their listed multiples are significantly lower than those of similar private companies. Nevertheless, challenging times can produce innovative and resilient solutions. As such, 2023 may prove to be a year of mid and long-term opportunities for investors and tech companies alike.



Dina Pasca-Raz Head of Technology, Head of International Tax **KPMG** in Israel

Green space continues to rake in investment

Top 10 financings in Q4'22 in Europe

- 1. Einride \$500M, Stockholm, Sweden Automotive Series C
- 2. Volta Trucks \$295.25M, Stockholm, Sweden Automotive Series C

- 3. Verkor \$245.9M, Grenoble, France Cleantech Early-stage VC
- 4. Market Financial Solutions \$226.2M, London, UK Fintech Late-stage VC
- **5. Sunly** \$196.4M, Tallinn, Estonia —Cleantech *Early-stage VC*
- 6. Mews \$185M, Prague, Czech Republic Business software Series C
- 7. OpenWeb \$170M, Tel Aviv, Israel Social/platform software Series F
- 8. PragmatIC \$158M, Cambridge, UK Semiconductors Series C
- 9. Oda \$154.6M, Oslo, Norway Retail Late-stage VC
- 10. Pulmocide \$147.5M, London, UK Drug discovery Series C





VC investment in Asia remains relatively steady quarter-over-quarter

VC investment in Asia held relatively steady in Q4'22, driven by several large megadeals in China, including a \$2.56 billion raise by new energy vehicle company GAC Aion, a \$1 billion raise by fast-fashion e-commerce platform SHEIN and a \$631 million raise by SPIC Hydrogen Energy.

IPO activity remains soft in Hong Kong and Japan, strong in mainland China

IPO activity in Hong Kong (SAR) and Japan remained slow in Q4'22, bringing an end to a lacklustre year for IPO exits. In Hong Kong (SAR), the industrials and EV related sectors showed the most resilience compared to other sectors making up 7 of the top 10 IPOs in Hong Kong (SAR), but still saw a decline in IPO value. Among the IPOs that occurred in Japan over the course of 2023, many resulted in subsequent share price drops.

Relative to most other jurisdictions, the IPO market in China performed remarkably well in 2022 — with IPO activity and value comparable to 2021. Globally, Shanghai and Shenzhen were the top two fundraising exchanges globally this year, highlighting the uniqueness of China's public markets compared to other, more integrated, global markets. The resolution of the PCAOB audit inspection challenges related to China-based companies listed in the US could see larger, global-focused companies in China considering US IPOs in 2023, although whether US IPOs will materialize will be dependent on market attractiveness and price.

China eases COVID-19 policy — bodes well for 2023

VC investment in China was relatively consistent to previous guarters in Q4'22, with VC investors taking a conservative approach to funding. At the end of Q4'22, however, China's central government eased its stringent COVID-19 restrictions in mainland China considerably. While this has led to a sharp increase in COVID cases, the policy changes are expected to spark additional economic activity and VC investment over time as travel and face-to-face dealmaking become easier. VC investment will likely remain relatively soft in Q1'23 as China deals with the new COVID-19 wave, but there is strong optimism that investment will grow heading into Q2'23. The relaxation of mainland China's COVID-19 restrictions could also spark additional activity in Hong Kong.

Energy and EV companies highly attractive to VC investors in China and Japan

Following on trends seen earlier in 2022, VC investors in China continued to pour money into EV and new energy companies during Q4'22. In addition to the \$2.56 million raise by GAC Aion, Voyah Car Technology raised \$631 million, SPIC Hydrogen Energy raised \$631 million, BYVIN Auto raised \$444 million, and battery company Hithium raised \$280 million.

VC investors in Japan also showed significant interest in the energy and EV spaces. While VC investment was quiet during Q4'22, there was a large, for Japan, PE deal during the quarter: a \$136.8 million investment by CPDQ into Shizen Energy Group. Japan's energy and EV sector ecosystems have also continued to evolve, with a strong stable of early-stage startups expected to grow and attract larger funding rounds over time.

VC investment in India subdued in Q4'22, but long-term outlook positive

VC investment in India remained slow quarter-over-quarter as VC investors, primarily investors from the US, continued to take a wait-and-see approach given global macroeconomic uncertainties. The largest VC deal in India during Q4'22, was a \$370 million raise by B2B ecommerce platform Udaan, followed by a \$110 million raise by B2B payments company Progap. While VC was relatively sluggish, PE activity remained high in India during Q4'22, highlighting the ongoing attractiveness of India's startup economy.

VC investment was soft in both fintech and edtech during Q4'22, likely accounting for the low VC investment total given these sectors typically account for most of India's largest funding rounds. VC investment in the unified payments solutions dried up considerably; while VC investors continued to invest in fintech areas like microlending and B2B payments, deal sizes were much smaller. Following on the Udaan raise, the B2B logistics and delivery is expected to see increasing interest over the next few guarters.



VC investment in Asia remains relatively steady quarter-over-quarter, cont'd

Volume of Seed and Series A deals remains solid in Japan

VC investment was soft in Japan during Q4'22, although there continued to be a solid amount of deal volume at the Seed and Series A deal stages. Concerns about rising interest rates, the appreciation of the US dollar versus the Yen, and a US — and potentially global — economic downturn had many VC investors in Japan taking a cautious approach to their investments. In addition to Electric vehicles, hot areas of investment in Japan during Q4'22 included healthtech, blockchain, and gaming.

Despite the slowdown in VC funding in Q4'22, CVC is not expected to decelerate to a significant degree given the strategic factors driving many corporates to make investments. Given growing concerns about IPO results, M&A exits have gained some traction in Japan, with some startups being bought out by their corporate investors.

As crypto comes under global scrutiny, Hong Kong poised to benefit

In the wake of the bankruptcy of Bahamas-based FTX, Hong Kong (SAR) is well positioned to gain some attention and interest from both crypto-focused startups wanting to gain the confidence of increasingly skeptical investors and VC investors looking to validate investment opportunities. In early 2022, Hong Kong (SAR) introduced a new licensing and regulatory regime to regulate virtual asset service providers; it is also in the process of finalizing a licensing regime for virtual asset service providers, which is expected to come into force on June 1, 2023.

Trends to watch for in Q1'23

2023 will be very interesting year for VC investment in China, in part due to the loosening of the Chinese mainland COVID-19 guarantine rules and restrictions and in part due to indications of potential central government policy changes that could see China becoming more open to crossborder investors and interactions with other economies.

VC investment in India is expected to remain soft in Q1'23, before starting to pick up in Q2'23 in part due to India's strong growth and consumption expectations. VC investment in agtech is expected to grow considerably over the next 12-24 months as startups in the space mature and attract larger funding rounds.

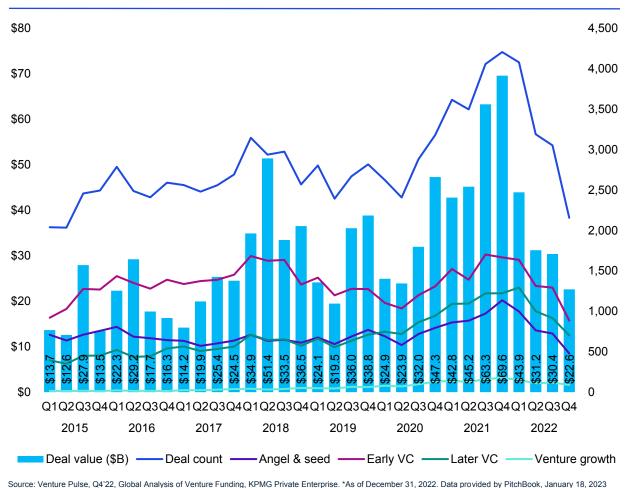
In Q1'23, the Japanese government is expected to announce a number of programs focused on encouraging startup growth. This could help spur VC investment and the further maturation of Japan's VC ecosystem in subsequent quarters.



2022's end sees confirmed cooling in venture activity

Venture financing in Asia

2015-Q4'22



VC invested remained relatively healthy. especially in the broader context of historical tallies, in the final quarter of 2022. However, as completed financing volume continued to slide, it is clear that 2022 in Asia also saw a marked cooling in the venture environment thanks to similar factors remarked upon earlier. In addition, domestic retrenching by protective governments is playing a distinct role in encouraging sector-specific investment...

Overall venture capital investment in China slowed considerably in 2022. following similar patterns to what we've seen in other countries in Asia and across the world. However, in spite of this decline, several new age sectors ranging from alternative energy to the electric vehicle ecosystem continued to draw significant investor attention, as reflected in a series of mega-deals closing out the year.

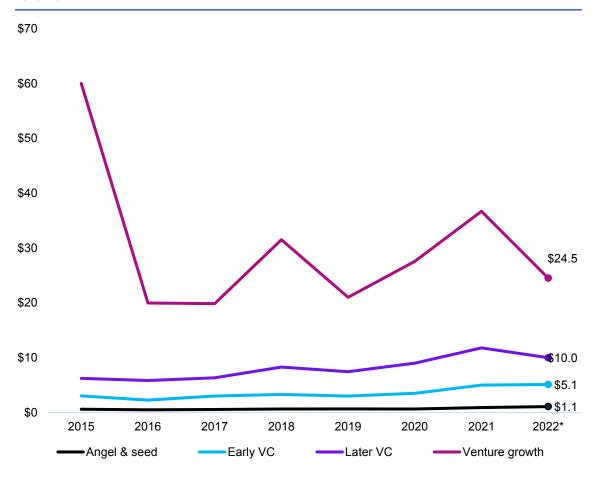


Egidio Zarrella Partner, Clients and Innovation **KPMG** China

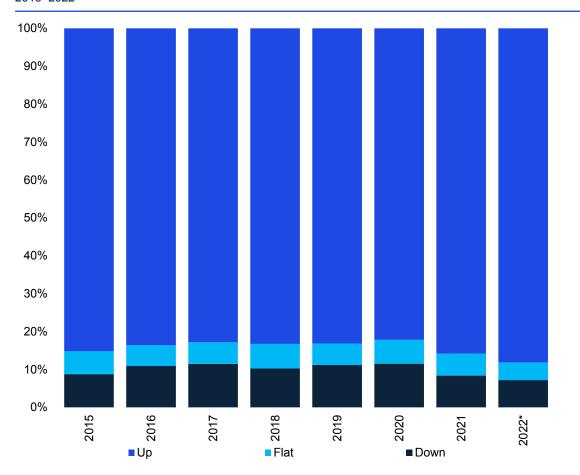


Deal size metrics slide at the late and growth stages only





Up, flat or down rounds in Asia 2015–2022*

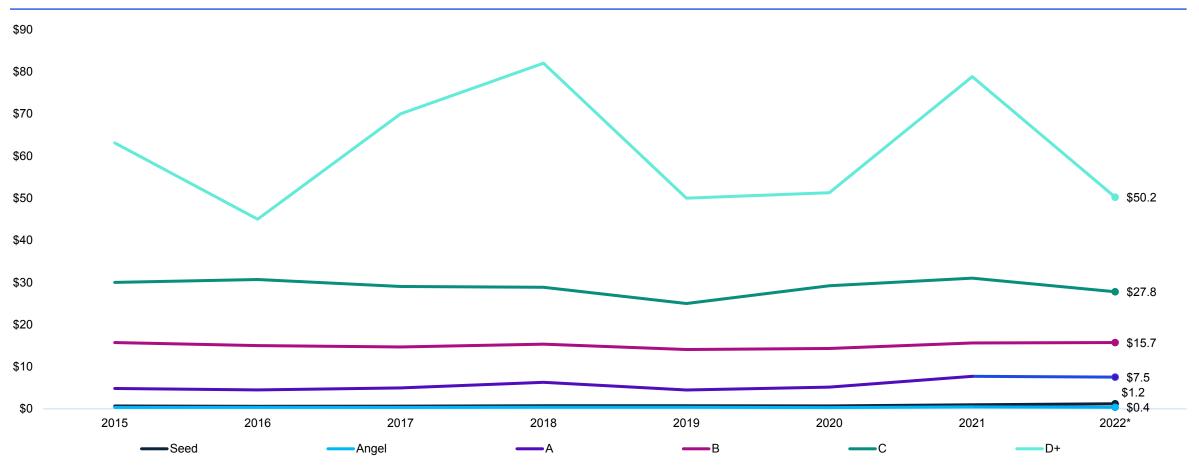




Latest-stage deal size metrics slide, others hold steady

Median deal size (\$M) by series in Asia

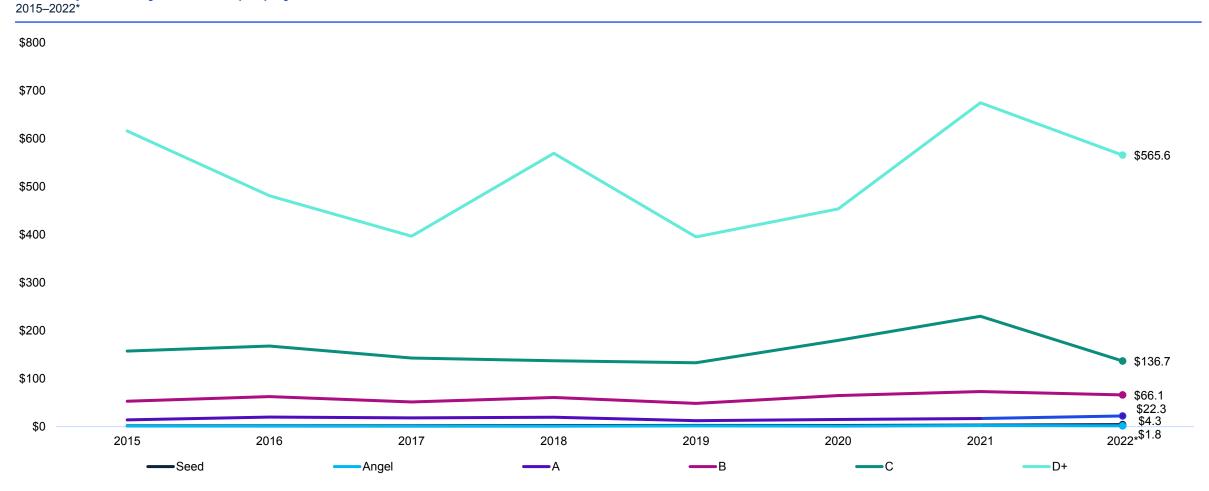
2015-2022*





Later-stage valuations cool down

Median pre-money valuation (\$M) by series in Asia

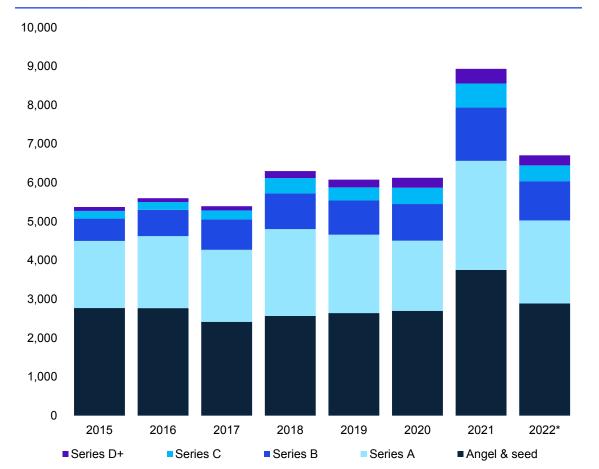




Series A normalizes after an outlier, atypical year

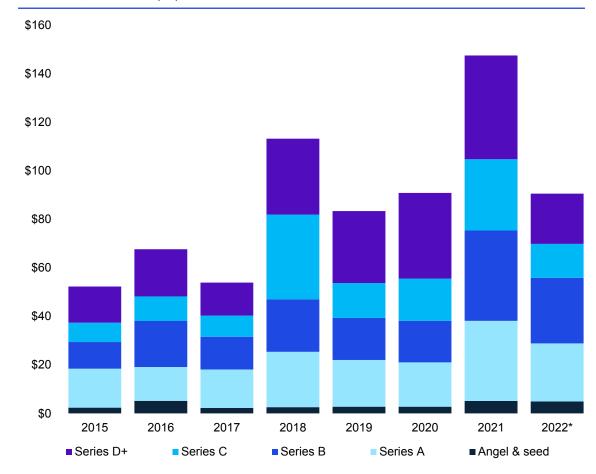
Deal share by series in Asia

2015-2022*, number of closed deals



Deal share by series in Asia

2015-2022*, VC invested (\$B)





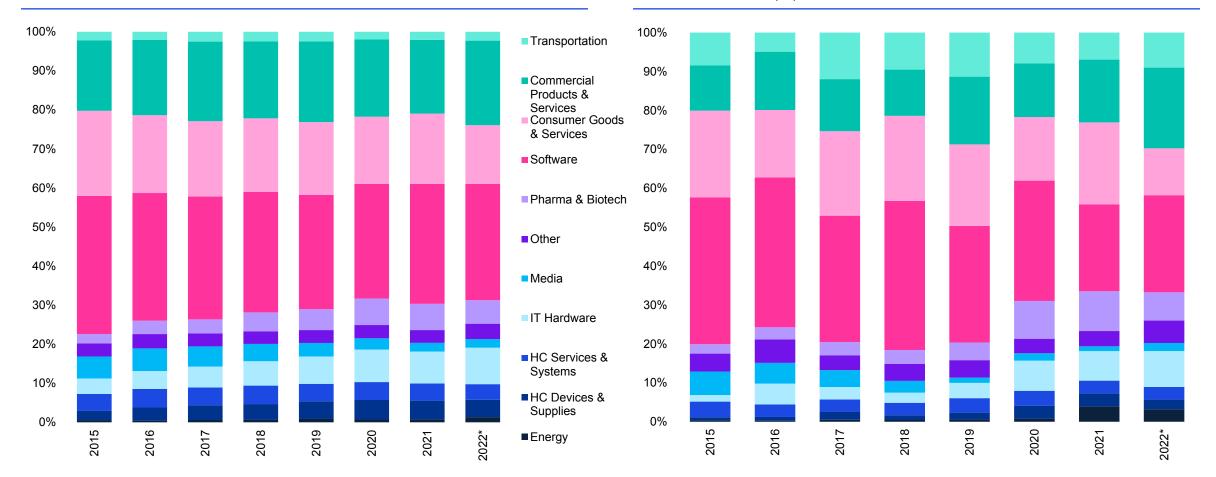
VC invested increasingly flows to formerly less-active sectors

Asia venture financings by sector

2015-2022*, number of closed deals

Asia venture financings by sector

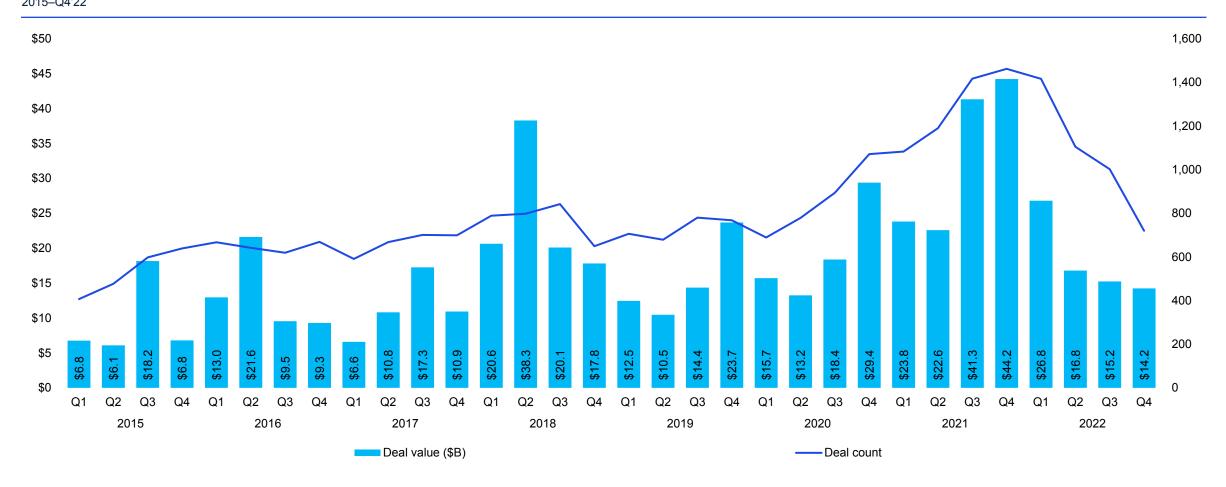
2014-2022*, VC invested (\$B)





Corporates pull back in line with the general market

Corporate participation in venture deals in Asia 2015–Q4'22

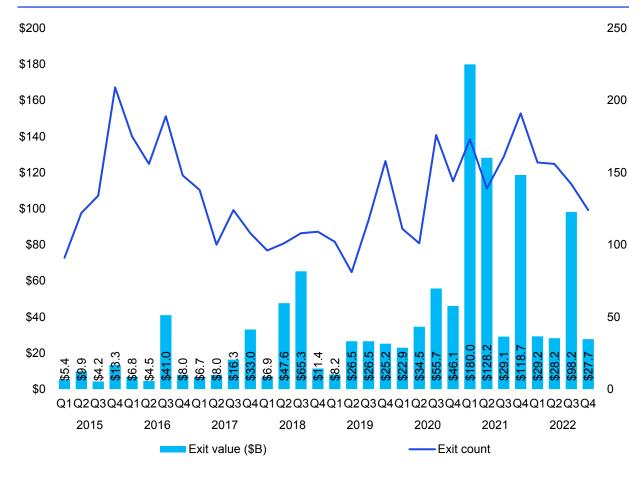




Exit value steadies relative to past quarters

Venture-backed exit activity in Asia

2015-Q4'22



Unlike elsewhere, exit volume has remained choppy yet not terribly low relative to historical levels, while exit values remain muted but on the steadier side. This should ensure a trickle of liquidity back into the ecosystem, over time. That said, it remains to be seen if exits grow choppier over the coming year given the array of challenges geopolitical issues to capital availability.

Historically, a lot of the larger fundraising rounds in Hong Kong have been fintech related. The FTX situation will likely see crypto investors pulling back and scrutinizing deals more, but this could actually be beneficial for Hong Kong moving forward as the government has passed the new regulatory and licensing regime for virtual asset service providers to provide clarity on the regulatory requirements and better protection to users and investors.



Irene Chu Partner & Head of New Economy and Life Sciences, Hong Kong (SAR) **KPMG** China

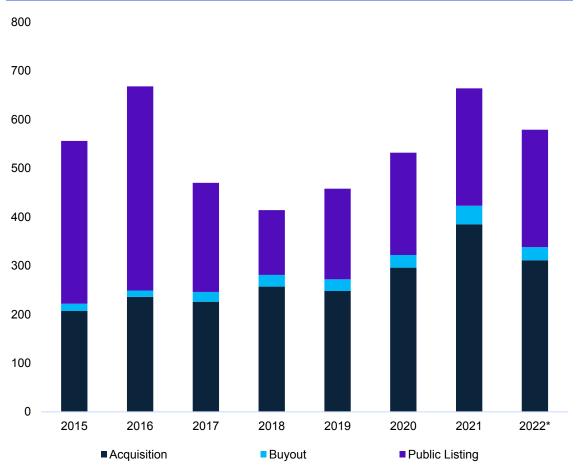
Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



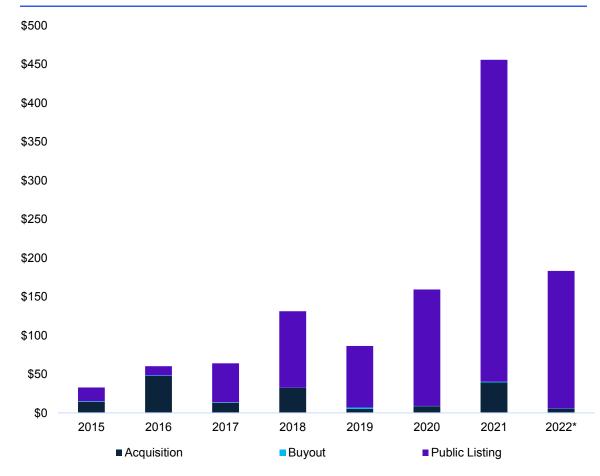
#Q4VC

Domestic public listings continue to propel exit value

Venture-backed exit activity (#) by type in Asia 2015–2022*



Venture-backed exit activity (\$B) by type in Asia 2015–2022*

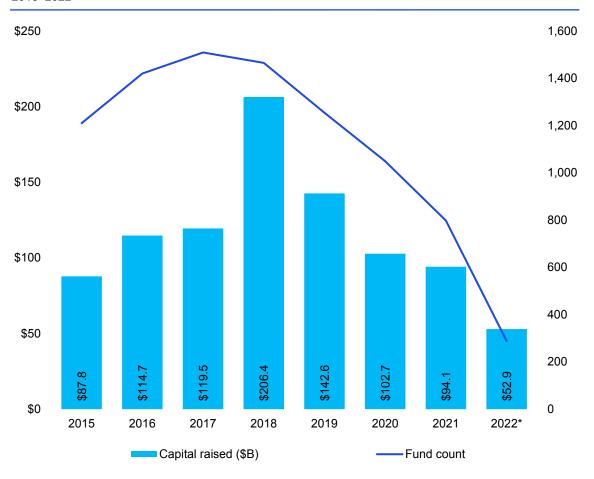




How will the systemic shift evolve in the year to come?

Venture fundraising in Asia

2015-2022*



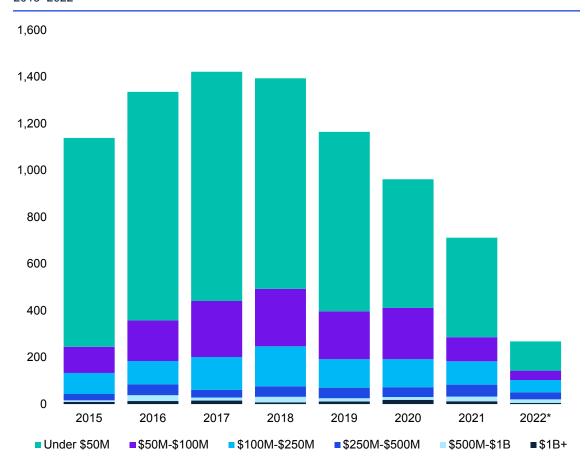
As is confirmed with final data, by now, it is clear that the domestic venture fundraising cycle in the region has slid in a systemic fashion for several years now. What remains to be seen is if this is a cycle more affected by a more diverse set of capital sources than traditional venture fundraising, or geopolitical tensions around international sources of capital commitments, or some other factor.

The fundraising cycle ended the year on a down note, but now it remains to be seen how this systemic cycle plays affects on startup financing down the line...

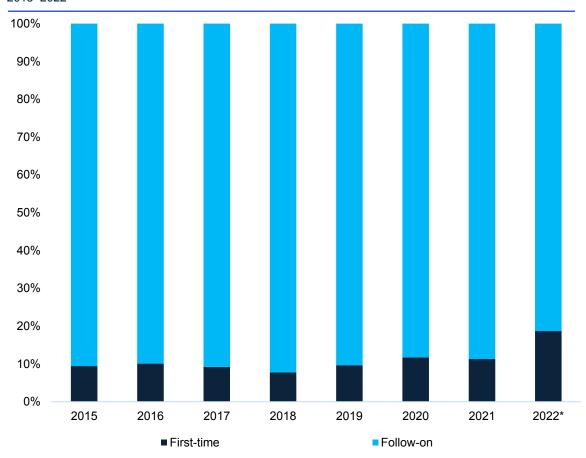


First-time funds grow their proportion of volume

Venture fundraising (#) by size in Asia 2015–2022*



First-time vs. follow-on venture funds (#) in Asia 2015–2022*

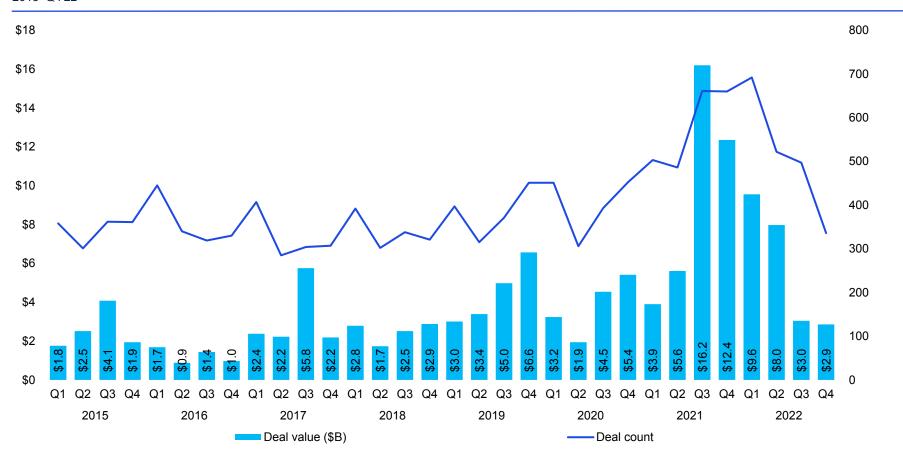




Volume slides at end of the year

Venture financing in India

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



There's so much entrepreneurship in India and investors see this. A lot have been betting on microfunds as a way to get their feet on the ground to identify diamonds early — and this has really worked well for some larger VC funds. Given the dollar values involved, microfunds are also easier to raise. Heading into 2023, there's no doubt microfunds are here to stay. They'll be what helps incubate very early stage companies and get them to



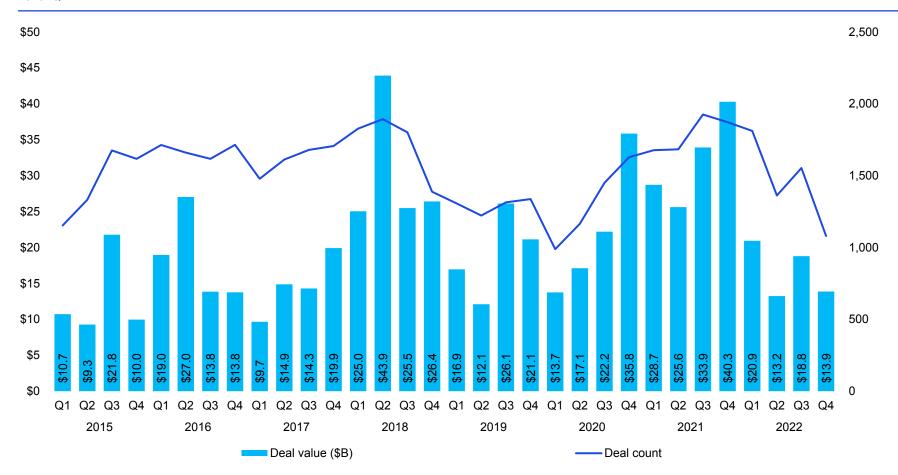
Nitish Poddar Partner and National Leader, **Private Equity KPMG** in India

that next level.

Venture activity holds a bit more resiliently in China

Venture financing in China

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



China's central government is very keen on boosting the economy. There seems to be a real change in mindset, which is going to make 2023 a very interesting year. Investment will likely remain cautious in Q1'23, but we'll start to see how the lowering of restrictions changes the investment climate, whether and how government policies change, and the areas where cross border investment comes up again. The real impact, however, will be seen in Q2'23 and beyond.

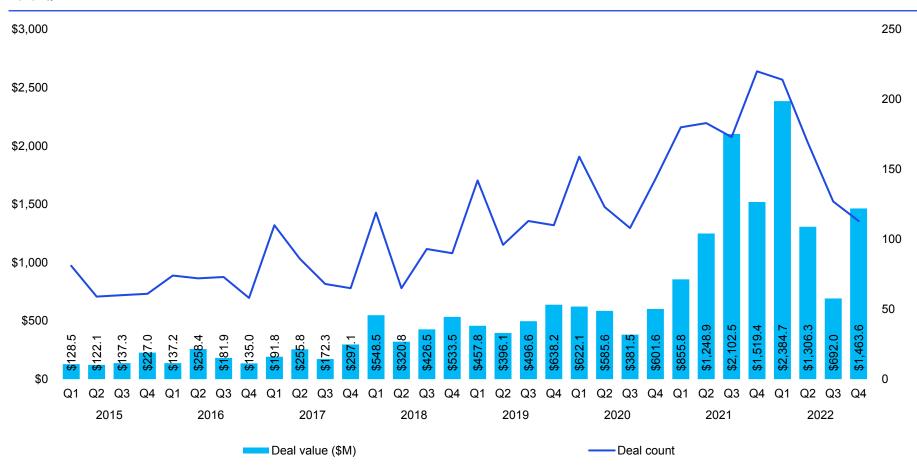


Zoe Shi Partner **KPMG** China

A Q4 uptick belies conditions elsewhere

Venture financing in Australia

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



It was another strong year for VC investment in Australia. Despite the economic cooldown, deal value was on par with 2021, but the volume of deals has decreased. This shows that dry powder is still being deployed what's changing is the way it's being invested. As we move into 2023, VCs are increasingly looking for startups that are efficient, responsible with capital, and focused on revenue. When they find them, they're willing to invest just as much as they have before, if not more.



Amanda Price Head of High Growth Ventures, **KPMG** in Australia

2022 closes on down note

Venture financing in Japan

2015-Q4'22



Source: Venture Pulse, Q4'22, Global Analysis of Venture Funding, KPMG Private Enterprise. *As of December 31, 2022. Data provided by PitchBook, January 18, 2023



Despite global macroeconomic trends, the prospects for large corporates to invest are still very strong in Japan, so the deceleration of CVC investment has been very limited compared to the slowdown in investment from other investors. Corporates also remain a key driver of exit activity given the significant focus on open innovation here. Many startups are eventually bought out by their corporate investors — a trend that will likely continue heading into 2023.

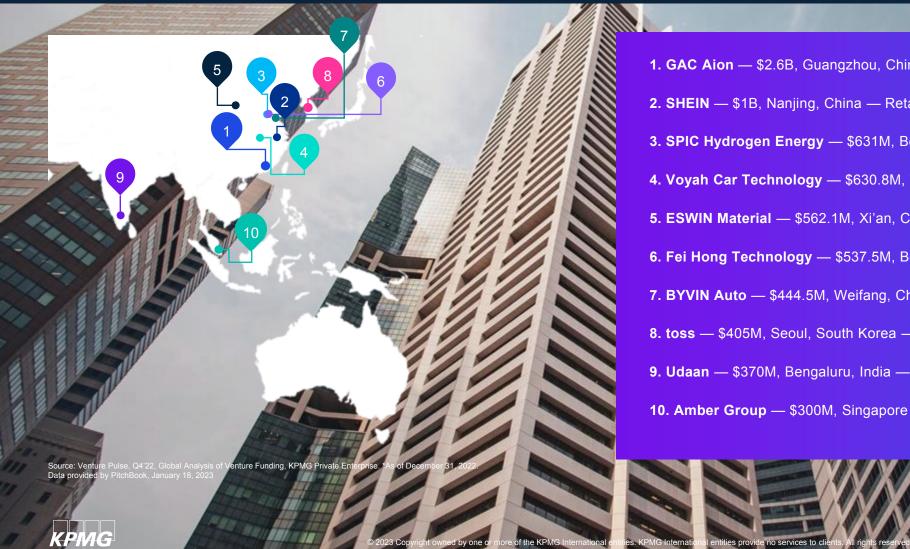


Hiroshi Abe Executive Board Member. Partner **KPMG** in Japan

#Q4VC

A slew of sectors see the impact of reshoring & domestic investment

Top 10 financings in Q4'22 in Asia-Pacific



- 2. SHEIN \$1B, Nanjing, China Retail Series F
- 3. SPIC Hydrogen Energy \$631M, Beijing, China Cleantech Series B
- **4. Voyah Car Technology** \$630.8M, Wuhan, China Cleantech Series A
- 5. ESWIN Material \$562.1M, Xi'an, China Semiconductors— Series C
- **6. Fei Hong Technology** \$537.5M, Beijing, China Robotics *Early-stage VC*
- 7. BYVIN Auto \$444.5M, Weifang, China Automotive Series A
- 8. toss \$405M, Seoul, South Korea Fintech Series G
- 9. Udaan \$370M, Bengaluru, India Business software Late-stage VC
- **10.** Amber Group \$300M, Singapore Fintech Series C

KPMG Private Enterprise's Emerging Giants Network

From seed to speed, we're here throughout your journey



Contact us:



Conor Moore
Head of KPMG Private Enterprise in the Americas,
Global Leader, Emerging Giants, KPMG
Private Enterprise, KPMG International & Partner, KPMG in the US



Lindsay HullSenior Director, Emerging Giants
Global Network, KPMG Private
Enterprise, **KPMG International**



About us

About KPMG Private Enterprise

You know KPMG. You might not know KPMG Private Enterprise. KPMG Private Enterprise advisers in KPMG firms around the world are dedicated to working with you and your business, no matter where you are in your growth journey — whether you're looking to reach new heights, embrace technology, plan for an exit, or manage the transition of wealth or your business to the next generation. You gain access to KPMG's global resources through a single point of contact — a <u>trusted adviser</u> to your company. It is a local touch with a global reach.

KPMG Private Enterprise's global network for emerging giants has extensive knowledge and experience working with the startup ecosystem. Whether you are looking to establish your operations, raise capital, expand abroad, or simply comply with regulatory requirements — we can help. From seed to speed, we're here throughout your journey.

Register for the KPMG Private Enterprise Global Tech Innovators 2022 Finals!

At KPMG Private Enterprise we understand the impact that technology trailblazers like you are having on the world. Whether yours is a pure technology company or you're tech-enabled, tech-led or tech-driven, we want to hear from you.

We're inviting you to compete with technology entrepreneurs across the globe. You'll pitch your innovations and present your growth ambitions to a panel of industry experts.

Wherever you are in your business lifecycle — from early-stage growth to getting ready to accelerate your expansion — our aim is to help you achieve your ambition and take your business to the next level.

Click <u>here</u> to register your interest for our 2023 competition.



About the report

Acknowledgements

We acknowledge the contribution of the following individuals who assisted in the development of this publication:

- Jonathan Lavender, Global Head, KPMG Private Enterprise, KPMG International
- Conor Moore, Head of KPMG Private Enterprise in the Americas, Global Leader, Emerging Giants, KPMG Private Enterprise, KPMG International & Partner, KPMG in the US
- Amanda Price, Head of High Growth Ventures, KPMG in Australia
- Amy Burnett, Head of KPMG Private Enterprise Access, KPMG in the UK
- Anna Scally, Partner, Head of Technology & Media & Fintech Lead, KPMG in Ireland
- Dr. Ashkan Kalantary, Deal Advisory, M&A GrowthTech & Ventures, KPMG in Germany
- Dina Pasca-Raz, Head of Technology, Head of International Tax, KPMG in Israel
- Diogo Garcia Correia, Venture Capital & Emerging Giants Business Development, KPMG in Brazil
- Hiroshi Abe, Executive Board Member, Partner, KPMG in Japan
- Irene Chu, Partner & Head of New Economy and Life Sciences, Hong Kong (SAR) Region, KPMG China
- Jonathan Boyers, Partner, Corporate Finance, KPMG in the UK
- Jules Walker, Senior Director, Business Development, KPMG in the US

- · Jussi Paski, Head of Startup Services, KPMG in Finland
- Lauren Taylor, Fintech Manager, KPMG in the UK
- Lindsay Hull, Senior Director, Emerging Giants Global Network, KPMG Private Enterprise, KPMG International
- Melany Eli, Managing Director, Marketing and Communications, KPMG Private Enterprise, KPMG International
- · Nicole Lowe, Head of Emerging Giants, KPMG in the UK
- Nitish Poddar, Partner and National Leader, Private Equity, KPMG in India
- · Peter Kehrli, Partner, KPMG in the US
- Robert Baxter, Head of Corporate Finance, KPMG in the UK
- Rodrigo Guedes, Managing Director, KPMG in Brazil
- Samuel Lush, Director, Private Equity Group, KPMG in the US
- Sunil Mistry, Partner, KPMG Private Enterprise, Technology, Media & Telecommunications (TMT), KPMG in Canada
- Tim Dümichen, Partner, KPMG in Germany
- Warren Middleton, Lead Partner for Emerging Giants, Center of Excellence in the UK, KPMG in the UK
- Zoe Shi, Partner, KPMG China



About the report

Methodology

KPMG uses PitchBook as the provider of venture data for the Venture Pulse report

Please note that the MESA and Africa regions are NOT broken out in this report. Accordingly, if you add up the Americas, Asia-Pacific and Europe regional totals, they will not match the global total, as the global total considers those other regions. Those specific regions were not highlighted in this report due to a paucity of datasets and verifiable trends.

In addition, particularly within the European region, the Venture Pulse does not contain any transactions that are tracked as private equity growth by PitchBook. As such rounds are often conflated with late-stage venture capital in media coverage, there can be confusion regarding specific rounds of financing. The key difference is that PitchBook defines a PE growth round as a financial investment occurring when a PE investor acquires a minority stake in a privately held corporation. Thus, if the investor is classified as PE by PitchBook, and it is the sole participant in the recipient company's financing, then such a round will usually be classified as PE growth, and not included in the Venture Pulse datasets. However, as of the Q4 2022 edition, a new stage for venture that was invented by PitchBook to account for growth at late-stage VC will be included, defined as venture growth. That same edition saw some minor updates to the wording of the methodology on this page.

Also, if a company is tagged with any PitchBook vertical, excepting manufacturing and infrastructure, it is kept. Otherwise, the following industries are excluded from growth equity financing calculations: buildings and property, thrifts and mortgage finance, real estate investment trusts, and oil & gas equipment, utilities, exploration, production and refining. Lastly, the company in question must not have had an M&A event, buyout, or IPO completed prior to the round in question.

Fundraising

PitchBook defines VC funds as pools of capital raised for the purpose of investing in the equity of startup companies. In addition to funds raised by traditional VC firms, PitchBook also includes funds raised by any institution with the primary intent stated above. Funds identifying as growthstage vehicles are classified as PE funds and are not included in this report. A fund's location is determined by the country in which the fund's investment team is based; if that information is not explicitly known, the HQ country of the fund's general partner is used. Only funds based in the United States that have held their final close are included in the fundraising numbers. The entirety of a fund's committed capital is attributed to the year of the final close of the fund. Interim close amounts are not recorded in the year of the interim close.

Deals

PitchBook includes equity investments into startup companies from an outside source. Investment does not necessarily have to be taken from an institutional investor. This can include investment from individual angel investors, angel groups, seed funds, VC firms, corporate venture firms, corporate investors, and institutions, among others. Investments received as part of an accelerator program are not included; however, if the accelerator continues to invest in follow-on rounds, those further financings are included. All financings are of companies headquartered in the US, with any reference to "ecosystem" defined as the combined statistical area (CSA). PitchBook includes deals that include partial debt and equity.

- Angel/seed: PitchBook defines financings as angel rounds if there are no PE or VC firms involved in the company to
 date and we cannot determine if any PE or VC firms are participating. In addition, if there is a press release that
 states the round is an angel round, it is classified as such. Finally, if a news story or press release only mentions
 individuals making investments in a financing, it is also classified as angel. As for seed, when the investors and/or
 press release state that a round is a seed financing, or it is for less than \$500,000 and is the first round as reported
 by a government filing, it is classified as such. If angels are the only investors, then a round is only marked as seed if
 it is explicitly stated.
- Early-stage: Rounds are generally classified as Series A or B (which we typically aggregate together as early stage)
 either by the series of stock issued in the financing or, if that information is unavailable, by a series of factors
 including: the age of the company, prior financing history, company status, participating investors, and more.
- Late-stage: Rounds are generally classified as Series C or D or later (which we typically aggregate together as late stage) either by the series of stock issued in the financing or, if that information is unavailable, by a series of factors including: the age of the company, prior financing history, company status, participating investors, and more.
- Growth: Financings tagged as Series E or later or deals involving companies that are at least seven years old and have raised at least six VC rounds will be included in this category, as of the Q4 2022 edition of Venture Pulse released in January 2023.
- Corporate: Corporate rounds of funding for currently venture-backed startups that meet the criteria for other PitchBook venture financings are included in the Venture Pulse as of March 2018.
- Corporate venture capital: Financings classified as corporate venture capital include rounds that saw both firms
 investing via established CVC arms or corporations making equity investments off balance sheets or whatever other
 non-CVC method is employed.

Exits

PitchBook includes the first majority liquidity event for holders of equity securities of venture-backed companies. This includes events where there is a public market for the shares (IPO) or the acquisition of majority of the equity by another entity (corporate or financial acquisition). This does not include secondary sales, further sales after the initial liquidity event, or bankruptcies. M&A value is based on reported or disclosed figures, with no estimation used to assess the value of transactions for which the actual deal size is unknown. IPO value is based on the premoney valuation of the company at its IPO price. One slight methodology update is the categorical change from "IPO" to "public listings" to accommodate the different ways we track VC-backed companies' transitions to the public markets. To give readers a fuller picture of the companies that go public, this updated grouping includes IPOs, direct listings, and reverse mergers via SPACs.

In the edition of the KPMG Venture Pulse covering Q1 2019 and all ensuing, PitchBook's methodology regarding aggregate exit values changed. Instead of utilizing the size of an IPO as the exit value, instead the prevaluation of an IPO, based upon ordinary shares outstanding, was utilized. This has led to a significant change in aggregate exit values in all subsequent editions yet is more reflective of how the industry views the true size of an exit via public markets. In the edition of the KPMG Venture Pulse covering Q1 2021 and all ensuing, the IPO exit type was updated to include all types of public listings, including special purpose acquisition companies (SPACs) and other reverse mergers.





To connect with a KPMG Private Enterprise adviser in your region, email enterprise@kpmg.com.

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

home.kpmg/venturepulse



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2023 Copyright owned by one or more of the KPMG International entities. KPMG International entities provide no services to clients. All rights reserved.

KPMG refers to the global organization or to one or more of the member firms of KPMG International Limited ("KPMG International"), each of which is a separate legal entity. KPMG International Limited is a private English company limited by guarantee and does not provide services to clients. For more detail about our structure please visit https://example.com/home.kpmg/governance.

Throughout this document, "we", "KPMG", "KPMG Private Enterprise", "us" and "our" refers to the global organization or to one or more of the member firms of KPMG International Limited ("KPMG International"), each of which is a separate legal entity.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.