Pathway Research

Private Market Environment

1ST QUARTER 2023

CONTENTS

1Q23 Market Review

Market uncertainty remained high in the first quarter amid continued volatility and concerns regarding the potential for an economic downturn. These concerns were further exacerbated by fears of contagion in the banking sector following the collapse of several high-profile financial institutions, posing questions about the structural health of the financial system and the potential for future systemic risk. Despite this sentiment, the economy has also demonstrated its resilience in many ways. Equity markets posted largely positive results during the quarter: the Nasdaq, which fell sharply during 2022, generated a 17.0% return—its strongest quarter since the second quarter of 2020. The labor market has remained healthy: despite increasing layoffs in the technology sector, nearly 800,000 jobs were added in the U.S. during the first quarter, pushing the unemployment rate near an all-time low, to 3.5%. Further, U.S. GDP, which fell in both the first and second quarters of 2022, increased at an annual rate of 2.6% in the fourth quarter after increasing by 3.2% in the third quarter. The somewhat unexpected strength of the economy has posed a challenge for policymakers seeking to slow inflation figures that have steadily tapered but still remain well above target levels. The U.S. Federal Reserve raised its benchmark interest rate in March for the ninth time in the past year and has signaled the potential for additional rate hikes unless it sees a clearer indication that inflation is in retreat.

Speculation of a potential recovery in capital market activity was dashed in early March when, in a matter of days, Silicon Valley Bank (SVB) collapsed and was taken into receivership by the FDIC following a run on its deposits. The collapse, the largest of any bank since the Global Financial Crisis (GFC), was driven by an imbalance between the bank's weakening deposit base amid a slowing venture capital market and the decline in value of many of its treasury securities following a sharp spike in interest rates. The resulting pressure forced SVB to sell a large bond portfolio at a loss, sparking market panic that led to a sharp sell-off in its public share price and an estimated single-day run on deposits of approximately $42 billion. Concern from the bank's sudden demise quickly spread across the banking sector, triggering deposit withdrawals and causing share prices to plunge at many other regional banks amid speculation that contagion could ensue. The threat of widespread instability in the banking sector forced the U.S. Federal Reserve to take action to quell the markets, including guaranteeing investor deposits at SVB and providing additional lending facilities to the banking sector. Several other banks succumbed to market pressure in the weeks following SVB's collapse, including Signature Bank and Credit Suisse, the latter of which being rescued through a takeover by UBS with support from Swiss authorities.

Table 1. Notable PE Investments Announced in 1Q23
At March 31, 2023

Buyer	Target	Industry	Region	Value (MM)
Silver Lake	Qualtrics	Software	U.S.	$12,500
Apollo Global	Univar	Industrials	U.S.	$8,100
Clayton, Dubilier & Rice	Focus Financial Partners Inc.	Financial Services	U.S.	$7,000
The Blackstone Group	Cvent	Software	U.S.	$4,600
Vista Equity Partners	Duck Creek Technologies	Software	U.S.	$2,600

SVB was an important banking partner for many in the technology, venture capital, and private equity ecosystem. In addition to providing traditional banking services to a significant number of funds, over half of SVB's loan book comprised subscription lines of credit to private equity and venture capital funds, and the firm was a leader in the venture and growth equity lending business. For the private equity industry, the immediate response to the collapse was largely focused on risk mitigation. Companies and investors sought to ensure access to their funds, open new bank accounts, and protect uninsured deposits. The longer-term implications are still unfolding. Bank lending, which was already restricted in the current environment, is likely to remain subdued for a longer period, limiting available financing for new investments. Subscription lines of credit have become meaningfully more expensive, and many banks have announced plans to reduce their overall exposure to these loans in favor of more-profitable opportunities. In addition, the venture debt asset class has lost a significant player, and credit availability for companies at this stage is likely to be greatly reduced until other banks or direct lenders are able to build programs to successfully fill the void.

Private equity deal activity remained muted during the quarter, hindered by the uncertain economic outlook, rising interest rates, dislocated financing markets, and a gap between buyer and seller pricing expectations. First-quarter 2023 buyout investment activity fell by 35% relative to the first quarter of 2022 in the U.S. and by 78% in Europe to its lowest level since the GFC. Private equity managers have been highly selective in the current environment, focusing largely on investments in high-quality companies, industries experiencing secular growth trends, and opportunistic situations that have arisen from the current dislocation, most notably take-private buyouts. During the quarter, take-private buyouts totaled $43.2 billion in value, or 77% of U.S. deal value. Recently public, often formerly venture-backed, software companies have proved to be attractive targets for large private equity firms following their share-price declines since the start of 2022. Five of the 10 largest buyouts announced during the first quarter were take-privates of software companies that had gone public since the start of 2020, acquired at an average discount of 51% from recent share-price highs. Given limitations in the syndicated debt markets, private equity firms have been forced to be flexible when structuring their transactions to complete acquisitions of this size, including overequitizing initial platform acquisitions, obtaining seller financing, and accessing the direct lending market. For example, the largest transaction announced during the quarter, the $12.5 billion take-private buyout of Qualtrics by Silver Lake and CPPIB, was overequitized, financed with just $1.0 billion in debt. Another notable buyout, The Blackstone Group's $4.6 billion acquisition of Cvent, was financed by direct lenders, in addition to seller financing from the exiting sponsor.

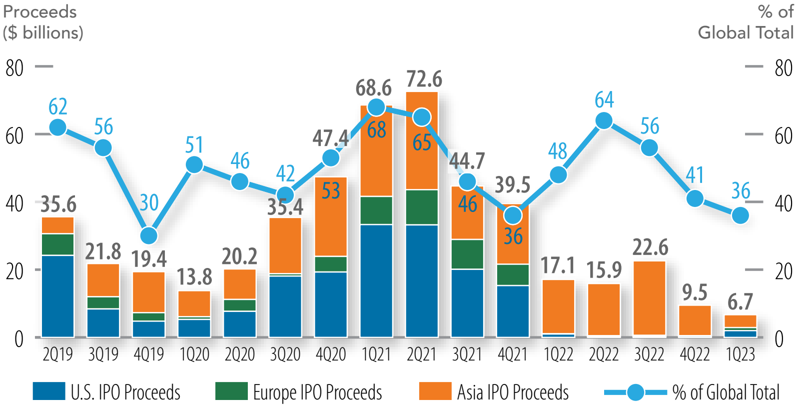
The venture capital market similarly remained volatile during the quarter: the sudden demise of one of the industry's largest financial institutions provided a shock to an ecosystem already facing pressure in the current market. In the U.S., venture funding during the first quarter fell by 55% from the same period last year to its lowest level in more than three years, according to Pitchbook Data, Inc. IPO markets remain largely inaccessible, and valuations, particularly for later-stage companies, have continued to fall. Venture capital managers have responded by working closely with existing portfolio company investments to navigate market headwinds, preserve liquidity, and delay new financings until markets become more accommodative. Most high-quality companies continue to be well-capitalized as a result of the active financing environment in 2021, and venture capital managers still possess ample dry powder to support their strongest-performing investments in future rounds. While volatility remains likely to persist in coming quarters, the long-term fundamentals supporting the venture capital market remain very much intact. Technological innovation continues to drive opportunities, and a number of novel developments have been highlighted in recent months, particularly in areas such as artificial intelligence and cybersecurity, which have demonstrated their potential to create long-term value for investors.

Global Exit Markets

Exit market activity continued to languish during the first quarter, reaching its lowest level since the pandemic-impacted second quarter of 2020. During the quarter, global M&A exit activity totaled just $64.7 billion, a decline of 38% from the prior quarter and of 56% from the same period last year, according to Mergermarket data. Deal volume fell even further: with just 308 exits announced globally, the first quarter notched the lowest number of transactions in the past 13 years. The decline in activity is a continuation of a sequential downward trend since the fourth quarter of 2021, reflecting growing uncertainty and volatility in the market despite still relatively healthy operating performance in most industries. The divergence between these factors has led most private equity firms to elect to hold their investments and focus on continued growth rather than be forced to sell at a depressed valuation. Oil and gas was one of the few sectors that bucked this trend during the first quarter, experiencing a number of sizable exits amid renewed activity from large public strategics. The largest deal announced during the quarter was the acquisition of Juniper Capital–backed Ranger Oil by Baytex Energy for $2.5 billion. Other notable transactions included the sale of a portfolio of Permian assets owned by EnCap-backed Advance Energy Partners to Matador Resources ($1.6 billion) and the sale of EnCap Flatrock Midstream–backed Lotus Midstream to Energy Transfer LP ($1.5 billion).

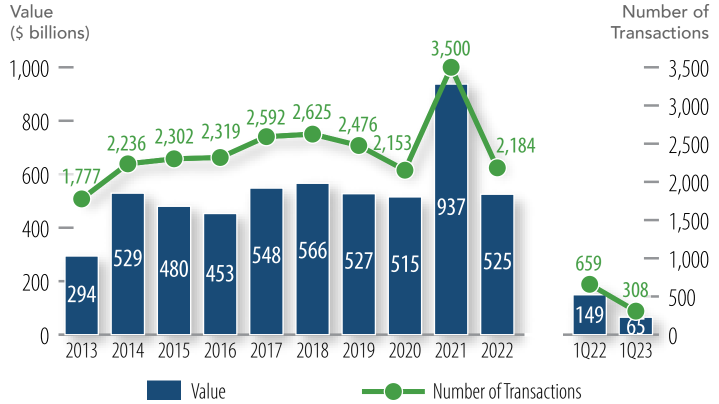
In line with recent quarters, IPO markets remained largely shut during the first quarter. Global activity was driven by Asia, in particular by China A-share listings, which accounted for 49% of total proceeds raised. In the U.S., just eight private equity–backed companies held IPOs during the quarter, raising $2.0 billion. Although U.S. IPO proceeds raised during the quarter exceeded the amount raised during all of 2022, they still fell 88% below the quarterly average for the three prior years. The total was driven by TPG-backed Nextracker, which raised $734 million in February—one of the largest IPOs of the past year. The IPO was well-received, trading up by 51% during the remainder of the quarter. Performance of recently listed companies improved during the quarter, in sharp contrast to 2022. The Renaissance IPO Index, which measures the performance of companies that have gone public in the U.S. in the past three years, increased by 18.4% during the quarter, up from a return of –57.0% during 2022. Looking forward, hope of a near-term recovery in IPO market activity seemed to sputter following the banking sector turmoil in March. There has been little evidence of improving conditions since; however, we expect a healthy backlog of companies ready to access the public markets when conditions become more accommodative.

Figure 1. Quarterly Global PE-Backed IPO Activity
At March 31, 2023



Source: Bloomberg, Renaissance Capital, and Pathway Research.

Figure 2. Global PE-backed M&A Exit Value & Volume
At March 31, 2023



Source: Mergermarket and Pathway Research.

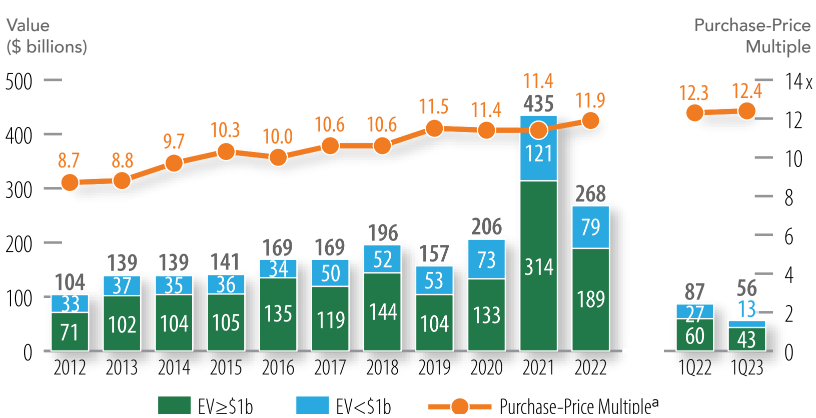
U.S. Buyout Markets

U.S. buyout investment activity totaled $56.3 billion during the first quarter, an increase of 13% from the prior quarter but still down 35% from the first quarter of 2022. While quarterly activity remains well below the record levels seen in 2021—when each quarter exceeded $100 billion in deal value—the U.S. buyout market is functioning at a reasonably stable level, in line with the 5-year quarterly average and well above the depths seen in the heart of the GFC. Investment activity got off to a slow start to the year, totaling just $10.5 billion in January before accelerating in February and March, each month exceeding $21.0 billion in deal value. Activity was driven by large-cap transactions (i.e., transactions with enterprise values of $1.0 billion or greater), which accounted for 77% of total deal value during the quarter. Given the broad decline in public market valuations during 2022, take-private transactions remained a significant source of activity in the U.S. buyout market, accounting for the 10 largest transactions by total value. The most notable of these transactions was Silver Lake and CPPIB's $12.5 billion acquisition of Software-as-a-Service (SaaS) company Qualtrics, and Apollo and Abu Dhabi Investment Authority's $8.1 billion acquisition of commodity and specialty chemicals distributor Univar Solutions.

The average purchase-price multiple for transactions completed in the first quarter was 12.4x EBITDA, according to PitchBook LCD, slightly above the median figure in the first quarter of 2022 (12.3x EBITDA), although the sample size in the current period remains quite low and limits meaningful conclusions on the direction of pricing in 2023. Purchase-price multiples for U.S. buyouts have trended upward over the past decade, but this increase has coincided with an increase in the proportion of transactions in technology (particularly software-related) companies, that generally trade at higher multiples. This trend continued in the first quarter of 2023, during which 46% of transaction value came from software-related buyouts, compared with an annual average of 25% over the past five years.

Against the backdrop of rising interest rates and increased economic uncertainty, traditional lenders remained cautious during the quarter, and sponsors continued to turn to private lenders to fill the void. In addition, many buyout managers have opted to overequitize deals because of increased financing costs and a lack of debt capital. The average equity contribution rate during the first quarter reached 49.9%—higher than any annual period on record. The most notable example of this trend in the first quarter was the aforementioned take-private of Qualtrics, which was financed with just $1.0 billion in debt. Increasing interest from limited partners in co-investments has also supported this structure, providing buyout managers with additional capital to meet equity needs while still managing individual fund exposure and maintaining governance of their investments.

Figure 3. U.S. Buyout Investment Activity
At March 31, 2023



Source: Refinitiv, PitchBook LCD, and Pathway Research.
Notes: Amounts may not foot due to rounding. • EV=Enterprise value.
[a]Average PPM (as a multiple of trailing EBITDA) of all LBOs.

Table 3. U.S. Buyout Investment Statistics
At March 31, 2023

	2007	2022	1Q23
Purchase Price/EBITDA	9.7x	11.9x	12.4x
Equity Contribution %	30.9%	45.8%	49.9%
Debt/EBITDA	6.0x	5.9x	5.9x
EBITDA/Cash Interest	2.1x	2.9x	2.2x

Source: PitchBook LCD.

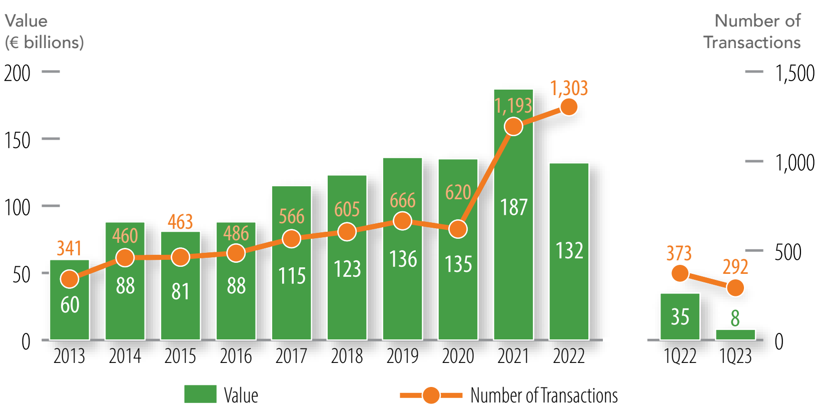
European Buyout Markets

European buyout activity has felt the impact of increased macroeconomic uncertainty, volatile capital markets, heightened inflation, and rapidly rising interest rates—an environment in which potential buyers and sellers are struggling to agree on valuations and debt financing has become increasingly difficult to access. According to data provided by Refinitiv, the aggregate transaction value of announced European buyouts has been on a downward trajectory, falling from a quarterly average of €41.4 billion in the first half of 2022, to a quarterly average of €24.7 billion in the second half of 2022, to just €7.7 billion in the first quarter of 2023. This represents a 78% decrease from same period last year and the lowest level of activity for any quarter since the GFC.

The steep decline in activity was apparent across deal-size ranges. At the upper end of the market, buyout activity has dried up: no transaction with an enterprise value above €500 million was announced during the quarter. This represents the first quarter since the first quarter of 2009 without an upper-mid-market or large-cap deal being announced. Similarly, the lower-mid-market (deals with enterprise values between €100 million and €500 million) also saw a drastic decline in activity compared with prior periods: the aggregate transaction value amounted to just €1.1 billion, a 90% decline from the prior quarter and an 88% decline from the trailing 5-year quarterly average. Only three deals with an enterprise value in excess of €100 million were announced in the first quarter. The largest deal—at an enterprise value of €499 million—was Meltwater, a Dutch provider of online media intelligence, which was acquired by Marlin Equity Partners and Altor Equity Partners in a take-private transaction in January.

The European credit market experienced a small rebound in high-yield issuance in the first quarter of 2023: European primary high-yield issuance totaled €12.6 billion, according to UBS. While this represents a 152% quarter-on-quarter increase and a 17% year-over-year increase, first-quarter activity was still significantly below the 5-year historical quarterly average of €18.4 billion. The quarterly total does not fully reflect the market turmoil caused by the collapse of SVB and the merger of UBS and Credit Suisse that occurred toward the tail-end of the quarter. In the last three weeks of the first quarter, only €1.4 billion in high-yield issuance was completed, whereas the cost of debt experienced a significant, albeit short-lived, spike. The spread on BB-rated euro-denominated bonds began the quarter at around 360 basis points then fell to around 300 basis points in February and early March before ending the quarter at around 350 basis points. Under these circumstances, the use of private debt for buyout financing is expected to continue to grow because it represents an increasingly attractive and more accessible alternative to bank loans and public market debt.

Figure 4. European Buyout Investment Activity
At March 31, 2023



Source: Refinitiv and Pathway Research.

Table 4. Notable European Buyouts Announced in 1Q23
At March 31, 2023

Buyer	Target	Country	Value (MM)
Marlin Equity, Altor	Meltwater	Netherlands	€499
Providence Equity	Hyve Group	UK	€455
FSN Capital	Polytech	Denmark	€135
Twenty20 Capital	Medacs Global Group	UK	€97

Source: Refinitiv.

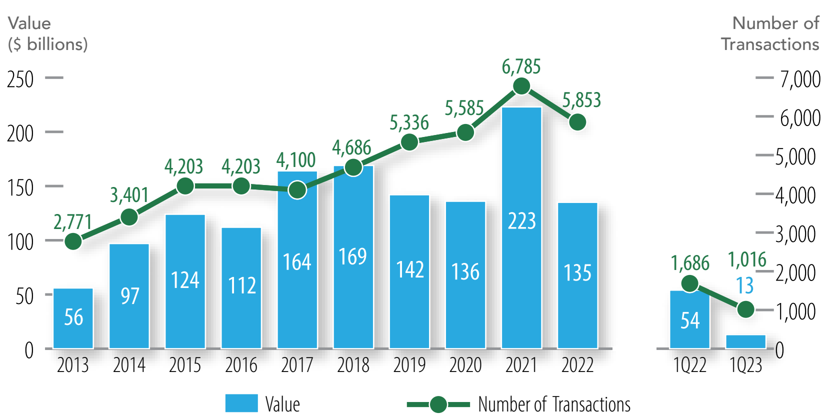
Asia Private Equity

Asian private equity activity continued its downward trend entering 2023. According to *Asia Venture Capital Journal* (*AVCJ*), private equity investment activity in the region totaled $13.5 billion from 1,016 transactions in the first quarter, a decrease in transaction value of 26% quarter over quarter and 75% year over year. Despite hope that the relaxation and subsequent lifting of COVID restrictions would immediately boost investment activity, China, the region's private equity hub, was off to a slow start. Transaction value in China totaled just $3.5 billion during the quarter, the lowest quarterly amount in a decade and just one-sixth of the first-quarter 2022 value. Other Asian countries have also not been spared from the first-quarter slowdown in dealmaking, with the exception of South Korea, which posted a quarter-over-quarter increase of 47% in transaction value. South Korean activity was driven predominantly by the quarter's only large-cap transaction, Osstem Implant, a dental equipment manufacturer take-private led by MBK and Unison. In addition to the decline in deal activity, turbulent market conditions and investors' shrinking appetite for risk have resulted in depressed valuations. The median enterprise value to EBITDA multiple on Asia-Pacific private equity–backed M&A transactions dropped to 12.0x in 2022, the first reversal since 2019, according to S&P Capital IQ.

Fundraising activity declined in most Asian markets in 2022, and China-focused funds, historically the largest and most active market, experienced the sharpest decline. Although the average size of closed funds grew larger, there were notably fewer closings, underscoring limited partners' flight-to-quality mentality as they double down on funds with deeper and more-proven track records. Bucking the trend, private equity funds raised by pan-Asia managers surged during the year as a result of investors seeking to mitigate risks by betting on the ability of general partners to pivot within the region rather than focusing on a specific country.

Following the Public Company Accounting Oversight Board (PCAOB) securing complete access to inspect and investigate Chinese companies listed on U.S. exchanges in December, instances of Chinese companies successfully listing on U.S. exchanges have rebounded. Nine Chinese companies went public on the Nasdaq during the first quarter, highlighted by Hesai Technology, a developer of LiDAR sensors used in autonomous driving applications, at a market capitalization of $2.4 billion. However, despite the U.S. capital markets reopening, U.S.–China tensions persist, and investors and companies remain mindful as they contemplate where and how to operate. China A-share listings once again reported strong activity in the first quarter, during which 67 companies raised $10.4 billion via IPOs. The Chinese government also completed the full rollout of the registration-based IPO system to all domestic stock markets at the beginning of 2023, offering IPO candidates lighter-touch regulations and narrower waiting periods between filing and pricing.

Figure 5. Asia PE Transaction Value & Volume
At March 31, 2023



Source: *AVCJ*.

Table 5. Largest Asia PE Investments in 1Q23
At March 31, 2023

Buyer	Target	Country	Value (MM)
MBK Partners, Unison Capital Korea	Osstem Implant	South Korea	$1,930
General Atlantic	PhonePe	India	$350
Mubadala, 42XFund, BPEA EQT, Sequoia China	JD MRO	China	$300
MBK Partners	Unimat Retirement Community	Japan	$300
Carlyle India Advisors	VLCC Healthcare	India	$275

Source: *AVCJ*.

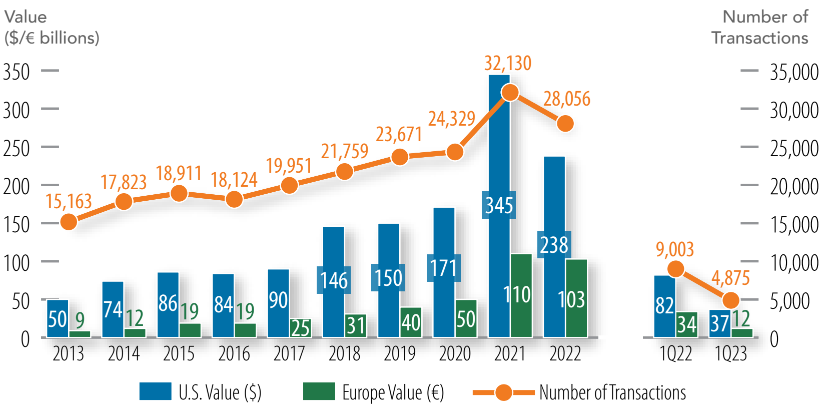
Venture Capital Markets

In the venture capital markets, the first quarter of 2023 was a continuation of the same trends that accelerated during the course of 2022, including declines in investment activity, exits, and fundraising. The quarter was further disrupted by the rapid and unprecedented collapse of SVB in March, a key player in the venture capital ecosystem, which has had and will continue to have wide ranging ramifications for the industry, particularly with venture lending. First-quarter investment activity in the U.S. totaled $37.0 billion, according to data from PitchBook-NVCA Venture Monitor, a 10% decline from the fourth quarter's revised total of $41.1 billion and a 55% decline from the first quarter of 2022. After a record level of deal value in the fourth quarter of 2021, there have been sequential declines in activity each quarter since. The first quarter was host to two massive funding rounds, for OpenAI (led by Microsoft; $10.0 billion raised) and for Stripe (led by a number of existing investors; $6.5 billion raised), which collectively accounted for nearly 45% of U.S. value in the quarter. European activity declined by a more significant 32% in the first quarter relative to the prior quarter and was down more than 65% compared with the first quarter of 2022, which was the quarterly high-water mark for volume in Europe.

Late-stage activity was buoyed by the aforementioned rounds of OpenAI and Stripe, the latter of which was a material down-round valuation of $50.0 billion (from $95.0 billion in the prior round). Nontraditional investors (e.g., corporate VCs, sovereign wealth funds), which typically account for more-meaningful parts of later-stage rounds, have continued to reduce their involvement in venture capital, hitting a 20-year low in participation, according to PitchBook-NVCA Venture Monitor. This is related to several factors, but the lack of activity in the exit markets is an important reason for the continued decline. Other segments of the market are also being impacted, including seed- and early-stage activity. First-quarter angel/seed activity in the U.S. was down 18% compared with the fourth quarter, and U.S. early-stage was down 18%, dipping below $10.0 billion for the first time since the COVID-impacted second quarter of 2020.

As mentioned, exit markets for venture-backed companies continue to show limited signs of life. The $5.8 billion in estimated exit activity in the first quarter was the lowest quarterly level since 2013. Public listings remain inaccessible, with most exits being driven by strategic or financial buyers. One of the biggest impacts related to the fallout from SVB's collapse has been in the venture debt space, where SVB was a significant player. After four consecutive years of U.S. venture debt activity exceeding $30 billion annually, the first quarter of 2023 saw only $3.5 billion of reported funding in the space. It is highly likely that the second quarter will face a similar set of headwinds, both because of the broader venture market and SVB's lack of go-forward involvement in this area.

Figure 6. Venture Capital Transaction Value & Volume
At March 31, 2023



Source: PitchBook-NVCA Venture Monitor Report.

Table 6. Largest Venture Capital Deals in 1Q23
At March 31, 2023

Company	Select Investors	Region	Value (MM)
Open AI	Microsoft	U.S.	$10,000
Stripe	Andreesen Horowitz, General Catalyst, Silver Lake	U.S.	$6,500
Zwift	Kohlberg Kravis Roberts, Permira Holdings	U.S.	$620
Abound (Consumer Finance)	GSR Ventures, Hambro Perks, K3 Ventures	UK	$602
Rippling	Greenoaks Capital Partners	U.S.	$500

Source: PitchBook Data, Inc.

Private Credit Markets

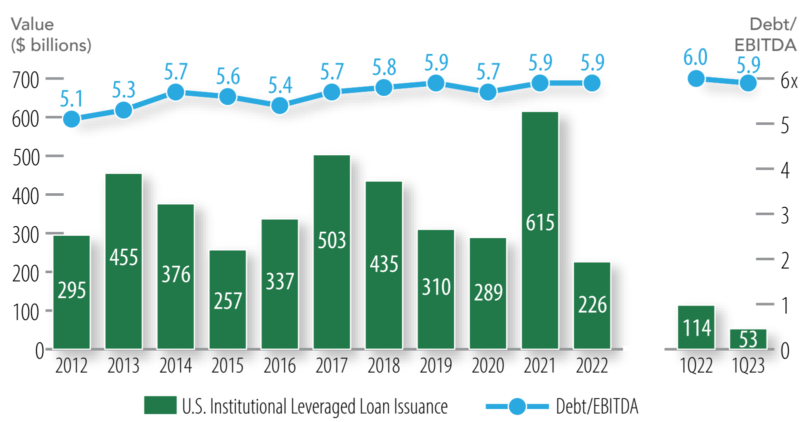
Leveraged credit markets began the new year on an upswing, experiencing firmer secondary market pricing and an uptick in leveraged loan and high-yield bond issuance until the banking crisis in March increased volatility and stalled the market's momentum. U.S. institutional leveraged loan issuance totaled $52.5 billion in the first quarter of 2023, a steep decline from the year-ago period but a significant improvement from the $35.8 billion in issuance in the fourth quarter of 2022, according to data from PitchBook LCD. Much of the quarter's issuance took place in January and February, driven by robust CLO closings and a rebound in average bid prices for leveraged loans in the secondary market. The weighted average bid price for the Morningstar LSTA Leveraged Loan index increased from 92.4% at the end of 2022 to 94.2% at the end of February before subsequently giving up much of those gains in March. Refinancings accounted for much of the quarter's institutional loan volume (70%); loans for M&A accounted for just 20%. The $9.8 billion in loans raised for M&A activity, of which approximately half was private equity–backed M&A activity, was the lowest quarterly total since the first quarter of 2010. With syndicated debt markets still constrained, private equity firms continued to turn to the direct lending markets for their financing needs. One notable example was the reported $5.0 billion unitranche loan committed by a club of direct lenders to finance Carlyle's potential investment in Cotiviti. Although the investment ultimately fell through, the size of the potential facility highlighted the capacity of the direct lending market to underwrite large-scale financings. Overall, market dynamics remain favorable for direct lending investors: new senior loan facilities are featuring yields at or near all-time highs, more-conservative structures, and more lender-friendly documentation.

Indicators of distress in the leveraged credit markets remain at low levels but have increased in recent quarters. The trailing 12-month high-yield default rate at the end of March was 1.8% (par value–weighted), up from 1.3% at the end of 2022 but below historical averages and the peak default rates reached in prior cycles, according to Fitch Ratings. There were seven high-yield defaults totaling $11.1 billion in par value in the first quarter compared with $19.1 billion in all of 2022. Notable high-yield defaults during the quarter include retailer Party City, telecom company Avaya, and SVB Financial Group, the parent company of failed lender SVB. Similarly, the leveraged loan default rate was 1.3% at the end of March, up from 0.7% at year-end 2022, according to PitchBook LCD. Notably, the leveraged loan distress ratio, which measures the percentage of performing loans trading below 80 cents on the dollar, declined slightly from 7.4% at the end of 2022 to 6.3% at the end of the first quarter. Despite financial market volatility and significant uncertainty in the macroeconomic outlook, there has not been widespread distress in the non-investment-grade debt markets, highlighting the health and resilience of most companies across the economy. Still, the major credit ratings agencies anticipate an increase in defaults in the second half of 2023 as a result of rising financing costs and economic headwinds impacting a broader swath of sectors.

Figure 7. High-Yield Bond Spreads over U.S. Treasuries
At March 31, 2023

Source: BofA Merrill Lynch.

Figure 8. U.S. Institutional Leveraged Loan Issuance
At March 31, 2023



Source: PitchBook LCD.

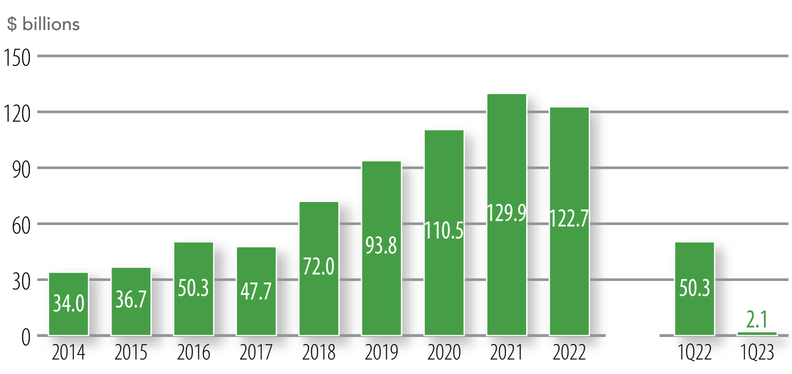
Private Infrastructure Market

Following a strong fundraising environment during the prior two years, global infrastructure fundraising slowed in the first quarter, during which only six funds raised a combined $2.1 billion—a decrease of 44% from the prior quarter. Activity was driven primarily by NextPower UK ESG Fund ($729 million) and Eurazeo Transition Infrastructure Fund ($447 million), which cumulatively accounted for 56% of the quarter's total. Despite the nominal level of fundraising in the first quarter, several large infrastructure funds are expected to reenter the market throughout 2023, which should lead to another strong year of fundraising.

Global infrastructure investment value totaled $8.4 billion during the first quarter, which represented decreases in investment value of 81% and 52% when compared with the first quarters of 2022 and 2021, respectively. Notable deals in the first quarter included Brookfield's $3.5 billion investment in FirstEnergy, a U.S. operator of regulated distribution utility companies, and KKR's investment in Altavair, a U.S.-based provider of aircraft acquisition and leasing services. As managers continue to ride out continued market volatility, there is hope that recent legislative tailwinds, such as the Infrastructure Investment and Jobs Act ("IIJA") and Inflation Reduction Act ("IRA"), will spur increased infrastructure deal activity.

As factors such as rising interest rates and geopolitical instability continue to affect global financial markets in 2023, infrastructure managers in the U.S. are utilizing legislative tailwinds to drive deal flow. Passed in November 2021, the IIJA includes more than a trillion dollars to be used to fund traditional transport infrastructure, broadband, and other infrastructure investment. Most recently signed into law in August of 2022, the IRA contains $369 billion in funding for government-sponsored programs, a significant portion of which having direct and indirect impacts for infrastructure investment, particularly relating to energy. One of the key themes of the bill is sustainability. For example, the bill includes $6.5 billion allocated to new carbon-management funding. Managers such as EnCap FlatRock Midstream have begun exploring opportunities within this space through their investment in Elysian Carbon Management, which focuses on carbon-capture technology. The IRA's $119 billion allocation toward electric vehicle adoption has led opportunistic managers to explore EV charging infrastructure. Backed by LS Power, EvGo, a publicly traded provider of fast-charging networks, experienced year-over-year revenue growth of 280% and has partnered with the Biden administration to assist in its plan to roll out half a million chargers by 2030. These infrastructure managers are utilizing legislative tailwinds as a potential catalyst for deal flow amid market instabilities that have continued into 2023.

Figure 9. Global Private Infrastructure Capital Raised
At March 31, 2023



Source: PitchBook Data, Inc.

Table 7. Notable Infrastructure Deals in 1Q23
At March 31, 2023

Asset/Company	Acquirer	Industry	Region	Deal Size (MM)
FirstEnergy	Brookfield Asset Management	Utilities	U.S.	$3,500
Altavair	KKR	Transportation	U.S.	$1,150
Telenor Fiber	Ischyros New York, KKR, Oslo Pensjonsforsikring	Telecom	Europe	$1,079
Xpansiv	Blackstone, Goldman Sachs	Energy-Related	U.S.	$525
IPC (380MW Photovoltaic Project)	EOS Investment Management Group	Renewables	Europe	$427

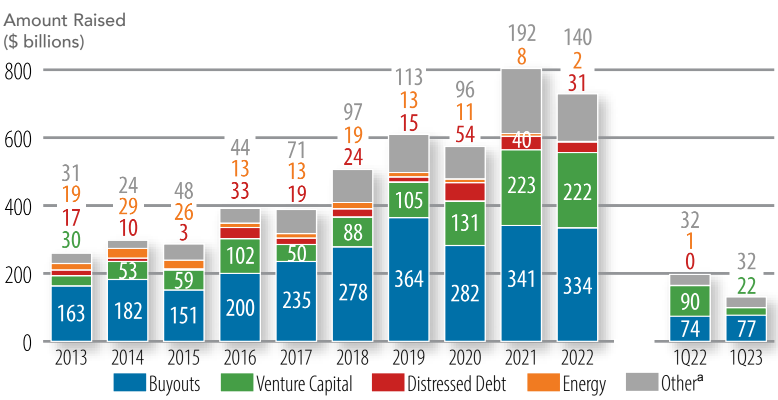
Source: PitchBook Data, Inc.

Fundraising Market

Private equity fundraising remained resilient throughout much of 2022 but has steadily declined, falling for the fifth-consecutive quarter in the first quarter of 2023. Worldwide private equity fundraising totaled $131 billion in the first quarter, a decrease of 13% from the prior quarter and of 34% from the first quarter of 2022, as well as the lowest quarterly amount since the second quarter of 2020, according to data from Refinitiv and Pathway Research. The denominator effect continues to leave many limited partners overexposed to private equity, although the rebound in public equity performance during the first quarter helped alleviate that pressure to some degree. Nonetheless, many limited partners have reduced their investment targets for 2023 in response to broader uncertainty about the macroeconomic environment and the potential for further volatility. In addition, a decline in distributions in recent quarters has further impacted capital availability. This has created a highly competitive fundraising environment, extending the average duration of fundraisings and posing challenges for private equity firms looking to expand their limited partner base significantly.

Venture capital fundraising slowed meaningfully during the first quarter following a record pace during the two prior years, driven by a declining pace of investment and market instability following the collapse of SVB. First-quarter activity totaled just $22.1 billion, a decline of 76% year over year and the lowest quarterly amount since the third quarter of 2018. Buyout fundraising totaled $76.7 billion, or 59% of the global total. Although this was an 11% decrease from the prior quarter, it was the highest first-quarter figure since 2008 and therefore still represented an active quarter on a seasonally adjusted basis. Activity was driven by Permira VIII, which held its final close at $17.5 billion in commitments, and CD&R XII, which raised $13.6 billion. Fundraising for special situation funds also held up well, totaling $32.0 billion in the first quarter, roughly in line with the total raised during the same quarter last year. Notable special situation funds were Warburg Pincus Global Growth 14 ($15.4 billion), General Atlantic Partners 100 ($1.5 billion), and Summit Partners Europe Growth Equity Fund IV ($1.5 billion). The fundraising environment throughout the remainder of 2023 is expected to remain dynamic. Many private equity firms and placement agents have cited expectations for a challenging year for new fundraisings, particularly for newer or less proven firms. On the other hand, many record-sized funds have shown good traction in the current market, which is likely to keep fundraising value healthy in the coming quarters.

Figure 10. Global Fundraising by Strategy
At March 31, 2023



Source: Refinitiv and Pathway Research.

Notes: Fundraising amounts are based on net amounts raised, which are adjusted for fund-size reductions. • Data is continuously updated and is therefore subject to change. • Amounts may not foot due to rounding. • [a]Comprises special situations and other fund strategies not classified as buyout-, venture capital–, credit-, or energy-focused.

Table 8. Notable Funds Raised in 1Q23
At March 31, 2023

Fund	Strategy	Region	Amount (MM)
Permira VIII	Buyouts	UK	$17,527
Warburg Pincus Global Growth 14	Special Situations	U.S.	$15,400
CD&R Fund XII	Buyouts	U.S.	$13,640
Arcline Capital Partners III	Buyouts	U.S.	$4,500
Parthenon Investors VII	Buyouts	U.S.	$4,500

Source: Refinitiv and Pathway Research.

About Pathway Capital Management, LP

Founded in 1991, Pathway provides private market portfolio solutions for institutional investors worldwide. Pathway manages capital on behalf of some of the largest corporate and public pension plans, government entities, and financial institutions around the globe. Since its formation, the firm has committed more than $100 billion to more than 1,000 private market investments.

Pathway is registered as an investment adviser with the SEC in the United States and as a portfolio manager and exempt market dealer in Ontario, Quebec, and Saskatchewan, Canada. Pathway's wholly owned UK subsidiary is regulated in the UK by the Financial Conduct Authority. Pathway's wholly owned Hong Kong subsidiary is regulated in Hong Kong by the Securities and Futures Commission.

CALIFORNIA
Pathway Capital Management, LP
18575 Jamboree Road, 7th Floor
Irvine, CA 92612
Tel: 949-622-1000

PROVIDENCE
Pathway Capital Management, LP
500 Exchange St.
Suite 1100, 11th Floor
Providence, RI 02903
Tel: 401-589-3400

LONDON
Pathway Capital Management (UK) Limited
14 Upper St. Martin's Lane, 3rd Floor
London WC2H 9FB
Tel: +44 (0) 20 7438 9700

HONG KONG
Pathway Capital Management (HK) Limited
Suite 1602–1603, Three Exchange Square,
8 Connaught Place, Central, Hong Kong
Tel: +852-3107-8710

www.pathwaycapital.com

PATHWAY®
CAPITAL MANAGEMENT