When the Good Times Still Rolled

Q4 2021

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MACRO REVIEW & OUTLOOK

AS THE PANDEMIC RECOVERY PEAKED LAST QUARTER, KEY DRIVERS OF JANUARY'S SHIFT IN SENTIMENT WERE ALREADY PRESENT.

Markets ended the second pandemic year on a high note. Buoyed by a bounce back in US GDP growth in Q4 and continued strong earnings, equities notched up new record highs. Unemployment dropped rapidly, reaching below 4 percent in the US. Travel picked up over the holiday-intensive quarter, even as news emerged from South Africa of a new Covid variant. Many Americans hoped that the reopening of theaters, some offices, and businesses would allow for a more normal 2022. They were wrong.

It did not take long for the mood to sour in the new year. Dangers to the 2022 outlook were already evident in Q4. Behind the good cheer, five broad themes emerged: 1) earlier and maybe more abrupt US monetary tightening; 2) rising inflation; 3) a shifting labor market; 4) a growth slowdown in China, with consequent monetary easing; and 5) the continued cloud of Covid-19. And overlaid on all of these themes is the impact on global sentiment of geopolitical tensions, notably Russia's increasing threat to Ukraine.

Persistent high inflation in October and November finally triggered an unambiguous shift in tone from the world's most important central bank late in the quarter. In mid-December, the Federal Reserve indicated an earlier and steeper tightening of monetary policy. The message seemed to sink in only in January, when Fed minutes from December showed central bankers thinking ahead to shrinking the Fed's balance sheet, as well as raising interest rates. The news that consumer prices rose last year at a pace not seen since 1982 has only reinforced expectations of tightening. Inflation pressures are also evident across the Atlantic, with unexpectedly high December readings in both the UK and Europe. Markets are on edge to see what the Fed decides in its first policy meeting of 2022 on January 26. In the meantime, equity markets plunged into correction territory this year and forecasters, including the IMF, are marking down global growth.

Geopolitical tensions that have been front and center this month also began in Q4, as Russia massed troops on its borders with Ukraine and issued a list of demands to the US and NATO allies that challenge the post-Cold War order in Europe. Concerns about China's turn towards more state control, less freedom for private enterprise, and less openness to the West continued in Q4, as did worries about the impact on growth in the world's second largest economy of the widening crisis in its over-indebted property sector.

But perhaps the most important cloud hanging over 2022 from last year: a sudden resurgence of Covid infections with the extra-contagious Omicron variant sweeping across the world after it was identified in November. Daily infection rates in the US and elsewhere shot up to the highest levels since the pandemic began. Just as it has for the past two years, the new Coronavirus shifted expectations and upset plans for work, school, and life more generally.

While markets greeted the new year with a thumbs down, investors should not despair. The global economy is set to continue to grow, albeit at a slower pace than hoped, dented by both Omicron and tightening money. There is some hope that a new policy approach to what remains the biggest "known unknown"– Covid-19 – will emerge in 2022. In the US, there is growing acceptance that a gradual return

to pre-pandemic normal may not be realistic. The next best option would be a considered plan – and timely actions – for living with the virus. Better protective masks and access to testing is now part of the US plan. Further medical advances that will help are already in the pipeline. Innovation remains a key strength for the US – and for investors.

FIVE BROAD THEMES FROM Q4 2021 THAT WILL DEFINE 2022

1. Turning to tightening – the Fed begins to move.

Sometimes, the economy is driven by outside shocks, with policymakers mostly in reactive mode. After two years dominated by twists and turns of the Covid-19 pandemic, 2022 will see central bankers in the driver's seat. How well they manage the shift away from extraordinary stimulus – with the virus still hovering and its economic impact uncertain – will be key for the global economy this year. While some major central banks are still holding off from tightening (and in China, policy is moving in the opposite direction, towards easing), the Federal Reserve has now made its intentions clear, as Chair Jerome Powell characterized the threat from inflation as "severe". It is Fed actions that matter for global liquidity.

The shift towards tightening in developed markets began in earnest in Q4 2021. First came moves from some smaller central banks. Then the Bank of England surprised markets in December with a 15 bps rise in its policy rate – the first since rates were slashed in the face of the pandemic in March 2020. More importantly for the global economy, Powell finally signaled rising concern about inflation when he had his first chance to speak to Congress days after being renominated as Fed Chair. By its mid-December meeting, the mood of the FOMC had changed decisively. The central bankers projected three rate increases in 2022 and an earlier end to the asset purchases that had fed nearly $4.5 trillion of liquidity into the economy since March 2020.

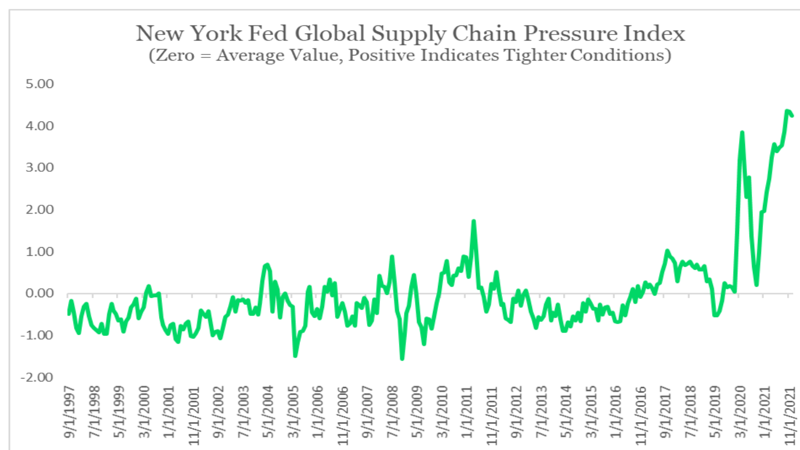
There is a good chance that we may, instead, see four rate rises this year, as the Fed struggles to get inflation under control. And watch for the impact on liquidity and financial markets of balance sheet contraction, now clearly in the Fed's sights. Economists believe that interest rates are the most effective monetary policy tool to guide the economy, impacting demand – and therefore prices – directly. Under this reasoning, quantitative easing through asset purchases is seen as useful for its impact on the longer-term rates that central banks do not directly control, in circumstances with little or no room left to cut short-term rates further. For investors in financial markets, however, the Fed's actions are watched for a more direct impact on liquidity and financial asset prices. Chair Powell understands this. He and his

colleagues may not react to a market correction from the rich valuations of 2021, but they do not want to shock markets into a downward spiral. They will move cautiously and communicate carefully.

2. *Inflation: from transitory to …?*

As US inflation took off in 2021, analysts were initially divided about whether the Fed was right to consider price pressures "transitory" and stay focused on the still-weak labor market that fell short of its "maximum employment" goal. Most economists, on both right and left, had supported the stimulus packages – fiscal and monetary – put in place to combat the pandemic-induced recession. Even the few who called out the inflationary risks from fiscal policy, notably former Treasury Secretary Lawrence Summers, did not anticipate the supply bottlenecks that hindered production last year and collided with a pandemic run-up in spending and demand for goods.

As the year went on, the evidence built that inflation was both faster and more persistent than most had expected. By Q4, price increases had spread beyond the initial sectors affected by pandemic shortages to cover broad items, including food and shelter. Supply chain problems worsened as ships circled outside major US ports, unable to dock and unload, truck drivers were in short supply, and – importantly – the zero Covid stance by China and other Asian producers led to unpredictable shortfalls in production. At the same time, demand in the West shifted to goods as spending on services was constricted by health fears and pandemic lockdowns.



Debate continues about whether demand pressures or supply shortages are to blame for today's inflation, and what is the best historical analogy to consider. In a recent interview with RockCreek CEO Afsaneh Beschloss that was the keynote of the Council on Foreign Relations' Stephen C. Freidheim Symposium on

International Economics, Cecilia Rouse, Chair of the President's Council of Economic Advisers (CEA), suggested that the period after World War II – when production switched from wartime to peacetime – was a better model than the energy crisis-triggered stagflation of the 1970s. "What that tells us is that we will get through this," Chair Rouse said, acknowledging that one historical lesson is that it may take some time; however, "as supply and demand moderate, we will get back to healthy rates of inflation."

Rouse also noted that supply bottlenecks – for example at US ports – are noticeable, in part, because of unusual demand pressures. Although there are blockages, as the ships with full cargoes floating outside ports demonstrate, the volume of goods moved through US ports in recent months has been higher than ever. As we discussed late last year, today's inflation reflects both supply limitations and demand push. In 2021, inflation accelerated sharply in Europe as well as in the US. But the 7 percent rise in US consumer prices during the year was considerably higher than the 5 percent recorded in Europe. That likely reflects the bigger fiscal push to American demand in 2020/2021.

A puzzle remains, however, that will matter for the trajectory of prices – and policy – in 2022: why did it seem so hard for central banks to push inflation up to target before the pandemic, and why were forecasters so wrong last year?

As inflation lingered below target in the pre-pandemic period, many central bankers feared that their ability to manage the economy and guide price stability – defined as 2 percent annual inflation – was diminishing. With inflation below 2 percent, interest rates would get closer to the zero bound, limiting room for maneuver to support the economy. Concern about the ineffectiveness of policy in the face of too-low inflation preoccupied officials, particularly as financial asset prices boomed, wages lagged, and inequality grew. Such concerns helped fuel the Fed's 2020 shift to targeting average inflation, with a permissive approach to above-target price increases that it expected would easily reverse or slow. Was it fiscal expansion, after all, that "cured" inflation? If so, as pandemic-era spending winds down, will the fiscal pull back already underway in the US support the Fed as it wrestles the genie back into the bottle?

3. Not your father's labor market: pandemic changes may be here to stay.

The pandemic has changed attitudes and behavior towards work. Some of those changes will unwind as the fear of infection ebbs. But this will take time. Meanwhile, measures of the labor market need to be rethought, along with policies to support those who want to work but have been unable to find a suitable job that allows them the flexibility to take care of themselves and their families.

On the first issue, it is increasingly clear that indications of labor shortages from metrics such as job vacancies and quits are telling us more about the state of the labor market than the traditional payroll

numbers. New research from Jason Furman and William Powell III shows that vacancies and quits are empirically a stronger predictor of core CPI. Data from smaller firms and businesses may also be more telling than that from bigger employers who provide higher wages and more benefits that attract workers.

Inflation hawks worry about a wage-price spiral. It is true that if wages chase price increases, and firms then raise both wages and prices, the Fed will have a harder time curbing inflation. But average rises in wages and prices do not tell the whole story. One bright side of recent recorded increases in hourly average earnings is that those at the lower end of the pay scale in the US – in more marginal service jobs – have seen bigger pay rises than those at the top. Less bright is the fact that lower income families have also experienced worse inflation as they spend more of their incomes on items such as food and gas, where prices climbed most in 2021.

As we have pointed out in previous letters, and our partner the Equality Fund detailed in their annual report, Covid had a disproportionate impact on working conditions for women, who shoulder most of the burden of caring for children and elderly relatives, and the vulnerable, who are more likely to become dangerously sick if they are infected. More flexibility, more support for childcare, and tolerance for remote work will all help bring workers back into the labor force. Are companies listening?

4. China: distancing or decoupling, the world's second largest economy is carving out a different way forward.

What happens in China, the world's second largest economy, matters for global growth. And, once again, the experience in Q4 is a good guide to what to expect in 2022.

For 2021 overall, China's GDP growth rebounded to 8 percent, much faster than 2020's pandemic low of just over 2 percent. But much of last year's improvement came in the early part of the year, before the woes of property giant Evergrande spilled into public view, and renewed outbreaks of Covid led to further drastic lockdowns in some major cities. As foreign investors are only too aware, growth and confidence were also hit by an unexpected government shift in mid-year to tighter regulation of several previously fast-growing sectors – notably education, tech, and consumer. In Q4, exports were strong, reflecting the appetite for goods in the developed world. But this was not enough to offset disappointing consumption and retail sales, leaving growth in the quarter at just 4 percent compared to a year earlier. Look for a similar pattern this year. Both the zero Covid policy that has constrained production and demand and the regulatory shift that began last year are set to continue and will likely hold GDP growth down to between 4 and 5 percent.

China's market remains most important for its Asian neighbors, who contribute inputs into many goods made in China, and for commodity exporters who feed Chinese consumers – quite literally – and provide raw materials to power growth. Domestically, companies will have to adjust to President Xi's call for "common prosperity", making sure to stay in favor with Beijing in order to thrive. This may hold down overall Chinese growth and dampen enthusiasm for consumer technology firms that grew into world beaters like Alibaba and Tencent. But China is more than the top five tech stocks. The level of dispersion seen in 2021 between domestic stocks and offshore listings suggests that there are opportunities. Moreover, China's leaders will not allow a financial crisis to develop that could spill over into global markets and are already taking steps to bolster domestic demand, with a mid-January cut in interest rates. As the US tightens, looser policy in China could be another factor in currency markets.

5. *Covid – here to stay, learning to manage.*

In the middle of Q4, just as the Delta wave was subsiding, the new Omicron variant swept across the world, including to countries in Asia that had prided themselves on successful pursuit of a "zero Covid" policy. The virus penetrated the defenses of millions who were vaccinated, strained hospital resources, and is now leading to increased hospitalizations and deaths, mostly among the millions still unvaccinated.

When Omicron first hit, it was tempting to believe that the global economy could weather the surge without much damage. The variant seemed to lead to milder disease, especially among those vaccinated. But two factors were underestimated: First, the extreme contagiousness of the virus has led to so many falling sick that workplace disruption from absenteeism is far outpacing that in earlier waves. And while hospitalizations and death rates are lower in relation to the number of infections, they have soared in absolute numbers, making a slower start to 2022 in the US and elsewhere now likely. Indeed, the International Monetary Fund delayed the release of its new forecasts until yesterday to take account of the impact of Omicron. Second, the continued attempt to achieve zero Covid by China, particularly in view of the February Beijing Olympics and the Party Congress in October, means that supply bottlenecks will continue well into this year. Factories, apartment blocks, and indeed whole cities, can be locked down when just a handful of Covid cases are found.

There is a glimmer of hope for the future, however. We may be getting closer to living with the virus being endemic – causing new infections but not at a scale or intensity that makes businesses, schools, and normal life close down. It is a good sign that, in the US and Europe, governments removed blanket travel restrictions put in place in the immediate aftermath of Omicron. Instead, they are focusing on mitigating spread with an expansion of testing, continued encouragement of vaccination and boosting, and support for medical advances that will make treatment cheaper and more available.

SUSTAINABLE INVESTING

2021 was a record year for sustainable investing – measured by flows. Issuance of sustainable loans and bonds, where proceeds are earmarked for environmental or social projects, exceeded $1.5 trillion, including about $505 billion of green bond sales, many new climate smart companies are being founded, and ESG focused ETFs attracted almost $130 billion in 2021 – a notable increase from the $75 billion raised in 2020 – and investments in early-stage climate technology companies approached $50 billion globally, according to Bloomberg.

Performance amidst the positive momentum of investment opportunities hit increased volatility in the fourth quarter across certain sectors. The S&P Global Clean Energy Index (USD) was down approximately 9 percent in December to close out the quarter down 1.5 percent and the year down 23 percent. With the derailment of the Build Back Better bill in the US, rising interest rates, and inflation worries, it was no surprise that volatility increased across clean energy stocks during the last month of the year. However, this may open up a promising entry point for longer-term public equity investors eager to participate in the secular trends behind companies adapting technologies to further positive environmental conditions. In private markets, performance continued to be strong across impact themes. Valuations have doubled or more in 2022 across RockCreek portfolio companies focused on the ed-tech space, fintech, healthcare, and climate to name a few. The momentum for climate solutions continues across many areas.

Corporations, both public and private, experienced growing pressure from stakeholders to identify companies' alignment to sustainability – particularly those related to health, inclusion, climate, water, and waste – which have all been focus areas of investment for RockCreek for more than a decade. With the more widely adopted framework of sustainability, investment opportunities have multiplied since we first started investing in these areas, and we are seeing increasingly better reporting by companies – though still not prevalent by the total market. Research analysis indicates that achieving the SDGs could create over $12 trillion in market opportunities by 2030.[1]

Much of RockCreek's focus in 2021 was – and in 2022 remains – on sustainable investment themes that have large identifiable market opportunities, including mobility, healthcare solutions, clean energy, and affordable housing.

[1] **Source**: Goldman Sachs

VALUE OF FUTURE MARKET OPPORTUNITIES BY MARKET SIZE

Source: Business Council, AlphaBeta, Goldman Sachs

RockCreek's 2021 investments in Generate Infrastructure, Devoted Health, ChargePoint, and other companies with similar themes have contributed to robust performance across our portfolios, but we expect that in 2022 these areas will be even bigger drivers of returns. A Q4 investment in a solar developer company that raised $440 million in debt financing to develop, design, build, and operate distributed solar and energy storage solutions is one example of the opportunity set. The company is already providing clean energy access to approximately 40,000 customers across 10 states in the US and is offering discounts on green energy of up to 20 percent. The company plans to use the additional capital raised to build more solar farms serving communities and businesses across the US in 2022.

Another company in our portfolio is a leader in circular economy decarbonization solutions and has increased its organic waste processing capacity through the construction of a third anaerobic digester at its Ontario facility. Accompanied by a renewable natural gas upgrading system, the plant is now the largest food waste anaerobic digestion facility in Canada, repurposing food waste to provide heat to 2,500 homes in Ontario and support transport with sustainable fuel. The facility is using investor capital to grow in 2022 by helping more municipalities and businesses meet the requirements to divert waste from landfills in Canada.

Opportunities across the sustainable investing landscape are multiplying as we move into the new year, as is the growing awareness of the intersectionality between the sustainability of our people and planet and advancements in equity and inclusion across our communities. Direct and indirect RockCreek portfolio investments in companies like BioAge, Esusu, Papa, Hinge Health, Brex, Cityblock Health, and many more are helping build businesses at the forefront of advancing equity and access to all communities in areas such as healthcare, finance, hiring, job retraining, and more. RockCreek finished 2021 with over 20 percent of our assets invested with diverse owned founders/firms, accounting for more than 90 firm relationships and investments in over 500-plus diverse entrepreneurs. In 2021 alone we invested over $270 million in

Black and Latino-owned founders/firms and over $430 million in women owned founders/firms, committing to approximately 14 new relationships with diverse founders and firms last year. RockCreek also partnered with Exelon to invest the Racial Equity Capital Fund, which will bring affordable capital to minority-owned businesses in underserved and under-resourced communities that, historically, have faced challenges accessing and securing funding.

As we have said for the last 20 years, we are committed to finding the strongest investments for our portfolios and casting the widest net for opportunities that lead us to a diverse universe of potential sustainable investments. We expect to continue this pace in 2022, given the number of exciting launches and fundraising rounds we are exploring already.

PUBLIC EQUITIES

Equity Markets	Q4 2021
US Large Cap (S&P 500 TR)	11.0%
Nasdaq	8.5%
US Small Cap (Russell 2000)	2.1%
Japan (TOPIX)	-1.7%
Europe (MSCI Europe)	7.7%
China (CSI 300)	1.6%
Global EM (MSCI EM)	-1.4%

Bond Markets	Q4 2021
US 2yr	-45.7
US 10yr	-2.3
US 30yr	14.2
German 10yr	-2.2
German 30yr	7.9
UK 10yr	5.1
UK 30yr	25.7
JGB 10yr	0.1
JGB 30yr	-1.3

Currency Markets	Q4 2021
DXY	-1.5%
EUR	1.8%
GBP	-0.4%
JPY	3.5%
MSCI EM Currency Index	-0.7%

Commodity Markets	Q4 2021
Crude Oil (WTI)	-0.2%
Nat Gas	57.3%
Gold (Spot)	-3.9%
Steel (Rebar)	28.3%
Ag & Livestock (Bloomberg)	-5.3%

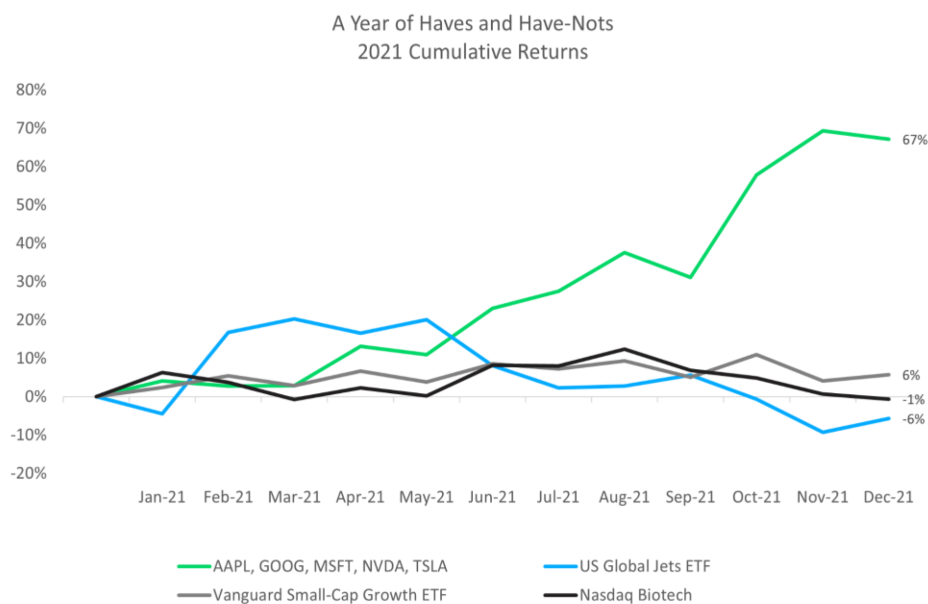
RCG HF Indices	Q4 2021
All Hedge Funds	0.5%
Equity Hedge	0.8%
Absolute Return	0.3%
Equity Market Neutral	0.7%
Event Driven	1.5%
Global Macro	-0.5%

US equities outpaced other developed markets, with the S&P 500 gaining 11 percent in the fourth quarter and 29 percent for the full year. Europe was not far behind, though, with the Stoxx Europe 600 rising 7 percent and 22 percent for the quarter and year, respectively, while Asia was a major laggard, with the MSCI Pacific registering a 3 percent loss for the quarter and a modest 3 percent gain for the year.

Although on the surface it was a great year for US equities, it was very much a year of haves and have nots. Large-cap indices were strongly influenced by a small handful of mega-caps. Five stocks – Apple, Microsoft, Nvidia, Tesla, and Alphabet – were responsible for about a third of the S&P 500's 2021 returns. This was emblematic of a relatively narrow market and, consequently, just 1 percent of active growth managers and less than a quarter of core investors in the US outperformed the index.[2] Results were much better for small-cap strategies, with 85 percent outperforming the Russell 2000, as value-oriented strategies with over-weights to energy and financials did particularly well.

Entering 2021, there were high expectations for reopening stocks to outperform, as vaccines became widely available. However, new variants prevented a straight-line recovery and the US Global Jets ETF – one gauge of reopening stocks – lost its earlier momentum and ended the year down 6 percent. While underperformance by these economically sensitive stocks and outperformance by mega-cap tech illustrated the defensive posture of investors, there were a few pockets of speculation spurred on by excess liquidity and a surge in retail trading activity. No one can forget the huge price swings early in the year in GameStop and other meme stocks, along with cryptocurrency craze, and the proliferation of SPACs that caught those investors on the wrong side by surprise.

[2] **Source**: Bank of America



Now, inflation and subsequent Fed tightening are weighing on valuations of longer duration assets to the benefit of near-term value opportunities. Many of the stay-at-home companies that saw their stock jump more than sales and profit growth could justify have seen sharp reversals. Peloton Interactive tumbled 76 percent in 2021, while shares of online resale platform Poshmark and education tech company Chegg plunged 81 percent and 66 percent, respectively.

As financial conditions continue to tighten, we expect to see continued multiple compression in forward-looking growth opportunities and a greater bias towards near-term earnings. In an environment with inflation running well above trend, profit margins are likely to be a key driver of stock performance. Fundamental value strategies emphasizing businesses with wide moats and pricing power are likely to be rewarded. Energy, autos, and other industrial sectors in high demand are seeing their profit margins expand. Banks are also natural beneficiaries of rising interest rates due to expanding net interest margins. Conversely, technology, chemicals, media, travel & leisure, and other areas susceptible to rising interest rates, pandemic fears, and increased input and wage costs appear to be at risk. Consumer staples, which lack pricing power and struggle to pass on rising input costs, are being challenged in the current market environment.

After years of underperforming US equity markets, the scales may be tipping back in Europe's favor. Valuations are certainly cheaper. It is also possible that the US advantage in economic growth could dissipate as its fiscal stimulus rolls off. European policy makers, by contrast, have not reacted as forcefully during the pandemic and the region may see fiscal support boost 2022 growth. Rising bond yields also favor European markets because of their greater share of shorter-duration and less rate-sensitive sectors. Interestingly, unlike for most of the past decade, European companies' 12-month forward EPS have been

stronger than their US counterparts over the past year. As always, Europe faces its own political, demographic, and energy-related challenges, but the potential upside in its markets relative to downside stacks up well versus other regions.

In Japan, equities delivered a lackluster performance in 2021. Compared to other developed nations, Japan was late to roll out vaccines, which led to rolling lockdowns across the country's major cities. Empty arenas during the Tokyo Olympics showed – in high-relief – a country struggling to contain the pandemic. Fast forward to today and vaccination rates are among the highest of the G-7 nations, inflation worries are largely non-existent, yen weakness enhances export competitiveness, equity valuations are considerably lower than those in other developed markets, and earnings have been accelerating – all portending a good year ahead for Japanese equities.

EMERGING MARKETS

Q4 emerging market reactions reflected much of what we saw throughout the year, with Chinese assets significantly lagging peers. It was a woeful quarter – and year – for Chinese equities, with regulatory crackdowns on tech behemoths, a distressed property sector, geopolitical tensions surrounding Taiwan and the Xingjian region, and – by year-end – slowing economic growth all weighing heavily on markets. With over a 32 percent share of benchmarks, it is no surprise that China's underperformance weighed heavily on the asset class. MSCI EM index finished the year down 2.5 percent, contrasting the MSCI EM ex-China Index which finished the year up over 10 percent. This large outperformance underscores that there were bright spots in emerging markets for investors that were able to differentiate across countries and regions.

Interestingly, the ten best performing 2021 equity markets were all in emerging and frontier markets. After accounting for some of the less significant frontier market stock exchanges, the top ten scoreboard includes five emerging economies for 2021.

MSCI Country Indices

MSCI Country Indices - Performance as of December 31, 2021

	MSCI Index	1 Yr	3 Yr	5 Yr	10 Yr
1	ZIMBABWE	390.87%	-23.48%	22.77%	13.48%
2	BOTSWANA	105.73%	-0.76%	-10.07%	-5.01%
3	KAZAKHSTAN	90.87%	37.66%	34.34%	12.96%
4	LEBANON	77.88%	16.07%	5.53%	3.58%
5	CZECH REPUBLIC	55.02%	15.76%	14.96%	3.16%
6	UNITED ARAB EMIRATES	50.19%	15.65%	8.00%	14.19%
7	AUSTRIA	41.51%	16.14%	12.47%	7.59%
8	BOSNIA AND HERZEGOVINA	41.08%	23.40%	14.67%	4.45%
9	SAUDI ARABIA	37.70%	14.14%	13.89%	
10	SLOVENIA	33.91%	27.96%	22.87%	9.70%

MSCI Country Indices (Including Frontier)

MSCI Country Indices - Performance as of December 31, 2021

	MSCI Index	1 Yr	3 Yr	5 Yr	10 Yr
1	CZECH REPUBLIC	55.02%	15.76%	14.96%	3.16%
2	AUSTRIA	41.51%	16.14%	12.47%	7.59%
3	NETHERLANDS	27.62%	27.91%	19.18%	14.59%
4	USA	26.46%	25.95%	18.12%	15.96%
5	INDIA	26.23%	16.21%	15.08%	10.85%
6	TAIWAN	26.14%	34.35%	23.01%	15.16%
7	CANADA	25.98%	19.15%	10.21%	6.03%
8	VIETNAM	24.79%	15.65%	17.36%	10.08%
9	MEXICO	22.53%	10.23%	5.58%	1.81%
10	NORWAY	22.00%	9.76%	9.16%	4.21%

Source: RockCreek, MSCI

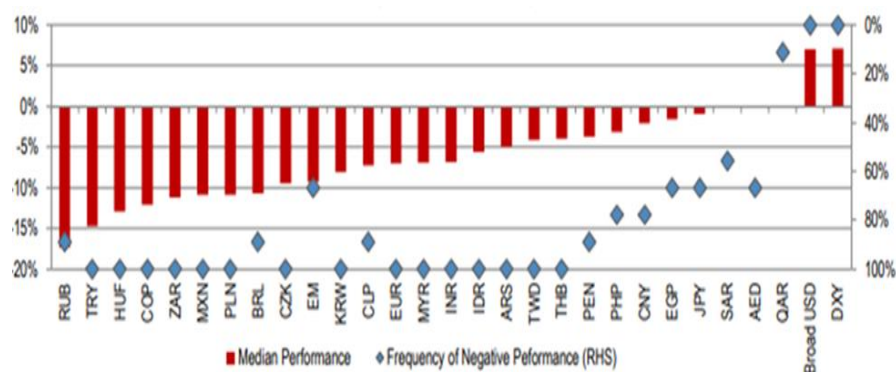
The gap between China and other emerging markets speaks to a much higher level of return dispersion across countries and sectors. This is a welcome change from past years when a handful of tech related stocks (mostly Chinese) dominated the market's direction. The phenomenon of growing dispersion should reward strong stock selection in the coming months.

Looking ahead, although regulatory and geo-political risks in China continue to be present, we think selective stock picking can generate alpha. Chinese stocks, currently priced at the low end of the five-year price to earnings ratio, are at a deep valuation discount to global equities (30-40 percent) and have record low foreign ownership levels. Modest policy easing already underway to soften domestic macro stresses and to ensure stability ahead of the 20th Party Congress could possibly be a catalyst for a re-rating of Chinese stocks. Healthcare, green energy, and certain Chinese technology stocks look particularly attractive, especially versus US tech names.

ASEAN markets (which include Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) and India are where we are expressing our most bullish stance in the new year. In India, we are focusing on a mix of cyclical stocks and a growing list of public tech companies. While the potential for new Covid outbreaks and risks tied to rising oil prices continue, activity in India is now well above pre-pandemic levels. Existing signs of an incipient CAPEX cycle and market reforms could potentially lead to a sustained economic up-cycle in India.

ASEAN's cyclical economies are similarly well positioned to benefit in 2022, led by strong demand from developed markets and post-Covid re-openings in emerging markets. ASEAN markets underperformed throughout the pandemic, especially during the Delta strain, and would be leading beneficiaries of a global "normalisation" in the year ahead if Covid retreats. Valuations look attractive both relative to other regions and to their own long-term averages, and foreign ownership of ASEAN markets is close to record lows after almost $50 billion of disinvestment over the past decade. Importantly, vaccinations and immunity from infection are finally rising rapidly across the region. Our focus is on domestic growth themes and less dependent on regional macro developments (i.e., China), including wholesale retailers in the Philippines, digital banks in Malaysia, Thai telecom companies, and Indonesian domestic transport and logistics companies. The region is also well placed as a source of less sophisticated microchip supply for everyday consumer goods. We are avoiding sectors such tourism, international logistics, and companies with an over dependence on Chinese market demand. Risks to watch for include Omicron-linked lockdowns and travel disruptions, developed markets' inflation and rate hikes, and a stronger US dollar. Interestingly, currencies in the region have typically had less sensitivity to a stronger greenback than their peers in emerging markets.

MEDIAN FX PERFORMANCE DURING PERIODS OF USD STRENGTH



FIXED INCOME

"We tend to use [transitory] to mean that it won't leave a permanent mark in the form of higher inflation. I think it's probably a good time to retire that word and try to explain more clearly what we mean."

- Federal Reserve Chair Jerome Powell before the US Senate Committee on Banking, Housing, and Urban Affairs, November 30, 2021

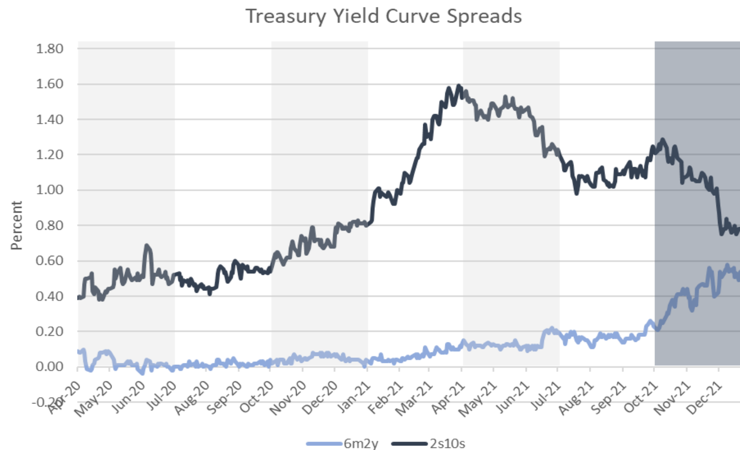
In response to a question from Pennsylvania Senator Pat Toomey during Senate hearings on coronavirus and the CARES Act, Chair Powell confirmed that the central bank's 2 percent average inflation test had been met, and that describing above target inflation as "transitory" – implying short lived – was no longer viewed as helpful or accurate.

The fact that inflation was higher and likely to be more persistent than previously expected didn't surprise the market, which had taken recent inflation data at face value. The consumer price index (CPI) saw year-over-year increases of 6.2 percent, 6.8 percent, and 7.0 percent for the three months in Q4. But Powell's recognition of this fact was an inflection point for the market as it confirmed that policymakers were no longer waiting for a supply side response to relieve price pressures. The market's repositioning around these historic inflation prints, and more hawkish Fed posture was the defining feature for bond markets during the quarter.

Source: US Department of the Treasury

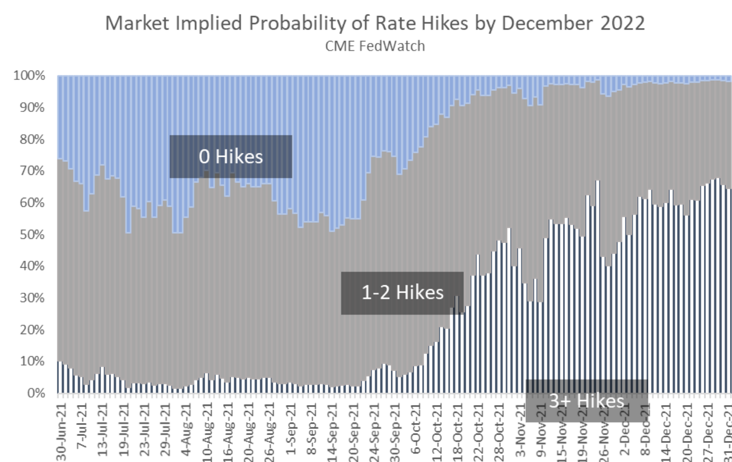
Given the significance of these events, it is perhaps surprising that the 10-year finished the fourth quarter exactly where it started. The level of the curve didn't signify much about the bond market during the period. The story was in the relationship between real and nominal rates, the shape of the yield curve, and what the short-term rate market was discounting.

The five-year breakeven inflation rate topped out in mid-November, having risen by 66 bps to 3.17 percent, and would retrace about half that move by year end, as investors began to internalize the inflation-suppressing priorities of the Fed. The real action, though, was in shorter maturities, as the 2-year nominal bond yield jumped 45 bps.



Source: US Department of the Treasury

The flattening of the yield curve caught many investors off guard, having been positioned for more persistent inflation that would trigger a sell-off in long bonds. Instead, they got a 30-year yield declining 18 bps to 1.90 percent. Lastly, the market implied probability of no hikes during 2022 fell from 25 percent to 2 percent during the fourth quarter, while three or more hikes became consensus (65 percent probability) after carrying odds of just 7/100 coming into the quarter.



Source: CME

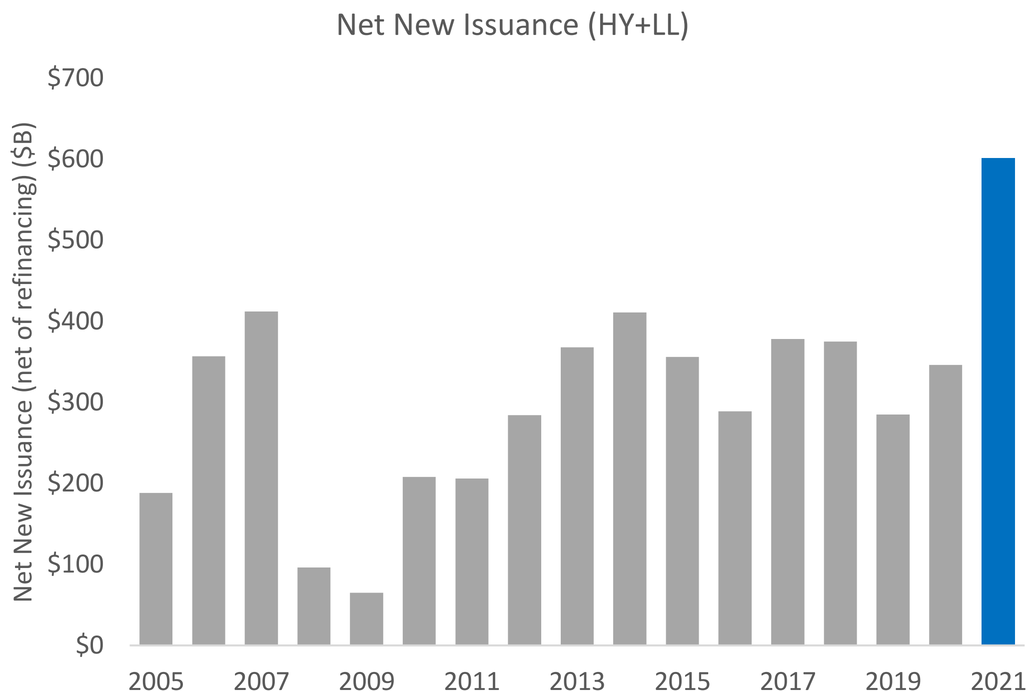
All this is to say that the market is pricing for Fed action to be effective in curbing inflation. And for the vocal Fed critics, the market is offering an opportunity to follow the old saying "put your money where your mouth is."

Following the January 4 release of the minutes from the December FOMC meeting, the bond market has seen more widespread bearishness as expectations for quantitative tightening (QT) come into focus with "almost all" Fed decision-makers supporting balance sheet reduction. The market has clearly been shaken by the taper-hike-QT hopscotch. The market tends to overreact during these transitional periods, while policymakers will be proceeding to tighten as indicated until there is some hint of inflation normalization (the January 12 CPI print failed to suggest that). Bond buyers be warned.

PUBLIC CREDIT

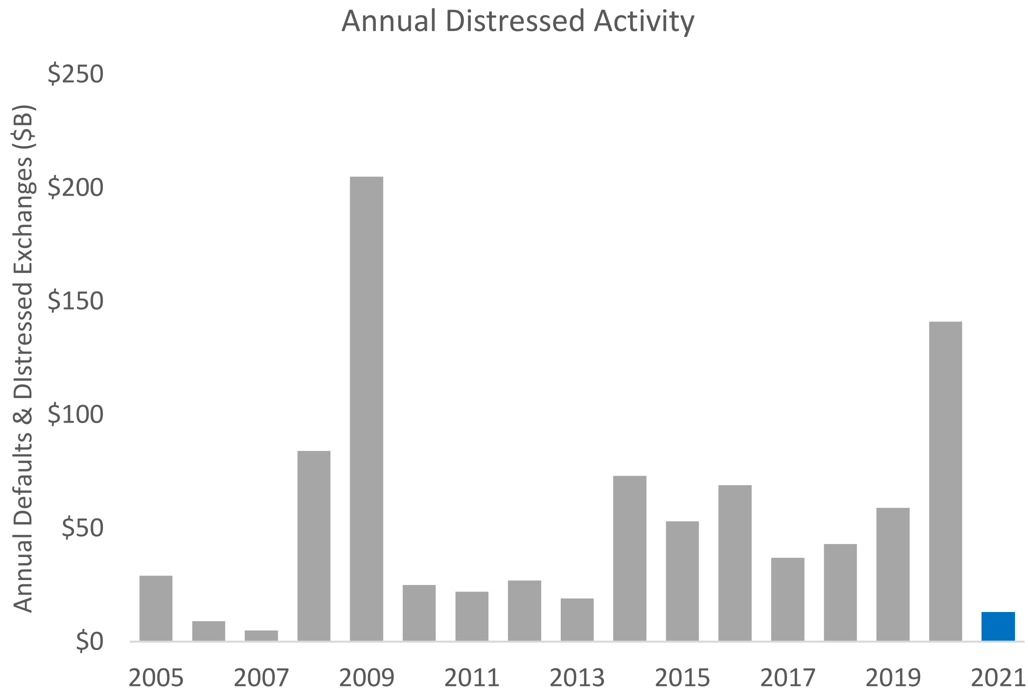
High Yield markets returned 0.7 percent but saw a "tale of two quarters." Hawkish comments from Chair Powell led to weak October and November returns, but this was completely recouped in December, the strongest one-month gain of the year at 2.0 percent, as the Fed moderated their hawkish tone and evidence emerged of Omicron's weakened severity. However, in a reversal of previous quarters, it was higher quality bonds within high yield that outperformed. Leveraged loans saw a positive return for the quarter, delivering a 0.8 percent return. Most other areas of the credit markets were weaker, as converts declined 0.4 percent, and structured markets including CMBS, MBS, and ABS finished lower by 0.6 percent, 0.4 percent, and 0.6 percent, respectively. The one structured credit market segment that continued to see strong demand was RMBS, given the supportive residential housing market dynamics.

Issuance moderated during the quarter, to some extent as expected given the holiday seasonality, but issuance has been on a steady decline from record levels set in Q2. Leveraged loans saw moderate issuance during the quarter, with volume reaching its lowest level for 2021 during December. However, for the full year, bonds and loans still surpassed previous calendar year records for net (of refi) issuance.



While markets were characterized by elevated volatility during the quarter, which may have led to some moderation of issuance, in general the capital markets remain wide open for issuers, likely leading to a continuation of limited distressed opportunities.

Given the availability of new capital, defaults have reached multi-decade lows, and 2021 as a whole saw the lightest calendar year of defaults since 2007.

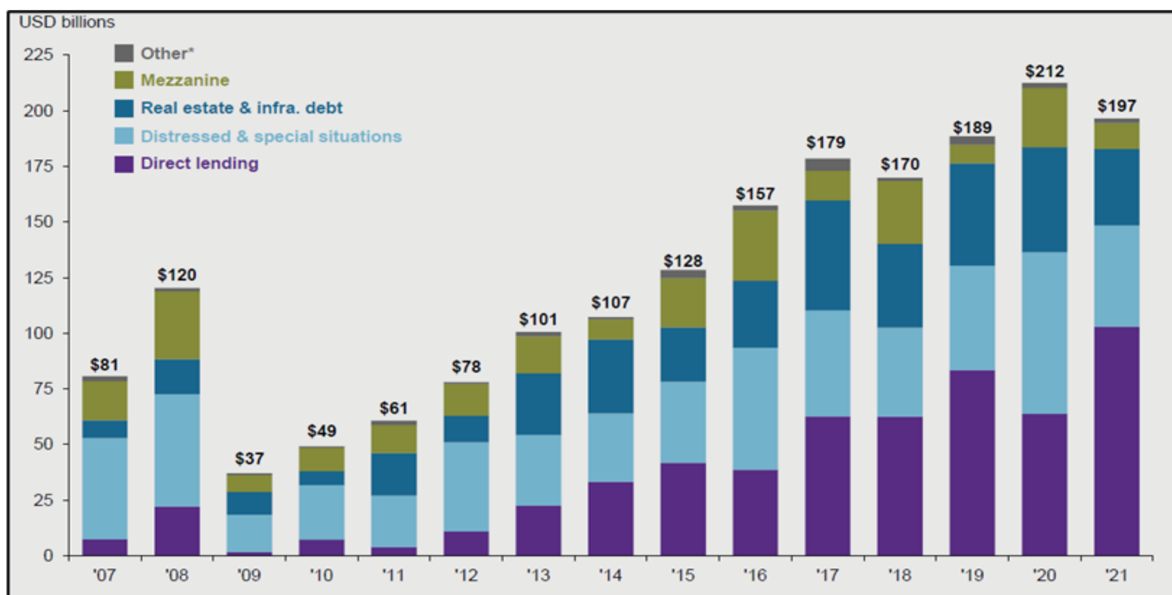


Q4 distressed activity was no different, accounting for only $2.5 billion of the $13 billion total for 2021. This level of activity brings default rates at year-end to just 0.3 percent for high yield (a record) and 0.7 percent for leveraged loans. Given the strong growth backdrop and refinanced balance sheets (and given the amount of issuance), it's likely default rates will remain well below average for several more years. But if the Fed is forced to hike rates more quickly than expected, the growth backdrop subsides, and companies face much higher debt servicing costs, a proper distressed environment for the weakest balance sheets may emerge more quickly than expected.

PRIVATE CREDIT

Private credit strategies had another strong quarter alongside an improving economy, surging liquid credit markets, and low default rates. The asset class is poised to continue to provide solid risk-adjusted returns in 2022 and act as a strong complement to institutional portfolios. While our outlook remains positive, it is not without risks. In sponsored direct lending, growing amounts of dry powder are pressuring deal structures and pricing. As depicted in the chart below, private debt fundraising continues to be near peak levels, with a large portion driven by direct lending related investment funds.

Private Debt Fundraising by Type (2007 - Q3 2021)



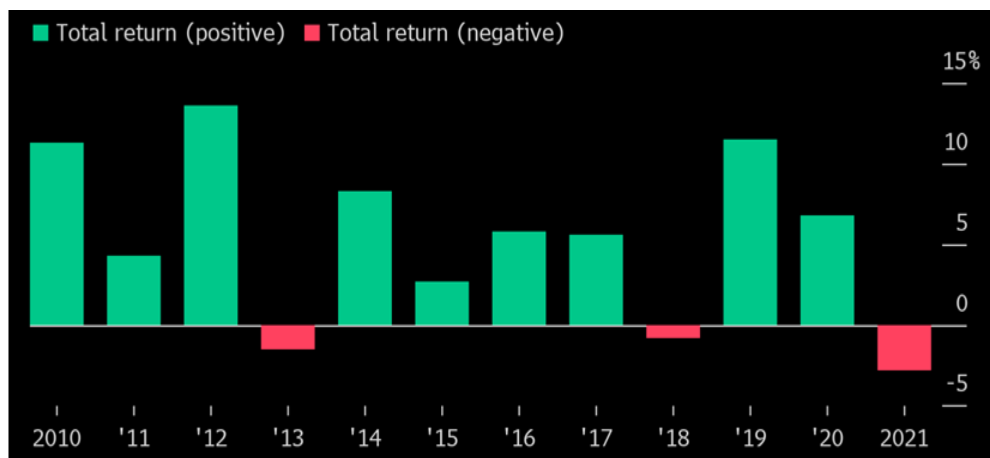
Source: Preqin (2021)

As discussed in our Q3 letter, we have been shifting our focus to strategies where the secular outlook is strong and demand for capital is outpacing supply – areas such as venture debt and homebuilder finance. With credit spreads at all-time historical tights, a more defensive positioning is warranted, focusing on lending opportunities collateralized by asset value rather than enterprise value. These strategies can provide a hedge against potential headwinds facing the market and deal structures.

CONTINUED VOLATILITY IN THE CHINESE PROPERTY MARKET

Q4 brought continued volatility to the China property sector, given continued pressure on liquidity resulting in highly indebted property developers facing difficulties in making debt payments. China Evergrande and Kaisa Group, two of the largest but highly levered property developers, missed bond payments followed by a string of credit rating downgrades of indebted developers, triggering a sell-off in the broader market. In the first week of November, the yield on the ICE BofA Asian Dollar High Yield Corporate China Issuers Index topped over 25 percent for the first time since March 2009, near the height of the Global Financial Crisis (GFC). As seen below, Asia credit had its worst return in over a decade in 2021, not surprising given that China accounts for half of the Asian high yield bond market and Chinese property developers accounting for a significant share.

Asia Credit Market Returns (2010 – 2021)



Source: Bloomberg EM Asia Dollar Credit Total Return Index (2021)

Moving into 2022, we are looking into investment opportunities in the Chinese property sector, given a more dovish shift in policy, improving onshore liquidity conditions, and the handling of the offshore debt restructuring at Evergrande with the government seeking to limit any spill-over impact.

DEATH OF DEDICATED DISTRESSED FUNDS

Distressed opportunities in the Chinese high yield market look attractive, and we are seeking to take advantage of this opportunity through accessing both primary and secondary investments in the Chinese debt markets. Traditional distressed funds are no longer a viable strategy given the paradigm shift in market dynamics – during times of stress, governments and central banks no longer stay on the sidelines for long. Rather, they seek to avert the crisis through intervention, thereby eliminating the possibility of a long-term distressed investment opportunity. This has been the case since the 2008 GFC and was no

different in 2020 in the aftermath of the pandemic outbreak when there was significant government and central bank intervention resulting in only a short-term dislocation.

As a result, special situation strategies that have a broader mandate with the flexibility to shift between performing and distressed investments as the market environment changes are more attractive. While having exposure to distressed is important when the opportunity presents itself, as economic cycles have become more episodic in nature, a more flexible approach is preferable. Moreover, distressed funds that are raised in benign credit environments either tend not to deploy the capital or invest in secularly declining sectors – both of which are suboptimal to an investor. There are a number of GPs that have the ability to originate differentiated new financing opportunities in a benign environment but can move to distressed if and when the opportunity presents itself.

PRIVATE EQUITY

FAST AND FURIOUS?

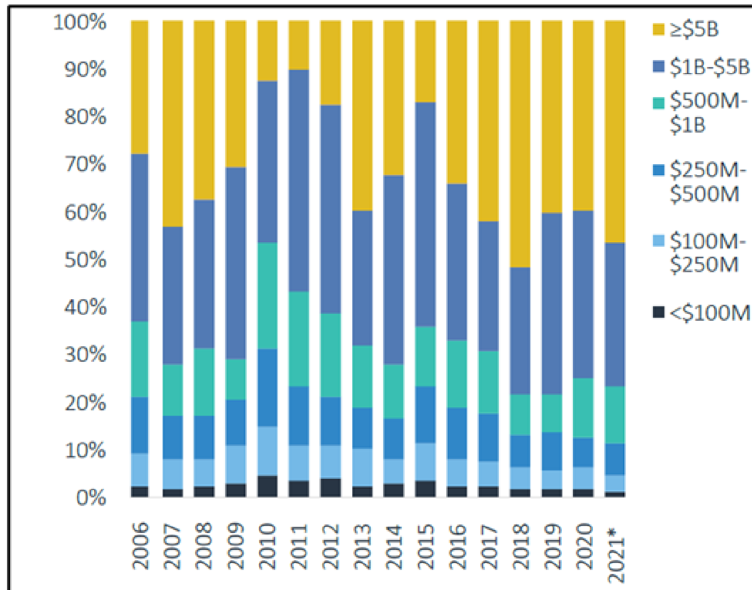
Q4 2021 capped off a record-breaking year of private markets activity and fundraising. According to the Economist, private equity firms signed over 13,000 deals worth over $1.8 trillion heading into the final month of the year. As expected, record levels of cash reserves and a strong financing market drove record activity levels in 2021, and we expect deal activity to continue to be robust in 2022. The technology, media, and telecom (TMT) sector continued to dominate activity, both in terms of value and volume. Total deal value in the sector reached $784.2 billion—nearly double the $404 billion total in 2020, the previous top year on *Mergermarket* record. From health-tech to telecoms, the pandemic added fuel to the fire of existing trends and revealed the extent of the potential for investment, especially in digitalization. Private equity firms will continue to seize opportunities as they look to gain first advantage in high-growth areas. It would not be surprising to expect more firms to join forces in order to achieve the scale and financial clout needed to secure increasingly sizable deals.

Increasingly positive economic conditions such as a brightening global economic outlook, seller-favorable valuations, expected increase in volatility in public markets, and low interest rates are injecting flows into the market. While interest rates are expected to rise, they will likely remain low by historical standards.

The asset class continued to see investors commit capital at an accelerating pace. When total commitments for 2021 are tallied, the year is looking likely to shake out with global totals near or above 2019's pre-pandemic annual record. Many LPs are increasing their allocations to the asset class, drawn by continued outperformance figures in a low-rate environment. Record distributions in 2020 – a result not only of portfolio realizations but of dividend recapitalizations – have allowed LPs to redeploy capital into new funds. According to Pitchbook, the fundraising cycle is also accelerating, with the median time between fund closes continuing to drop, falling to 3.3 years in Q3 2021.

Large institutional investors continue to commit to mega-sized funds, as LPs are looking to streamline their portfolios by allocating to fewer GPs and turning to established firms. Ballooning valuations, especially in the tech sector, are also driving GPs to raise larger funds. The median fund size hit its highest mark in a decade and, as depicted in the chart below, around half of the fundraising dollars YTD have been committed to mega-funds, and two thirds were committed to the fifth or later fund in a fund family. Many sophisticated investors are adding more to their funds and co-investments focused on sustainable and climate-oriented areas. The Covid-19 pandemic, which has made standard due diligence on new funds more challenging – including in-person site visits – has resulted in some LPs being less comfortable to commit to emerging managers. However, RockCreek continues to find new talent in early stage, growth, and buyout with an attractive performance history and continually seeks to discover the next generation of talent, despite the challenges posed by the pandemic.

Private Equity Capital Raised by Fund Size



Source: Pitchbook, (Sept 30, 2021)

Looking ahead, the pull of the largest private market asset managers doesn't appear to be abating in 2022, with new launches of $17 billion and $27 billion sized funds. While a large number of institutions plow capital into these funds, we have continued to remain focus on GPs that have maintained discipline as it relates to fund size and are seeking to compound their own capital.

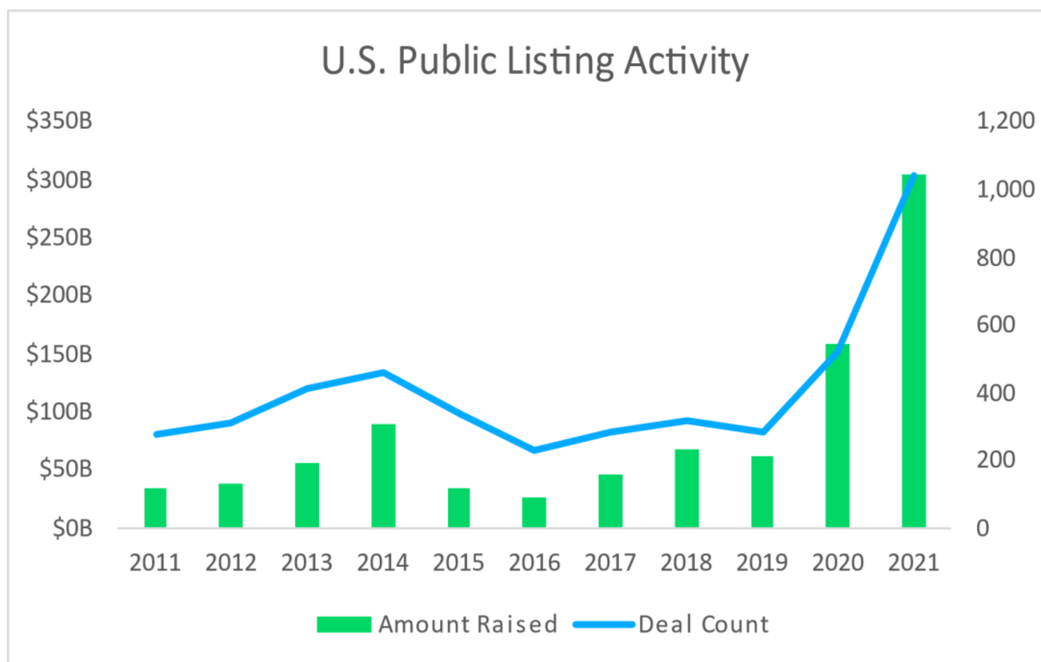
MATURATION OF EARLY-STAGE VENTURE.

The venture capital asset class has matured and has increasingly become a staple within an institution's private equity allocation. Venture capital has grown exponentially over the past decade, and it shows no signs of slowing in 2022. According to Pitchbook, in 2021 alone, venture mega-deal activity reached a total deal count of 784 and generated a cumulative deal value of $182.4 billion — a record high compared to just ten years ago, when total deal count was 46 and total deal value was $10.4 billion. Gone are the days when venture was not much more than a cottage industry reserved for wealthy family offices and sophisticated endowments and foundations. Currently, annual early-stage capital investment is well over $150 billion, and more than $110 billion has been raised by venture funds in the US in the last year alone, indicating a more mature, institutional asset class. Interestingly, while many global sovereign funds have increased their early-stage investments, some US pension funds have not been investing in early stage as much.

The maturation of the asset class has, to some extent, accelerated on the heels of shorter holding periods and increased exit velocity. The record-shattering IPO environment of 2021 has greatly increased public market exposure for many VC firms. According to Pitchbook, as of November 29, 2021, 158 VC-backed companies had completed an IPO for a total of $526.1 billion in exit value. The chart below depicts the

growth in US public listing activity from 2011 to 2021. In 2021, private companies took advantage of elevated valuations and investor demand to go public, further supported by the SPAC boom, which made the process even easier.

However, LPs have to be cautious, as investing in venture successfully over cycles requires two key ingredients: the ability to discover the next generation of successful venture capital firms and access to the current generation of top-tier venture firms. While the rising tide has lifted all boats – making these factors less discernible – as we enter a new market regime, discovery and access will be critical to continued outperformance. We believe that the market will generate strong returns, and our deep-rooted relationships in the sector and access to some of the best and brightest new talent of our time will matter even more.



Source: PitchBook

The looming question now is how long the IPO window will remain open. Despite the frenetic IPO activity that drove 2021 venture returns and realizations, there is still a strong pipeline of potential unicorns looking to tap public markets and give liquidity to early investors, with the highly anticipated Reddit IPO headlining the potential 2022 class. Some industry observers believe that 2022 could see even more IPOs than last year, although some likely candidates have already begun to consider delaying, given the sudden shift in market sentiment. For example, Justworks, a venture-backed software startup focused on the HR market for small and medium-sized businesses, which had been readying its IPO, announced that it would delay it indefinitely.

IS INDIA THE NEXT CHINA?

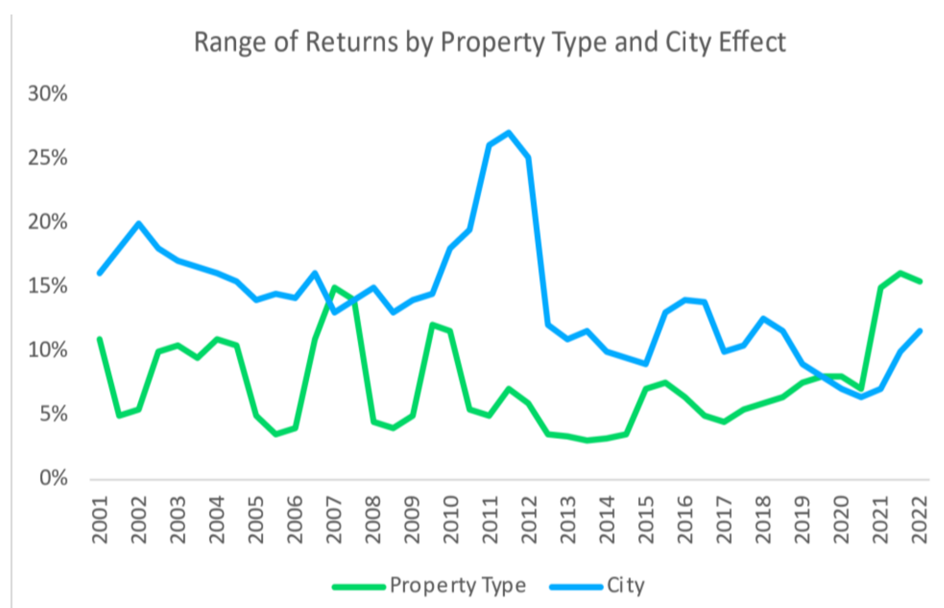
Looking outside the US, one area we will continue to focus on in 2022 is growth capital opportunities in India. We believe the market continues to grow and mature, and the current trajectory is not too dissimilar to that seen in China over the last decade. In 2021, the number of Indian unicorns grew by nearly 125 percent. According to AVCJ, investors pumped in $28.2 billion worth of tech investments last year across 779 deals.

As we have mentioned in prior letters, edtech, fintech, and e-commerce were sectors that saw significant investments, and we expect the start-up ecosystem to remain strong in 2022 with the addition of several new unicorns. Several large PE investors have already announced plans to deploy substantial capital in India. Sectors such as insurance (buoyed by recent policy changes allowing foreign investments), construction, real estate, tech, SaaS, fintech, and healthtech will attract substantial investments. Tech M&A will remain strong due to the continued push to digitize, as India remains in its infancy stage, despite having nearly 2.5x the number of internet users as the US.

REAL ESTATE

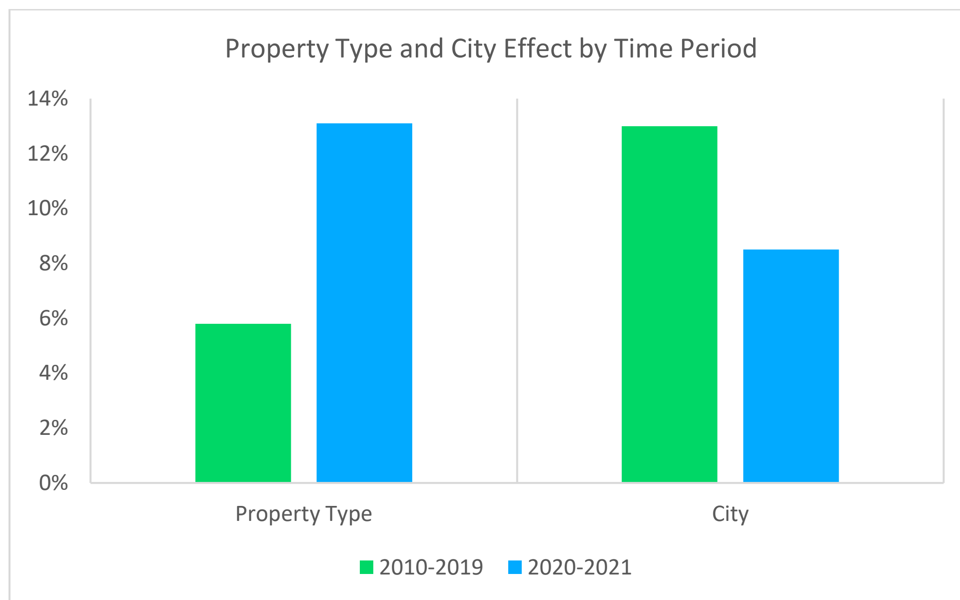
Real estate markets continued to recover across all major property types in the fourth quarter. As real estate presents a compelling opportunity for investors looking for stabilized core assets with strong income yield. In an era of rising inflation, real estate, along with infrastructure and asset-based financing are attractive, as returns in these asset classes are based on pricing power and collateral-based cash flows. This is even more true for certain sectors such as industrial and multifamily, where demand materially outpaces supply in some submarkets, allowing property owners of supply constrained assets to experience pricing power and see real rental increases in a rising inflationary environment.

Divergence of returns across the main four property types has been particularly pronounced over the past two years. Industrial and multifamily showed their resilience and continue to lead the pack during recovery, while retail and office have lagged in performance. Historically, this divergence in sector returns is elevated, as demonstrated in the chart below.



During past recovery-to-expansion phases of real estate cycles, city selection had an outsized impact on performance attribution, while property type selection played less of a role. The prior theory in portfolio construction was that the strongest cities would deliver higher returns, but the most recent cycle suggests that property type selection will play a greater role, as the pandemic has accelerated structural shifts and driven performance disparities.

As office and retail assets experienced a strong Q4 recovery in occupancy, rental growth, and value, the spread between retail and industrial performance has shown its first sign of tightening. The widely accepted view is for industrial to continue to lead the four main property types in returns as consumer spending habits continue to shift online, but the spread between sector performance has shown initial indications of tightening as capitalization rate begin to stabilize, hinting at a return to prior cycles where cities play a larger role in performance attribution.



RockCreek core real estate has been focused on the highest quality markets in the main four property types, while favoring overweight exposure towards industrial and multifamily. Within non-core real estate, we have focused on areas where waves of institutional capital have not compressed returns. This includes alternative property types, where we can aggregate assets and stabilize portfolios at scale for institutions in need of stabilized yield in a low fixed income environment. We continue to monitor the property type and city performance dispersions as we consider portfolio construction changes to best capitalize on this continued recovery period of the cycle.

SPOTLIGHT: CYRPTO'S WILD RIDE

Our Q2 2021 Commentary Letter featured a spotlight on crypto, just as crypto investors faced a case of whiplash. During that quarter, Bitcoin traded from above $64,000 to below $29,000, while Ethereum rallied from below $2,000 to more than $4,300 before retracing the entirety of the move.

The rollercoaster continues into 2022, with Bitcoin currently trading just above $38,000, while Ethereum has settled at a little over $2,600 (at the time of publication). Amid this price volatility, interest in crypto has never been greater. And it is not only a retail phenomenon, as prominent university endowments such as Harvard, Yale, Brown, and Michigan are reported to have made large investments in the asset class in recent years. Given the broad price move over the last several years, it wouldn't be surprising if these stakes now represented meaningful percentages of these portfolios.

One of the major evolutions of the crypto market in 2021 was the introduction of web3 into the vernacular (the term was actually coined by Ethereum co-founder Gavin Wood back in 2014). Web3, or "consumer crypto", has taken on a broad definition, shifting the conversation beyond just currency and financial applications (DeFi) into immersive applications such as gaming and social media.

As Frank Rotman at QED Investors noted in a Twitter post:

Institutional investors have taken note and are starting to implement guidelines for introducing the crypto asset class to their portfolios. Andreessen Horowitz (a16z) recently made headlines by raising a stunning $2.2 billion in fresh capital dedicated to crypto and web3. a16z has moved the web3 battlefield to Washington, with a number of prominent hires that have extensive policy and regulatory backgrounds, as the firm seeks to influence the various regulatory frameworks that will enable and nurture the nascent web3 ecosystem.

This conversation is far from over – if you listen carefully to regulators, there is still strong sentiment that crypto is a fraud. But research from Tomicah Tillemann and James Rathmell at a16z shows that nearly 80 percent of voters they polled would be more likely to back a candidate that supports expanding web3 – although it is unlikely that this issue figures in many political calculations. For those who were polled – and had a positive view – the primary benefits of web3 were seen as giving consumers more control over their own data, improving internet security and privacy, and supporting individual ownership and the creator economy. Still, policymakers are continuing to study potential use cases of cryptocurrencies, as highlighted by a recent research paper published by the Fed. As the paper points out, key to any proposal for the issuance of a Central Bank Digital Currency (CBDC) is that it yield "such benefits more effectively than alternative methods."

While 2020 was highlighted by the "DeFi Summer", 2021 will perhaps be most remembered by the explosion of non-fungible tokens, or NFTs. Few would have guessed in 2017 that NFTs would emerge as a major use case of blockchain technology, with more than $10 billion of trading volume on prominent NFT exchange OpenSea over the course of 2021, with this activity accelerating into 2022. On the back of this milestone, OpenSea, a member of Y Combinator's W18 batch, raised a $300 million Series C funding round that valued the company at $13 billion. Furthermore, passionate communities such as Bored Ape Yacht Club, CryptoPunks, and Chain Runners captured the hearts and wallets of NFT enthusiasts, while many reputable investors, such as Rotman, swallowed the proverbial "red pill".

This evolution/re-branding of crypto has helped sustain and build interest in the technology as the industry continues to seek product-market-fit. Li Jin, a former Partner at Andreessen Horowitz who currently invests in the web3 ecosystem at her new firm, Variant, has elegantly explained her strategy as investing in the passion economy and new platforms that lower the barriers to entrepreneurship and broaden paths to work. As investors seek opportunities that provide society with access to equal opportunity, fair wages, and financial inclusion, web3 serves as a potential fertile hunting ground.

Another positive crypto trend that gained steam during 2021 was the continued shift towards applying sustainable practices to the production and formation of crypto assets. As Gillian Tett noted in a recent Financial Times opinion piece, there a few reasons to be encouraged about the sustainability of web3:

- A coalition of 200+ crypto entities recently joined forces with the Rocky Mountain Institute to create a Crypto Climate Accord.
- China's clampdown on the industry has forced many miners to relocate while shifting mining operations away from coal-fired electricity to renewable energy sources.
- More energy efficient technology has emerged, such as "proof of stake" and "proof of space and time".

Going forward, we expect less of the crypto/web3 conversation to be about Bitcoin adoption (though we will be closely watching regulators) as activity shifts to alternative layer one blockchains. DeFi, NFTs, and DAOs (decentralized autonomous organizations) are likely here to stay, and the creation of more mainstream consumer-friendly applications such as OpenSea will only increase the momentum of web3, irrespective of the volatility of underlying tokens. We hope to see continued progress on the introduction of innovative financial products that serve the underbanked and are cautiously optimistic that the industry will continue to develop with sustainability as a guiding arrow.

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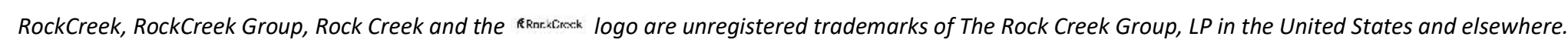
RockCreek, RockCreek Group, Rock Creek and the  *logo are unregistered trademarks of The Rock Creek Group, LP in the United States and elsewhere.*

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