Q4 2022 Commentary Letter

Let's Turn The Page

RockCreek

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Macro Environment

The fourth quarter of 2022 was a microcosm of the year for investors, albeit not so painful. Early in the quarter, markets again got ahead of the Federal Reserve, rising in hopes of an easing signal to come. When the Fed clarified in November and again in December that it was not yet done fighting inflation, sentiment turned. By the end of the year, the quarter's early gains had partially evaporated.

For 2022 as a whole, the tally was grim. US bonds experienced their worst year on record. Global equities fell sharply. As a result, returns from a traditional 60:40 portfolio of stocks and bonds were the worst since 2008.

The new year began with markets again more optimistic about the path of interest rates than policymakers. Incoming data confirmed a slowdown in US price and wage inflation in Q4, even as the labor market stayed strong. Expectations grew that there will be a further slowdown in the pace of Fed rate hikes from December's 50 basis points to 25 basis points in February, with a further 25 basis points likely in March and a question mark thereafter. The arrival of earnings season, which began with a mixed bag from the major banks, turned attention towards the economic impact of the Fed's past moves. Concerns about growth were amplified in mid-January by disappointing data releases for retail sales and manufacturing at the end of Q4.

There remains a disconnect between market expectations that rates will ease sooner rather than later and the central bank's hawkish Q4 projections, outlined in December, which showed rates rising by a further 75 basis points or even a full percentage point, and staying above 5% through 2023. There are different explanations for the disconnect. Do investors expect a weakening economy and softening consumer sentiment to push the Fed to loosen policy, perhaps prematurely before inflation is beaten? Are they betting instead that inflation will dissipate more rapidly than the Fed anticipates, with less economic pain, resulting in the oft-hoped-for soft landing? Or are financial markets looking beyond today to anticipate the recovery that will eventually come?

Against this backdrop, RockCreek sees four key macro themes for 2023:

1. Will the US have a hard or soft landing, as monetary tightening feeds through to the real economy?

2. When will an improving inflation performance cause the monetary cycle to turn?

3. Will the energy shock from war in Europe continue to be contained, helped by winter warmth, European subsidies, and the US tapping the Strategic Petroleum Reserve?

4. How successfully can China exit from "Zero Covid", and will a return to robust growth be hobbled by longer-term trends of demographics, shifting trade patterns, and focus on state owned enterprises?

One thing we know about 2023: it will be different

A year ago, as inflation accelerated around the world, US growth appeared to stumble. There was much discussion about whether the economy was already in recession. The Federal Reserve was on the verge of tightening policy in what became the sharpest rise in interest rates since the Volcker squeeze of 1980. As inflation gathered speed last year, reaching forty-year highs, Fed Chair Jerome Powell and colleagues raced to raise rates and toughen their message, repeatedly undercutting market hopes for a reprieve. They focused increasingly on what was happening in the labor market, concerned that wage pressures would undercut their focus on bringing down inflation. And the window for achieving a soft landing seemed to narrow, as the labor market remained tight in Q4 and initial wage data was strong.

The recession did not come. And inflation almost certainly peaked in the middle of last year. It is still too high, with a headline rate at 6.5% year-on-year in December, compared to the Fed's 2% target. But the year-on-year rate masked a sharp deceleration since last summer. In Q4, core consumer prices rose by only 3.2% at an annualized rate while wage gains were only a little over 4%. Interest rates will go up further in the coming months. But the Fed's focus in 2023 will increasingly be on how and when to pause. Investors will be watching to see how much pain occurs before then and how quickly recovery can come.

At RockCreek, we expect that the economy will slow and unemployment will rise as monetary tightening – much of it already in the pipeline – squeezes housing and construction and slows down investment and spending. In Q4, retail sales disappointed, with an unexpectedly large decline of 1.1% in December, reflecting both prices and lower volumes, after a smaller drop in November. We also believe that markets are likely underestimating the Fed's determination to crush inflation and its willingness to risk overshooting and hurting the economy.

Two factors that buoyed the US economy in 2022 may help to cushion the slowdown this year and explain why expectations now are that any recession will be mild. The first is the underlying strength in employment and consumption that has come from pandemic-related fiscal support in the US and Europe. That complicated life for central banks by helping to push up inflation. But, as described below, it benefited many.

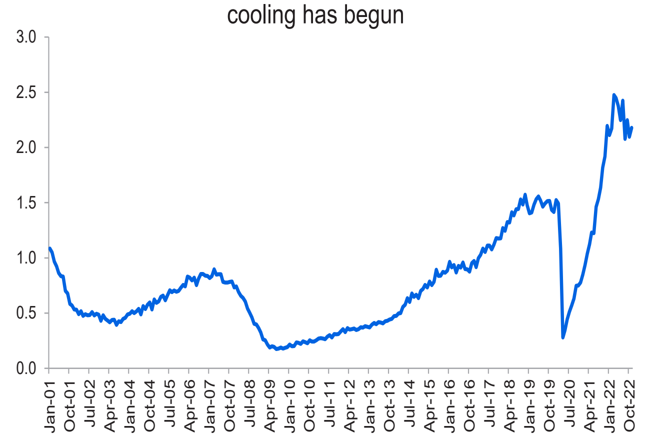
The second factor is the continued strength of the core financial system, unlike in the global financial crisis when the reverberations from systemic failures inflicted great damage on the real economy. Financial institutions are hurting now and laying off staff. But they are not in crisis. Despite a year of swift and steep monetary contraction, volatile markets, and sharp corrections in almost every asset class from bonds and equities to emerging markets, core financial institutions weathered the many storms of 2022, and markets continued to function.

What was good: a stronger economy, higher wages for the poorer

The US and global economy in Q4 remained surprisingly strong, despite the continued war in Europe, a Covid crunch in China and a gradual spending slowdown.

With full Q4 GDP numbers to be released later this month, real time trackers suggest that the US continued to expand through year-end, but spending growth may have petered out at the end of the quarter. Retail sales weakened in November and December following a strong month in October, with a quarter-over-quarter decline of roughly -1.3% to close out the year. The strength of the labor market, which has underpinned the post-pandemic economy, surprised again in Q4. Unemployment, a lagging indicator, dipped back close to pre-pandemic lows, ending the year at 3.5%. Payrolls rose by a monthly average of 247,000 during Q4, not much below the 269,000 reported in September. Job vacancies and quit rates – key indicators that the Fed watches for labor market tightness – drifted down only slightly during 2022. There are still 1.7 open jobs for every American looking for work, well above pre-pandemic levels.

Figure 1. The job market is still running hot, but the cooling has begun



Source: RockCreek

One reason for US economic resilience was that workers at the lower end of the income scale have done better, in relative terms, than those higher up the income scale. In contrast to most of the workforce, whose wage gains were eaten up by higher prices, low paid workers saw their real wages rise in 2022. And these workers tend to spend more of their incomes than those who are better off.

Labor force participation remains below its pre-pandemic level, leaving companies bidding up wages. Will this squeeze profit margins? As Fed Vice Chair Lael Brainard has remarked, inflation can come from widening profits as well as the wage spiral that has gotten most of the blame.

An online debate among mostly mainstream economists broke out at the end of 2022 about the underlying causes of inflation. Former MIT professor and IMF Chief Economist Olivier Blanchard made the case that inflation was primarily a result of a distributional battle between workers, employers, and owners of capital. Others stuck to the view that monetary policy determines price inflation. A middle ground could be that a shock to supply or demand – both of which happened with the pandemic lockdown and resulting stimulus – ignites a distributional battle, which only then can be stopped by pressure from a cooling economy on both workers and companies.

A sure sign of a distributional battle for higher wages and better working conditions versus company profits is if workers decide to take collective action. Work stoppages and strikes have recently risen. This began even before the pandemic — hitting a 17-year high in 2019, when 25 major work stoppages occurred, per BLS data. A broader measure of stoppages from Cornell's School of Industrial and Labor Relations, which covers all collective actions, showed that some 78,000 workers walked off the job in the first half of 2022, compared with 26,500 in the first half of 2021.

In Europe, the economy has been weaker, and the energy shock has been a bigger component of decades-high inflation. But there too, consumer spending and production was not as weak as many had expected in Q4. A slide in growth and contraction are still likely in Europe in 2023, but European governments, excluding the UK, are set to cushion the blow from energy prices. Supportive fiscal policy may offset some of the impact from continued monetary tightening.

But that's also bad … at least for interest rates, and risky bets

Resilient spending and employment have kept US inflation well above the Fed's 2% target. In Q4, Chair Powell reaffirmed again that 2% remains the central bank's goal. Last quarter's announcement was bad news for interest rates and for some risky bets. The big question is whether a stronger economy means the Fed will raise rates still further, to crimp hiring and force unemployment up, or whether price pressures will ease allowing for real wages to recover.

Some economists who called high inflation early and pressed for rapid interest rate increases last year are now wondering if the Fed will be able to pause after lifting rates above 5%. Both former Treasury Secretary Lawrence Summers and former New York Fed President Bill Dudley have softened recent calls for rate rises. Others expect further rate rises that would bring the fed funds rate close to 6% at its peak, or "terminal rate."

The era of more expensive money had brought casualties among risky players, with the dramatic blowup of crypto darling FTX, and a 15% drop in Bitcoin during Q4. In the UK, a surge in government bond yields threatened to bring down the country's enormous pension industry. Instead, it brought down a government, as blame was heaped on Prime Minister Liz Truss' "dash for growth." Both of these events showed the risks to financial stability from tightening money. But they were also reassuring. Spillovers across sectors were limited, and the strengthening of the core financial system post-2008 worked to insulate banks from major damage.

Energy Rollercoaster

The war in Ukraine took a different turn in Q4, as both sides stepped up the fighting. Ukraine inflicted further battlefield defeats on the Russian army, most notably with the November recapture of Kherson – the only major city taken by Russia in its initial advance. Russia, in retaliation, launched a relentless bombing assault across Ukraine, targeting civilians and civilian infrastructure with wave after wave of bombing and drone attacks. At home, President Putin shifted course. No longer ignoring the war, he called on Russians to unite in a fight that he characterized as being against the West.

With both sides digging in, the conflict in the middle of Europe will continue into 2023. But the economic impact this year is likely to be smaller. And Europe has the weather to thank for that. This winter has, so far, been unseasonably warm, making the frequent power cuts in Ukraine caused by Russian bombing less painful than they might have been and mitigating the costs of the energy shock across Europe from the loss of Russian energy. It has also allowed storage tanks to remain much closer to full and prompted falling gas prices after last on year's surge. Agreement in Brussels and major capitals subsidies to shield consumers and businesses, at least partially, from energy price hikes will also help.

Sanctions on Russia have not led to a domestic crisis as some had hoped. But they are gradually making it harder to produce weapons to fight the war and to sell oil to finance imports. So far, the ban on Russian oil imports into Europe that came into effect in December – covering shipping, insurance, and purchases – has not led to the feared spike in global oil prices as that oil was redirected increasingly to China and India at lower prices.

China Pivot

While the rest of the world largely “moved on” from Covid in the first half of 2022, the disease continued to hamstring China throughout the year. Indeed, in Q4 China’s economy weakened still further, even as the government suddenly abandoned its Zero Covid policy. Rising infections and illnesses, rather than mandatory lockdowns, undercut production and consumer spending. The November data show a drop in retail sales from a year earlier and contracting output.

China’s economy will rebound in 2023, in part just reflecting the low base from last year. But it seems likely that reopening and recovery will come with a terrible price as Covid runs through a population with low vaccination rates and poor health facilities. There may be a longer-term hit to confidence in China from both the mishandling of Covid and abrupt policy reversals on technology and property that took businesses and ordinary citizens unaware. President Xi won his historic third term in Q4, but he may face greater challenges ahead than expected.

Sustainable Investing

The Inflation Reduction Act (IRA) gave sustainable investments momentum coming into Q4 and helped the US reassert itself as a global leader for mobilizing capital to invest in green energy. The Biden Administration also made a series of announcements linking national security and economic prosperity with progress on climate challenges.

Private markets reacted positively to this continued momentum. According to Climate Tech VC, more than $64 billion was raised for private climate-focused funds by November – surpassing 2021 for the best year ever in terms of dollars raised. Investors poured more than $40 billion into climate companies last year – a 3% drop from 2021 – while deal activity jumped 40%, as more than 1,000 venture and growth-stage climate deals closed in 2022.

Climate companies bucked the broader trend of down rounds and the general pain that impacted broader private markets.

But it wasn't all good news. The enthusiasm for sustainability in private markets did not carry over to public markets in Q4, though it has in the past. Q4 saw the continuation of the broader 2022 controversy surrounding ESG, even as some of the more traditional global private equity firms increased their clean energy investments.

But there were still those who hoped there would be enough momentum headed into November's COP 27 meetings to spur the world's nations to get to work in a coordinated fashion to tackle the climate crisis. Much of this hope was quashed by diplomatic realities long before the first meeting took place. The most economically and environmentally vulnerable nations made it clear that they would be looking for assistance to address their stark realities. The conference ended with a handful of modest wins for vulnerable countries seeking compensation for loss and damage from the impacts of climate change. By and large, however, there was little progress elsewhere. And hopes of a positive step forward to start off 2023 were dashed as the sentiment coming out of Davos was more of the same.

Despite this backdrop, many corporations have recognized the need for substantive action in the climate arena and continued forward with commitments and plans to reduce the risk to their business models from environmental impacts. In November, Accenture published a report highlighting the commitment by over one third of the world's 2,000 largest public and private global companies to achieve net-zero by 2050—the largest percentage ever and a marked increase from 2021. But the report also shows that unless these companies aggressively accelerate their efforts, 93% of them will miss their targets, implying that only around 47 of the world's largest 2,000 companies are on pace to achieve their net-zero goals.

While this is a sobering snapshot of where we are on the road to global climate action, we believe that this also highlights how much opportunity exists in the sustainability sector. The year ahead should see continued acceleration by corporations – regardless of their views on climate issues or the debate on ESG – with ramped up investments in the energy and digital transformation of their businesses. And we continue to believe that companies offering smart, future-focused solutions will be attractive for investment.

And as the financial incentives provided by the IRA come more into focus, both the public and private sector have turned their attention to watching how the language of tax codes and other legal provisions will be interpreted and how the IRA will be spent.

In one early decision, the Biden Administration elected to take a much broader view than initially contemplated of geographies from which minerals used in the EV industry could be sourced to qualify for a lucrative tax credit.

Throughout 2023, Washington D.C. will continue to matter as many other details will be finalized; and investors will be watching each decision closely. This level of targeted investment has been known to spur monumental growth in climate and sustainability sectors in the past. A $465 million low-interest loan from the Department of Energy, funded by the 2010 federal stimulus package, transformed Tesla from a novelty car manufacturer building less than 500 cars a year into the company that we know today, so as the IRA money begins to be spent, investors should be on the lookout.

Spotlight: What really makes up a “Sustainable” ETF?

Throughout 2022, the financial media wrote several pieces about the underperformance of publicly traded ESG-focused companies and the ETFs that allocate capital to these securities. After the highs of 2020 and 2021, there has been an appetite for a negative story regarding the impact investment theme. Articles such as this one in Bloomberg, for example, highlight that “the performance of the 10 largest funds compares with the average 12% decline of ESG-labeled stock funds with more than $500 million of assets.” Or this piece: “The 10 largest ESG funds by assets have all posted double-digit losses, with eight of them falling even more than the S&P 500’s 14.8% decline. The laggards include BlackRock Inc.’s *iShares ESG Aware* MSCI USA exchange-traded fund (ESGU) and Vanguard Group’s *ESG US Stock ETF* (ESGV).”

But the negative views towards major ESG-branded indexes may be based on a fundamental misunderstanding of the ETFs’ construction. Using these ETFs as a proxy for climate-focused investing could be a flawed premise. The largest ESG-branded ETFs have seen major inflows in the COVID era. To maintain the liquidity and returns promised to investors, the funds have a profile that many experts may not consider climate focused.

For example, the top holdings of *iShares ESG Aware* – the largest ESG-branded ETF– are Apple, Microsoft, Amazon, and Google, which make up around 16% of the index. The second largest ETF, V*anguard ESG US Stock ETF*, has the exact same top holdings, which constitute 17% of the index. This creates a disconnect between the average investor’s views on the environmental impact of their investment and an ETF’s actual underlying holdings. Since the largest ESG-branded ETFs share many top holdings with the other major indexes – including the S&P 500 and the NASDAQ – the correlation of returns is extremely high. The chart below shows the correlation of monthly returns between the Nasdaq, S&P, *iShares ESG Aware, Vanguard ESG*, and *iShares Global Clean Energy*.

Figure 2. Underlying holdings in self-proclaimed
ESG indexs doesn't guarentee impact.

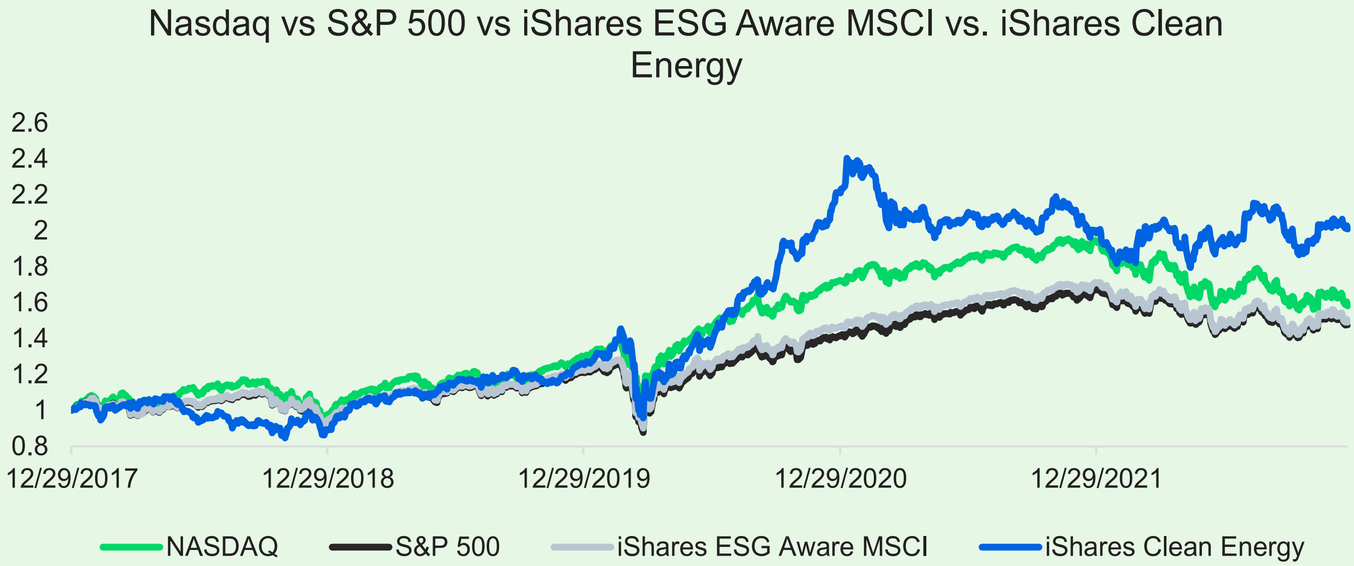
Monthly Return Correlation (5 yr)

	Nasdaq	*S&P 500*	*iShares ESG Aware*	*Vanguard ESG*	*iShares Global Clean Energy*
Nasdaq	1.00				
S&P 500	0.95	1.00			
iShares ESG Aware	0.96	1.00	1.00		
Vanguard ESG	0.97	0.99	0.99	1.00	
iShares Global Clean Energy	0.70	0.64	0.66	0.69	1.00

Source: RockCreek

This raises the question: how can investors find a more efficient way to invest in companies focused on more sustainable impact while generating differentiated returns with ESG-branded funds tracking major indexes so closely? The one outlier is the *iShares Global Clean Energy ETF* (ICLN). ICLN focuses on investing in technology, energy, utilities, and industrials and tracks the investment results of an index composed of global equities in the clean energy sector. For example, the largest holding in the ICLN is Enphase Energy, a company that focuses on commercial solar and storage solutions – which most experts would consider an impact investment. Also, as the correlations matrix shows, ICLN offers a return profile that makes it stand apart from other funds and has outperformed both the largest ETF’s in this space and the market at large in the last 2 years.

Figure 3. Clean Energy has been outproforming the market for the last 2 years



Source: RockCreek

Increasingly, investors are finding those opportunities by working with those who have deep expertise in that realm – especially in active vs. passive equities. It is important to look for the investments that add long term value and have the wind of new economic incentives behind them in order to drive returns.

For more, check out RockCreek’s latest [white paper here](#).

Public Equities

Equity Markets	Q4 2022
US Large Cap (S&P 500 TR)	7.6%
Nasdaq	-1.0%
US Small Cap (Russell 2000)	5.8%
Japan (TOPIX)	3.0%
Europe (MSCI Europe)	9.2%
China (CSI 300)	1.8%
Global EM (MSCI EM)	9.2%

Bond Markets	Q4 2022
US 2yr	-14.7
US 10yr	-4.6
US 30yr	-18.7
German 10yr	46.3
German 30yr	-45.3
UK 10yr	42.1
UK 30yr	-13.1
JGB 10yr	-17.8
JGB 30yr	-22.0

Currency Markets	Q4 2022
DXY	-7.7%
EUR	9.2%
GBP	8.2%
JPY	10.4%
MSCI EM Currency Index	4.3%

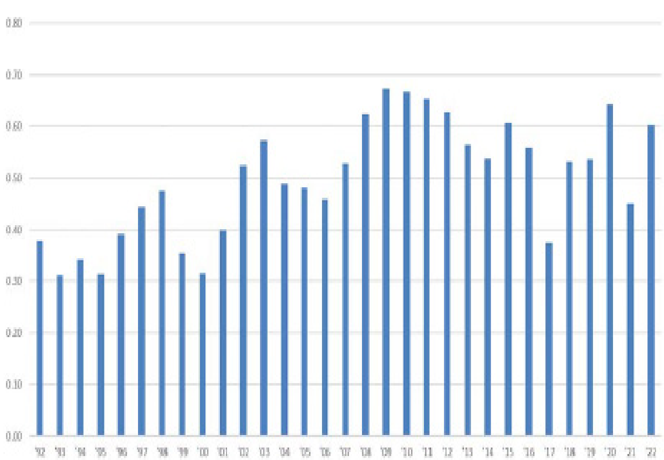
Commodity Markets	Q4 2022
Crude Oil (WTI)	1.0%
Nat Gas	-33.9%
Gold (Spot)	9.8%
Steel (Rebar)	4.0%
Ag & Livestock (Bloomberg)	2.3%

RCG HF Indices	Q4 2022
All Hedge Funds	2.2%
Equity Hedge	4.0%
Absolute Return	-0.3%
Equity Market Neutral	1.2%
Event Driven	2.9%
Global Macro	-1.0%

Although December was a thud, equity market performance for Q4 as a whole was more positive than it felt, driven largely by signs of cooling inflation and hopes that the Fed would moderate its pace of policy tightening. While better-than-expected corporate earnings reported in Q3 provided additional support, the lagging effect of higher interest rates remains a major concern looking forward. Many companies, particularly in the technology and financial sectors, warned of a worsening environment moving forward and are reducing capital expenditures and headcounts.

Despite the strong quarter finish, 2022 proved to be a historically bad year. The S&P 500's annual loss of -18% ranked at the bottom 5th percentile of all calendar year returns going back six decades. Energy and utilities, which were up approximately 66% and 2%, respectively, were the only GICS sectors to finish in positive territory. Meanwhile, communication services (-40%), consumer discretionary (-37%), and information technology (-28%) suffered the steepest losses. In fact, with a loss of -33%, the Nasdaq had its worst year of underperformance relative to the S&P since 2002. Owning low momentum and shorting high momentum stocks early on was the best trade of the year as speculative excesses were largely wiped out. With much of the market exhibiting high price correlations it was a challenging year for stock pickers. The 0.60 average monthly cross-sectional volatility of the S&P was one of the higher measures in recent years.

Figure 4. S&P 500 Cross Sectional Correlation by Year



Source: RockCreek

Going into 2023, most of the damage to equities has likely been done. The majority of stocks have come in line with historical average multiples even though there are still pockets of over-valuation with stubborn inflation and higher interest rates for longer continuing to act as headwinds for growth sectors. Despite lower risk of a severe recession, we expect to see continued rotation away from expensive growth, towards value. While 2023 S&P consensus revenue and earnings expectations may prove to be too high, a greater number of companies are starting to cut costs to preserve margins.

Assuming inflation continues to decline as the year progresses, investors will likely take more balanced views across sectors as opposed to the whiplash we saw around the evolving inflation and interest rate expectations of 2022. Equities are still priced much higher than they were at the onset of past secular bull markets and at the same time, sentiment is already near historic lows. This leads us to believe we are entering a more nuanced environment where stock selection skill will matter to a much greater degree than it has in the recent past.

History shows the small- and mid-cap segments of the market tend to be fertile ground for stock selection. Interestingly, smaller-cap equities are trading at a greater-than-normal discount to large- and mega-caps. Profitable companies in the Russell 2000 index have an average 12-month forward P/E multiple of approximately 12.5x compared to around 18x for the S&P. This further supports the fact that, at current levels, there are plenty of attractive opportunities for patient investors willing to go off the beaten path.

Europe

The MSCI Europe rallied 19% in Q4, bringing its annual loss to -15% in US dollar terms. Despite Russia's invasion of Ukraine and the resulting energy crisis throwing European markets into disarray, 2022 was a mixed bag for Europe. Defense and energy companies were natural winners and supported broad market indices in the last quarter. Rising interest rates also lifted banks' net interest margins, helping the sector to outperform. On the other hand, retail was clobbered by the rising cost of living.

Given the extreme volatility, the region's current valuation should be put into perspective. The 12-month forward P/E multiple for European equities has a long run average of around 14x. Coming into 2022, European equities traded at an elevated 16.2x according to Factset. Overall earnings estimates were revised higher thanks to the sharp rebound in energy and commodities, helping Europe's valuation fall all the way down to 10.9x by the end of Q3. Europe now trades at roughly 12.5x 2023's estimated earnings of the most recent rally – still a discount to the long run average, indicating the market is pricing in a moderate earnings recession. There is no doubt that there are plenty of opportunities for stock pickers at current levels; however, the market is likely to remain overshadowed by elevated inflation and high interest rates coupled with stagnant economic growth while the war in Ukraine drags on. The pieces needed for a positive market call on Europe versus other regions do not appear to be in place yet.

Japan

Japan's Nikkei 225 rose less than 1% in Q4 and ended the year with a -20% loss. Much of the weakness was rooted in the yen's 14% depreciation versus the US dollar. But Japan comes into 2023 with robust fiscal and monetary stimulus as the government remains in easing mode. Japan, as well as Asia more broadly, is also behind the US and Europe on the reopening curve. These factors could lead to a less severe economic slowdown than in other developed economies, though it is important to note that the dramatically weakened yen and rising inflation are fueling political pressure to change course. With Governor Kuroda stepping down as head of the BOJ, the April leadership change will be important to observe. Regardless of how the BOJ's policy evolves, we continue

Regardless of how the BOJ's policy evolves, we continue
to see improvement in Japan's corporate governance. Measurable impacts include record share buybacks in the current March 31 fiscal year and improved returns on equity.

Emerging Markets

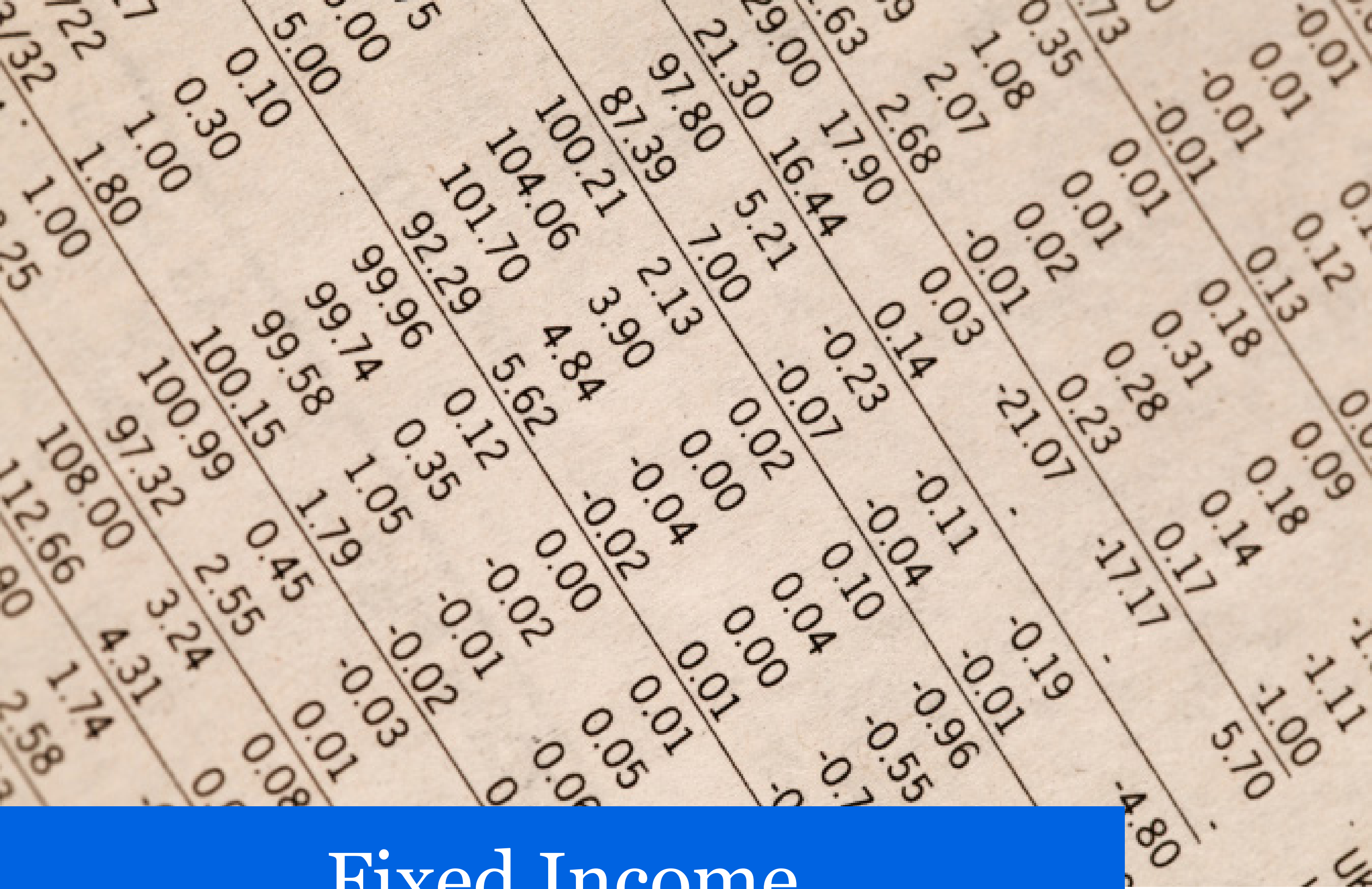
With all major global economies open for business for the first time in three years,and low valuations in emerging markets, many investors are entering 2023 more excited about these markets. However, many unknowns remain.

China is the most important variable that is likely to give investors plenty of head scratchers. From the stability of the country's public finances, its ongoing flirtation with a Taiwan takeover, and a re-opening that is putting the country's public health system under severe pressure, there is no shortage of worries. Nevertheless, as a lynchpin of global growth, China's reopening may indeed act as an economic tailwind, however subdued it may be compared to years past. If 2022 was about EM ex-China, 2023 may well play out differently. We expect a broad-based recovery in much of North Asia, led by consumer technology stocks in China, and tech/ hardware stocks in South Korea and Taiwan. Longer term, we remain concerned about China's prospects and have adopted a more tactical stance on exposures.

Outside of North Asia, it is worth noting that sector performance in markets such as India, Latin America, and the ASEAN region was not well distributed in 2022. Commodities and banks led the charge, while consumer, healthcare, and tech related stocks lagged significantly. At RockCreek, we expect the latter to outperform in 2023, backed by moderating inflation and lower interest rates, particularly in Latin America; however, don't count commodities out just yet. Recurrent labor unrest in Latin America and South Africa are contributing to a supply crunch in base metals, creating significant problems for the automotive and tech hardware sectors.

Emerging markets are critical to any technology driven societal transition, including electric vehicles, green energy, fintech, and consumer-facing tech hardware. For instance, Chile, Argentina, and Bolivia make up the famous 'lithium triangle', collectively accounting for close to 60% of globally identified lithium resources. South Africa produces close to one third of the world's manganese and has the largest manganese reserves, while Indonesia is the world's largest nickel producer. And of course, there is China, which tops the list with 80% of global refining capacity for raw materials needed for EV batteries and 60% of the world's graphite production.

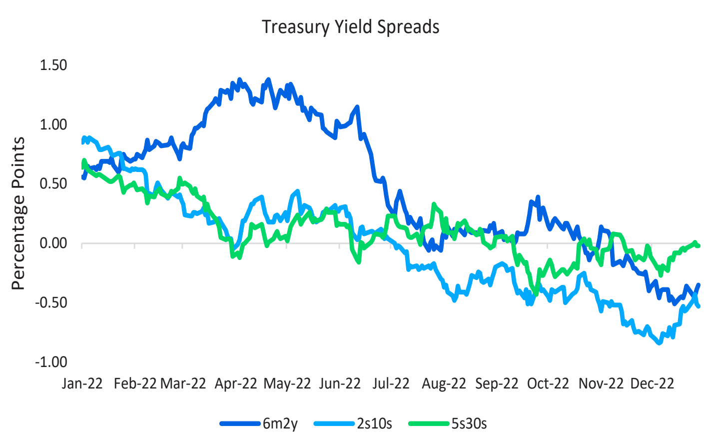
On the currency front, emerging markets could see some weakness, particularly if the Fed oversteers in the coming months. But even if the Fed pauses and the focus shifts to addressing slowing growth, high-beta emerging market currencies may still be vulnerable. Sticking to domestic sector stocks with input costs in local currency should somewhat insulate investors from the vicissitudes of the currency markets. EM financials, on the other hand, could struggle, particularly if local rates go lower. Lastly, 2022 was a veritable annus horribilis for EM debt. Outflows were record breaking and yet there could be more pain, particularly in the corporate debt market. We do not expect issuances to recover until the second half of 2023.



Fixed Income

The Bloomberg U.S. Aggregate Bond Index rose +1.9% during the quarter as Treasury yields beyond the 2-year point were relatively unchanged and investment grade corporates saw some spread tightening. The front-end continued to rise in response to a 125 basis point increase in the fed funds rate. 10-year breakeven inflation rates rose 15 basis points to 2.30% as the nominal yield increased 5 basis points to 3.88%, while real yields finished the quarter lower by 10 basis points at 1.58%.

Figure 5. All Key Treasury Spreads Have Fallen to Negative Territory



Source: US Treasury Department

We wrote last quarter about TARA - "There Are Reasonable Alternatives" – as surging bond yields present investors with attractive opportunities in fixed income. Capital is flowing back to the asset class, but with the inversion of the yield curve becoming even more pronounced during the fourth quarter, most investors remain underweight on a duration adjusted basis. With a 6-month Treasury offering 4.8%

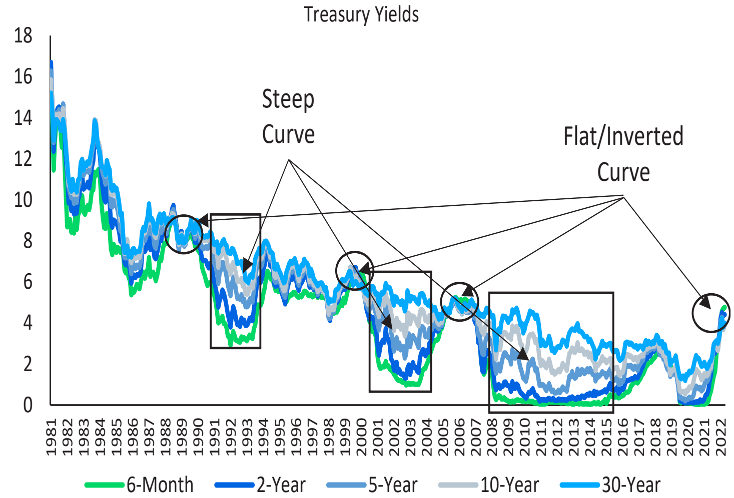
yield compared to the 10-year at 3.9%, is there reason for investors to venture outside the curve? How does the yield curve typically "normalize", and does it pay to take duration risk during these periods?

Prior curve inversions provide some context. Using the 2-year and 10-year maturities ("2s10s") as the key rate spread, the curve most recently inverted in 2000 and 2006, and prior to that 1989 (we'll ignore the flirtation with inversion in 2019; while it followed a similar path, the subsequent easing cycle was expedited by Covid-19). It typically follows that the curve inverts during a period of central bank tightening resulting in a "bear flattening" of the yield curve – i.e., bond prices tumble with yields rising along the curve, while short-end rates rise more than long-end rates. This tightening then leads to economic slowing that justifies an easing of financial conditions triggering a "bull steepening" of the yield curve – i.e., bonds rally as yields fall along the curve with short-end rates declining more than long-end rates.

Will this time be different? The market certainly doesn't think so. The fed funds rate now exceeds the 5-year / 5-year forward rate, an indicator of impending cutting cycles. Similarly, the fed funds futures market is pricing two further rate hikes taking the policy rate to 5.0% before the Fed begins to backpedal in the second half of the year.

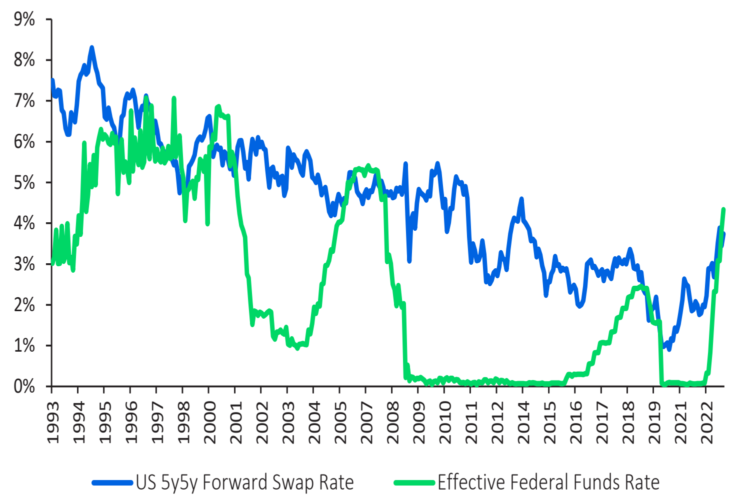
This all tracks the 2000 and 2006 experience whereby the yield curve inverted and swap spreads slipped below the fed funds rate months before the Fed completed its hiking cycle. In 2000, long-term rates peaked well ahead of short-term rates, while in 2006 the two topped out around the same time. While investors ultimately benefited from being long duration in both environments, it was better to be patient in 2006 as the Fed paused for an extended period. Although it's impossible to call the near-term path of rates, the indicators have begun to stack up favorably for fixed income opportunities and would support thinking about adding duration back to fixed income allocations at some point in the near future.

Figure 6. Yield Curve Typically "Normalizes" as Bonds Rally ("Bull Steepening")



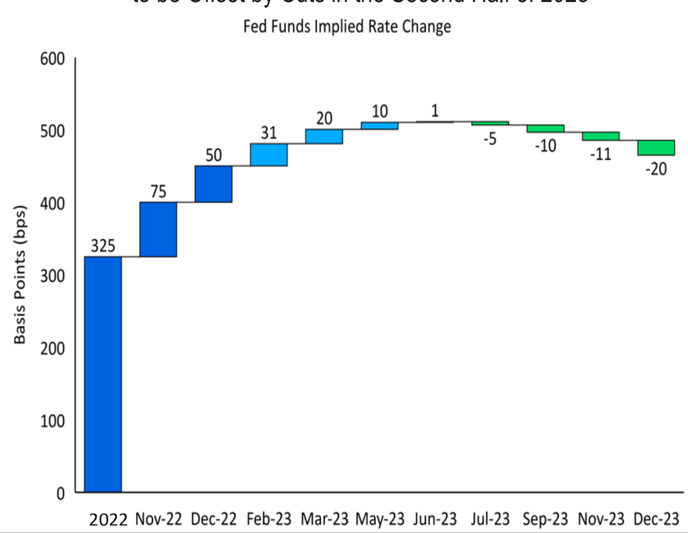
Source: Federal Reserve Bank of St. Louis

Figure 7. Fed Funds Rate Exceeding Forward Rates Typically Precedes a Cutting Cycle



Source: Bloomberg

Figure 8. Fed Funds Futures are Pricing Two More Hikes to be Offset by Cuts in the Second Half of 2023



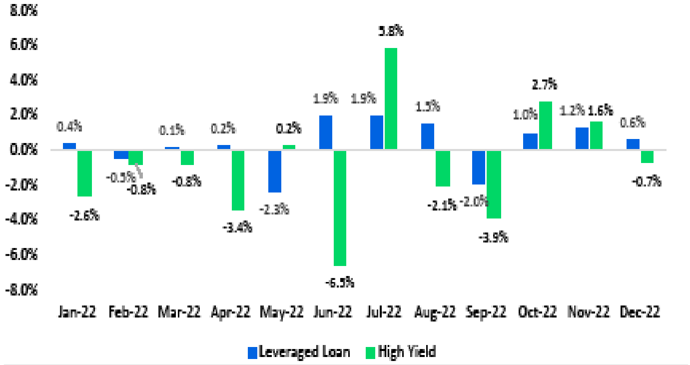
Source: Bloomberg

Public Credit

In 2022, high-yield investments were subject to the same economic and geopolitical turmoil impacting other asset classes, as well as specific challenges that included a near-record amount of retail withdrawals from high yield mutual funds and a collapse in capital market activity to a low not seen since 2008. Not surprisingly, these conditions produced a challenging backdrop for returns. US high yield bonds were down -10.6% for the year. Despite the dismal performance, high yield still outperformed other fixed rate asset classes including US Treasuries, investment grade bonds, and emerging market corporate debt, which were down -12.5%, -15.4% and -13.8% respectively. Despite its relative outperformance, it was the second worst calendar year performance for the asset class on record and only the fifth year that investors suffered a negative return in the last 28 years.

Meanwhile, US leveraged loans posted modest gains (+0.1%) and handily outperformed all other fixed income asset classes around the globe, primarily thanks to its limited interest rate sensitivity. In fact, the outperformance of loans versus bonds was the largest on record.

Figure 9. Leveraged Loans Significantly Outperforms High Yield in 2022

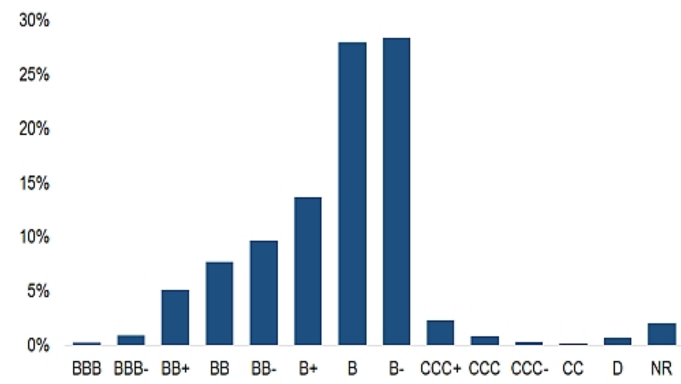


Source: J.P. Morgan

While the loan market was one of the few better spots for investors in 2022, the worsening macro environment does not bode well for continued relative outperformance. Because of the near-zero interest rate environment that encouraged yield-starved investors to load up on low-rated debt, B-minus rated companies took advantage of this demand and now account for a record 28.4% of the leveraged loan market, up from just under 17% in 2017. In fact, B- rated debt now accounts for the largest share of the $1.425 trillion US leveraged loan asset class, the first time in the 25-year history of the Morningstar LSTA US Leveraged Loan Index. These issuers have already begun to feel the liquidity strain: free cash flow has dropped as growth has slowed and debt interest payments have increased substantially with base rates expanding. The expectation is that many of these companies should experience downgrades over the next 12 to 18 months making it increasingly difficult to tap the market to refinance their debt.

We believe default risk is concentrated in lower quality leverage loan issuers with high leverage and in issuers of CCC-rated high yield bonds that are facing looming maturities in the next two years. While the quality of the leveraged loan universe has deteriorated, relatively the high yield bond market has improved given the percentage of BB-rated debt is now near the highest level in the last decade.

Figure 10. Breakdown of the Morningstar LSTA US LL Index by Issuer Rating



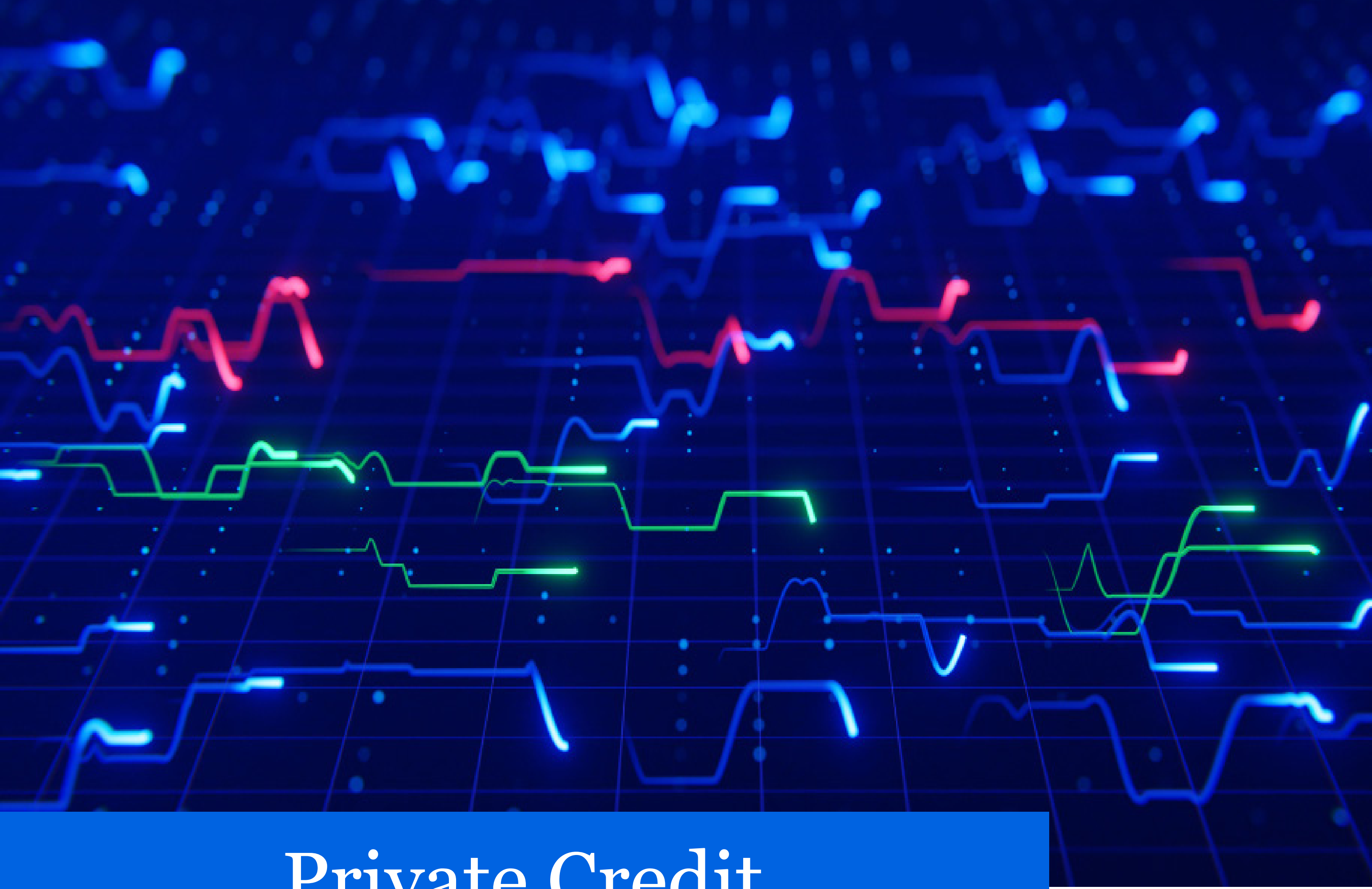
Source: PitchBook

Emerging Markets Debt: An Opportunity in 2023?

Emerging market credit spreads in both sovereign and corporate debt have widened alongside other fixed income assets, and after several months of underperformance following Russia's invasion of Ukraine, they have reached levels that may suggest current valuations more than compensate for the negative shock. These lower valuations could provide opportunities for deep country-by-country analysis and relative value security election to capitalize accordingly. For example, fundamentals for many emerging market corporate issuers look particularly strong within the oil & gas, telecom, utilities, and infrastructure sectors.

Moreover, most emerging market central banks were well ahead of their developed market peers, having collectively raised interest rates significantly, thereby helping to lift emerging market local-market yields to attractive levels. The rate-hiking cycle has been unexpectedly extended by the inflationary impact of the Russia/Ukraine conflict. Country differentiation remains important here, as monetary policy responses have varied, with some emerging market countries, such as those in Latin America, nearing the end of their hiking cycles. As global economic activity begins to normalize, fiscal stimulus measures fade, and central banks withdraw liquidity, inflationary pressures should begin to subside. This would allow emerging market policymakers greater latitude to stabilize rates before shifting to an outright easing cycle, particularly considering the economic slack present in many of these economies.

The technical picture is also showing nascent signs of recovery. Emerging market debt has begun to see net inflows return after record outflows of $87 billion from the asset class over the first 10 months of 2022. We anticipate stronger net flows in 2023 and specifically we expect tactical credit managers, who drastically cut exposure to the asset class in 2022, to increase allocations as the outlook improves, providing further support for spread tightening.



Private Credit

Q4 offered a slight reprieve to holders of risk assets, but the demand for uncorrelated, stable yield has not abated. Private credit continues to provide institutional investors with scalable opportunities – both as the need for non-dilutive capital continues to grow in the current macro backdrop, but also as the aperture that defines the asset class continues to widen. Some investors have sought to further diversify their private credit portfolios by considering the subset of niche strategies that seek to architect a credit-like return stream through acquiring outright an asset with a contractually obligated cashflow attached. This includes strategies such as royalty funds that invest in various music, film, entertainment, healthcare, or mining copyrights; transportation funds that focus on aircraft, shipping, or rail assets with leases attached; and commercial real estate funds that execute a triple net leasing strategy.

Investors be warned, these strategies – all characterized by contractual cash flows – are not created equal. And while they can offer significant diversification benefits to a broader private credit portfolio, each one poses a unique set of underlying risks that must be understood and dutifully investigated.

The most immediate risk stems from being the physical owner of an asset, as compared to a creditor with a priority claim to the value of an asset. The value of a cash flowing asset is related to the magnitude, stability, and duration of the cash flows. Music copyrights, for example, tend to exhibit highly stable asset values as music consumption trends have proven to be agnostic to the economic cycle for a variety of reasons. Compare this to the value of a shipping asset that is on charter to a logistics company, which has the propensity to be highly volatile.

Asset values may also be susceptible to macroeconomic shocks and tail risk events. An increase in corporate stress and distress due to inflation, rising interest rates, and recessionary concerns may decrease the credit worthiness of certain corporate tenants. When investing in triple net lease commercial real estate strategies, RockCreek has oriented its focus towards IG-rated tenants where default risk is inherently lower across an economic cycle.

Most of these credit-like real asset strategies are acquiring assets on a levered basis. In the current market environment, where interest rates (and the cost of debt financing) have risen significantly, it becomes more important that the type and structure of debt being used is appropriate and that adequate margins between asset yield and interest cost are maintained to preserve an investment return. Finally, it is also important to remember that an asset does not mature or benefit from any amortization features like a traditional credit instrument, resulting in additional liquidity risk. Investment monetization can only be achieved through the sale of the asset or through some other liquidity event such as a public market exit or "recapitalization" via a securitization.

When considering each of these risks, it is consistently true that credit-like real asset strategies are most appropriate for a private credit portfolio when they are characterized by highly stable asset values and cash flows. When understood and considered in the context of the prevailing macroeconomic environment, these risks provide an opportunity to generate outsized risk-adjusted returns, along with real diversification benefits. Moreover, in certain situations, being an owner of an asset affords the possibility of multiple expansion and income growth – participating in upside potential that may not exist with traditional private credit investments.

While we expect the demand for uncorrelated, stable yield to continue into 2023, we are also anticipating an improving market opportunity for distressed and special situations credit investments. Public credit markets generated a positive return, default volumes were benign, and inflation outlook turned arguably more favorable in the US during the fourth quarter. Although it may appear that the looming opportunity for distressed credit investors has evaporated, this may be presumptive as the year-to-date trends continue to indicate rising corporate fundamental headwinds, restrictive interest rates, increased distressed exchange activity, and idiosyncratic issues.

RockCreek continues to believe that Europe will present a superior opportunity to take advantage of market dislocations, stress, and distress. Moreover, the recent implementation of new bankruptcy regimes across continental Europe should add a layer of complexity to temper market competition.

Spotlight – Music Royalties

Related to this quarter's discussions on the subset of real asset strategies characterized by contractual cash flows (credit-like in nature), one strategy where RockCreek has been focused is music royalties. In this spotlight, we will define investable music assets and their revenues, the various approaches to investing in music assets, and the prevailing market opportunity.

Music royalty strategies are focused on investing in music assets, which may include royalties, interests in royalties, intellectual property, or other contractual rights to receive revenue generated from the sale, distribution, licensing, or exploitation of music assets.

The revenues – cash flow or income – associated with music assets may be generated from either "publishing rights" or "master recording rights." Publishing rights are formed through a contractual agreement between a songwriter and a music publishing company, which markets the song, collects the income generated, and distributes the income to the beneficial owner(s). The master recording is a copyright associated with the original recording of a song by an artist. The master recording is initially owned by the record label, while the artist receives a royalty. The record label collects the revenues associated with the master recording and distributes income to the relevant beneficiaries.

Publishing rights generate income from three primary sources: (i) performance, (ii) mechanical, and (iii) synchronization. Performance revenues are generated when a song is performed publicly such as during live performances; radio broadcasts; or broadcasts at sporting events, bars, restaurants, and non-interactive formats. Mechanical revenues are generated in exchange for the right to use a song for either physical recording or digital downloads. Synchronization revenues are generated from music used in timed synchronization with media such as movies, television shows, or advertisements. Separately, master recording rights will generate revenues through the physical sales of recorded music – such as CDs or vinyl records – digital downloads, streaming, and synchronization.

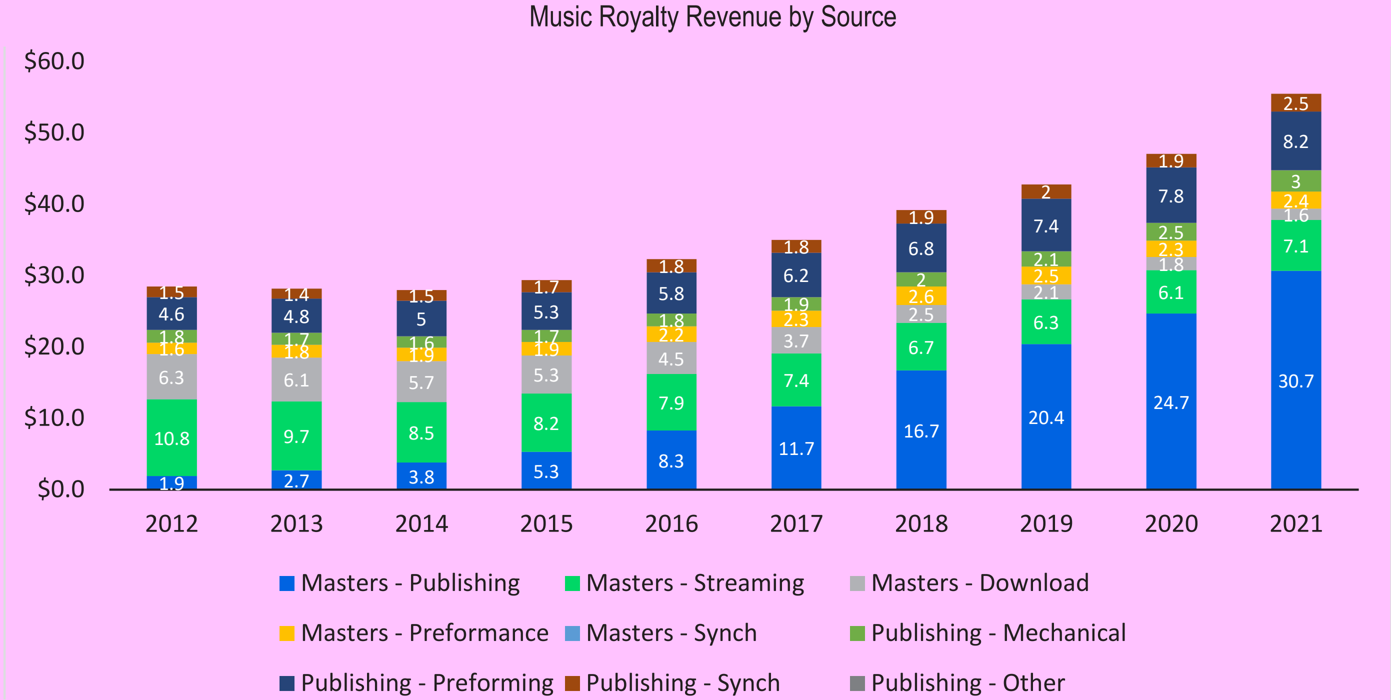
Both publishing and master recording rights are protected by statutory law and governed by an original copyright and/or a purchase agreement. The legal life of a copyright is defined as the life of the author plus 70 years, at which point a copyright is expunged and the song enters the public domain. In the case of a sale or transfer of a copyright, US law specifies that the copyright reverts to its original author (the songwriter or artist) 35 years after the date of original transfer. Importantly, an income or revenue stream (a royalty) may be sold separately from a copyright. Royalties do not transfer copyright ownership; they simply compensate the rights-holder for the use of their work. Royalty rights are defined in a purchase agreement, and holders of royalties may perfect their interest by filing lines in specific jurisdictions such as key music centers, or across all 50 states.

Different participants in the music royalty space will take different approaches to generating investment returns, ranging from being more "financial driven" to being more "music driven." The former approach tends to be more focused on acquiring stabilized cash-flowing assets that can easily be levered, with value accretion driven primarily by an aggregation or portfolio premium. The firms that execute this strategy tend to be more capital markets savvy. The latter approach tends to be more operationally intensive, with a focus on creating or acquiring newer assets that should benefit from surging popularity and the ability to grow existing cash flows. The firms that execute this strategy tend to be vertically integrated music platforms with capabilities that include talent acquisition, synchronization, marketing, and servicing.

The investable market for uncorrelated music assets is massive – currently estimated to be between $30 billion and $40 billion in aggregate size and growing constantly as new songs are written, recorded, and disseminated through ever-evolving distribution channels. While it's true that the physical sale of music through CDs, vinyl records, or even digital downloads has declined, technological advances in consumer electronics (especially smartphones) and digital media such as streaming sites and social media are changing global consumer consumption. As explained by the music asset investment firm HarbourView Equity Partners, subscription streaming offers a new value proposition to consumers, distributors, labels, and ultimately content owners by providing immediate access to large libraries of music, increasingly in a personalized and universal offering, as evidenced by the increased market share of Spotify.

Through streaming formats, consumers are experiencing personalized curation driven by data analytics, encouraging longer and more passive listening compared to searching on a title-by-title basis. With penetration increasing across pay-tv, smartphones, wireless broadband, and other platforms that include smart speakers and connected cars, more consumers can enjoy music in more places – and on more devices – than ever before. Streaming has increased not only the amount of time the average consumer spends listening to music but also the total number of consumers using musical composition recordings. Moreover, streaming remains an under-penetrated distribution channel outside the US, offering significant growth potential.

Figure 10. Music royalty revenue has doubled in the last 10 years



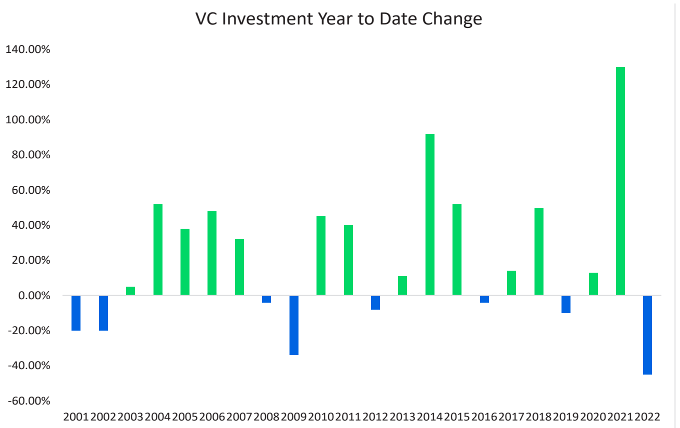
Source: Goldman Sachs

Private Equity and Venture Capital

Private markets remained quiet to finish out 2022, with one of the biggest year-over-year percentage declines in venture capital activity of all-time, albeit from record highs. Tech companies have continued to reduce headcount into 2023 while re-orienting their business models around more sustainable growth. Many private tech companies claim a cash runway of 24+ months, so the focus has been on growing into their valuations, many of which were set in 2021. Very few companies are actively raising capital if they don't need to, and those that are raising are often agreeing to more onerous structural terms rather than resetting their valuations. Bloomberg columnist [Matt Levine] provides more insight on the matter [here.]

Likewise, the buyout market also remained muted as obtaining financing in the current market environment has become a challenge after years of loose lending. Banks, in particular, have significantly curtailed their lending after getting "hung" with steep losses earlier in the year. Of the 47 leveraged buyouts financed in the fourth quarter through early December, only one was financed in the broadly syndicated leveraged loan market, with private credit funds stepping in to fill the gap.

Figure 11. The drop in VC funding in 2022 was larger than even after the dot.com bubble.



Source: Bloomberg

If the buzz word of 2021 was Web3, the buzz word of Q4 2022 is surely Generative AI. OpenAI's ChatGPT has taken the internet world by storm. This trend appears to have real potential, as Microsoft, which has invested a reported $1 billion into OpenAI, announced plans to launch a new version of its Bing search engine powered by ChatGPT in an effort to dethrone Google atop the search engine market. Jasper, another leading player in the generative AI space, recently became one of the few unicorns minted in 2022, raising $125 million at a $1.5 billion valuation. Both OpenAI and Jasper are RockCreek portfolio investments.

We continue to see opportunities within the private biotech space. Biotech stocks rebounded in the fourth quarter with the NASDAQ Biotech Index (NBI) delivering an 11.8% return, though the index still finished the year down -10.9%. In December, BioAge Labs, a RockCreek portfolio company, announced positive results from its most recent trials. BioAge is a drug development company that focuses on the treatment of therapy areas and indications associated with aging. The initial drug in the company's pipeline, BGE-105, also known as Azelaprag, is being developed to treat muscle atrophy, and results from the Phase 1b trial showed significant improvement in muscle size, quality, and protein synthesis during ten days of bed rest compared with a placebo. On the back of these results, the company is planning to initiate a Phase II trial in the prevention of ICU diaphragmatic atrophy and critical illness myopathy.

While we have previously written about the FTX debacle, it's important to continue monitoring for potential signs of contagion into broader financial markets. One such development is the recent bank run on Silvergate Bank, an FDIC insured bank which has positioned itself at the nexus of crypto and traditional finance markets. Silvergate, founded in 1998, began offering traditional banking services for many of the largest US digital currency exchanges and global investors in 2013. In addition to deposit account services, the bank established the Silvergate Exchange Network ("SEN"), a proprietary payment network that enables efficient and rapid movement of dollars between digital currency exchanges and institutional investors in digital currencies. During the first week of January, the company reported that deposits declined during the fourth quarter from $12 billion to $3.8 billion, sending the stock down more than 60% on the news. It's important to note that the company still has an estimated $4.6 billion of cash on its balance sheet, which exceeds total deposits. Likewise, SEN continues to function well with $1.4 billion in volume per day, per Axios.

Last year could be characterized as a year of paralysis within private markets. Looking ahead to 2023, it's likely that there will be a pickup in private market activity as insider bridge rounds and highly structured rounds give way to externally priced rounds, albeit at potentially lower valuations. Similarly, venture capital and private equity funds, sitting on an estimated $580 billion and $1.3 trillion of dry powder respectively, will face increasing pressure to put capital to work.

Real Estate

As discussed above, with inflation running at 6.5% at the end of 2022, the Fed will continue raising interest rates until it sees credible evidence that inflation is headed back to its 2% target. For real estate, a higher cost of capital due to financing costs means that asset values will go lower.

The fourth quarter of 2022 was the first drop in value for real estate, primarily driven by the office sector, where transactions gave indications of expected values. Demand for office space has been altered with the pandemic, and while hybrid work has proven beneficial to some companies, the sector needs to evolve as employers, cities, and employees rethink the future of physical space requirements and commuting. However, other primary property types maintained their value in Q4 as fundamentals remained healthy: industrial and data centers proved to have resilient demand, and the lack of housing supply in the US continues to provide tailwinds for multifamily.

For investors in need of liquidity due to the decline in public market values, the fourth quarter brought elevated redemption flows in real estate not seen since March 2020. The real estate sector has been one of the best performers during 2022, and institutional investors seeking to rebalance their portfolios leaned on real estate funds as a source of liquidity. This liquidity is generally offered on a quarterly basis, and elevated redemption requests put in throughout the year forced fund managers to institute redemption queues that will take several quarters to unwind. In the retail investor sector, the two largest private REITs, BREIT and SREIT, both gated redemptions during the quarter to maintain their balance sheet. As 2023 unfolds and the magnitude of a potential recession becomes apparent, more clarity will come for the underlying liquidity of real estate funds.

Another factor we are closely monitoring is new supply across property types. As rising interest rates continue to cool demand, new construction starts in 2023 will come down from record high values in 2022. These elevated levels were partially due to inflated construction costs, which are the sum of three components: materials, labor, and margins. We do not see the cost of materials rising in 2023 as supply pressures ease, but labor costs likely will increase as construction job wage growth has lagged general wage growth. Margins can vary significantly across property types and locations, and certain sectors like homebuilding will lose pricing power while contractors are unable to run at full capacity.

We continue to remain focused on our high conviction investment themes in real estate, where strong demand remains and distressed assets can be acquired at a discount. Some of these themes include affordable housing investments and agricultural real asset strategies.

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