MAKENA

ANNUAL LETTER TO INVESTORS

MAKENA CAPITAL MANAGEMENT

CY2021

PERIOD ENDING
December 31, 2021

Dear Makena Investors,

This annual letter highlights the market environment as well as portfolio positioning and themes.

2022 Market Environment and Portfolio Changes

> *"When the facts change, I change my mind. What do you do, sir?"*
>
> — John Maynard Keynes (or apocryphal) [1]

In last spring's annual letter, we addressed inflation and central bank tightening risks. We noted that monetary tightening would be negative for risk assets but repeated our belief that we have no edge predicting or timing such short-term policy changes. We also noted that we are well-positioned for long-term inflation risk, being overweight real estate, energy, and broad equities and underweight bond duration relative to our 60/40 benchmark. Fast forward to today and we have seen a significant regime change, with most central banks around the world tightening their policies in response to increases in inflation and inflation expectations over the past year. This new tightening cycle coupled with Russia's invasion of Ukraine and escalating China risks have produced a market sell-off. **The facts have changed**. This letter reflects on this new regime and addresses how we are responding to these heightened risks and "changed facts," while still adhering to our core principle of being a long-term investor. The bottom line: we still have no edge in predicting these macro and geopolitical events, but we're concerned that the dispersion of market outcomes has increased and that the compensation for risk is lower than it was a couple of years ago. Therefore, we have dialed back our risk levels and are being more cautious about rebalancing, unlike our approach to managing the portfolio in the spring of 2020. We still like the balance in our portfolio, which will help us navigate both inflationary and low-growth disinflationary environments.

Economy and Market: Past and Present

The Federal Reserve articulated their newly hawkish stance in November and followed this up with a 25-basis point increase at their March meeting, while adding guidance on further rate hikes and a commitment to shrinking their balance sheet this year. Although there is wide range of opinions across the Federal Reserve Board of Governors and District Presidents, there is a growing belief that the Federal Reserve will need to err on the hawkish side to maintain their inflation-fighting reputation, which has allowed inflation expectations and bond yields to remain low for several decades. On May 4, the Federal Open Market Committee (FOMC) announced a 50 bp rate increase, the largest since 2000 and the first back-to-back increases at consecutive meetings since 2006. They foreshadowed likely 50 bps increases in each of their next two meetings, although they downplayed the need for a 75 bp hike. They also laid out the framework for reducing their $9 trillion balance sheet, starting in June. The market initially took comfort that the 75 bp increase was off the table. U.S. equities surged 3.0% and bond yields remained stable after the Fed announcement. The rally was short-lived as investors' inflation concerns re-emerged the following day, causing a 3.5% sell-off in U.S. stocks and bond yields to surge past 3%. This volatility will continue as the Fed works to contain inflation.

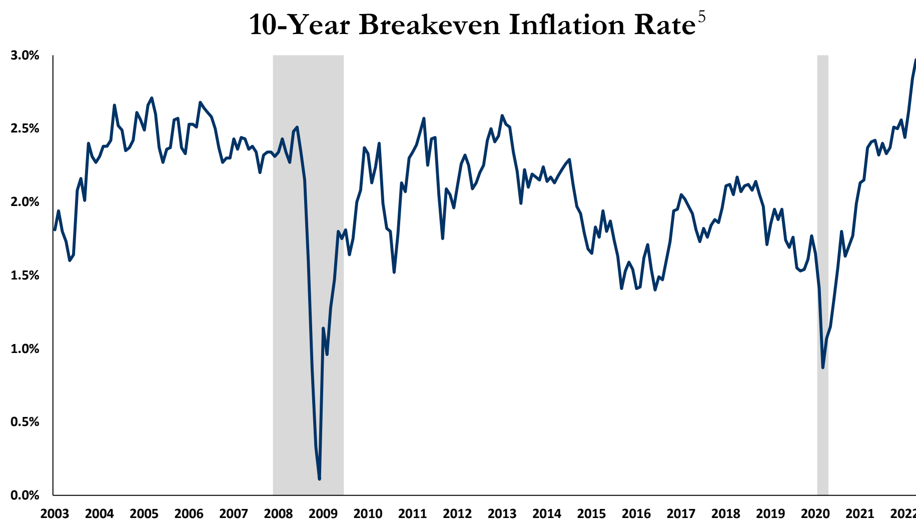
James Bullard, President of the Saint Louis Federal Reserve district bank and a voting member of the FOMC, is one of the hawks. In an April 13 interview with the Financial Times, Bullard said, "There's a bit of a fantasy, I think, in current policy in central banks… Neutral is not putting downward pressure on inflation. It's just ceasing to put upward pressure on inflation." [2] He strongly advocates increasing short-term rates above the long-term

[1] Although Keynes is widely cited for this quote, there is some question whether he ever said it. It is possible that a version of this statement was made by either Winston Churchill or Nobel Prize winning Economist, Robert Samuelson.

[2] *Fed official: It's fantasy to think modest rate rises will tame inflation*, Colby Smith, Financial Times, April 13, 2022.

neutral or equilibrium rate to have any impact on taming inflation. He wants rapid and large (at least 50 bp) increases in the Federal Funds rate so the rate reaches at least 3.5% by the end of 2022. Loretta Mester, another voting member of the FOMC and President of the Cleveland Federal Reserve district bank, also supports rate hikes, but advocates a series of smaller rate increases, which would lead to a 2.5% rate by year-end.[3] She referred to this regime change at the Fed as "The Great Recalibration" possibly contrasting this with the "Great Moderation," which described the benign inflationary environment over the past several decades. Former Federal Reserve officials have also weighed in. Retired New York Federal Reserve President, Bill Dudley, recently argued that the Fed should engineer a decline in stock prices to produce a negative wealth effect, which would in turn reduce aggregate demand and lower inflation pressures. This is a change from the Fed Put, which has been perceived to exist since the Great Financial Crisis. Jason Trennert, Chief Investment Strategist at Strategas, recently said that the Fed Put that we've been accustomed to since 2008 is now deeply out of the money.[4] Interestingly, even as the Fed rhetoric becomes more hawkish, breakeven inflation rates have continued to drift higher, with the 10-year breakeven inflation hitting 3.02% on April 21, the highest level since the beginning of the data series in 2003, as shown on the following graph.

10-Year Breakeven Inflation Rate[5]



Inflation expectations becoming unanchored increases the risk of further Fed tightening.

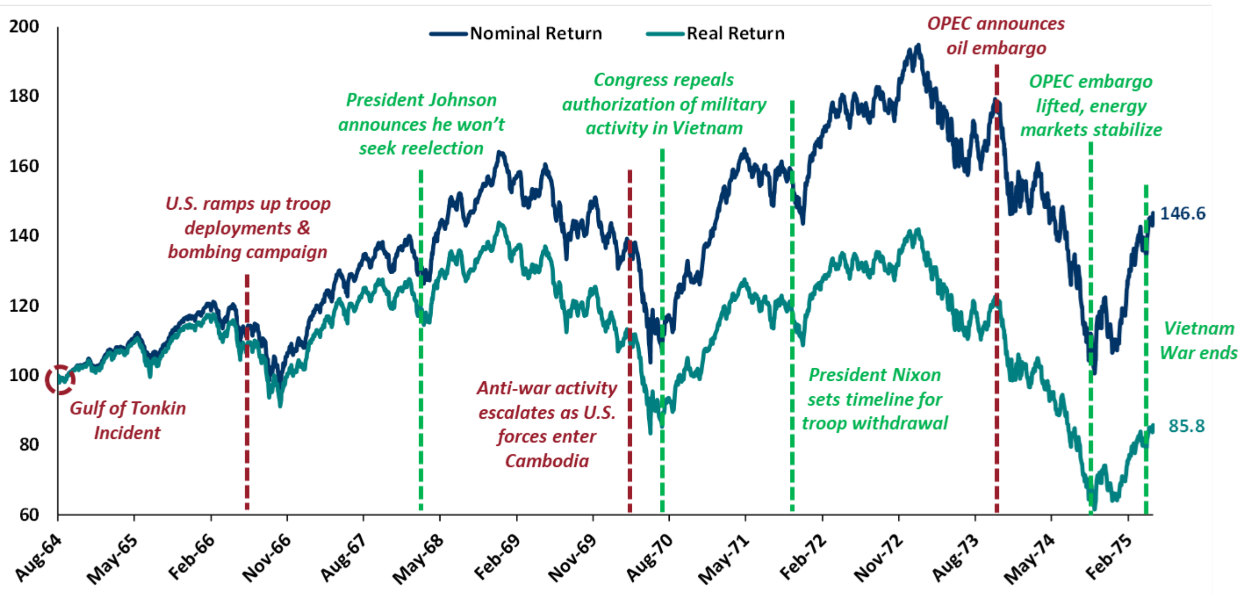
We expected a tightening cycle to be negative for bonds and stocks and in particular, long-duration growth stocks. This has played out in 2022. Q1 2022 was the first quarter since 1980 that stocks and bonds each lost more than 5%.[6] Bonds didn't provide the protection or diversification that they have over the past 20+ years. The following graph shows rolling five-year correlations of stocks and bonds going back 90 years.

[3] *CNBC interview*, April 22, 2022.
[4] *CNBC interview*, April 18, 2022.
[5] Source: FRED, Federal Reserve Bank of Saint Louis.
[6] Q1 2022 Russell 3000 returned -5.3% and the Bloomberg U.S. Aggregate returned -5.9%. Q1 1980 Russell 3000 returned -6.3% and the Bloomberg U.S. Aggregate returned -8.7%.

Rolling Five-year Correlations between the S&P 500 and 10-Year Treasury Returns

Bonds provided attractive portfolio diversification over the past two decades, being negatively correlated with stocks for most of that period. This contrasts with the 1970s, when stocks and bonds were positively correlated. Rolling five-year correlations help identify long-term regimes, but they move too slow to quickly identify regime changes. To help identify a new regime, we calculated the more volatile rolling two-year correlations between stocks and bonds. This correlation recently turned positive, reaching 0.50, its highest level since 1997. Will this positive correlation continue? Is the Great Recalibration ushering in the start of a new economic regime? Perhaps.

Many investors fear we are returning to the stagflation of the 1970s. That decade was marked by higher inflation, low economic growth, two oil shocks, the end of the gold standard, wage and price controls, and peak Cold War, all of which contributed to a poor decade for real investment returns. The Vietnam War was the catalyst for much of this malaise. The following graph shows the stock market performance during the Vietnam War. U.S. stocks returned a mere 3.6% per annum nominally over this 11-years, but given the growing inflation problem, generated a negative real return of -1.4% per annum. Bonds also lost money in real terms, losing -1.2% per year after inflation.



The Russian invasion of Ukraine, higher inflation, the spike in commodity prices, and geopolitical risks in China have sparked comparisons with the 1970s. Are we returning to a new Cold War? Maybe. The "peace dividend" we reaped at the end of the Cold War contributed to the economic growth and benign inflationary environment or Great Moderation of the past three decades. Ken Rogoff notes, "U.S. defense spending fell from 11.1% of GDP in 1967, during the Vietnam War, to 6.9% of GDP in 1989, the year the Berlin Wall fell, to just over 3.5% of GDP today".[7] A new Cold War would certainly increase the risk of inflation and lower economic growth.

We have no edge in predicting whether we will return to the stagflation of the 1970s or whether geopolitical and inflation risks will abate, resulting in an environment more like the 1980s or 1990s. Although we can't predict the future macro state of the world, we believe the range of outcomes and likelihood of bad outcomes have both increased. The broader dispersion of outcomes was echoed by DoubleLine founder and portfolio manager, Jeffrey Gundlach, when he said, "The risks of inflation and deflation are both real."[8] Even Hoisington Investment Management, which has correctly maintained a significant duration overweight in their bond portfolio for the vast majority over their 42-year history, sees a possible regime change occurring. This has caused them to reduce their duration for only the third time over the history of Hoisington and their previous firm. They have been correct each time. The first time was in the 1970s and the second time was in 1987. In 1987, they went to zero duration but have currently decreased duration more modestly from 25 to under 20 years, which still exceeds the benchmark. For decades, they have believed that the large debt overhang and aging demographics would support a continued low-growth disinflationary environment. They still think this is the likely long-term base case. However, they have reduced their duration because of the risk of higher and more persistent medium-term inflation. They are growing more concerned about a 1970s-style stagflation. They are one of the few bond managers who has an edge in managing duration, so when they change course, we pay attention.

A big driver of the high dispersion of outcomes will be how the Federal Reserve and other Central Banks respond to the growing inflation risks. In addition to the Vietnam War, the Federal Reserve was a large contributor to the

[7] *Is the Peace Dividend Over*?, Ken Rogoff, Project Syndicate, March 2, 2022.
[8] CNBC Interview, April 12, 2022.

persistent and growing inflation during the 1970s. The Federal Reserve was led by Arthur Burns for much of the 1970s. He succeeded William McChesney Martin in January 1970 and was briefly followed by G. William Miller in March of 1978. Miller only served 17 months, being replaced by Paul Volcker in August 1979. The Fed was too slow to recognize the risk of inflation and was playing catch-up for most of the 1970s. Real tightening didn't occur until Volcker took over the Fed. Monetary policy mistakes contributed to inflation of 7.4% per annum, and negative real returns for stocks and bond for the decade. U.S. stocks returned -1.4% per annum while bonds returned -1.1% per annum throughout the 1970s. Will the current Fed policies be more like Volcker's that aggressively tackle inflation or be more like the Burn's Fed that plays catch-up for the decade of the 2020s? In one scenario, the Fed takes the recommendations of Bullard and Dudley, acts aggressively, reduces asset prices and aggregate demand and is more likely to produce a hard landing. In this scenario, the yield curve could invert and bonds rally as the economy rolls over quickly. Alternatively, the Fed's quest for a soft-landing causes them to remain behind the curve. In this scenario, inflation remains high, while inflation expectations and bond yields both increase over several years. Both are possible. The dispersion of outcomes is significant.

There are also a wide range of outcomes that could emerge from the war in Ukraine. Will Russia become more aggressive and broaden the conflict to other countries? What will China do? Will military spending return to Cold War levels? How will non-Russia OPEC respond? Will negotiations lead to resolution? Will Russia declare victory after seizing control of eastern Ukraine, leading to a cessation of hostilities? There is a greater dispersion of outcomes in China as well. Will they cease the regulatory assault on certain industries and companies? Will they adhere to their zero-COVID policy? What will they do with Taiwan? Will they change course and embrace a market economy, which would unleash entrepreneurship and help economic and profit growth? We have no edge in predicting the probabilities or market outcomes of these different scenarios. However, we believe there is a wider range of market outcomes and a greater probability of bad outcomes, which we consider when we manage risk.

Portfolio Actions: Past, Present and Future

As we have said repeatedly, investing is risky. We reduce short-term market risk by diversifying across asset classes, sectors, geographies, and individual companies, but we can't eliminate this risk unless we invest 100% in cash. This overly conservative allocation would increase our long-term risk, or the probability of not meeting our 5% plus inflation goal. Although we don't eliminate risk, we manage it. We navigate this long-term versus short-term risk trade-off by managing the portfolio to a target 0.60 Beta to Equities. We achieve this target by allocating to defensive asset classes like cash, fixed income, hedge funds, real assets, and capital efficient hedges, in addition to our equity-oriented allocations. We manage the portfolio within a target Beta range of 0.55 to 0.65.

We look at broad market valuations for insights into the relative attractiveness of taking risk. As detailed in prior letters, we estimate the equity risk premium (ERP), to help assess whether we are adequately compensated for taking equity risk and to guide us on where we should be within the targeted Beta range. The ERP is the excess expected return of equities over bonds, which is estimated by subtracting real bond yields from the earnings yield on stocks.[9] We complement this top-down measure with bottom-up guidance from our managers about whether valuations and current opportunities are attractive relative to history. As we entered 2020, the ERP on U.S. equities was just above 3%, which was average since 1980, although slightly below the longer-term average since 1950. After the 34% pandemic-driven-market decline in March of 2020, the ERP rose to over 4%. This above-average ERP combined with messaging from our managers on the attractiveness of opportunities in their portfolios persuaded us to add to risk assets in March and April of that year. As the markets recovered, we hedged risk, redeemed from managers, sold private secondaries, and got private distributions to keep our equity risk or Beta within the target range. However, it was at the high end of the range through 2020, as the ERP remained above average due to increasingly negative real bond yields. As valuations increased and real bond yields became less negative, the ERP drifted lower, so we continued to dial back risk. We entered 2022 with a Beta of 0.63.

[9] Our spring 2020 letter details the methodology and provides an analysis of the success of this model predicting future returns of stocks over bonds using this ERP measure.

Given further increases in real bond yields, which are now positive for the first time since 2020, the ERP is now down below 3%. In addition, although many markets and sectors have sold off in 2022, our managers are not as uniformly pounding the table for their portfolios as they were in 2020. This lower compensation for taking risk, combined with mixed messaging from our managers, and a wider range of macro and geopolitical outcomes that we laid out above, have caused us to be more cautious and patient about redeploying capital into cheaper opportunities. The largest capital deployments have been with two new biotech managers, which we funded in March and April. Most of our capital deployed to liquid asset managers year to date has been to hedged strategies, as we believe their hedging and shorting capabilities will be an asset in this environment. We have also added to our internal hedges, finding opportunities to hedge that are relatively cost effective. We will continue to look for opportunities to add hedges during periods of short-term market strength. We have slowed down our private co-investments because we think the valuations are more attractive in the public markets. We continue to make private fund commitments, but we will likely reduce our private commitment budget in the second half of the year when we do our mid-year budget refresh. We reduced our bond duration even further, given the greater risk of an inflationary regime. We added capital to hedge fund managers with a focus on inflation-oriented investments, one of which is focused on the long-term energy transition theme. We are actively researching a new public manager to focus on opportunities in public energy companies, as these companies show more capital allocation discipline. Finally, we still believe our equity portfolio, biased toward high quality growing companies, will hold up well in a longer-term inflationary regime. At the 2022 Berkshire Hathaway annual meeting, Warren Buffett responded to an investor's question about how to protect against inflation. He said, "The best thing you can do is to be exceptionally good at something … Whatever abilities you have can't be taken away from you. They can't actually be inflated away from you …The best investment by far is anything that develops yourself, and it's not taxed at all."[10] This personal advice applies to investing in companies as well. Our investment managers (public and private) seek companies with these same qualities, targeting market-leading companies that face less competition. Their competitive advantages stem from having better products, superior management teams, and lower cost structures. These competitive advantages (moats) provide them with greater pricing power, enabling them to pass on wage and cost increases more easily to their customers as higher prices. These moats are often established by having intangible assets, such as brands, patents, software, and other technology enabled advantages.

As a long-term investor with no edge at macro-investing, we are mindful about not timing the market and putting too much faith in a single number like the ERP to signal when to make investments. It's just one tool, which we combine with insights from our managers (across all strategies), fundamental work we do on companies and themes, and other measures of the ERP (e.g., ERP calculated using the free cash flow yield) to guide us on the optimal level of market risk. This is not market timing if we stay within the 0.55 to 0.65 Beta range. It is just prudent fundamental-based risk management. We know the portfolio will be subject to short-term volatility. Investing is risky! Our long time horizon is one of our competitive advantages and will allow us to be compensated for taking these short-term risks, assuming valuations are reasonable. As the market draws down further, valuations will decline, the ERP will increase, our Beta will decline, and more managers will finally "pound the table" for the attractive valuations in their portfolios. We will continue to be patient to wait for such times to make new investments. Finally, in addition to trusting our asset allocation and risk management process, we need to remember Peter Lynch's advice:[11]

---

[10] Warren Buffett, Berkshire Hathaway 2022 Annual Shareholders meeting.
[11] PBS, Frontline interview: https://www.pbs.org/wgbh/pages/frontline/shows/betting/pros/lynch.html. CNBC Interview, April 12, 2022.

> If you're in the market, you have to know there's going to be declines… every couple of years you're going to get a 10% correction. That's a euphemism for losing a lot of money rapidly… And a bear market is a 20-25-30 % decline. They're going to happen… If you're not ready for that you shouldn't be in the stock market. I mean stomach is the key organ here. It's not the brain. Do you have the stomach for these kinds of declines?
>
> — Peter Lynch, Fidelity Magellan Fund Portfolio Manager

Ultimately, we need to manage and **stomach** short-term volatility if we want to meet our long-term objective of generating inflation plus 5%.

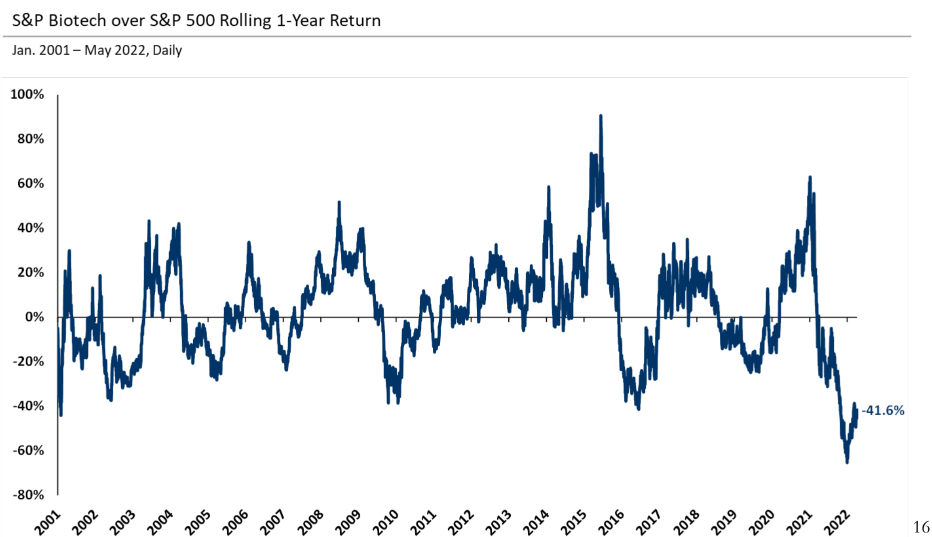
Growing Life Sciences Exposure

> The development of CRISPR and the race to create vaccines for COVID-19 will hasten our transition to the next great innovation revolution. The past half century has been a digital age, based on the microchip, computer, and internet. Now we are entering a life-sciences revolution: children who study digital coding will be joined by those who study the code of life.
>
> — Walter Isaacson, *The Code Breaker: Jennifer Doudna, Gene Editing, and the Future of the Human Race* [12]

We agree with Walter Isaacson about the promising future for innovation within life sciences. Healthcare and biotech investing is an attractive long-term theme, however, the long-term results will not be a straight line up. After a strong 2020, public biotech markets struggled in 2021, generating the worst returns since 2008 (S&P Biotechnology Index -20% and Russell 2000 Biotech Index -27%). The sell-off began in earnest in Q4 2021 and has continued into 2022 as the sector suffered its most difficult quarter since Q4 2018. As a result of this prolonged sell-off, the sector has now entered the second deepest and longest correction in its history (-60% return for the Russell 2000 Biotech Index).[13] The biotech sector has lost over half of its value, more than $350 billion since its peak, and the drawdown has resulted in significant valuation compression in the sector, particularly in the small-cap space. Small-cap valuations are in the bottom quartile relative to history, and a record number and percentage (55%) of the sub-$10 billion market cap companies trade at <2x cash.[14] Over 100 biotech companies trade below cash – up from only two companies at the end of 2020.[15] While biotech companies have high levels of cash burn, we believe the large number of companies that trade at <2x cash demonstrates the strength of the balance sheet for the sector.

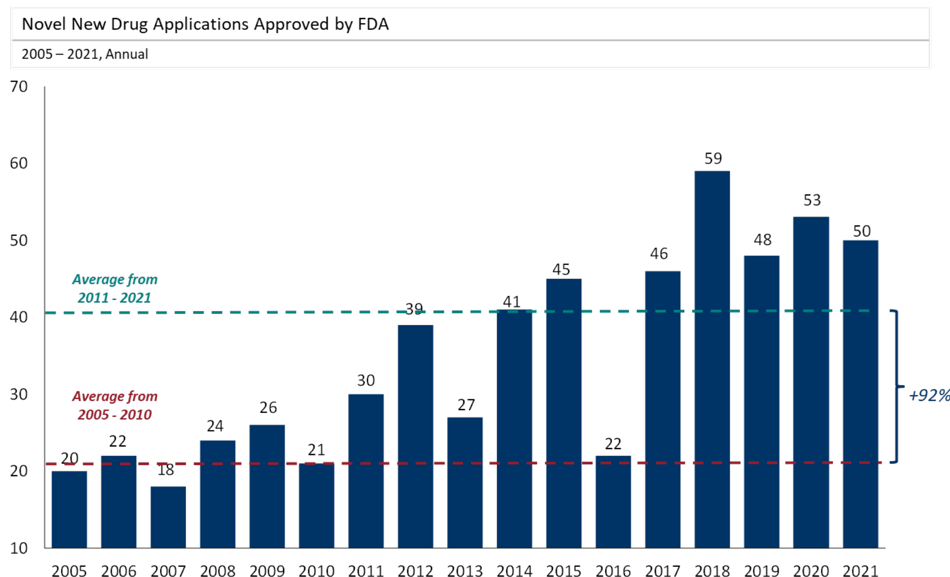
[12] *The Code Breaker: Jennifer Doudna, Gene Editing, and the Future of the Human Race*, Simon and Schuster, March 2, 2022.
[13] Source: Bloomberg.
[14] Source: RTW Investments.
[15] Source: EcoR1 Capital.

Rolling one-year returns for the S&P Biotech Index relative to the S&P 500 Index are shown below.



[16]

While the sell-off has been severe, we remain optimistic about the underlying fundamentals of the sector. The rate of innovation, as measured by the number of novel new drugs approved by the FDA, continues at a historic pace. Despite COVID-related resource constraints, in 2021, the FDA approved 50 novel new drugs, including the highest number of drugs designated as "first-in-class."



[17]

The sector could also benefit from M&A by large pharmaceutical companies. Large pharma will increasingly look to the biotech sector to replace the lost revenues from their cliff of patent expirations. The revenue loss will be substantial – over $200 billion through 2026 and an additional $100 billion by 2030. [18] While the lost revenue is significant, large biotech and pharma companies are well positioned for M&A, with over $500 billion in cash on

[16] Source: Bloomberg.
[17] Source: FDA.
[18] Source: EcoR1 Capital.

hand. This implies potential M&A dry powder of over $1.6 trillion – enough to purchase the entire biotech sector outright.[19]

At our annual meeting last year, we highlighted the opportunity for active management to exploit inefficiencies within the biotech sector given the high dispersion of cross-sectional returns.[20] Such inefficiencies combined with the growth in innovation, balance sheet fundamentals, strategic pharma M&A, and continued sector volatility have compelled us to size up our allocation to active biotech managers.

Strategic Manager Relationships

> *"What's (the) real secret? People, People, People. Real secret relationships with absolutely the highest quality people."*
>
> — David Swensen [21]

As we referenced in the last two letters, we can't say enough wonderful things about the contributions that David Swensen made to Yale University and to the field of investing. The influence he had on so many of us that practice the Yale or endowment style of investing has been profound and will last for decades. The Yale Endowment annual reports are a virtual road map for the endowment model. There are over 20 of them on the Yale Investment Office website. The 2021 annual report concludes with the above handwritten quote. This succinctly lays out one of the secrets of the endowment model, which is consistent with our sixth core investment principle: People Matter. I had lunch with one of our clients recently and he asked why we don't list this principle first. My answer was that I wanted to save the best for last! The two most equally important principles are (1) Maintaining a Long-term Focus and (6) People Matter. The first principle sounds easy, but becomes challenging when faced with concerns about wars, interest rates and pandemics. We can't control for exogenous events, but we can plan for them and maintain self-control or have the "stomach" to survive the path. We can also try to control the quality of people with whom we partner. As you know, another endowment CIO, for whom we have a tremendous amount of respect is Seth Alexander at MIT. They just published their 15-year anniversary letter. Commenting on such geopolitical and macro risks, they state, "time spent trying to predict the nature or timing of such events is time wasted…. To prepare for downturns, we have two main lines of defense. Our first line of defense is our manager selection process… Our second line of defense is a set of exposure guidelines that are designed to promote resilience in the portfolio." At Makena, we also monitor exposures, have established risk guardrails, and have built a balanced and diversified portfolio that is resilient across a range of economic outcomes, as described earlier in this letter. Even more important is the work that goes into manager selection, both upfront due diligence and ongoing monitoring. It comes back to our core principle that people matter. We are constantly trying to find and maintain a portfolio of quality people who have the skill and passion to exploit market inefficiencies. Although it has been a strategic focus to do more and better work analyzing our underlying portfolio company positions, it is with the primary goal of being better at identifying skilled analysts and portfolio managers at our external investment partners. We're constantly trying to make sure we are partnering with the highest quality people.

We hope you remain well, and as the economy and travel return to normal, we look forward to seeing you in person once again. As always, we are thankful for your continued trust and support.

Larry Kochard, CIO on behalf of The Partners of Makena Capital Management

[19] Source: EcoR1 Capital.
[20] Healthcare has the fourth highest level of dispersion among the S&P 500 sectors: Source: Makena Analysis, Bloomberg.
[21] Copy of handwritten note from David Swensen on the final page of the 2021 Yale Endowment Report.

DISCLOSURES

Makena Capital Management, LLC ("Makena") prepared this document solely for the person to whom it has been given for informational and discussion purposes only. This document and the information contained herein are strictly confidential and may not be reproduced, distributed or communicated, in whole or in part, to any third party without the express approval of Makena. Makena reserves the right at any time to amend or change the contents of this presentation without notice to you.

Under no circumstances should the information presented be considered an offer to sell, or a solicitation to buy, any security referred to in this document. Such offer or solicitation may only be made pursuant to the current offering documents for the Makena Fund (the "Fund" or "Funds") which may only be provided to accredited investors and qualified purchasers as defined under the Securities Act of 1933 and the Investment Company Act of 1940. This document should be read in conjunction with, and is qualified in its entirety by, information contained in the Funds' offering documents.

Makena believes that the research used in this presentation is based on accurate sources (including but not limited to economic and market data from various government and private sources and reputable external databases), but we have not independently verified those sources, and we therefore do not guarantee their accuracy. The opinions, projections, and estimates contained herein reflect the views of Makena only and should not be construed as absolute statements and are subject to change without notice to you.

Certain statements in this presentation may constitute forward-looking statements that should not be relied upon as representations of the future performance of any Makena Fund. The past performance of any Makena Fund is not necessarily indicative of future results. The projected performance results presented in this document, if any, are hypothetical and for informational and illustrative purposes only and should not be construed as a guarantee of actual or future performance results of any Makena Fund. Actual performance results may vary significantly from projected performance results due to many factors, including, but not limited to, new issue eligibility, different liquidity terms, timing of investment and other factors.

Certain performance numbers in this presentation may be unaudited, preliminary and based on estimates. Final reported and audited performance numbers may vary considerably from these estimates. Estimated gross and net performance numbers could change materially as final performance figures and underlying investment costs and fees are determined and allocated. Unless otherwise noted, performance is shown net of underlying manager fees and net of the standard Makena fees per the applicable limited partnership agreement, including any incentive fees earned or estimated that a "day one" investor would pay. Asset class performance is shown net of underlying manager fees but gross of Makena fees. Please refer to the offering documents of the Makena funds for complete information regarding fees and expenses. Past performance is not indicative of future results.

Comparison of the performance of any Makena Fund to a benchmark or benchmarks is for illustrative purposes only and the performance of the Makena Funds may differ materially from the performance of the benchmarks due to diversification, asset allocation, volatility or other factors.

If MSCI data is presented be aware that MSCI has not approved, reviewed or produced this report, makes no express or implied warranties or representations and is not liable whatsoever for any data in the report. You may not redistribute the MSCI data or use it as a basis for other indices or investment products.