



QUARTERLY COMMENTARY LETTER

APPROACHING THE PEAK

Q2 2023

 RockCreek

CONTENTS

03 09	MACRO ENVIRONMENT BOX 1. REGIONAL BANKING DEVELOPMENTS
14 17	SUSTAINABLE INVESTING BOX 2. ENERGY TRANSFORMATION TECHNOLOGIES
18 20	PUBLIC EQUITIES BOX 3. CRYPTOCURRENCY ASSETS
23	EMERGING MARKETS
26	FIXED INCOME
28 30	PUBLIC CREDIT BOX 4. EMERGING MARKET DEBT
31	PRIVATE CREDIT
33 36	PRIVATE EQUITY AND VENTURE CAPITAL BOX 5. GENERATIVE AI
37	REAL ESTATE

MACRO ENVIRONMENT

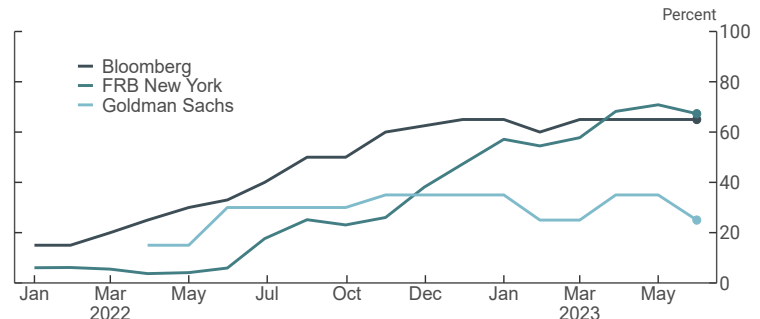
What a difference a year can make. This time last year, the Federal Reserve had just kicked off a tightening cycle that became one of the steepest on record. Recession fears abounded. Equities plunged. This year, by contrast, Q2 saw the first pause in that tightening cycle, indicating that we are nearing the peak in interest rates. And hopes crept up that the US might escape a recession.

Investors cheered. US equities notched an average 8.7% over the quarter. Global equities, excluding the US, also gained overall, pulled up by an astonishing 18.9% rise in Japan's Nikkei. In Europe, the mood was darker, with inflation remaining sticky and the economy weak, notably in Germany, Europe's powerhouse, and in the UK, where the negative effects of Brexit became clearer. In China, consumers continued to save rather than spend, with the economy continuing the disappointing streak of Q1. The damage to confidence from the pandemic years of drastic and sudden lockdowns and unexpected policy shifts appears to have been greater than first thought. Beijing has reacted by easing monetary policy and regulatory rules on property lending. These measures have not sufficed to boost consumption or revive the property market, and uncertainty persists about the government's promise to welcome private sector investment and success.

Towards the end of Q2, hawkish rhetoric from Fed Chair Jerome Powell and other colleagues briefly revived US recession fears. Bond markets fell nearly 1% amid a re-steepening in the yield curve, with the spread between 2- and 10-Year Treasuries widening to -106. The jitters were not limited to the US: in the Euro area, the benchmark German yield curve inverted to its steepest levels since 1992.

The widely hoped-for soft landing for the US economy, which looked far-fetched a year ago, is now more firmly in the cards. That doesn't mean that investors can relax. Prices are still rising considerably faster than the Fed's 2% target for price stability. On the positive side, there were more convincing signs in Q2 that underlying inflation is decelerating, while still above the headline rate which fell to 3% in June, pulled down by falling energy prices. But the Fed, along with other major central banks, likely has further to go in the tightening cycle. In Q2, the Fed consensus view of the funds-rate peak went up to 5.6%, implying two more hikes of 25 basis points. Two further increases would dampen spending in the second half of this year. Cautious banks were already curbing business lending in the first half of this year. Further rate rises will exacerbate that trend.

Figure 1. A resilient US economy pushes down the probability of a recession within the next year



Note: Forecasts for 12 months ahead. Goldman Sachs started tracking probabilities in April 2022. FRBNY calculates their probabilities using the term spread for the 10-year and 3-month Treasury rates while Bloomberg estimates the median probability from a survey of economists.

Source: Bloomberg Finance LP, Goldman Sachs Global Investment Research, Federal Reserve Bank of New York.

THREE THEMES TO WATCH IN Q3:

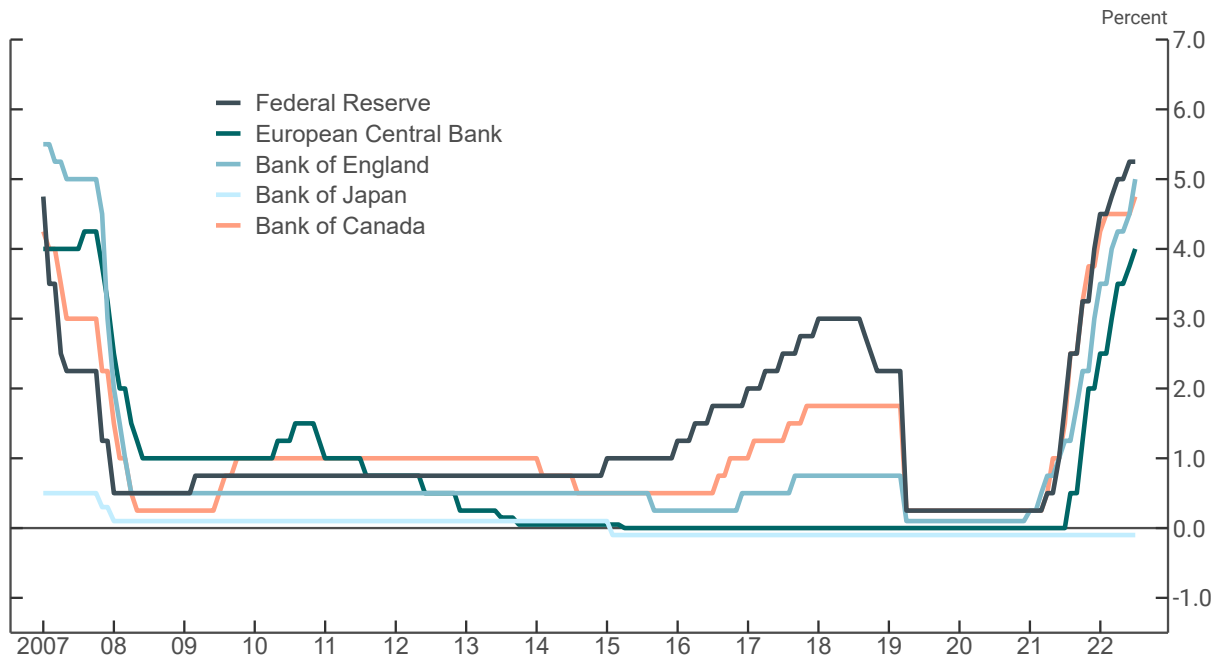
- 01 PEAKING INTEREST RATES**
 The post-pandemic tightening cycle that began in 2022 is almost over. The third quarter will likely see the last rate hike from the Fed, either in July or September. Will markets cheer, or have the equities gains already been booked? That could depend on whether rates are set to stay high for longer.
- 02 INFLATION, INFLATION, INFLATION**
 Opinion is divided about whether the global monetary tightening that has already happened will be enough to cool demand and inflation. If underlying price increases stay in the 4% range, policy will stay tight until something gives. With luck, the Q2 disinflation trend will continue.
- 03 THE LANDING: HARD OR SOFT?**
 Europe likely slipped into recession over the end of 2022/23. Can the US avoid it? Will regional bank problems resurface, curbing credit?

The bottom line? A US recession is still possible. But developments in Q2 raised the odds that the US can escape without one this year or next. For institutional investors, a diversified portfolio has been the best way to navigate the last year of switchback turns and data revisions. It continues to be the strongest defense in times of uncertainty. Changing macro conditions have provided more interesting opportunities in fixed income than have been evident over the last decade of “low for longer” interest rates. More broadly, investment opportunities outside of traditional public equities and fixed income were plentiful in Q2.

MOVING CLOSER TO BALANCE

Fears that the fight against inflation would inevitably trigger recession – and a sharp rise in unemployment – have not played out so far, at least not in the US. In Europe, also, the hit to activity has been more contained than was feared when energy shortages first appeared in the wake of Russia’s invasion of Ukraine. Inflation is coming down. And the trade-off between the need to curb inflation and the risk of over tightening has shifted. Inflation is off its peak on both sides of the Atlantic.

Figure 2. Central Banks' policy rates may be hitting their peak



Source: Federal Reserve Board, European Central Bank, Bank of England, Bank of Japan via Bloomberg Finance LP.

Against this backdrop, the Fed is not the only central bank moving close to the end of the tightening cycle and taking a pause to consider how much further to go. Canada took a four-month pause, which ended in June. Australia hiked in June, against market expectations, but then paused in early July. Policymakers are reassessing the balance between underlying inflation and slowing growth – or supply and demand. India – still small in relation to the global economy, but now the fastest-growing as well as the most populous country in the world – held rates at 6.5% in Q2, against some expectations. As inflation nudged down in May, the RBI’s hawkishness looked like a good call.

In Europe and the UK, central banks facing more substantial and stubborn inflation continued to hike policy rates at every meeting last quarter. The Bank of England pushed rates up by another 50 basis points in June after disappointing inflation data, bringing its rate to 5%, while the European Central Bank’s June move of 25 basis points took its benchmark deposit rate to 3.5%, the highest in more than 20 years.

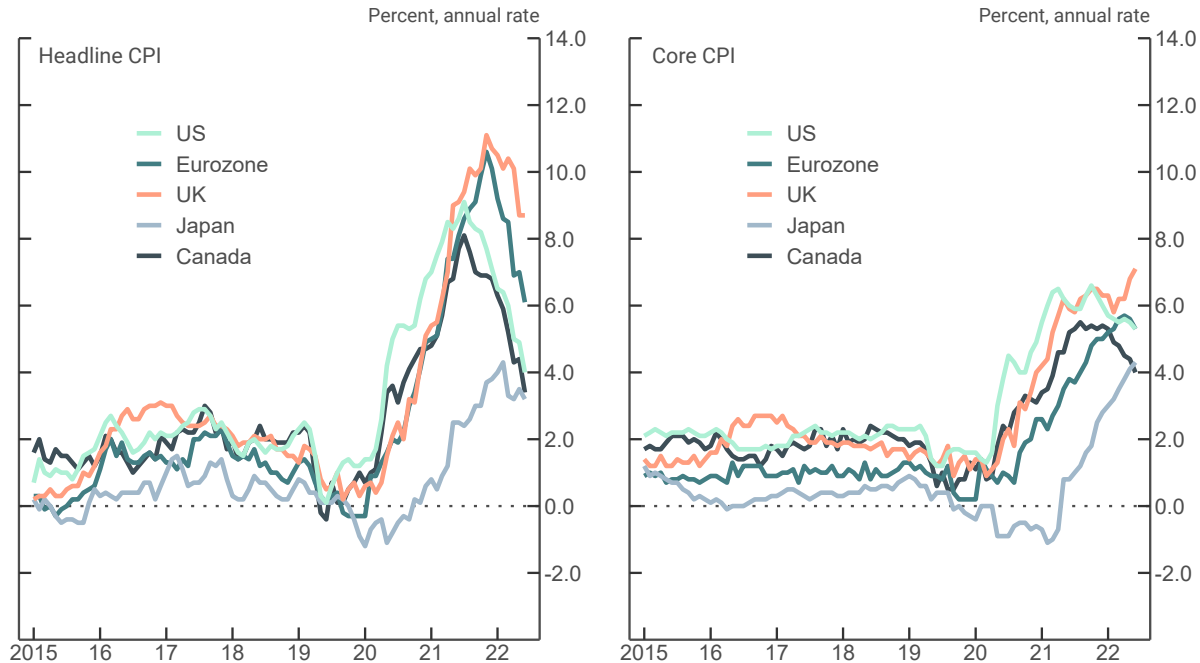
Japan – long wrestling with deflation – has sat out the tightening cycle and held monetary policy unchanged in Q2 under new Governor Kazuo Ueda. However, market pressure to let rates rise – coupled with accumulating evidence that the country’s three-decade deflation may finally be over (long-term business inflation expectations now sit around 2%) – is likely to lead to a relaxation of yield curve control (YCC) in the coming months. The JPY remains a strong recession hedge, but future rate hikes could affect its status as a safe haven for international investors.

THE INFLATION BEAST IS WEAKER, BUT NOT YET VANQUISHED

For much of Q2, price watchers were disappointed. While headline inflation continued to drift down in many countries, underlying – or core – Inflation remained sticky. ECB President Christine Lagarde warned in June that the Bank expected inflation “to remain too high for too long”.

The Bank for International Settlements (BIS), often seen as the central banks’ central bank, took a similarly downbeat view in its Annual Report, cautioning that price increases of more than 60% of the items in the average consumer basket were running at more than 5% yearly. The BIS blamed

Figure 3. Too high for too long: the trouble with sticky inflation



Source: Consumer price indexes, US Bureau of Labor Statistics, Eurostat, UK Office of National Statistics, Statistique Canada, and Japan Ministry of Internal Affairs and Communications via Bloomberg LP.

monetary and fiscal stimulus packages in the pandemic that were “too large, too broad and too long-lasting” and called for more restrictive policies. They noted that with tight labor markets it would be understandable if workers tried to make up for the real wage losses experienced during the recent inflationary surge.

Labor markets remained strong in the US in Q2, although there were some signs of a loosening during the period. After climbing in April, job openings fell in May to a lower-than-expected 9.8 million, marking the first time since 2021 that total openings fell below 10 million, and bringing the number of vacancies per unemployed person down significantly from the peak of more than two to one in 2022. Employment gains continued apace. In June, nonfarm payrolls added 209,000 and unemployment ticked down to 3.6%. The payrolls increase was below expectations for the first time in 15 months and the smallest since 2020. But the average monthly increase during Q2 of 244,000 is still above pre-pandemic averages.

The churn in the labor market caused by the pandemic has also had potential upsides, including more competitive labor markets and partially reversed wage inequality. A [recent paper](#) by economist David Autor, of “China Shock” fame, estimated that bigger wage increases for younger, non-college educated workers since the pandemic had, by the end of 2022, eliminated a quarter of the rise in inequality built up over the preceding 40 years. Post-pandemic wage gains have continued to favor the lower paid, largely reflecting moves up the job ladder as workers who lost jobs in the early pandemic period were hired into better paying positions during the recovery. Growth remained strong in June, with average hourly earnings growing 4.4% year-over-year. The BIS is, nevertheless, correct that a broader catch-up in real wages, unless absorbed into profit margins, would keep inflation uncomfortably high. Many economists fear that outcome. IMF First Deputy Managing Director Gita Gopinath called attention in June to “[three uncomfortable truths](#),” warning that “inflation remains sticky; financial stresses could make price and financial stability a difficult balancing act; and more upside inflation risks are likely.

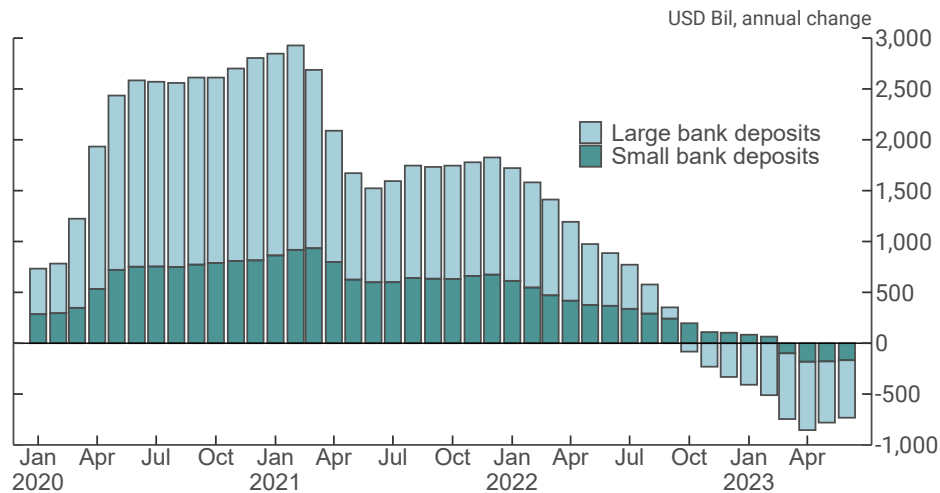
Regardless, there were some cheering signs in the Q2 price data for the US. The Fed’s preferred inflation measure – derived from personal consumption data that put a lesser weight on housing than the CPI – eased during the quarter. By May, various metrics based on this indicator – looked at over different time periods and adjusted for volatile prices in different ways – showed inflation running at an annual rate somewhere between 2.5% and 4.1%. The June information for PCE inflation is not yet available. But good news came in the CPI and the producer price indices for June. The headline CPI was up 4% over a year earlier in Q2, with a clear slowdown during the quarter to 3% by June. And the change from Q1 was just 2.2% at an annualized rate.

BOX 1. REGIONAL BANK DEVELOPMENTS

The US banking system continued to feel the mild tremors from market turmoil that began in the first quarter with the collapse of Silicon Valley Bank (SVB) and Signature Bank. In April, despite efforts from eleven major banks to assuage fears by injecting \$30 billion in deposits, San Francisco-based First Republic also fell victim to a run by uninsured depositors. Several more regional banks have since experienced severe pressure.

There are signs that things are stabilizing, but regional lenders will face an uphill battle as higher rates and the liquidity crunch will put further pressure on margins. While these lenders saw some reprieve after the Fed’s June stress test showed mid-sized lenders maintained capital levels above required levels, the KBW Regional Bank Index plunged 6.7% over Q2, reaching a YTD loss of 22%.

Figure 1.1 Banks deposit outflows continue at a steady pace



Source: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States (Weekly)."

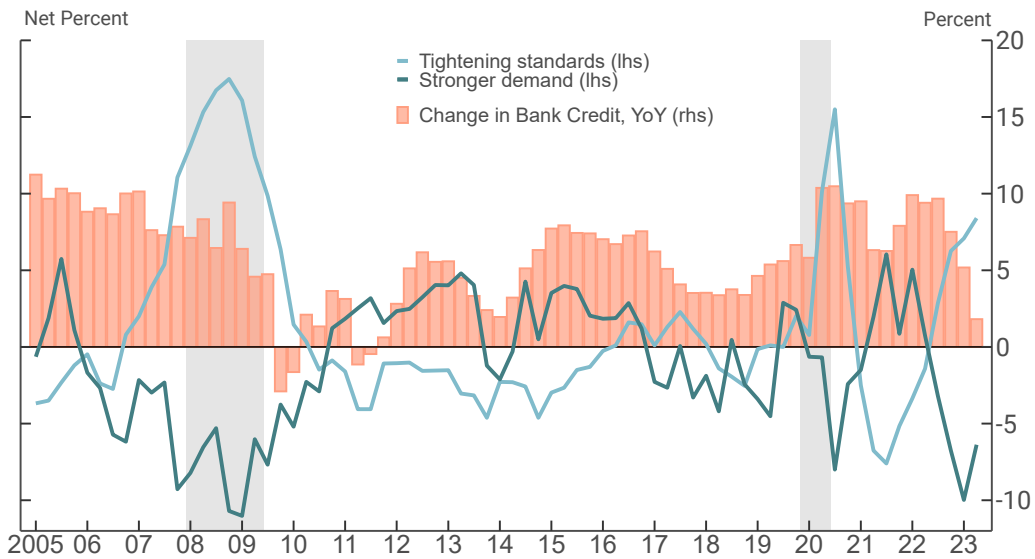
Even as the dust settles from the recent government interventions, these lenders face underlying problems. Banks were already experiencing deposit outflows late last year as depositors searched for higher yields. The events in March merely accelerated the trend. They are also tightening credit standards and borrower demand is waning as funding costs grow. At the same time, rising rates are deepening losses on banks’ balance sheets, raising concerns that banks will need to sell assets at a loss to cover the heightened demand for cash. Losses on the loan book are beginning to manifest, particularly on the commercial real estate side, where banks represent nearly 70% of total CRE loans outstanding. They also represent a much higher proportion of regional banking balance sheets, with more than over 40% of total assets in CRE loans.

The landscape for regional banks is poised to undergo a major shift. To overcome the rising costs associated with higher rates and potential new regulatory requirements, these banks will need to

BOX 1 – *continued*

get bigger, making consolidation the most attractive option for these lenders. Merger activity has reached its lowest levels in over a decade, but the recent shakeup will likely lead to a new wave of consolidation. The actual merger process will take some time to play out, but investors see several opportunities in the financials space as bigger banks look to snap up distressed assets at attractive prices and smaller banks restructure.

Figure 1.2 Credit standards are tightening and demand is weakening



Source: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States (Weekly)"; and Senior Loan Officer Opinion Survey (SLOOS).

POST-PANDEMIC STRENGTH RESTS ON THE CONSUMER: AMERICANS ARE CHAMPION SPENDERS

Consumer resilience and a strong labor market continued to buoy the US economy in Q2. Recently revised data show that growth was stronger in Q1 than first reported, at an annual rate of 2%. The driver was consumption.

There was some evidence towards the end of Q2 that the long-expected drop off in demand, as higher interest rates feed into the economy and pandemic savings are depleted, may now be underway, but at a gentle pace. Retail sales in June grew by just 0.2% from May, less than expected but still in positive territory. Looking ahead, the cancellation of federal student debt relief in September following the Supreme Court decision in June will also depress some consumer spending and demand. However, barring a resurgence of bank weakness that cripples credit (see [Box 1](#)), the US economy is likely to eke out growth in the months ahead.

The picture is not as hopeful in most other major economies. In Europe, the economy already contracted over the turn of the year and stagnated or shrank further in Q2 as rate hikes continued. Europe's energy dependence on Russia made the supply shock from the war in Ukraine and resulting sanctions more costly, although less so than dire warnings from German industrialists had earlier suggested. Growing US tensions with China have also affected confidence in Europe's export machine, particularly in the bigger economies. Disaffection with an anemic economy is a major factor in the pension-reform protests and rioting sparked by police brutality that rocked France in late June.

In China, growth continues but at a more disappointing pace than expected when zero-Covid policies were relaxed at the start of the year. Beijing turned to a familiar playbook to boost growth in Q2, lowering interest rates and easing regulations to boost investment, particularly in the all-important property sector. Absent a fiscal stimulus, however, the consensus is that this alone is unlikely to unlock the domestic consumption needed to push up the growth rate. And continued geopolitical tensions are having a dampening effect. Planned US controls on outward investment to China are adding to private company concerns of over dependence on Chinese markets and Chinese suppliers. Chinese companies are, themselves, investing more outside of China.

GLOBALIZATION IN RETREAT: DE-RISKING VERSUS DE-COUPLING VERSUS DIVERSIFYING

Geopolitical risks remained high in Q2. In recognition of the deep economic and financial ties between China and the rest of the world, the US and Europe shifted to softer language in describing their goals in relation to China. Instead of “decoupling”, an unrealistic and costly aim, “de-risking” is favored. In a delayed trip to China that finally happened shortly after Q2 closed, Treasury Secretary Janet Yellen took the “d-words” a step further. “There is an important distinction between decoupling, on the one hand, and on the other hand, diversifying critical supply chains or taking targeted national security actions,” Secretary Yellen said. “We want a dynamic and healthy global economy that is open, free, and fair – not one that is fragmented or forces countries to take sides.” That means nations should avoid over-dependence on Chinese inputs for essential technology and products while also reducing the supply of key advanced technology that could be used for military purposes. The federal government has recognized the challenge of defining the latter, given the expanse of dual use technology, as it simultaneously seeks to rebalance its CFIUS and Entity List standards while resolving perspective differences with long-time partners like France.

American policy in this area is still finding its way. National Security Adviser Jake Sullivan laid out expansive goals in an April speech for a new Washington consensus based on industrial policy and subsidies to critical investments. The US also succeeded in winning broader G7 support for [a stern message to China](#). Further, despite pushing back fiercely, China followed through on US overtures to restart high-ranking visits to Beijing after the February downing of a “red spy balloon” led Secretary of State Antony Blinken to cancel a planned trip.

Secretary Blinken’s visit in June was half successful. He met with President Xi Jinping, in a rare display of high-level engagement. But China refused the main ask from the US: an agreement on emergency communication channels between the two governments and their militaries akin to the Cold War Red Line with Moscow that could be used to avert accidental crises. China prefers to keep the US off-balance, and regards strategic ambiguity as vital leverage. Importantly for investors, the US continues to work towards limits on outward investment to China, in coordination with allies and partners. Delays reflect the difficulty in defining what is defense-

sensitive in a way that does not overly constrict exports or investments, potentially backfire on US companies, or those of the allies and partners.

War in Europe continues unabated, with the long-awaited Ukraine counteroffensive making slow progress against dug-in Russian troops. The world was given a brief window into the political difficulties for Russian President Putin with a 36-hour mutiny by former ally and ringleader of the Wagner mercenary group Yevgeny Prigozhin which showed that the next Russian leader could be even more unpalatable to the US. More importantly than the short-lived rebellion in Russia, the head of the CIA, career diplomat William Burns, took an unannounced trip to Kyiv to discuss prospects of peace with President Zelenskyy. This is still some way off.

The war and other supply chain concerns are impacting the defense industry, which accounts for 3.0% of the US economy. The Institute for International Strategic Studies (IISS) [noted in a recent blog](#) that perhaps “just-in-time” is now more appropriately termed as “just too late.” The defense industry is now undergoing the biggest shift in organization since the end of the Cold War, IISS noted, when the prospect of peace led to a dramatic downsizing in spending. This time of course, governments are ramping up demand- Lockheed Martin alone saw order backlogs grow to an [unprecedented \\$158 billion in June](#).

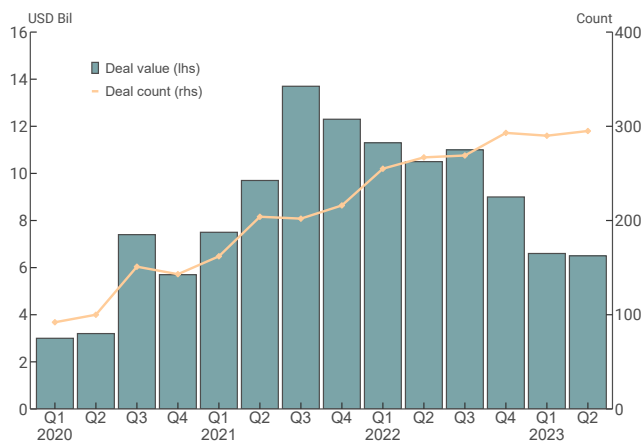
SUSTAINABLE INVESTING

The second quarter once again brought the impacts of extreme heat to the front door of investors. Throughout June, smoke from Canadian wildfires engulfed the East Coast and spread across the US, affecting nearly 1 in 5 Americans. It is a certain bet that the long-term consequences of drastic weather changes, and their economic and financial risks, will only grow.

Fortunately, spending on the energy transition continues to grow as well, reaching \$1.74 trillion in the 2023 H1. However, the more challenging macro environment over the last 18 months has made the need for nuance in sustainable investing even more apparent. Likewise, opportunities abound in the green transition, for investors and innovators. Promising developments in fundamental tech have buoyed investor sentiment, and companies operating in energy transition are among the biggest beneficiaries of the rally. In an economy hobbled by higher interest rates, seeking out pockets of dynamism is even more important.

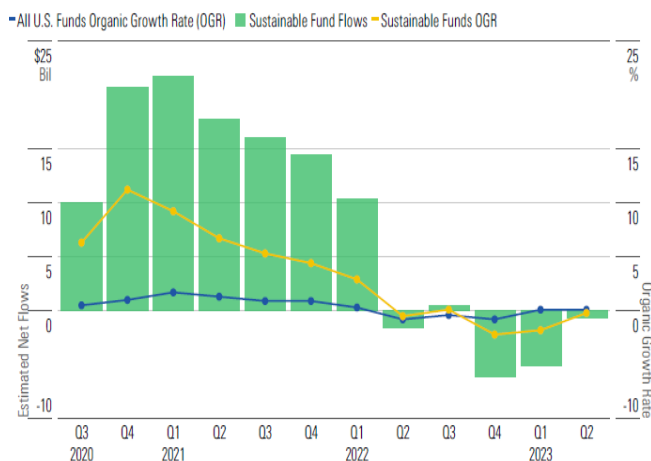
Despite a [decline in climate venture transactions](#) from the previous year (\$6.5 billion in transactions across nearly 325 deals), early-stage funding saw a slight uptick, highlighting the growing appetite for hardware solutions and scaling early-stage innovation. In April, some of the biggest names in venture capital – including Tiger Global and Energy Impact Partners – formed the [Venture Climate Alliance](#). The group of 23 firms, which represents 2% of all early-stage VC and PE deals, is the first alliance to help VCs and portfolio companies align climate approaches and decarbonize operations. By targeting early-stage venture, the VCA aims to provide resources for startups to overcome barriers and to support innovation that can accelerate the transition.

Figure 4. Early-stage VC drives deals in Q2



Source: ClimateTech VC.

Figure 5. US Sustainable funds continue to suffer outflows



Source: Morningstar Research.

Public markets continued to suffer outflows in the second quarter, as weaker sentiment and a pullback in energy stocks dragged down equity funds. Sustainability-linked funds shed \$15.4 billion in the three months through June, largely driven by the US, despite mounting legal and political challenges to ESG-termed investments in Republican-led states.

There are hopes that an influx of incentives in Q2 will mobilize green spending. In the US, [new guidelines](#) for the Greenhouse Gas Reduction Fund (GGRF) and [updates to tax credit transferability](#) provide more momentum to such endeavors. The GGRF implementation framework builds on previous guidance issued in February and adds details on the distribution of grant funding via three competitions, as well as application requirements and accountability obligations for prospective grantees. Meanwhile, the new tax rules expand access to new sectors – like green

hydrogen production, carbon capture facilities, and marine and hydroelectric production– and create two new monetization options so that tax-exempt and smaller entities can take advantage of the tax benefits. In the Euro area, reforms to the EU Emissions Trading System (ETS) seek to align the program to the EU’s emissions goal by reducing emissions allowances, increasing climate spending provisions, and adding a carbon tax to imported goods.

After Q2 closed, the Biden Administration announced it was making \$20 billion available from the EPA “green bank” for clean energy projects such as electric vehicle charging stations, community

cooling centers, and residential heat pumps. Non-profits, community development banks, and other groups can compete for grants from the green bank, which was created in the Inflation Reduction Act, with a focus on disadvantaged communities.

Meanwhile, as IRA spending ramps up, recent regional bank stresses may have lingering effects. A key component of the GGRF engages local institutions – like community banks and development NGOs – to provide credit for clean technology projects, as these lenders are likely to have deep ties to their communities that make their financing more impactful. With higher rates and funding costs squeezing margins, these banks may be hesitant to lend, leaving a financing gap that hinders the GGRF’s goal to support marginalized communities.

Despite the headwinds, we see green opportunities as a secular long term investment thesis. In the wake of the US Inflation Reduction Act (IRA), the EU, Japan, and South Korea – after initially complaining about the US’ industrial policies as protectionist – have [introduced subsidies for their respective green and tech sectors](#) to catch up. Despite the increasing concern about the term “ESG” and many companies – including oil companies such as Shell – backtracking on their environmental commitments, the growing list of beneficiaries of changes in climate policy represent an attractive opportunity for investors. Shortly after the end of Q2, ExxonMobil surprised many by acquiring [Denbury’s carbon capture infrastructure](#) for \$1.9 billion, giving Exxon access to the largest owned and operated carbon dioxide pipeline network in the US.

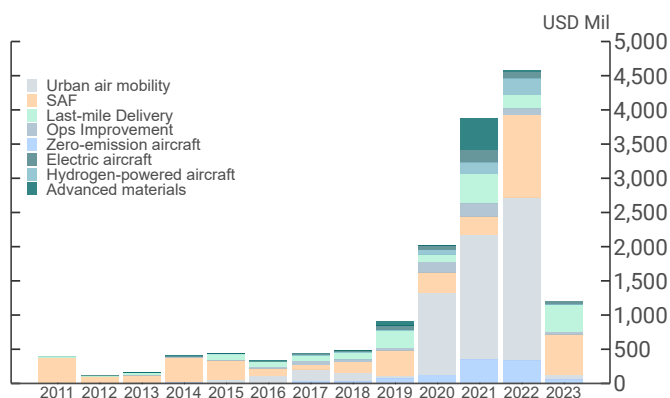
Macro and regulatory constraints also represent opportunities, particularly in growth-stage solutions. Focusing not just on clean energy but transformative energy – where traditional sources are converted to cleaner methods – requires significant investment. According to BloombergNEF, reaching emissions reduction goals by 2050 is a \$196 trillion opportunity – over half of which will be needed to transform how energy is consumed (e.g., through EVs, sustainable recycling, heat pumps, etc.). The remainder will be needed to invest in low-carbon energy like wind and solar, as well as infrastructure like grids and carbon capture. Investments in high-emitting industries, such as aviation, offer the potential for real impacts via successful transitions and are typically underweight in sustainability portfolios (see [Box 2](#)). Meanwhile, the generative AI boom opens additional doors for clean energy/tech that can help accelerate energy transition efforts.

BOX 2. ENERGY TRANSFORMATION TECHNOLOGIES: SUSTAINABLE AVIATION FUELS (SAF)

Sustainable aviation fuel (SAF) is an alternative fuel source derived from biomass such as crops, household waste, and other non-petroleum-based feedstocks. It produces just a fifth of the emissions of conventional jet fuel and its various options for sourcing feedstocks and production technologies give it the ability to [reduce greenhouse gas \(GHG\) emissions by up to 94%](#).

Currently, air travel accounts for 2% of global emissions and 12% of transportation emissions. And while there was a slight reprieve when emissions were nearly halved during the pandemic, the post-Covid boom, coupled with limited fuel alternatives, means traditional fuel consumption will continue to grow. While replacing old aircrafts with energy efficient options will provide some support for emission reduction efforts, the lifespan of a typical aircraft – usually 20 to 25 years – limits the opportunities to make meaningful reductions. Airlines will also need to start looking for carbon credit offsetting measures as the International Civil Aviation Organization’s carbon offset and reduction scheme (CORSIA) comes into force in 2024.

Figure 2.1 SAF Investments have been growing in recent years



Source: BloombergNEF.

The bulk of decarbonization efforts will come from the development of new technologies that capitalize on fuel alternatives. But SAF production faces a challenge in scaling-up production due to high costs and limited feedstock. Current production is not only twice the price of conventional fuels but only has the capacity to replace about 1% of global aviation emissions.

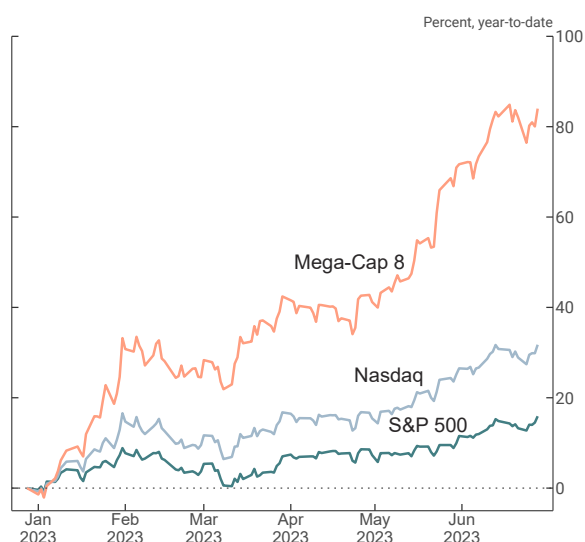
Growing energy demand will have significant implications for climate, particularly as medium- to long-haul flights make up a significant portion of emissions. Efforts to decarbonize aviation will come not only from electrification of fleets and introduction of hydrogen fuel cells – which largely help short commuter flights – but also the use of SAF for longer flights that make up more than 70% of passenger air-travel emissions today. The growing opportunities to harness these technologies make the area of alternative fuel sources an increasingly attractive investment, particularly as billions of dollars of opportunities are unlocked via the Inflation Reduction Act and international policy measures.

PUBLIC EQUITIES

A strong second quarter return of 8.3% pushed the S&P 500 up 15.9% year-to-date and more than 24% above its October low, thus ushering in a new bull market. The Nasdaq did even better, returning 12.8% for the quarter, bringing it to 31.7% YTD. However, the narrowness of the rally and resulting bifurcation between the best and worst performing stocks has been staggering. A collection of top tech-oriented companies by market-cap (Tesla, Amazon, Nvidia, Microsoft, Meta, Apple, Alphabet, Netflix) – coined the Mega-Cap 8 – returned an average of 28.3% for Q2 and 81.6% YTD. By comparison, the broad market, as measured by the S&P 500 on an equal-weighted basis, was up only 3.5% for the quarter and 6.0% YTD. The quarter was marked by low stock correlations, which usually suggest a stockpicker’s market, but with large caps driving the gains, there was little room left to pick winners.

The Russell 2000 gained 4.8% for the quarter, bringing its YTD return to 7.2%. The relatively modest returns further down the market-cap spectrum illustrate that this has not been a typical bull market led by riskier assets. The emphasis has been on safer companies with deep moats,

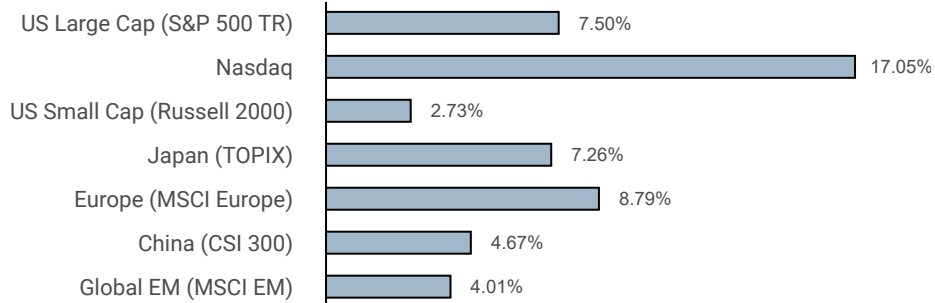
Figure 6. Mega-Cap 8 outperform over the quarter



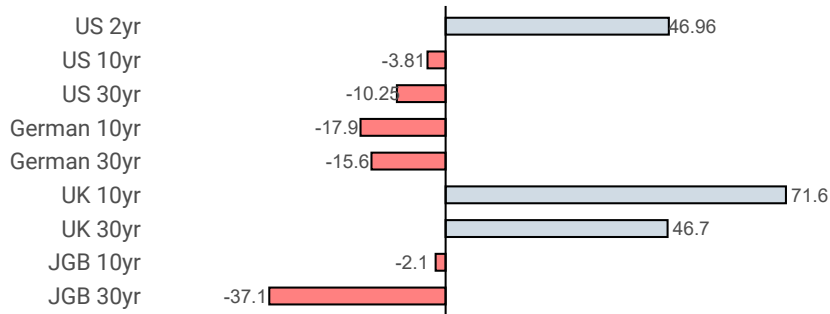
Source: Bloomberg Finance LP.

TABLE 1. ASSET RETURNS Q1 2023

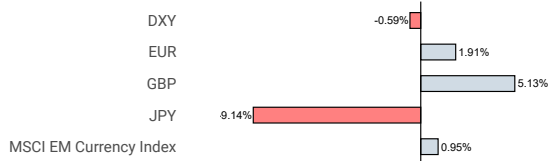
EQUITY MARKETS



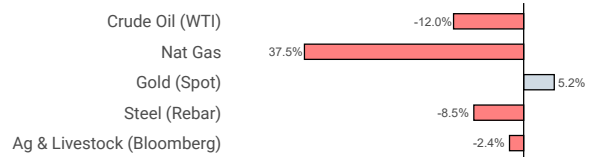
BOND MARKETS



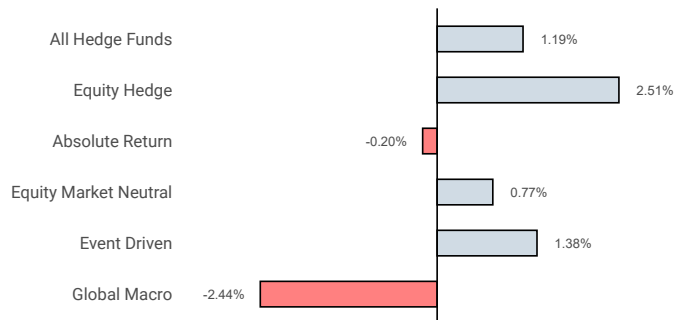
CURRENCY MARKETS



COMMODITIES MARKETS



RCG HEDGE FUND INDEXES



BOX 3. CRYPTO ASSETS

It was a challenging quarter for crypto exchanges. In early June, the SEC filed more than a dozen charges against Binance, the largest cryptocurrency exchange in the world, and its founder Changpeng (“CZ”) Zhao. Among its charges were claims that the company was operating an unregistered securities exchange and a more troublesome claim that Binance and CZ were misappropriating customer funds. A day later, the SEC brought similar, albeit less nefarious, charges against Coinbase. While the charge against Coinbase also accused the exchange of operating illegally, Coinbase CEO Brian Armstrong was not named personally in the suit. Coinbase stock fell more than 12% on the news, but this development should not have come as a total surprise to investors, as a Wells notice was issued to Coinbase back in March, leading to a very public response from the company.

Core to the SEC’s lawsuits is the question of whether crypto tokens are securities (and therefore whether or not crypto exchanges are even legal). This has been a longstanding philosophical debate amongst various industry stakeholders, and further clarity on this issue should be welcomed. The filing specifically names Solana’s SOL token, Filecoin’s FIL, Algorand’s ALGO, and Axie Infinity’s AXS, among others, as tokens that should be considered securities, while the largest crypto token by market cap, Bitcoin, is not referenced. According to a report from Mizuho Securities, the tokens that were named may represent more than 30% of Coinbase’s revenue. The outcome of this case will be a close watchpoint going forward. As others have mentioned, thoughtful regulation will be required for the crypto asset class to truly scale within institutional portfolios.

It’s important to note that after Q2 closed, a U.S. federal judge ruled that, while institutional sales of Ripple’s XRP token “constituted an unregistered offer and sale of investment contracts,” secondary sales, or “programmatically sales,” of XRP on crypto exchanges, did not. Coinbase’s share price appreciated on the news, as investors appear to believe that this ruling portends positively for Coinbase.

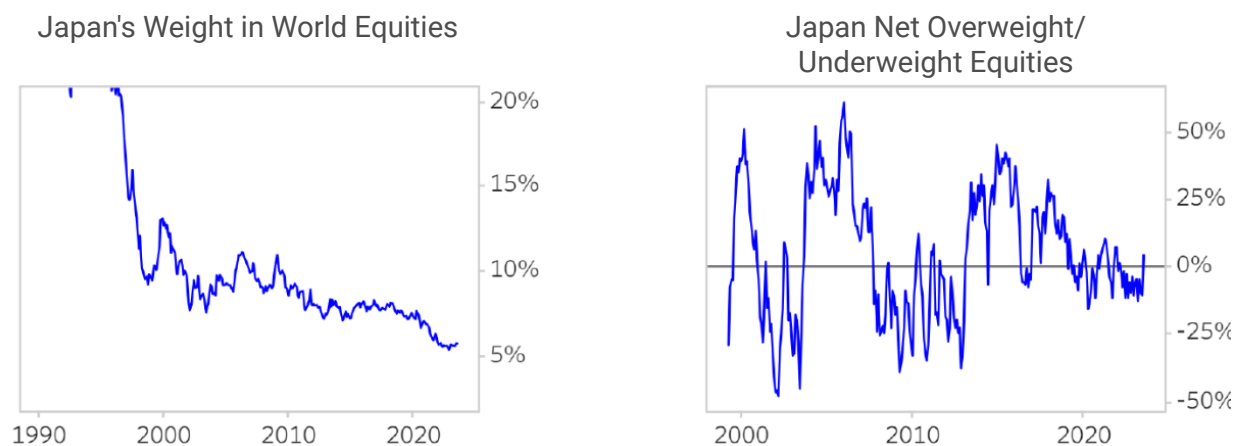
balance sheet flexibility, and promising AI-related growth drivers. The strong recovery in domestic and international travel has been another pocket of strength. The Defiance Hotel Airline and Cruise ETF for example gained 18.7% for the quarter and is up 34.3% YTD; however, most other sectors, including financials, energy, utilities, and health care, have been largely left behind.

With the S&P 500 sitting at approximately 19.6x forward earnings, it is difficult to envision much multiple expansion from here, given elevated inflation still forcing the Fed to maintain its hawkish stance. It would not be surprising to see some reversion from this year’s winners due to profit taking and for some of the higher quality companies in the left-behind sectors to do some catching up. Multiples for small-cap and cyclical stocks could catch up to the mega caps, but such a move into riskier investments would not be typical of the late cycle. Such a move would require some consensus as to whether we’ve achieved a soft landing or avoided any landing at all.

It's more likely that we'll see a range bound market in which stock picking will be key to generating strong returns.

One market that investors have coalesced around is Japan. During the second quarter, investors were treated to plenty of positive corporate guidance and solid economic data across the manufacturing and retail sectors. The Nikkei 225 surged another 18.4% in Q2 and is up 27.2% YTD. Foreign investors' purchases of cash equities, which accelerated around mid-May, have been

Figure 7. Japanese equities maintain cheaper valuations



Source: Bridgewater Associates LP, Bank of America Global Managers Survey.

concentrated in Japan's blue chips, leading to a slightly similar but much less pronounced market-cap effect as in the US. The TOPIX, which is a much broader representation of the market and is less concentrated in Japan's biggest companies, has underperformed the Nikkei by more than 600 basis points YTD. Nevertheless, the TOPIX has posted six consecutive months of positive performance during the first half of the year.

Japan's current rally is looking a little long-in-the-tooth from a technical standpoint, having outperformed other markets by a wide margin so far this year. News out of Japan is also expected to be quiet until the TSE's next corporate governance report, expected to come out in the Fall. In the meantime, Japan remains fairly valued slightly cheap versus other developed countries on key valuation measures. Japan is also still a relatively modest weight in most global

Table 2. Japan remains underweight in global equities

Equity market	CAPE	Forward P/E	Trailing P/E	P/B	Dividend yield
US	28 (17%)	19 (14%)	22 (9%)	4.1 (44%)	1.6 (25%)
UK	14 (4%)	10 (-19%)	12 (-18%)	1.6 (-8%)	4.0 (-4%)
Europe ex. UK	19 (17%)	13 (-6%)	15 (-9%)	1.9 (9%)	3.1 (4%)
Japan	14 (-15%)	14 (1%)	17 (5%)	1.3 (4%)	2.4 (-14%)
EM	11 (-21%)	12 (1%)	13 (-4%)	1.6 (-4%)	3.4 (-20%)

Key:	<-25%	-25% to -15%	-15% to -5%	-5% to 0%	0% to 5%	5% to 15%	15% to 25%	>25%
	Cheap			Neutral		Expensive		

Note: Valuations versus 15-year medians.

Source: Schroders Strategic Research. as of May 31, 2023.

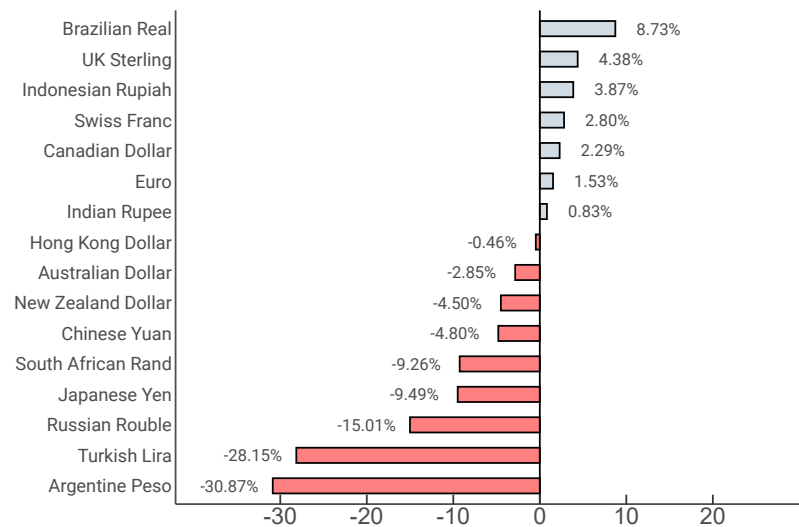
investors' portfolios. Over the second half of the year, investors are likely to look past Japan's blue chips and increasingly towards the recent laggards. Opportunities for activism to unlock value in a conservative corporate culture, like we've seen recently in high profile situations such as Fujitec and Toshiba, will also continue to exhibit outperformance.

In contrast to Japan, Europe was a considerable laggard this quarter. There was some optimism towards the region at the start of 2023, and we saw strong outperformance by luxury brands, which were expecting to see a strong pick-up in demand from China. However, as China's recovery faltered, the war in Ukraine continued to drag on, and core inflation remained far above targets in major economies like the UK and Germany, investors began to sour and pull capital. The STOXX Europe 600 gained just 0.9% for the quarter, though it remains up 8.7% YTD. Europe has historically performed the best in the early cycle when economies are emerging from a trough. With central banks continuing to battle persistent inflation, the outlook for European equities remains muted. However, there may be opportunities for patient investors given Europe's discount to the US is close to its lows once again, share buybacks have been strong, and corporate earnings have generally surprised to the upside.

EMERGING MARKETS

In emerging markets, EM ex-China markets performed well in the second quarter and are now up close to 10% for the year. On the other hand, Chinese markets fell behind most emerging and developed markets, with EM (including China) finishing flat over the quarter. Investing in China always carried risks in prior cycles, but its growth curve was more than enough to offset them; this simply isn't the case, as we saw from disappointing second quarter GDP numbers. North American investors are voting with their dollars and have been suspending new investments and/or de-allocating across the board.

Figure 3.1. EM currency resilience provides investor tailwinds



Source: Bloomberg Finance LP.

The slower growth and lack of investment flows begs the question: are Chinese markets going through a permanent re-rating not unlike what we saw with Japan in the nineties? The similarities to Japan's economy of the 80s and 90s are, in some respects, uncanny. Indeed, China's economic development model resembles that of Japan over thirty years ago with a high level of savings, high investment, relatively low consumption, assets at bubble prices, a rapidly aging population, and a strong regulatory framework often influencing macroeconomic outcomes. And while Japan's eventual comeuppance was fueled by a broad-based financial crisis, China's chronic reliance on real estate investment poses an equal, if not more consequential, economic problem.

There are, however, some notable differences. First, China's state-owned financial system has the demonstrated ability to prevent (if it so chooses) significant banks from failing. Second, the country's closed capital account can, for the most part, protect the economy from the risk of significant capital flight. Third, China has historically been more proactive in using its command-and-control regulatory framework to help manage difficult problems – though this same penchant for control has, of late, had a deleterious effect on the trust, confidence, and potential of China's private sector. Lastly, and perhaps of greater significance for the long-term prospects of the country, China's standing as a geopolitical rival of the US and other Western democracies put it at a distinct disadvantage should the West retain its capital edge. On balance, the similarities, and differences between the China of today and the Japan of the nineties don't provide a clear picture of where things will settle – an uncertainty other strategic rivals have been quick to exploit.

The so-called 'China plus one' economies of India, Vietnam, and Mexico have increasingly benefitted from China's broken compass. More and more opportunities in the green tech space are beginning to take center stage, particularly in India. Although China continues to invest significantly in green investments (\$60 billion in Q1) and remain a leading market in the EV space, India is well positioned, given its industrial policy, cheap and plentiful labor pool, and FDI environment. We view these developments as a once in a cycle opportunity to go after companies in an area that is currently woefully under-represented in industry benchmarks, just as Chinese tech companies were fifteen years ago. However, investors must be prepared for a bumpy road and take a long-term view, for returns will not be linear.

For instance, while Mexico is one of the best performing equity markets globally this year, India and Vietnam have not done much, adding to 2022 disappointing returns. Mexico in particular has benefited from a rise in manufacturing and “nearshoring” or “friendshoring” that picked up during the pandemic. These trends and deteriorating US-Sino relations helped propel Mexico to the top spot for the US’s trading partner for the first time and ending nine years of Chinese dominance.

One market tailwind that investors have been able to rely on is EM currency resilience. By the midway point of 2023, we expected to see rate cuts or at least signaling of rate cuts on behalf of major EM central banks. This has largely not happened outside of China. Inflation (especially food) remains sticky, but we get the sense some central banks are happy to wait for the Fed to take the first step. Until then, EM currencies remain well placed to retain recent gains against the greenback. We view policy normalization as a welcome boost for EM equities but don’t expect real movement until Q4.

FIXED INCOME

Bonds fell during the second quarter as the Fed signaled further rate increases to come. This contrasted with stocks, which continued to resist the gravitational forces of higher interest rates. The market's expectations for rates at year end increased by 100 bps – from 4.5% to 5.5% – and market pricing no longer incorporated a projected a 'pivot' (i.e., interest rate cuts) in 2023. The bond market continues to play from behind though as the FOMC increased its own expectations for year-end fed funds from 5.1% to 5.6% as part of its June economic projections – an outcome the market only gives a quarter chance.

Figure 8. Decoupling of stocks and real yields



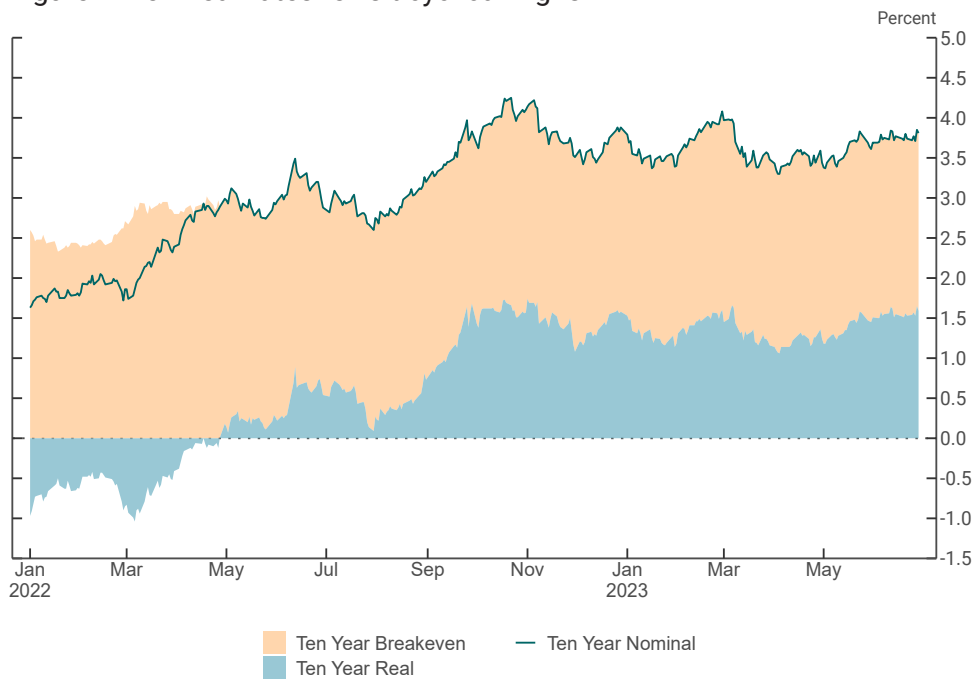
The Bloomberg US Aggregate Bond Index declined -0.8% as the headline 10-year Treasury yield climbed 33 basis points to 3.81%. The move was driven entirely by higher real rates as the 10-year TIP yield rose 43 basis points to 1.59%, while breakeven inflation rates declined -10 basis points to 2.22%. The level of real yields is notable as they revisit the cyclical highs seen over the last nine months, periods that preceded strong bond rallies.

This has been overlooked as nominal yields remain well off last year's highs as implied inflation expectations have softened.

Credit outperformed during the second quarter as the spread on the ICE BofA US Corporate Index tightened to Treasuries by -15 basis points to 1.30%. While tighter quarter-over-quarter, spreads remain nearly 50 basis points over the 2022 tights. Investors remain hesitant of investment grade credit though, pointing towards the inverted yield curve as a harbinger of recession. But it's not the inversion of the curve, but the reversion that historically has spelled trouble. With the spread between the 2-year and 10-year Treasury ('2s10s spread') still more than 100 basis points negative after falling -48 basis points during the second quarter, the alarm bells aren't yet ringing. Furthermore, investment grade credit has a yield-to-maturity of 5.5% as compared to the S&P 500's forward earnings yield of 5.2%.

With real yields near cycle highs, credit spreads well off their recent tights, and a very low or negative equity risk premium, there is a bullish setup for spread products as we head into the second half of the year. With high quality bonds priced to potentially offer equity-like returns with risk mitigating benefits to a portfolio, investors can be paid well to wait as downside risks accumulate due to higher interest rates.

Figure 9. Ten Year rates revisit cyclical highs



Source: Bloomberg Finance LP.

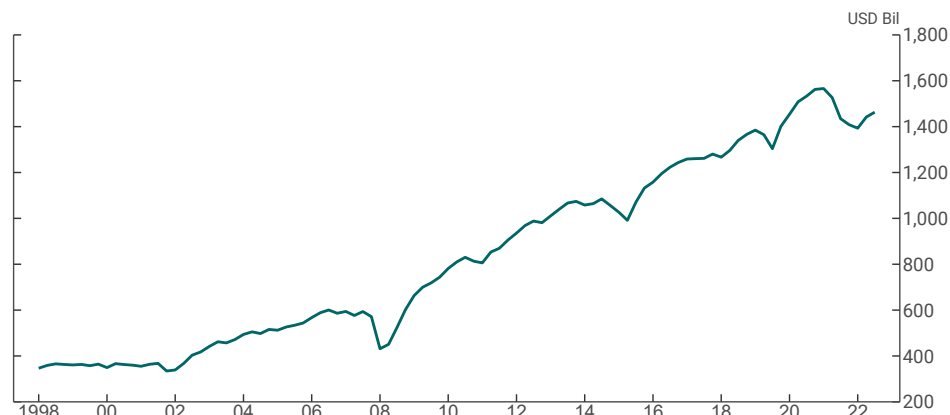
PUBLIC CREDIT

The leveraged loan index was up 3% over the quarter, bringing total gains of 6.2% YTD. June marked the second strongest monthly performance since the onset of the pandemic, with leverage loans up 2.2%. This achievement can be attributed to several key factors. First, the expectation of the Fed's continued policy of maintaining higher interest rates for an extended period, known as "higher for longer," greatly influenced the positive performance of leveraged loans. Furthermore, the widely-predicted recession appeared to be postponed further into the future. This development likely alleviated concerns and instilled optimism among investors, leading to increased confidence in the leveraged loan market.

Meanwhile, high yield also witnessed positive gains, increasing 1.7% during the second quarter to bring total gains up to 5.3% YTD. The market has benefited from improved fundamentals and the likelihood that the Fed is nearing the end of its rate hike cycle. Regarding fundamentals, high yield balance sheets are in a good position to weather forthcoming corporate headwinds with leverage at a more than decade low (3.9x) and coverage metrics only slightly below an all-time high (5.7x). Moreover, the rating composition is strong with BB-rated issuers making up well over 50% of the index and CCC issuers reaching a multi-period low of only 10% of the Index. Moreover, the fixed-rate nature of the asset class allows it to benefit from a pause in further interest rate increases.

Both markets are also benefiting from positive technicals as the investment universe has begun to shrink, most notably in the high yield market. But if rates continue to move higher, it's likely to put pressure on those tailwinds in a fixed rate asset class. According to JP Morgan, the US HY bond universe has contracted by \$37 billion or 2.7% YTD after contracting by a record \$163 billion

Figure 10. Shrinking investments in the US High Yield market



Source: ICE BoFA Data Indices via FRED, Federal Reserve Bank of St. Louis.

(or 11%) in 2022. As depicted in Figure 10, the market size has fallen to \$1.4 trillion at the end of second quarter from a peak of \$1.6 trillion in 2021. These conditions are due to a collapse in net new issuance, steady retail outflows and the upgrade of issuers from high yield to investment grade.

The leveraged loan universe has also contracted by \$100 billion or 7% since the end of Q2 2022 after growing at 11% per year between 2012 and the end of Q2 2022. Of this contraction, \$65 billion has occurred in 2023 primarily due to a collapse in net new issuance, an increase in bond-for-loan takeout, steady retail outflows, and the rapid growth in the private credit universe as an alternative source of financing for private equity sponsors.

Despite the strong performance of the leveraged finance markets in the first half of the year, corporate defaults are on the rise. According to Moody's, there have been 41 defaults so far this year, which is more than double the same period last year. Chapter 11 bankruptcy filings have soared by 68% in the first half of the year compared to 2022, according to data shared by Epiq Bankruptcy. One of the largest defaults in the quarter was Envision Healthcare, a provider of emergency medical services, that had more than \$7.9 billion in debt outstanding. The KKR-backed company was the second largest healthcare issuer in the high yield market behind Bausch Health Companies which has about \$21.8 billion of debt outstanding. Overall, the healthcare sector is under pressure as labor cost increases are unprecedented, driven by the combination of inflation

plus a wave of retirements and job churn, some of which can be directly attributed to the burden placed on medical personnel during the worst of the pandemic. These higher personnel costs are putting a dent into the cost structures of hospitals, nursing homes, and other healthcare providers.

BOX 4. EMERGING MARKET DEBT

EM Sovereign Debt, as measured by the JP Morgan EMBI Global Diversified Index, was up 4.1% in the first half of 2023 on the back of spread tightening. At quarter end, the Index had a current spread of around 450 basis points, where the gap between the investment and high yield segments of the index is at historical highs. The investment grade component of the Index is at 153 basis points and is trading well below its long-term average, while the overall high yield component remains near its all-time high. This bifurcation results in investors now having to take more risk in high yield to generate returns in an increasingly uncertain macroeconomic environment. We remain cautious as any exogenous shock such as from a US recession would result in spread widening that could more than offset the current carry benefits.

Moving on to local currency EM debt, as measured by the JP Morgan GBI-EM GD Index, it has emerged as one of the top-performing asset classes in fixed income this year up 7.8% for the year in USD terms. Although yields peaked in Q4 2022, they remain close to multi-year highs. Real yields in local currency EM debt currently stand at historically high levels, both in absolute terms and relative to developed markets. Looking ahead, several broader trends that have supported the asset class should remain intact such as increasing growth differentials favoring emerging markets, peaking inflation, and potential room for monetary easing.

PRIVATE CREDIT

The combination of rising interest rates and widening spreads – a byproduct of macroeconomic uncertainty, traditional lender retrenchment, and frenetic public credit markets – continues to invigorate the institutional demand for private credit exposure. Institutions, particularly those with liability-driven liquidity and return targets, are recognizing that private credit can help achieve their objectives more reliably than other private market assets given the contractual, income-oriented nature of the investment returns. Private credit GPs are embracing the tailwinds to their asset class.

The same factors that are enhancing returns, however, also have the propensity to increase the risk of default and other adverse credit events (i.e., the added return you are receiving in the current market compensates you for taking additional risk). In fact, after nearly a decade of muted default rates, the US leverage finance markets have finally started to see an uptick in distress in response to higher debt costs and a slowing economy. The private markets are not immune. Moody's analyst Christina Padgett recently said, "This shift in macro and market conditions will mark the first sector-wide test of non-bank private credit lenders' ability to manage through recession and an increase in borrower defaults." The somber warning was associated with reference to two of the largest participants in the sponsored lending market: Ares and Owl Rock.

RockCreek's stance on the asset class is one of excitement, reflective of our belief that we can generate outsized Risk-adjusted returns through very targeted, thematic investments – and often through commitments to smaller, more nimble strategies are expected to be strong drivers of performance. Achieving success through buying the beta of the asset class – committing to the

mega-funds that are forced to buy the market – may no longer be a feasible strategy. Identifying the most attractive segments of the market and acute manager selection are paramount.

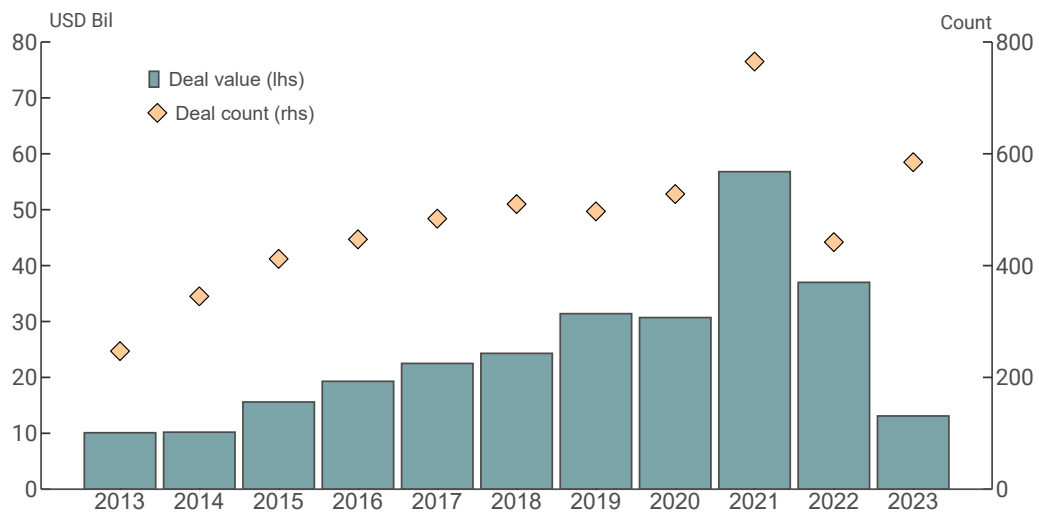
One such theme that we are excited about revolves around the expectation that banks – on the back of the 2023 “banking crisis” – will seek balance sheet improvement through asset sales. The market has considered these sales to be a positive signal – indicating prudent risk management and balance sheet enhancement – as opposed to a sign of burgeoning systemic risk. As a result, more banks are likely to pursue such equity-accretive asset sales. Although some of these transactions will occur through large, undiscerning, and widely brokered portfolio sales that cater to larger buyers willing to take the good, the bad, and the ugly, the more interesting opportunity will be the smaller, more selective assets sales that occur on a bilateral basis. Well-connected buyers will be able to acquire mispriced C&I and CRE loans at steep discounts from non-economical sellers. As mentioned last quarter, CRE debt is one sub-segment of asset-based finance that we find particularly interesting given (again) the retrenchment of traditional sources of debt finance, allowing lenders to be more selective and dictate terms and pricing. The opportunity size is massive, with an estimated \$1.5 trillion of CRE debt outstanding projected to mature over the next two years .

With companies facing pressure from increasing debt costs, lending against enterprise value (i.e., cash flow lending) would appear riskier relative to asset-based loans and/or lending against liquidation value. A recent whitepaper on Asset Based Finance by KKR projects that the market for US private asset-based lending will grow by ~70% over the next five years, driven by the growth of financial technology platforms. The market is poised to benefit from unreliable public securitization as traditional foreign and insurance buyers of senior structured credit tranches are turning to lower-risk (even risk-free) assets to achieve their yield targets. Even corporate borrowers that would usually seek more traditional enterprise value-based loans are considering asset-based financing given the ability to structure these facilities on a covenant-free basis, offering more freedom to use cash flow for accretive or other purposes. An asset-based lender that is fully covered by working capital and other liquid assets is less concerned with the protections that covenants offer.

PRIVATE EQUITY & VENTURE CAPITAL

Though the US public equity markets have started the year on a positive note, bucking the trend of 2022, the venture capital and private equity ecosystem continues to search for solid footing. Venture investment pace has materially slowed, as global venture funding in the first half of 2023 has fallen 51% relative to the first half of 2022, according to [Crunchbase](#). Venture capital fundraising set an annual record for capital in 2022: \$171 billion according to [Pitchbook](#), the second consecutive year of over \$150 billion raised. However, the fundraising slowdown into the end of 2022 has persisted into 2023, as only \$33 billion has successfully closed across 233 funds in the first half of 2023 per the [Pitchbook NVCA Monitor](#), setting pace for the full-year figure to hit a six-year low.

Figure 11. Emerging manager VC fundraising weakness extends to Q2



Source: Pitchbook.

The fundraising headwinds have been most drastic for new managers, many of which are diverse and underrepresented GPs, who have closed just \$2.3 billion in commitments through mid-April 2023. Per Pitchbook, 2023 is expected to be the first year since 2016 to see new venture managers close less than \$20 billion in commitments.

Despite the slowdown in venture capital investments and fundraising, the IPO and M&A markets are seeing some green shoots. Though the total number of companies hitting the IPO market ([79 through June 30th](#)) are roughly 37% lower than the same time period in 2022, [Cava's highly successful IPO](#) has signaled a window, albeit small, of opportunity for venture and private equity backed companies to retest the public market waters. Additionally, acquisitions of venture and private equity backed companies – such as Databricks' acquisition of venture backed MosaicML and IBM's acquisition of Visa Equity Partners backed Apptio – may be an encouraging signal that the sluggish M&A market may see more activity as companies come to terms with the vastly changed market environment, and as well capitalized companies seek to take advantage of the market downturn through consolidation. According to the Financial Times, M&A sale launches on Datasite have [steadily increased month](#) over month this year. These indicators will be important signals to monitor into Q3 and the rest of 2023.

Despite a slowdown in activity, compelling and innovative investment themes continue to emerge across our portfolio companies.

Generative AI has been all the buzz in 2023, with [\\$1.7 billion invested across 46 deals](#) in Q1 2023, not including Microsoft's \$10 billion investment in OpenAI (see [Box 5](#)). From Y Combinator's W23 cohort, which graduated in April, 22% are building generative-AI focused startups. While the broader technology market has cooled, valuations in the generative AI space have exploded, accentuated by the \$260 million valuation ascribed to the seed round of Mistral AI, which was founded less than six months ago. Granted, the company appears to have a world-class team and an investor group comprised of a who's who of reputable venture firms, but it is always prudent to question if the GAI renaissance, as the market sees it, is permanent, or the next bubble waiting to burst. Addressing the naysayers, McKinsey [recently released a report](#) which concluded that "generative AI is poised to unleash the next wave of productivity" and "could add the equivalent of \$2.6 trillion to \$4.4 trillion annually..." with potential use cases largely concentrated in

customer operations, marketing and sales, software engineering, and R&D. The report highlights banking, high tech, and life sciences as among the industries that could see the biggest impact as a percentage of their revenues.

Another theme that has the potential to be equally transformative to society, but has received less attention from the press, is the emergence of value-based healthcare providers. The U.S. currently spends over \$4 trillion per year on healthcare, of which less than 10% is on medications. A significant portion of this spend is payments to hospitals, physicians, and personal healthcare, and value-based care has emerged as one of the most promising ways to reduce this cost by providing financial incentives to care providers to take accountability for the cost of care delivery. There is significant evidence that primary care providers are most effective at providing value-based care, and the next generation of primary care companies are currently being built in private markets. This includes companies like Devoted Health, which earlier this year launched its own value-based primary care effort, [Devoted Medical](#).

We are also paying close attention to the private equity opportunity set in Japan. In 2022, total private equity deal value in Japan exceeded \$25 billion, the second highest year since 2012, according to Dealogic data. The private equity opportunity largely mirrors the public markets opportunity set, which is seeking to invest in improved corporate governance and return on equity. As publicly listed companies seek to improve their ROE, we expect an increase in the number of corporate spin-offs and divestitures of non-core businesses, whereas the Japanese private equity opportunity set has historically centered around founder successions. For example, the board of Toshiba recently accepted the \$15.2 billion buyout offer from an investor group led by Japan Industrial Partners. Similarly, Bain Capital and KKR have entered advanced discussions to acquire the air conditioner manufacturing unit from Fujitsu, which is expected to be valued at \$1.3 billion.

BOX 5. GENERATIVE AI

Artificial intelligence is booming. Equity valuations and venture funding for the AI sector have increased since the public release of OpenAI's ChatGPT tool late last year, which introduced "generative AI" to the broader population and delivered highly context-specific outputs from unstructured data in a user-friendly format.

Indeed, we believe that investor interest in AI stems more from generative AI terminals like ChatGPT bringing existing natural language processing (NLP) capabilities to non-expert users for general use-cases, rather than a watershed moment in computational innovation. Estimates on macro impacts range wildly depending on assumptions, whereas we see narrower, near-term impacts on markets that can be more rigorously justified.

Firstly, the deployment of more capable AI engines emphasizes the need for businesses to focus on technology integration. Prior to the current boom, principal customers of GAI engines were firms operating in a restricted set of industries, such as quantitative finance. The advent of GAI has opened a host of capabilities for all other industries leaving firms [scrambling to adopt efficient methods](#) of storing and sorting their suddenly valuable data for use in training AI models.

In many cases, collected data may be sensitive or legally protected, which creates an opening for firms like Granica that recently closed a \$45 million Series A round for its data-management-for-LLMs services for new customers of AI integration. However, demand isn't entirely serviceable by external SaaS startups: when data management is so baked-in to internal system architectures, it's more likely that firms will choose in-house solutions with cloud providers like Azure and AWS, or through hiring a new crop of data scientists specialized in managing data for AI integration.

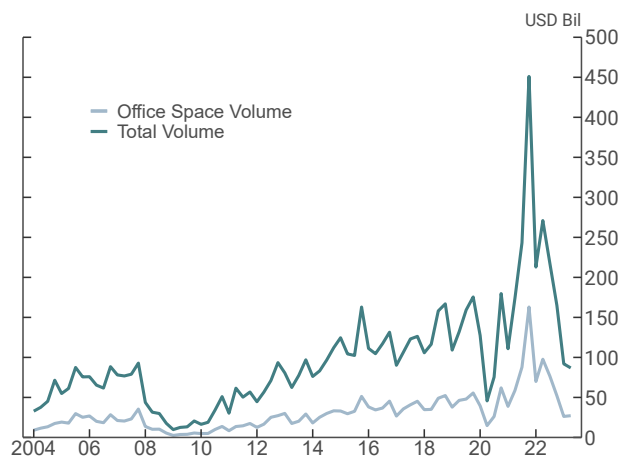
This leads us to our second prediction: an industry-wide realignment within the big-tech sector. Microsoft is an easy winner to pick: they stand to gain from their existing – and extensive – integration with OpenAI's platform, giving them a monopoly on GAI integration on cloud, business, and consumer. Unless open-source alternatives can be reliably integrated into firm-specific architectures on cloud (which provides another avenue for Amazon, Google, and Meta to impose restrictions on integrations with their APIs), it's likely that demand will be captured by these existing providers of cloud services.

Finally, hardware. NVIDIA's stock has tripled to a current P/E of more than 230x as of 20th July, indicating investors believe in the firm's dominance, but the history of the semiconductor industry shows periods of similar commercial dominance ended with spinoffs, defections, and diversification. Given the burgeoning amount of public investment in semiconductor talent and research post-CHIPS Act, it's likely that the innovation space for AI processing hardware will diversify outside NVIDIA, rather than being contained within it.

REAL ESTATE

During the second quarter, the commercial real estate sector was portrayed in the media as facing a broad crash on all fronts. Rather than a downturn across all property types, it is the lower quality office properties that face the greatest threats. These assets have experienced declining occupancy rates from work-from-home impacts in select cities and increased carrying costs due

Figure 12. Transaction volumes fall as commercial real estate feels pressure



Source: REAL Capital Analytics via Bloomberg Finance LP.

to higher interest rates that have further impacted values. Through the first half of 2023, there have been numerous examples where owners have decided to hand the keys back to lenders in the face of maturities, rather than reinvest capital to revive stranded assets, as seen with Park Hotels in San Francisco and office landlords across major markets.

Overall, we expect commercial real estate pressure to continue for the rest of the decade, as longer term leases come to an end. Lenders who are not structured to

operate properties received out of bankruptcy will be forced to sell the properties at a discount, at which point a new buyer may have a low enough basis to reinvest capital into the property and compete on rents. To avoid distressed sales, lenders may “blend and extend” the maturities, similar to what occurred during the Global Financial Crisis.

We are also closely monitoring appraisal values and transaction volumes, as these are indicative of the health of the entire sector. Certain landlords will use dated appraisal values, which may be artificially high in the current environment, so they do not breach their debt service covenants or look to manage redemption queues. With each quarter, appraisals should better reflect values that will lead to more transaction volume.

The second quarter performance of the ODCE, a widely tracked index of core real estate properties, came in at -2.7%. While painful for investors, this negative mark more accurately reflects values and has the potential to jumpstart transactions for the second half of the year. Once the bid-ask spread narrows enough, liquidity, and the health of the real estate market, should return. At the end of the quarter, green shoots appeared in the transaction market as transactions closed for properties such as Prologis' purchase of industrial properties from Blackstone for \$3.1 billion or Japan's Mori Trust purchasing a stake in a prominent midtown office tower from SL Green at a \$2 billion valuation.

In this environment, we have been cautious when underwriting new opportunities and are focused on ensuring that the business plan still works with higher financing costs in the medium term. Additionally, this environment will provide clarity on investors that are able to generate alpha through NOI growth, rather than strategies that have benefitted from essentially free debt and cap rate compression. Investments that can generate durable cash flow in this environment are a focus area for deployment in our portfolios, with strategies such as affordable housing, investment grade net lease, industrial, telecommunications, and sustainable infrastructure providing attractive risk adjusted return profiles. In contrast, commodity office and high capital expenditure strategies reliant on cap rate compression or aggressive assumptions are not our current areas of focus.

CONTRIBUTORS

CAROLINE ATKINSON

Senior Global Strategist
caroline.atkinson@therockcreekgroup.com

ERIN MCDEVITT

Associate
erin.mcdevitt@therockcreekgroup.com

NATE RAWLINGS

Head of Communications
nate.rawlings@therockcreekgroup.com

KEN LAPLACE

Managing Director
ken.laplace@therockcreekgroup.com

ALBERTO FASSINOTTI

Managing Director
alberto.fassinotti@therockcreekgroup.com

CHRIS BARBER

Managing Director
chris.barber@therockcreekgroup.com

SIDDARTH SUDHIR

Managing Director
siddarth.sudhir@therockcreekgroup.com

MATT BULLOUGH

Managing Director
matt.bullough@therockcreekgroup.com

PETER CLINE

Director
peter.cline@therockcreekgroup.com

DREW REID

Senior Vice President
drew.reid@therockcreekgroup.com

JOHNNY READ

Vice President
johnny.read@therockcreekgroup.com

WHITNEY JOHNSON

Summer Analyst
whitney.johnson@therockcreekgroup.com

ABEER DAHIYA

Summer Analyst
abeer.dahiya@therockcreekgroup.com

DISCLAIMERS

The contents herein are intended for informational purposes only. The information presented is based upon RockCreek's interpretation. There can be no guarantee that the information presented is accurate. The information presented does not constitute tax, legal, investment or regulatory advice, and we encourage you to consult your legal and/or tax advisors should you have any questions relating to the materials presented herein. Opinions expressed reflect the current opinions of the Rock Creek Group as of the date appearing in this material only.

This material is intended only to facilitate your discussions with RockCreek; it is not intended to be used as a general guide to investing, or as a source of any specific investment recommendations, and makes no implied or express recommendations concerning the manner in which any client's account should or would be handled, as appropriate investment strategies depend upon the client's investment objectives. Information included herein may be provided to discuss general market activity; industry or sector trends; or other broad-based economic, market, or political conditions. Discussions herein concerning general economic conditions and political developments are not intended to be used as a general guide to investing, or as a source of any specific investment recommendations, and RockCreek makes no implied or express recommendations or warranties concerning the manner in which any account should or would be handled, as appropriate investment strategies depend upon the investor's unique investment objectives. This document does not constitute an offer or solicitation with respect to the purchase or sale of any security in any jurisdiction in which such an offer or solicitation is not authorized or to any person to whom it would be unlawful to make such offer or solicitation. As such, the information contained herein has been prepared solely for general informational purposes. None of RockCreek or any affiliates or employees makes any representation or warranty, express or implied, as to the accuracy or completeness of the information contained herein and nothing contained herein shall be relied upon as a promise or representation as to the past or future performance. Information and opinions are as of the date of this material only and are subject to change without notice.

Any information contained herein regarding a fund or manager is based upon information prepared by the underlying manager. RockCreek has not verified and is not liable or responsible for the completeness or accuracy of such information (including but not limited to any information relating to the past or future performance of such fund or manager, or any related vehicle).

Any information contained herein that relates to an investment in a company is based upon available information prepared by such company. RockCreek has not verified and is not liable or responsible for the completeness or accuracy of such information concerning the company prepared by such company. As such, there can be no assurances that the information provided is a complete and accurate depiction of a portfolio's current performance and exposure. Prior transactions and their returns are not indicative of future results.

Performance statistics herein, if any, are not financial statements prepared in accordance with accounting principles generally accepted in the United States of America and have not been subject to audit. Performance is expressed in US dollars.

The volatility of any indices referenced herein may be materially different from that of an investor's account's portfolio. In addition, an account's holdings may differ significantly from the securities that comprise the indices. The indices have not been selected to represent appropriate benchmarks to compare an account's performance, but rather are disclosed to allow for comparison of the performance of accounts and managers in general to that of well-known and widely recognized indices. Information contained herein regarding performance of any index or security is based on information obtained from the indicated sources as of the specified dates, but there is no guarantee as to the accuracy of such information.

DISCLAIMERS

The quantitative methods that may be included and described herein are tools used in selecting investments and controlling risk, but such methods cannot alone determine investment success. Discussions and calculations regarding potential future events and their impact on the account are based solely on historic information and estimates and/or opinions, are provide for illustrative purposes only, and are subject to further limitations as specified elsewhere in this report. No guarantee can be made of the occurrence of such events or the actual impact such events would have on the account's future performance. In addition, the opinions, forecast, assumptions, estimates and commentary contained in this report are based on information provided to RockCreek on both a formal and informal basis. Further, any such opinions, forecasts, assumptions, estimates and commentary are made only as of the date indicated, are subject to change at any time without prior notice and cannot be guaranteed as being accurate.

Please note that the investment outlook and opportunities noted above (and throughout this letter) are prospective and based upon the opinion of RockCreek and there is no guarantee of success in our efforts to implement strategies that take advantage of such perceived opportunities.

RockCreek, RockCreek Group, Rock Creek and the logo are unregistered trademarks of The Rock Creek Group, LP in the United States and elsewhere.

Copyright © 2023 by The Rock Creek Group, LP. All rights reserved.