Quarterly Perspectives

Q1 2023

Looking back at the first quarter of 2023, an interesting exercise is to look at the news that hit the front pages and ask the questions: 'Will I still care about these events in a year, five years, ten years? Will any of these events impact my investments over my time horizon and do they need to be factored into in my decision making?'. The point is that most of what we read is noise as opposed to information. In *Fooled by Randomness* Nassim Nicholas Taleb goes as far as saying that 'minimal exposure to the media should be the guiding principle for someone involved in decision making under uncertainty – including all participants in financial markets'.

So what are the key events of 2023 that will most affect our future as investors: the tremors in the banking sector exemplified by the collapse of Silicon Valley Bank and the rescue of Credit Suisse, or the breakthrough in artificial intelligence technology exemplified by the launch of ChatGPT? In the near term the banking woes may restrict credit and impact the economy – the same is true for news on persistent inflation and the continued rise in interest rates. However, as in other cycles, these will likely pass and there will be a way forward. On the other hand, the progress of AI in areas such as natural language processing, computer vision, robotics and machine learning will have a long-lasting and incremental impact in improving efficiency and accuracy in many industries, including our own. AI is therefore something that we need to include in our due diligence going forward when, for instance, assessing the enduring competitive strength of an industry incumbent.

As an investment business, the lesson from the above is that we need to be vigilant and attentive yet not to the point of being distracted from the ultimate prize. This points back to having the right culture, capital structure and vision to get through the never-ending ups and downs of the financial markets and of investor sentiment.

To bolster our capabilities, we are delighted to welcome Lee Georgs to the team. Lee joins us as Chief Operating Officer from investment consultancy Redington where she was also COO.

As ever, we express our deepest gratitude to our clients for your confidence and loyalty, and to our partners, colleagues and friends for your thoughtful contribution and unwavering commitment.

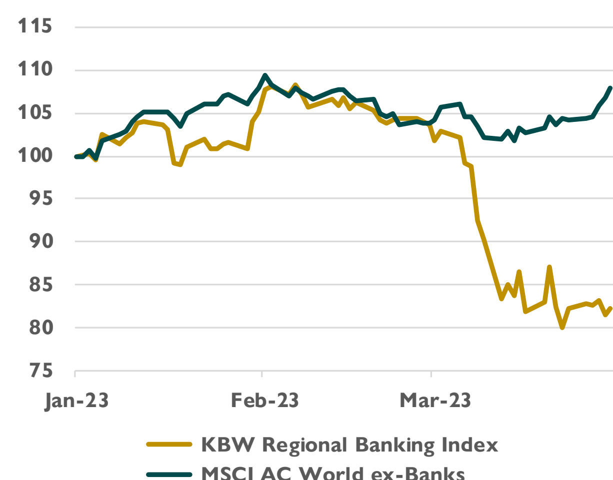
Julien Sevaux
Tarek AbuZayyad
14 April 2023

CIO Review

What banking crisis?

One of the most striking things about the mini-banking crisis of March was how little market contagion leached into other sectors. While the KBW Regional Banking Index fell by 18% during the first quarter (and many of its constituents fell much further), the MSCI AC World ex-Banks Index rose by 8%:

Figure 1: Broader markets shrugged off regional banking sector issues during Q1

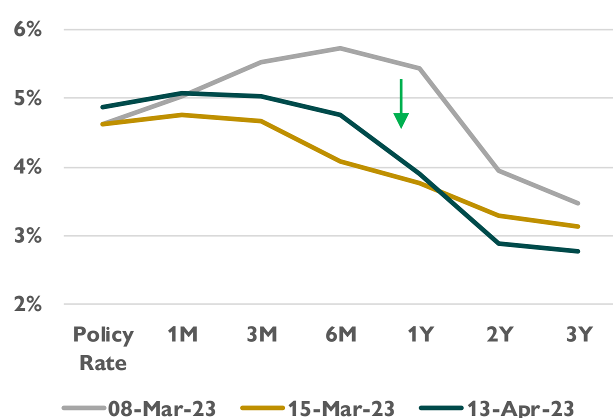


Source: Bloomberg, April 2023

Investors seemed much more focused on the bigger picture of the huge shifts in rate expectations that occurred over the last five weeks. Hiking fears reached their peak on 8 March, just after Fed Chair Jerome Powell

delivered a hawkish testimony to Congress in which he highlighted an 'extremely tight' labour market and higher than expected inflationary pressures, stating firmly that 'we have more work to do'. Just five business days later the turmoil in the banking system had caused peak rates expectations to fall from 5.75% in six months' time to 4.75% in one month's time; both six and twelve month forward rate expectations fell by some 1.7ppt as markets priced in rate *cuts* beginning in the second quarter of the year. Since then, short rates have increased again on resolution of the banking sector woes (on which more below), while longer-term expectations have fallen even further as the growth outlook has clouded.

Figure 2: Sharp moves in rate expectations around the failure of Silicon Valley Bank



Source: Bloomberg, April 2023

The result of this downward shift in rate expectations is that quality and growth stocks (with their longer-duration cash flows) have outperformed, rising 11% and 13% respectively for the year to date compared with broad global equities up 7%. Global investment grade credit has returned 4% as rates compression offset a small widening in spreads, while the global high yield credit index is very slightly behind with its lower duration and greater sensitivity to spreads.

Positive market movements meant that private equity marks for Q4 2022 were broadly flat to positive for buyout managers, which ended 2022 down 5% as a group, led by mega cap managers (-9%) which are considered to be more sensitive to capital markets activity and whose owned businesses generally have a greater range of listed comps. Venture capital was more challenged, with a lot of catching up to do to the extreme movements in listed technology peers. Both early and later stage manager universes were marked down by some 20% in 2022, with between one third and one quarter of that move coming in Q4 (all data from Preqin). These averages needless to say hide a great deal of variation between managers but they do give an idea of the direction of travel.

While we do not recommend evaluating performance over such short periods of time, liquid portfolios were generally strong in the first quarter, with high quality, growth businesses being marked up from low levels as tightening pressures eased. For non-USD portfolios our currency hedging programmes have contributed positively with the Euro and GBP up by 3.3% and 3.9% respectively YTD. We believe that many of our peers are structurally underexposed to their base currencies in non-USD portfolios, which stood them in good stead during the dollar bull run of 2021-22 but which increases the risk of failing to achieve their mandated objectives in base currency terms over the long term.

Within Growth assets, our liquid equity composite returned 8.2%, outperforming the global equity index (+7.3%), driven by the strong performance of our global equity managers (+10.2%). Within Diversified Return holdings, equity long/short managers were up 4.0% (capturing 54% of the equity market upside) while our credit and other hedge funds generated a small positive return of 1.1% in aggregate. In Defensive Assets, short-dated investment grade bonds (+0.8%) and gold (+8.0%) made further positive contributions. In general, our liquid Growth portfolios have returned mid to high single digits through the quarter.

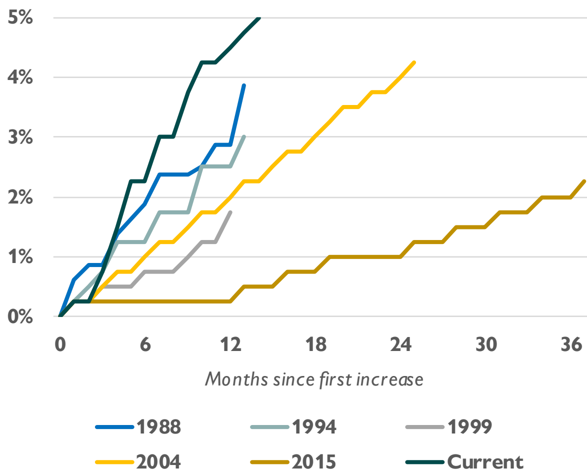
We did not make major portfolio changes in Q1 but did take advantage of the recovery in risk assets to rebalance portfolio exposures incrementally back down where these had risen towards the upper end of their target ranges (mainly as the result of capital calls into private investments). We have a number of new public and private managers in the pipeline and look forward to providing updates on these in the coming months.

Move fast and break things

Mark Zuckerberg famously enjoined early Facebook employees to 'move fast and break things' and it certainly feels as if central banks have taken his words to heart. Interest rates have been raised at their fastest pace since Paul Volcker's final push in 1980 (when the Fed Funds Rate increased by 8.5ppt over the course of just four months) and the damage has been severe, if so far contained. In the US, three technology and/or crypto related banks failed in quick succession, most notably Silicon Valley Bank (SVB) on Friday 10th March – with $212 billion of assets, the sixteenth-largest US bank, and

the second-largest US bank failure ever behind Washington Mutual during the Global Financial Crisis of 2008. In Europe, investors turned the spotlight on Credit Suisse, ultimately resulting in its forced merger with rival UBS following a litany of missteps in recent years.

Figure 3: Fastest pace of rate hikes since 1980



Source: Bloomberg, April 2023

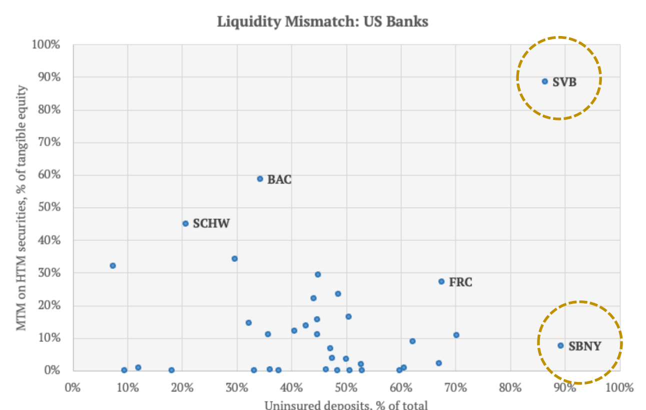
The source of SVB's failure was not risky lending along the lines of the 2008 Global Financial Crisis. On the contrary, the assets in which SVB had invested could hardly have appeared much safer – primarily Treasury bonds and agency mortgage-backed securities underwritten by the implicit guarantee of the US government. More than half of its $74 billion loan book consisted of capital call lines to drawdown-style private funds, which are considered very low risk; less than 0.2% of the loan book was non-performing, and this was covered four times by provisions. Instead, the Santa Clara-based bank's troubles had two very specific causes.

The first was the unusual nature of its clients. **SVB's deposit base was highly concentrated among the venture capital community and venture-backed technology companies**. This resulted in a surge of deposits during the tech boom of 2020-21, which more than tripled over just two years from $62 billion at the end of 2019 to $189 billion by the end of 2021. It also meant that as tech funding slowed during 2022 and rising interest rates presented more attractive sources of low-risk return, SVB was uniquely vulnerable to a bank run: some 90% of its deposits were above $250,000 (an average balance size of $4.2 million; the top 10 depositors had $13 billion with the bank!) and therefore technically uninsured by the government, while its homogenous and highly connected customer base rushed for the electronic exits with unprecedented speed, pulling $42 billion of deposits from the bank in one day alone.

The second cause was a **failure of interest rate risk management** whereby the bank had taken this surge in deposits and invested them in longer-dated securities in order to generate a small additional return on its capital. The bank's 'hold to maturity' securities portfolio of $91 billion at end-2022 had interest rate duration (a measure of sensitivity to moves in interest rates) of over six years; as rates rose, this led to a fall in the market value of those assets in the region of $15 billion, or just $1 billion more than the bank's entire shareholders' equity. While such assets do not need to be marked to market under normal circumstances, the gradual draining of SVB's deposits and the threat of a double downgrade from ratings agency Moody's forced the bank to sell some securities at a loss, which drew attention to the bank's balance sheet and caused further deposit flight, accelerating the doom loop which played out in a matter of several fraught days.

The chart below, from former Lansdowne Partners portfolio manager and now Bloomberg columnist Marc Rubinstein, shows the outlier nature of SVB on these two factors (and also Signature Bank – SBNY – on the first factor, with its large crypto-dominated depositor base) quite clearly. Of the 40 or so banks with over $100 billion of assets, nobody else came close.

Figure 4: Leading US banks: SVB and Signature Bank were clearly outliers



Source: Marc Rubinstein, March 2023

Note: Includes US banks with over $100 billion in assets

The situation at Credit Suisse was very different and developed on the back of **many years of strategic and cultural problems**. The bank's share price had begun to wilt in early 2021, driven by multi-billion dollar losses associated with the insolvency of supply chain lender Greensill and Bill Hwang's fraudulent family office, Archegos Capital Management. January 2022 brought the

resignation of chairman Antonio Horta-Osorio for a breach of COVID rules. In June, the bank was found guilty of involvement in money laundering related to a Bulgarian drugs ring. New CEO Ulrich Koerner's strategic review was unveiled to a lukewarm response in July 2022 while subsequent speculation that the bank might need to raise capital led to massive deposit flight – $120 billion in Q4 alone, or some 35% of the bank's prior year end deposit base. Saudi National Bank had supported the bank to the tune of $1.5 billion in November but two words from the chairman Ammar Al Khudairy when asked whether SNB could provide further support – 'absolutely not' – were enough to seal the bank's fate.

Each of these banks failed for highly idiosyncratic reasons which set them aside from their peers by virtue of customer concentration, duration risk or management and cultural shortcomings. However, they do share a **common catalyst in rising interest rates, which exposed the specific vulnerabilities of each institution**. They also illustrate the risks to the banking sector more broadly from not only a higher cost of capital but also failures of regulatory oversight (especially in the US cases) and in particular the much faster speed of banking today. Washington Mutual lost $17 billion of deposits in the fortnight before it was shuttered in what was then the largest ever US bank failure; SVB lost more than twice that amount in one day.

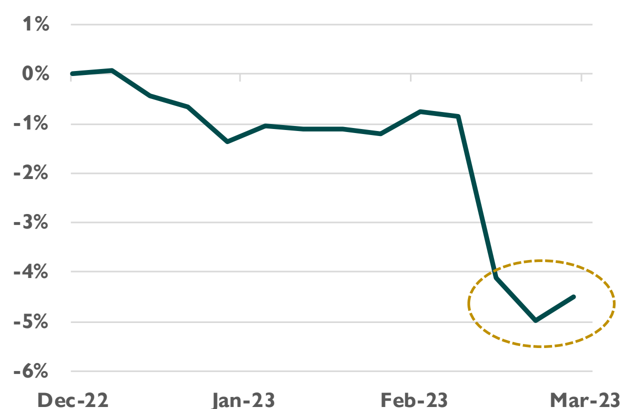
Being a bank director is like being a pilot of an aircraft – it's years of boredom and seconds of terror.[1]

A situation such as we saw in March creates a high degree of uncertainty and volatility, particularly given the banking sector's essential role in credit creation and broader economic growth. While potentially negative for aggregate growth in the coming several years, a re-run of the 2008 Global Financial Crisis is a low-probability outcome from here. **US and European banks are in a much stronger position**, with considerably lower leverage: average Tier 1 equity ratios are in the region of 14-16%, compared with 8% or below in the run-up to 2008. Lending standards have improved, and the majority of large banks have managed their rates duration sensibly, as shown in Figure 4 above. There is no epidemic of toxic subprime mortgage exposure hidden on the balance sheets of badly capitalised banks. There are (as yet) very few signs of stress in US and European bank loan books, while balance sheets are the most fully provisioned relative to their non-current loans for 25 years.

The **consumer is also in much healthier shape**; US household debt to disposable income has fallen back to its level of the early 2000s, and sits at a similar level in the Eurozone, where the weaker peripheral countries have also seen substantial deleveraging. US mortgage debt service payments remain near 50+ year lows as a proportion of household disposable income, even after the rise in interest rates.

Above all, the **regulatory response has been swift and effective**. The implicit guarantee of large depositors has halted the pace of deposit flight from smaller US banks, which actually received net inflows in the final week of March.

Figure 5: Policy response has stemmed deposit flight from smaller US banks



Source: Bloomberg, April 2023
Note: Includes US banks except for the largest 25 by assets

Meanwhile, massive liquidity support and depositor-friendly resolutions by the Federal Reserve and Swiss National Bank (SNB) have provided a high degree of confidence to depositors that banks will be able to meet withdrawal requirements. These actions have been bad news for equity holders (and, controversially, Credit Suisse's Additional Tier 1 Capital holders) but are good news for depositors and the stability of the financial system as a whole.

The major consequence in the near term is likely to be a slowing of lending as smaller banks retrench, focus on liquidity and manage to a higher cost of capital (especially in the hybrid / contingent convertible area). The potential impact is hard to quantify but could be material given that US banks with assets of less than $250 billion (which

[1] Unnamed bank director quoted by Moira Johnston in *Roller Coaster: The Bank of America and the Future of American Banking*, 1990

excludes the largest fourteen) account for almost 40% of US lending. This certainly provides a further risk to the growth outlook. That said, a degree of credit tightening simply feeds into broader policy efforts to tame stubbornly high inflationary pressures, and **central banks are explicitly monitoring conditions closely as they calibrate their own tightening paths**. Moreover, this cohort of 'smaller' banks includes a number of large, liquid and very well capitalised institutions and so the proportion of lending capacity which is at risk is probably far overstated by the 40% figure above. The Federal Reserve and analysts at Barclays estimate that tighter lending standards resulting from the banking sector issues could reduce GDP growth by some 0.25%, but there is clearly a range of uncertainty around this number.

Longer term there will almost certainly be an increase in regulatory oversight for smaller banking institutions. The benefits to financial stability may well outweigh the costs in foregone growth, but this is a long-term story and will be highly dependent on the nature and pace of regulatory developments.

There is also a high likelihood of further consolidation outside the largest US banks. There are currently an astonishing 4,200+ FDIC-insured commercial banks in the US (including more than 350 in the state of Texas alone). That number has already approximately halved from 8,300 at the turn of the millennium. Well executed, this process should be able to retain the benefits of local networks and expertise while anchoring these to larger, more stable balance sheets – as is the likely outcome with SVB following its takeover by white knight First Citizens Bank. This process will be gradual and is unlikely to be without incident, but 'net net' over the longer term it should be a positive development for the sector and for economic growth more broadly.

In the meantime, the reverberations from SVB and the pressure of higher rates together make it quite likely that, in Jamie Dimon's words last week: 'the current crisis is not yet over, and even when it is behind us, there will be repercussions from it for years to come'. Indeed, it would be no surprise to see more smaller banks disappear in the coming years, noting that there have been 565 bank failures in the US since the turn of the millennium alone. Even the venerable First Republic Bank (which ranks around 20th in the US by assets) may not be viable on a standalone basis, despite the $30 billion of deposit support from JPMorgan, Wells Fargo, Citigroup et al. in late March. While this may be unfair given the bank's stellar loan quality over 20+ years, the perception of risk from similarities to SVB in terms of size and deposit base together with the (unrealised) mark-to-market impact on its loan book were enough to shake investor and customer confidence – which quickly becomes self-fulfilling. Overall, however, we expect that the situation will become more granular and investors more discerning, for example around banks with more concentrated deposit bases, and/or with exposure to specific areas such as technology or commercial real estate. This **is more likely to result in isolated challenges over time than the generalised, sector-wide panic we saw in March**.

One area we are monitoring closely is commercial real estate (CRE) lending. Mid-sized banks (assets of $10-250 billion) make up the bulk of CRE lending – accounting for some $1.25 trillion at the end of 2022 – an area which is challenged by 30-year high vacancy rates and unpredictable future working patterns. There is a risk that falling valuations and tighter lending standards create an adverse feedback loop for the sector and the banks which lend to it. For now, several factors give reassurance. First, CRE borrowing is well below prior peaks as a share of the economy: some 0.8% of GDP today compared with almost 2.5% pre-2008. Second, underwriting standards in the sector appear to have improved; for example, Commercial Mortgage Backed Securities (CMBS) average loan-to-value ratios have fallen from 70% to 54% since 2007, and the proportion of loans with loan-to-value greater than 70% has fallen from over half to almost zero. Third, the maturity profile of CRE loans held by the small and mid-sized banks is relatively forgiving, with the majority of loans maturing between 2025-27 (albeit some $130 billion across 2023/4). JP Morgan carried out a stress test which assumed 21% delinquency rate for office and 15% for retail, with losses incurred over three to five years and a 60% recovery rate for both. This resulted in at worst a 0.3-0.4% reduction in Tier 1 capital for some smaller regional banks. The **risks to regional lenders at sector level do not currently appear to be existential**; but that does not mean that individual failures or periodic scares are unlikely.

The hardest thing to explain is the glaringly evident which everybody had decided not to see. (Ayn Rand)

This episode has reminded investors of the riskiness and leverage inherent to the banking model – well characterised by commentator Matthew Klein as 'speculative investment funds grafted on top of critical infrastructure'. There is, interestingly, **little evidence**

that investors are rewarded for taking these additional risks. Analysis by Robert Armstrong in the FT shows that in the long bull market from 2002-21, banks were the worst performing of the 24 major industry groups in the S&P 500, with annualised returns of just 6% (less than half the broad market). Even from the depths of the global financial crisis, banks performed only marginally ahead of the market, despite the pain their shareholders had just endured. In the end, he concludes, 'it's the same story again: buy a bank, take a host of unique risks and receive average-at-best performance in return' (FT, 23 March).

Banks very rarely pass the quality threshold for us or our managers. They are too leveraged, vulnerable to macro risks, subject to runs (especially with the new wildfire 'social media risk') and constantly challenged by technological change; meanwhile much of the value that would otherwise accrue to shareholders is snaffled by bankers' pay and stock options. Coming into March, we had a moderate exposure to First Citizens Bank through one of our global equity managers (which was actually up 33% over the month on the favourable acquisition of SVB's loan book and deposits), and held within one of our equity long/short funds a small long position in First Republic which was more than offset by short positions in SVB and the regional banking index. Our short-dated investment grade bond manager also held 2% of his portfolio in Credit Suisse AT1 bonds. For almost all clients, net exposure to these troubled areas of the banking sector was less than 0.5% of their overall portfolio – and actually generated flat to positive returns in aggregate over the first quarter, despite the crisis. We expect exposure to the banking sector to remain small within portfolios, and within that to be focused on the highest quality institutions.

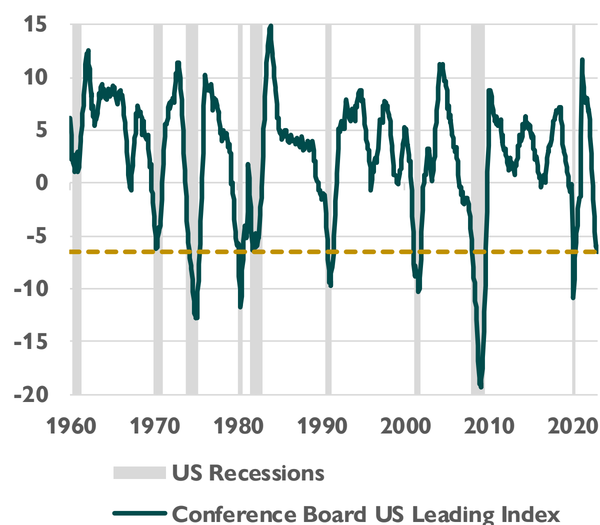
Looking ahead

With depositors feeling more secure and market participants having subjected the banking system to a rigorous private sector stress testing exercise**, the 'panic phase' of the banking turmoil seems to be behind us**. Investors should not underestimate the potential for further negative surprises from this direction, but the likelihood that these become systemic is receding.

From a macro perspective, growth in the US and European economies is still moderating, albeit with near term indicators steadying at c. 2-3% annualised real GDP growth in the US and lower but still positive levels in the Eurozone. While manufacturing business surveys indicate a worsening of conditions, services businesses – which account for four time and three times larger shares of those economies respectively – are signalling improvement, substantially so in Europe. **Meanwhile many, even if not all, inflationary pressures have abated**; global shipping rates for example are back to their Q2 2020 levels, almost 90% off their late 2021 peak. Industrial metals and agricultural commodity prices have continued to slide year to date. Long-term inflation expectations remain well anchored at around 2.5–3%. In this environment, producers and retailers will not be able opportunistically to raise prices (sometimes referred to as 'greedflation') indefinitely.

Substantial risks remain around the economic backdrop. While a deep recession feels like an unlikely downside case given the household and bank deleveraging that has occurred since 2008, leading indicators suggest that a recession of some sort is probable:

Figure 6: US Composite Leading Indicator in recessionary territory



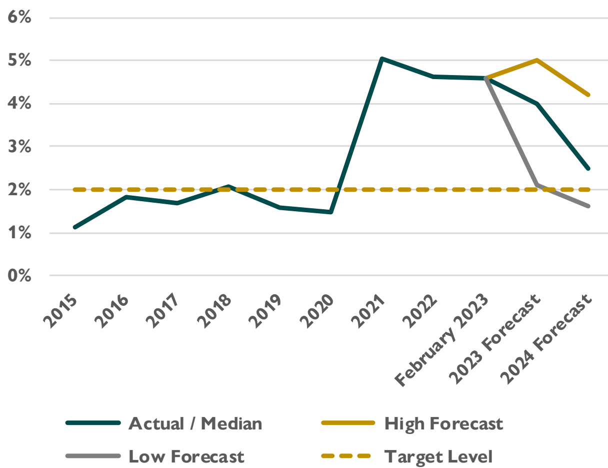
Source: Bloomberg, April 2023

The lagged impact of very fast rate rises plus the unknown tightening impact of the banking mini-crisis introduce a higher than usual degree of uncertainty into the backdrop. We are in uncharted waters given the extraordinary nature of COVID and the policy responses to it, which have carved a supertanker-sized wake behind them. Geopolitical risks also remain elevated, with the war in Ukraine dragging on and few signs of rapprochement between China and the West.

This highly unusual backdrop has resulted in an **extraordinarily wide range of potential outcomes**

– well illustrated by the sheer range of economists' predictions for growth and inflation in the coming years. The median forecast for Core PCE (the Fed's preferred measure of inflation) has inflation returning to just above its 2% target next year – but with a range of 3ppt around the median for 2023, such that the highest forecast is more than double the lowest:

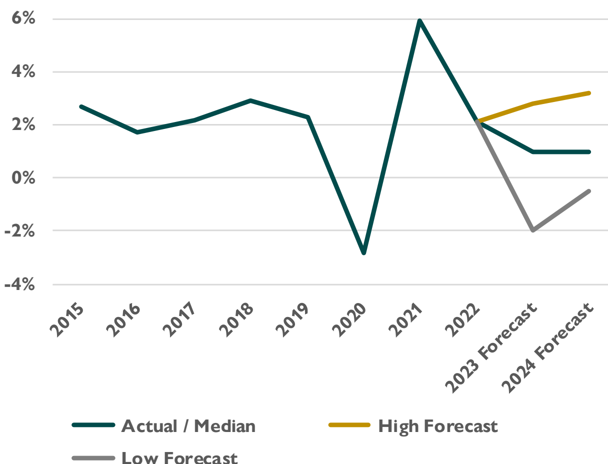
Figure 7: Core inflation forecasts for 2023 range between 2% and 5%



Source: Bloomberg, April 2023 (Survey of 52 economists)

The range of projections around GDP growth is even greater, with a 5ppt range around the median for 2023:

Figure 8: GDP Growth forecasts for 2023 range between -2% and +3%



Source: Bloomberg, April 2023 (Survey of 76 economists)

Needless to say, outcomes at each end of these projections would lead to very different market environments in the remaining part of this year and beyond.

This unusual backdrop also means that it is unwise to be too negative. Determining what the market has or has not 'priced in' is subjective at best – but sticky inflation or a mild recession certainly feel likely to fall within the bounds of expectation, given the amount of discussion and commentary around these areas. Risk asset performance over the long term will be determined by a multitude of other factors – most compellingly, **the 'micro' fundamentals of each company, business model and management team** – and there is as always no guarantee that negative news will provide opportunities to enter assets (generally or specifically) at materially lower levels.

Furthermore, confident macro predictions can easily turn out to be incorrect: one of our core global equity managers recalls in his latest quarterly letter the almost universal expectation among economists for recession across the Western world by the end of 2022, a terrible energy-driven downturn in Germany, and a sharp fall in corporate earnings in 2023; while in fact the US unemployment rate has hit its lowest level since 1969, Germany has avoided recession, and both global and US earnings per share are forecast to grow by some 2% in 2023. (As an aside, his portfolio is forecast to grow earnings per share by 14.4% in 2023; he considers that valuations across his holdings are more attractive than they have been for several years, while the quality of these holdings is 'as high as it has ever been'.)

What we can say is that this **elevated uncertainty has resulted in a lot of froth leaving markets**. Despite the recent pick-up from very low levels, the Galaxy Crypto Index and the ARK Innovation ETF remain 65% and 75% below their peaks, respectively. Moreover, investor sentiment, whether measured by surveys of retail or professional investors, or gauged from investor positioning in futures and options, remains subdued – in many cases close to or below COVID lows. According to data from Michael Cembalest of JP Morgan, money market fund balances have reached a new all-time high of $5.6 trillion, of which $348 billion has flowed in since the SVB failure. This represents substantial dry powder for reinvestment in risk assets in due course.

This backdrop has created an environment in which risk assets, while not extremely attractive (a situation ever wished for but generally not welcomed given the attendant and requisite degree of fear), are nonetheless **far from expensive – both at index level and among the high quality assets which we prefer to own**. Global equities are valued at 17x P/E, below their

25 year average of 20x; the S&P 500 of US equities is trading just below 20x P/E, also in line with its 25 year average and with EBITDA margins having pulled back to less than half a percent above their 25 year average. Comments from our equity managers suggest that they are finding very high quality businesses at sensible valuations with expected total returns well into double digits. Higher rates for longer (especially if central banks turn out to 'pivot' too early, resulting in a more prolonged tightening cycle) may well compress margins and valuations in the years ahead, especially for lower quality, less resilient businesses. However, the best long-term returns for a given level of risk are still likely to be concentrated in equity risk, in both public and private markets.

Manager research efforts in marketable assets continue to be focused on **areas which higher rates have made more attractive or which require less market directionality in order to perform well**. These include a credit long/short manager with strong institutional backing; a global mid-cap activist strategy which span out of one of the leading global large cap activist managers; and a global equity long/short manager with low net equity exposure and a focus on less crowded sectors such as transportation, industrials, real estate and (until recently) energy, which has annualised at ~10% over almost a decade with almost no correlation to equities. Long/short managers are especially excited by the outlook given the high degree of dispersion in markets and the return of the 'short rebate' whereby managers receive a positive net return on cash posted as collateral against their short positions. These three managers are at an advanced stage of due diligence and awaiting investment committee approval subject to on-site visits in New York later this month.

On the private assets side, the team continues its programme of selecting and reupping with outstanding buyout and growth managers while actively building out relationships with leading venture capital managers which until the recent downturn were 'hard closed' but which are now opening discussions very selectively with potential long-term partners. With sector valuations likely to remain under pressure for some time and many large investors pulling back from their recent outsized allocations, we are **leaning into market weakness in the expectation that the coming years will throw up some terrific opportunities**. We are mindful that selecting the right partners is absolutely critical to generating attractive returns in this space.

Within private credit, we are working on several direct lending strategies where the opportunity set has become increasingly attractive over the last 18 months. With $2.5 trillion of dry powder held by private equity sponsors and banks retrenching, significant demand for private debt has widened spreads on buyout loans while at the same time base rates have increased yields overall. The average yield on loans for large buyouts has risen sharply from 5-6% in 2020-21 to over 12% today, while average loan-to-values have fallen to 40-50% from 60-70% one year ago and covenant protection has improved (all data from Pitchbook). In particular we are looking to partner with **managers who are underwriting a more challenging environment with their eyes open and who have the experience and expertise to deal with any potential slip-ups**. We also approved during the quarter a long-established US railcar leasing fund which targets a very stable ~10% annual return. For clients whose tax and liquidity stance allows, the opportunity set in private and evergreen credit strategies enables us incrementally to increase the robustness of portfolios at low or no cost to overall target returns.

High quality global equities have recovered by some 20% from their October lows. The portfolio of high yield credit and senior loans which we own in most portfolios is up some 6.5% since we initiated it in November. It is widely accepted that investors should not 'anchor' on prior price highs, as they can represent points of high(er) valuation and may take years to recover. Equally however, they **should not overly fixate on recent market lows as a target level for entering or re-entering the market**. These may well be revisited as markets ebb and flow – but if they are not, pulling back from the market will incur material opportunity cost over time. We continue to 'stay the course' in portfolios, while maintaining sufficient liquidity to rebalance if opportunities to do so arise.

Edward Clive
Chief Investment Officer

Sixteen02 Global Equities

The Institutional Share Class (US$) returned 15.8% as of 31 March 2023 versus the MSCI ACWI of 7.3%.

Five Largest Holdings as of March 2023

1	ASML Holding N.V.
2	Microsoft Corporation
3	NVIDIA Corporation
4	Salesforce, Inc
5	TSMC

***Holdings shown in alphabetical order*

Again, this year, Mr Market decided to change its favourites. Companies that suffered from extreme multiple resets last year are being looked at favourably for their enduring growth and cash flows. Many of these companies had initiated aggressive opex & capex reductions and efficiency improvements and are likely to emerge stronger as and when the new economic cycle recovers.

Amongst your portfolio companies **Salesforce (CRM**) has been amongst the most aggressive ones. CRM will now bring forward almost two years' worth of margin expansion into one year and plans to hit a 30% margin milestone by 2025. CFO [Amy Weaver] is confident that CRM can go well beyond this level, while still growing top line at low to mid-teens rates.

Meta (META) was much more reactive to market voices. Through multiple announcements and via its 4Q earnings call, CEO Mark Zuckerburg labelled 2023 as the year of efficiency and announced opex and capex reductions. While Meta seemed over-committed to the Metaverse, it has subtly shifted its focus to AI over the last few months and now seems better positioned to generate value from its AI related investments, which by some estimates represents the majority of $110 billion of cumulative capex spent from 2019 to 2023.

We capitalised on recent market volatility to upgrade your portfolio. We replaced Abbott with Dexcom and Autodesk with Safran. Both Abbott and Autodesk are excellent companies and are led by competent management teams. Their business models remain intact; however, we have found better growth prospects at better relative prices in both Dexcom and Safran.

In our October 2022 newsletter, we discussed diabetes at length. It is increasingly becoming an epidemic and is creating a significant burden on healthcare systems around the world. In the US alone, circa $17,000 annually is being spent per person on diabetes treatment and this figure is expected to reach circa $27,000 by 2030. For a patient with a severe form of diabetes, he/she may have to 'finger-stick' multiple times per day which only gives a point estimate. This method can miss the most critical peaks and valleys[2] in glucose levels, which are potentially life threatening. Consequently, Continuous Glucose Monitoring (CGM) is becoming the standard of care.

Dexcom (DXCM) manufactures and sells CGM sensors. It is the size of a coin and is normally worn under the arm. It takes blood glucose levels at certain intervals and sends data to a phone app or a dedicated reader. In this way, the patient knows his/her glucose level at any given time. In addition, the sensors predict and warn of anticipated sharp rises or falls in glucose levels, so that the patient can take immediate corrective action. Physicians and/or family members can be remotely connected to these sensors and also warned of emergencies. A CGM sensor together with an insulin pump can act as an artificial pancreas, automatically injecting insulin to maintain the glucose levels. These are furthermore very useful features in clinical or emergency room settings. Sensors need replacing every 10 days thereby providing an average recurring revenue stream of approximately $2,000 per patient per year.

Until very recently, CMS (Centres for Medicare & Medicaid Services) only reimbursed CGM usage for Type 1 patients – circa 4 million patients in the US alone. Given the benefits of CGM usage, CMS has now decided to increase the coverage to Type 2 basal patients, effectively doubling the addressable patient population. In addition, DXCM is in the early stage of rolling out its latest version of CGM sensor called "G7", which has even better form factor, accuracy, and warm up time. DXCM is also expanding outside the US via its Dexcom1 platform which targets the Type 2 non-intensive insulin population with a lower priced sensor. In anticipation of these product launches, the company has been investing heavily in capacity and salesforce expansion, which ought to catalyse significant operating leverage as revenue growth

[2] *A low glucose level (hypoglycaemia) could be fatal. If it occurs during sleep, it could potentially lead to seizures or coma.*

accelerates. We expect net income margins to expand from low teens to 25%+ in the coming years. Given all these factors, we believe DXCM is likely to compound earnings north of 20% per annum over the coming years.

Safran (SAF) Safran is a "picks-and-shovels" player to the aircraft industry. It is a market share leader in the narrowbody jet engines segment, which is enjoying secular growth driven by rising demand for regional travel. Aircraft engines require a high level of maintenance through their 20-25 years of useful life and this work is strictly mandated by regulators. Hence, aftermarket revenue is recurring in nature and predicated on the installed base. SAF is also a number two player in the aircraft instruments and electromechanical parts.

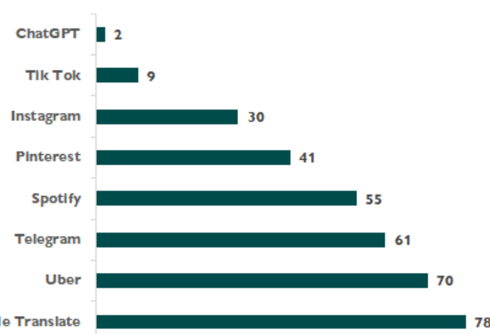
Due to COVID and the ensuing shutdown, many airlines stored significant portions of their fleets and deferred maintenance work. With a return to normalcy, the demand for airline travel is surging but new aircraft supply is restricted. Consequently, airlines are forced to utilise existing fleets driving significant demand for aftermarket services. We expect aftermarket revenue to grow at high teens to low twenties percentage growth over the next few years given the undersupply of new aircraft. This high margin business will also drive expansion in profitability at SAF as other segments (such as aircraft interiors) also begin to return to profitability. On a composited basis, we expect free cash flow to grow at mid teen rates over the coming years potentially ushering in a new cash return cycle at SAF.

Artificial Intelligence (AI) – the iPhone Moment?

AI is a more 'dramatic shift' than electricity or the internet – Sasan Goodarzi, Intuit CEO

In November 2022, Open AI released ChatGPT, a **generative AI (GAI)** model to the public. Its ability to generate human-like responses to any text query has left users so awestruck, such that it is the first application to surpass 100 million users in approximately 2 months. (By comparison, it took nine months for TikTok and 30 months for Instagram.)

Figure 9: Months to reach 100m global MAUs

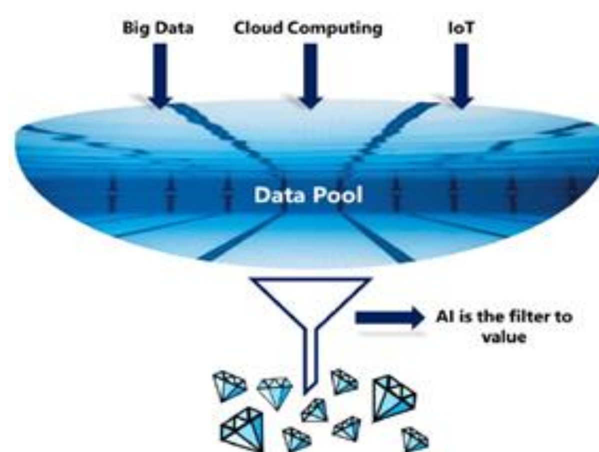


Source: S02, press reports

While neither AI nor GAI are really new, ChatGPT has been able to capture people's imagination and boil the ocean for various other companies and applications. GAI is the next level evolution of AI tools where the model has the creative ability to generate new content whether it is text, image, audio, video or code.

Advancements in computing, in big data and in model architecture have finally enabled the creation of generative AI models / platforms. The increased proliferation of internet, devices at the edge (including mobile phones) and cloud-based database technologies enables the accumulation of a variety of high-quality data feeds. GPUs provided the necessary computer power in the form of parallel processing to train the AI models on this data. Finally, improvements in AI model architecture (such as the Transformer model introduced by Google in 2015) connected big data and GPUs to produce the results we are now seeing from ChatGPT.

Figure 10: Enablers of GAI

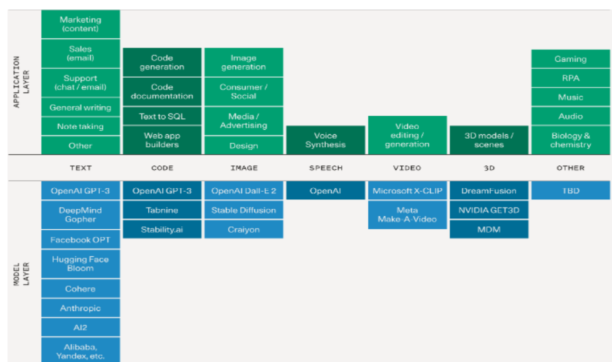


Source: Jefferies

Generative AI models' ability to break down the communication barrier between humans and any computing device at scale means it is the next platform that can spur a wave of innovation and productivity

improvements at a global scale. According to one estimate, global economic productivity could grow 1.5 percentage points faster annually or an equivalent of $7 trillion over next 10 years. In addition, the GAI software market could expand to $150 billion compared to a global software industry market of c. $685 billion. In our view, the actual market size is likely to be considerably larger than the estimate for GAI, as it likely diffuses into a far wider range of industries to grow exponentially.

Figure 11: Generative AI use cases vs the currently available GAI Models

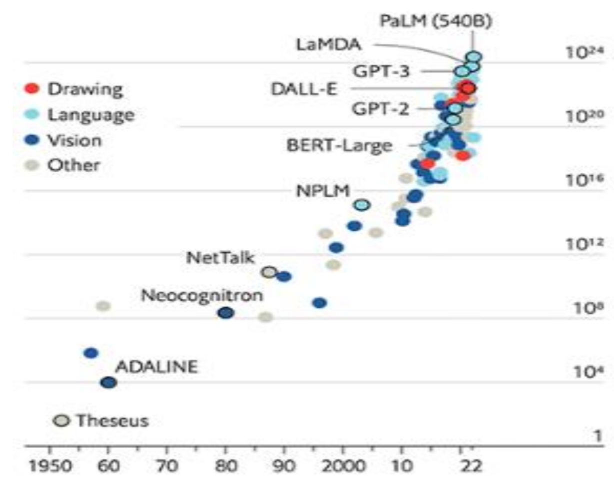


Source: Sequoia Capital

We believe a number of Sixteen02 portfolio companies would benefit from the diffusion of GAI into the industries they operate in. **Microsoft (MSFT)** had the foresight to invest in Open AI in 2019 and leverage that foothold in 2023 with a further $10 billion infusion acquiring a circa 50% stake in Open AI. This has enabled MSFT to integrate GAI into its products suits. Recently, it demonstrated the Office 365 Co-pilot, an AI assistant allowing a user to verbally instruct writing letters, creating PowerPoint presentations and analysing data in Excel. This step up in functionality is likely to justify a higher price point for MSFT products.

Although Alphabet seems to have lost the PR battle against MSFT, it is one of the pioneers and continuing leaders in this space. In 2015, it introduced the foundational AI model architecture, called Transformer that originally enabled GAI and has developed multiple models such as PaLM, LaMDA and Bert, all of which are market leading models (refer Figure 12). These models power many of the features currently available such as image search in Google. Alphabet will release over twenty AI products in the coming months including the recently announced assistant that works across its G-suite products.

Figure 12: GAI Model progress over time & parameter inputs (Y axis)



Source: Sequoia

Nvidia, the arms dealer in the AI race, is perhaps the biggest beneficiary. Cloud players and enterprise customers must build out GPU capacity needed to train and run GAI models. NVDA has the best hardware for this purpose. In addition, it maintains vertically focused software libraries that act as a platform connecting the GPU compute with the application layer. At its latest GTC (GPU Technology Conference), NVDA introduced new products addressing AI training and inference markets. It also introduced a cloud product running on Azure, GCP and Oracle OCI that allows enterprises to access AI as a service. As demand for NVDA products ramps up, the whole semiconductor manufacturing supply chain will benefit (including TSMC and ASML).

We believe that GAI will be an incremental growth multiplier to already structurally advantageous businesses we own in the portfolio.

"The Cambrian explosion[3] in AI coming over in the next six months" – Open AI CEO

Chandan Khanna

Portfolio Manager, Sixteen02 Global Equity

Parthipan Paramsothynathan

Senior Investment Analyst, Sixteen02 Global Equity

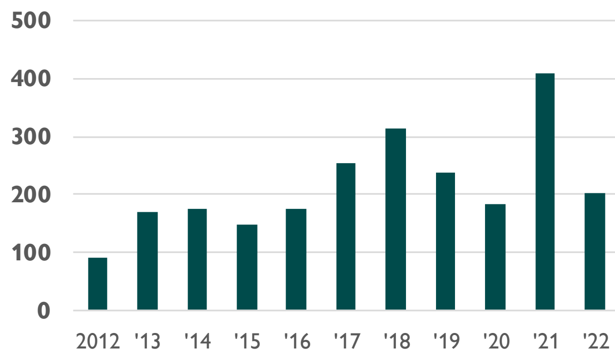
[3] *Cambrian explosion signifies a period when Earth experienced explosion of all forms of life and is said to have occurred 500m years ago.*

Nineteen01 Private Investments

Private Markets Overview

Data for the full year 2022 confirmed that Private Equity investment, exit and fundraising volume slowed significantly from 2021's record level. A buoyant H1 was offset by a slow second half of the year which saw syndicated loan markets all but dry up, making large cap buyouts effectively impossible. Annualising Q4's dealmaking pace would imply approximately $480 billion of global buyout deal value for 2023, 27% down vs 2022's total but broadly in line with the 2017-20 average – hardly a disaster, especially for mid-market and lower mid-market firms that are not beholden to syndicated loan markets.

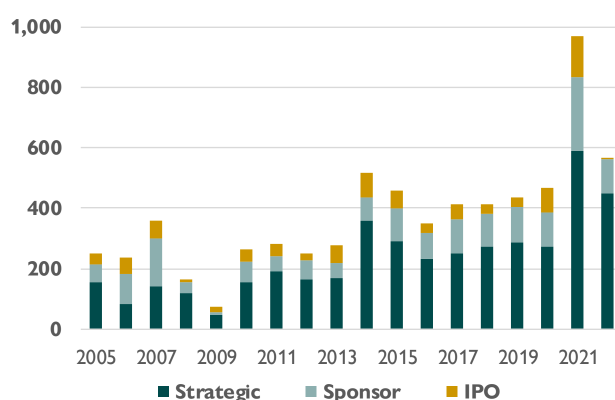
Figure 13: Syndicated LBO Loan Issuance ($bn)



Source: Bain Private Equity Report 2023

It is a similar picture for exits, with annualised Q4 2022 volume at around $440 billion, back to 2015-20 averages. The 'IPO window' remains firmly closed, while sponsor-to-sponsor exit volumes fell ~60% year on year in 2022 and exits to strategic buyers dropped 21%, though remained above their 2017-21 average to account for close to 80% of exit value last year:

Figure 14: Global Buyout Exit Value, by Channel ($bn)

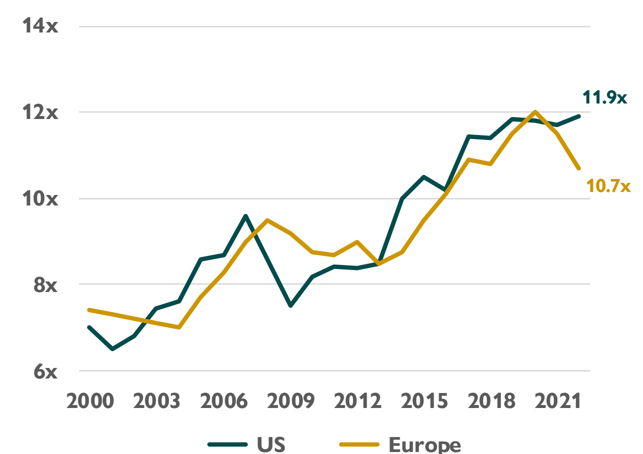


Source: Bain Private Equity Report 2023

Given the relative scarcity of other options and amid a weakening fundraising environment in which fund distributions ('DPI') will be rewarded by investors, it is likely that GP-led secondaries and continuation vehicles will remain in vogue. These allow exits to be achieved without change of control and therefore with no need to raise new debt financing. Competition for the ~$200bn of secondary dry powder is likely to remain high, however, with data from investment bank Jefferies showing that LP stakes sold for an average of 81% of NAV in 2022, down from 92% in 2021 – a steep enough discount to tempt the majority of secondary capital into LP stakes for the first time since 2019.

With fewer assets coming to market and $1.1 trillion of buyout dry powder, competition for high quality assets remains fierce. Given that sellers are only parting with their highest quality assets, the deals that are getting done are still attracting full entry multiples relative to history, especially in the US where average multiples reached a record high of 11.9x in 2022 (see below). While high in historic terms, these multiples may reflect only part of the picture.

Figure 15: Average EBITDA Purchase Multiple for Leveraged Buyout Transactions



Source: LCD, Bain Private Equity Report 2023

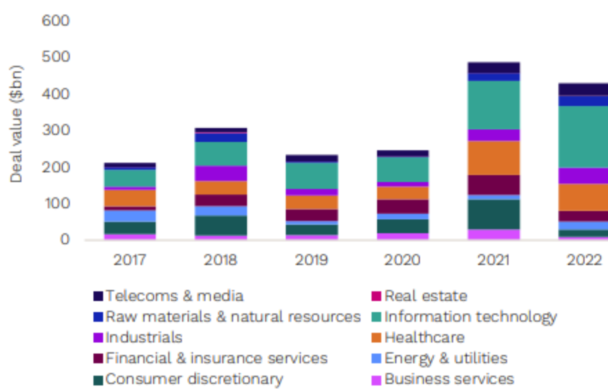
PE Valuations – When will the correction come?

One of the questions that we are most frequently asked in client meetings (and occasionally by our colleagues who focus on liquid assets…) is how it is possible that PE buyout marks had fallen by just 5% in aggregate at the same time as public markets were down some 18-20% from their peaks? Is this gap a function of timing, meaning that a correction is around the corner, or is there a more

cynical story of firms looking to hide the truth so that they can continue to raise capital?

As always, the picture is more nuanced than the headline figures suggest. It is worth remembering that sector selection mattered a great deal in 2022, with listed Energy (+59%) and Healthcare Services (+4%) stocks seeing gains, whilst Industrials (-7%) saw only modest losses. Indeed, an astonishing 43% of the S&P 500's market cap decline came from Microsoft, Apple, Alphabet, Meta and Amazon, with 'Tech' more broadly accounting for more than 60% of the drop. Private markets are more diversified than public markets and are less weighted toward Technology and more exposed to sectors such as Healthcare and Industrials, as shown in the chart below. It is also notable that while approximately 40% of private deal value is in Information Technology, Bain estimates that fully 88% of this is invested in software companies, which tend to have high margins and strong revenue visibility.

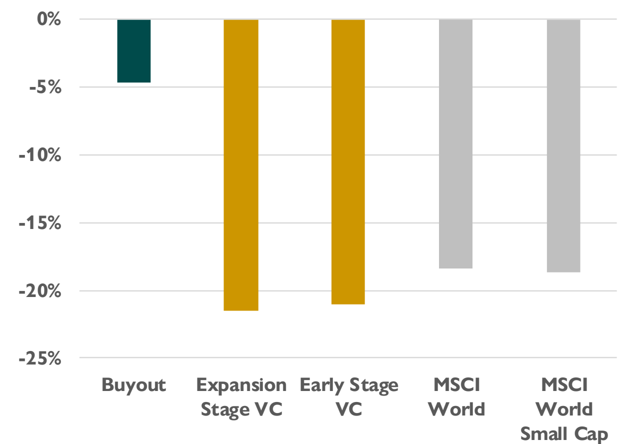
Figure 16: Private Equity Deal Value by Sector



Source: Preqin Pro, April 2023

This is not to say that illiquid markets have no exposure to the type of high growth, unprofitable companies that have been most punished within public markets as interest rates have risen. However, as the below chart shows, venture capital valuations were down ~21% in 2022 across both early and expansion stage – far from not existing or being hidden, there have been meaningful mark downs in plenty of private portfolios that have been more exposed to those stages where companies are typically unprofitable or 'jam tomorrow'.

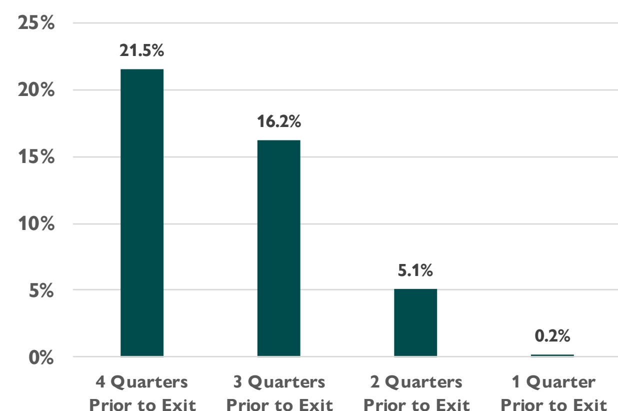
Figure 17: 2022 Private & Public Market Returns



Source: Preqin Pro, Bloomberg

There is an adage that price only matters on the day you buy and the day you sell – so what can exits tell us about how accurate PE marks have been? Data from Bain shows that between 2012 and Q3 2022 around 70% of buyout holdings were exited at a higher valuation than the last quarterly mark, whilst Hamilton Lane found that during 2022 the median exit mark up in the four quarters prior to exit was more than 20% (see below). When exits come, investors have not tended to think the marks were misleading.

Figure 18: Median Exit Mark-ups During the Year Prior to Exit (2022 YTD through Q3)



Source: Hamilton Lane

Private Credit – good things come to those who wait?

We have been sitting happily on the side-lines in Direct Lending since our founding in 2019 as plentiful capital meant that buyouts could be funded with large amounts of cheap debt on borrower-friendly 'covenant light' terms, often including heavy adjustments to EBITDA to create 'pro forma' measures of profitability. As such, the funds writing these loans offered investors high single-digit returns as a best-case scenario and significantly lower

returns as soon as refinancings / sales became less frequent or a deal became impaired (which happens even during good times) – presenting an unattractive risk / reward relative to equity funds.

Fast forward to today, and the rise in interest rates, coupled with the return of covenants around interest coverage, excess cash sweeps, and higher fees, mean that the trade-off has improved significantly. Managers writing first lien debt against fewer than four turns of 'proper' EBITDA can now earn low teens net returns – a much more interesting risk / reward. As a result, we are selectively looking at managers who were able to avoid the excesses of the past several years and are now on the front foot, lending at attractive terms to top tier sponsors buying high quality companies.

Our fund and co-investing experience has been highly additive in these efforts and on more than one occasion we have found ourselves talking to the direct lender that obtained such attractive debt terms on a deal that we could not build conviction in the equity, despite the high quality of the underlying business. It remains to be seen how long these lender-friendly dynamics will persist, but in the meantime, we are happy to take the opportunity to consider high quality senior debt exposure at returns which, until recently, were only available to unsecured lenders.

Nineteen01 – Private Funds

We have been active on the private funds side in Q1, with our Nineteen01 programme making commitments to BV Investment Partners XI and Hg Mercury 4 and approving a commitment to a US mid-market Fund VII for Q2 2023. Summaries of BV and Hg Mercury are provided below.

BV Investment Partners XI

In February, we made a commitment to BV Investment Partners XI ('BV XI'), a fund that takes control positions in lower mid-market companies focused on tech-enabled Business and IT services in North America. Founded in 1983 as Boston Ventures, BV now has a team of 21 investment professionals led by Vik Raina, who has been with the firm since 1999, and operates a single strategy from its office in Boston. BV targets businesses that are EBITDA and cashflow positive, demonstrate double digit growth and have recurring revenue and high customer retention rates and is typically the first institutional capital, partnering with the founder to take the business to its next phase of growth. BV XI is a $1.5bn vehicle that is expected to make investments in c.15 companies.

Hg Mercury 4

Hg Capital is Europe's leading private equity investor in software and tech-enabled business services, with over €55bn in AUM across four strategies. In March, we made a re-up commitment to Hg Mercury 4 ('Mercury 4'), the firm's lower mid-market strategy, which focusses on transforming founder led businesses valued between €100-500m. The strategy has a dedicated team of 36 investment professionals led by 4 experienced partners and draws upon Hg's deep and tenured portfolio support team of more than 30 professionals with expertise covering data science, talent management, cybersecurity, sustainability, operations and growth. Mercury 4 is targeting €1.75bn to acquire a portfolio of 12-14 companies.

Charles Magnay

Head of Private Fund Investments

David Schofield

Investment Manager, Private Investments

Nineteen01 – Direct Co-Investments

The year has got off to a busy start for the co-investment team, approving two new investments alongside top tier sponsors that we know well and taking the opportunity to top up our investment in Aareal AG, a take-private led by Advent International and Centerbridge Partners which we discussed in detail last quarter.

Despite the drop off in dealmaking activity, our focus on mid-market opportunities outside the syndicated loan market, combined with the current difficult fundraising environment, has continued to deliver a significant amount of deal flow from a range of sources. In particular we have seen increased deal flow from emerging managers that have spun out over the last few years and built a team and an independent deal-by-deal track record but delayed their fundraising plans, and from established managers looking to build new LP relationships following concentration or denominator effect issues in their existing LP base. These dynamics have allowed us to expand our network of approved sponsors during the quarter. In addition, we are seeing an increasing amount of high-quality deal flow from growing portfolio of top tier sponsors with which we have LP relationships.

We remain extremely selective, sticking to our process of first underwriting the sponsor through reference calls and an audit of their prior track record and its applicability to the transaction being pursued, followed by diligence of the transaction. Our focus is on acquiring leaders in growing, recession resilient end markets, backed by well aligned sponsors with clear value creation plans. We remain conservative on leverage and entry multiple – ultimately a deal that needs significant leverage to generate PE returns is normally suffering from either too high an entry price or a weak value creation plan.

Within this context we are pleased with the portfolio that we have built, which has an average EBITDA margin of 20%, grew revenue at a double-digit rate in 2022 and was acquired at an average 8.7x EV/EBITDA multiple using 1.3x Net Debt/EBITDA. We continue to monitor our existing portfolio closely and see signs of positive momentum. We also expect to see our first full liquidity event during Q2.

We are excited to continue to build the portfolio and believe that the current environment will create many opportunities to acquire high quality companies at attractive valuations alongside both established and new sponsors.

Oliver Mayer
Head of Direct Private Equity

David Schofield
Investment Manager, Private Investments

What we have been reading …

Chip War: The Fight for the World's Most Critical Technology *by Chris Miller*

Chip War is a riveting account of the competition and innovation in the global semiconductor industry. The book provides a comprehensive and detailed overview of the history and current state of the industry, from the early days of Silicon Valley to the current era of global competition between companies such as Intel, Samsung, and TSMC.

Miller skilfully weaves together technical details, business strategy, and personal anecdotes to create a well-rounded and fascinating account of this complex and vital industry. Whether you're a tech enthusiast or simply interested in the world of business and innovation, *Chip War* is a must-read.

The two paragraphs above were written by ChatGPT. What AI / ChatGPT will not say is that the book is a look into the new cold war between China and the US. Microchips are used in military technology and AI, and whoever dominates chip design and manufacturing has the economic and military advantage.

A handful of companies have come to dominate the supply chain: NVIDIA and Intel (both in the US) in the design of chips for AI, ASML (Netherlands) in the lithography machines used to manufacture chips, and TSMC (Taiwan) as the largest foundry in the world. None of these is based in China.

With the 2021 CHIPs Act, the US has declared its intent to maintain its global leadership by creating an alliance that excludes China. If China is effectively blocked from accessing the most advanced technologies and fears it is falling behind, this will exacerbate internal pressure to do something about Taiwan. This book is therefore a must-read because it delves into what will be one of the key determinants of geopolitics over the years to come.

Julien Sevaux

Disorder: Hard Times in the 21st Century

by Helen Thompson

The bits of order are not the norm, there's actually quite a bit more disorder than we think. In Western countries the disorder's been hidden away, it bubbles along underneath the surface of the Earth [...] and then it erupts from time to time and we see it more visibly like what happened in the 2010s.

- *Helen Thompson, interview in The Irish Times, March 2022*

It is revealing that in surveying the terrain about which she had just written her latest book, *Disorder*, Helen Thompson should choose the metaphor of a powerful energy lurking in the Earth's crust with the power to suddenly disrupt life. In doing so she alludes to the explanatory variable that touches so many strands of her complex narrative of the great power politics of the last century: competition for oil. *Disorder* offers a materialist reading of the period, casting aside local contingencies for more structural explanations that put the West's demand for energy at the nexus of the key changes to the financial and political world.

If this sounds rather dry then it should be said that Thompson's analysis is both persuasive and lively, if sometimes dense. It may be unsurprising to read that much of the conflict in the Middle East has been the product of direct and proxy wars over oil. However, what *Disorder* adds is that the tone of the US's foreign policy since WWII can be traced quite directly to its oscillating status as either self-sufficient or in need of oil imports. Furthermore, *Disorder* neatly casts the end of the Bretton Woods system in 1973 as an inevitability given the persistent current account deficits from the US's burgeoning energy import bill.

The salience of Thompson's argument is enhanced by her analysis away from the US's involvement in the Middle East, through an account of Germany and its relationship with Russia. Far from signalling 'the end of history', an era in which globalisation would render geo-politics redundant, the fall of the Soviet Union and subsequent rise of Putin's Russia created a new wave of conflict along familiar lines. Indeed, the latest manifestation is sadly evident in the war in Ukraine, the escalation of which *Disorder* anticipates. Ukraine's vulnerability is highlighted, situated as a host of the gas pipelines between Russia and Germany, and left in limbo by the EU's muddled economic embrace as an associate EU member, but without any of the accompanying security assurances offered to other members.

Moving beyond geopolitics to interrogate the future of democracy, Thompson introduces and contrasts the destabilising forces of 'democratic excess' and 'aristocratic excess'. The former suggests that democracies tend towards voting for policies they cannot afford, with inevitable inflationary consequences; while the latter argues that ruling elites tend towards self-enrichment which produces vast wealth inequality. Both concepts resonate.

Seen through the prism of 'aristocratic excess' Thompson takes aim at the de-politicisation of many key economic issues, such as monetary and trade policy, that have been removed from the purview of electorates on the basis they will not make the 'right' decisions. In one arresting passage she recounts details from the Italian government's interactions with the ECB and EU during the Eurozone crisis of 2011. Given an ultimatum to enact harsh austerity or see the end of support from the ECB, Italian Prime Minister Berlusconi was compelled to resign, and Italian president Giorgio Napolitano appointed an entirely technocratic Italian Cabinet led by former European Commissioner Mario Monti. 'From that moment until September 2019, no minister of economy and finance in Italy was an elected politician'.

While this analysis of democracy is thought-provoking, the attempt to unite events such as Brexit with the thesis around energy competition is less compelling. Nonetheless, *Disorder* offers an illuminating account of the role of energy in creating current geopolitical instability. While Thompson sounds some optimism about a future reordered by a green transition, the US-China tensions and demands for conventional commodities to power this transition suggest that the challenges she identifies may be with us for some time. Disorder then seems likely to remain uncomfortably near the Earth's surface.

Stuart Fox

Eighteen48
PARTNERS

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