2023
Capital Markets Forecast

Syntrinsic Investment Committee

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I. Executive Summary

Executive Summary

At times it is helpful to reflect on the past and evaluate what has changed. In 2022, we anticipated that inflation would peak, interest rates would rise globally, growth would moderate, and evaluating environmental, social, and governance factors in investment-decision making would increase. Well, it was quite a year; those things happened—and so much more that intensified those trends!

Russia invaded Ukraine in February 2022, beginning a war that has been a human rights travesty, lasted longer than anyone anticipated, and caused major shock to global food and energy supply chains. China effectively shut down its economy, enacting a zero-COVID policy for much of 2022, further exacerbating major supply chain issues. Environmental, Social, and Governance investing came under significant political pressure and regulatory scrutiny for perceived and real greenwashing, lackluster short-term performance, and lack of standardized measurement and reporting. The Chips and Science Act and the Inflation Reduction Act passed in the US, which could arguably lead to more onshoring as well as boost climate change measures.

While any of these trends on a standalone basis would have been challenging, combined, they took a toll on society, weighed on consumers, corporations, and governments balance sheets, and ultimately led to the most difficult year for investors since 2008. The fixed income markets had the worst investment performance in modern history, as indicated by the returns of the Bloomberg US Aggregate Bond Index, and the equity markets had a peak to trough decline of (26.70%) (1/1 to 10/15) as evidenced by the FTSE Global Equity All World Index.

The events and the market performance of 2022 have shaped our views for the next year and beyond. We have entered a new paradigm of higher interest rates and higher trend inflation. It has yet to be seen whether the coordinated central bank tightening and higher trend inflation will result in a "soft or hard landing," though our base case is for growth to slow globally and unemployment to rise from 2022 levels. We anticipate a slightly different outcome for each region given their reliance on trade and current interest rate and inflation environment. We still see inflation, interest rates, slowing growth, geopolitical conflicts, and environmental, social, and governance risks, as the key macroeconomic themes that will drive the economy over the next decade.

Even though we anticipate slower economic growth, higher trend inflation, more interest rate volatility, and the potential for additional geopolitical conflict, we do believe there are pockets of attractive opportunities in almost all asset classes. Fundamentals will matter more as capital is more expensive and excess liquidity in the system from accommodative monetary and fiscal policy has deteriorated, bringing back an environment where quality companies with solid business plans, strong cashflows, lower leverage, and good risk management thrive.

Every year, Syntrinsic's Investment Committee develops our Capital Markets Forecast, which includes our long-term forecast and near-term sentiment. The long-term forecast serves as the underlying foundation for building strategic asset allocations that can endure through market cycles. Our approach provides a rational and measurable way to anticipate the returns available from equity, fixed income, real estate, commodities, hedge fund strategies, and private investments. We also realize that from time-to-time, economic and/or market conditions such as the market we currently find ourselves in, create opportunities to add value on the margins by modestly reducing or increasing asset class and segment allocations. As a result, we craft a near-term sentiment to complement our long-term forecast. Our near-term sentiment evaluates opportunities and measurable risks to adjust allocations with a three-year perspective in mind.

Building strategic asset allocations alongside solid manager selection is essential to our short and long-term investing. Recognizing that each investor has unique investment and impact objectives, we have developed this forecast as a guide to support you in building the appropriate asset allocation to meet your objectives.

Our Investment Committee looks forward to collaborating with you to achieve your investment goals in 2023 and beyond. Thank you for your continued confidence.

Sincerely,

Akasha Absher
President

Near-Term Sentiment Overview

Asset Class/Segment	1Q 2023 Near-Term Sentiment	3Q 2022 Near-Term Sentiment
Global Equities	**Neutral/Positive**	**Neutral/Positive**
US	Neutral/Positive	Neutral/Positive
Non-US Developed	Neutral	Neutral
Emerging Markets	Neutral	Neutral
Global Fixed Income	**Neutral/Positive**	**Neutral**
Short-Term Bond	**Positive**	Neutral/Positive
Core Bond	Neutral	Negative
Core Plus Bond	Neutral/Positive	Neutral/Positive
Non-Developed US Bond	Neutral/Negative	Negative
Emerging Markets Bond	Neutral	Neutral
Real Assets	**Neutral/Negative**	**Neutral/Negative**
Real Estate	Neutral	Neutral
Commodities	Neutral/Negative	Negative
Hedge Fund Strategies	**Neutral/Negative**	**Neutral**
Private Equity	**Neutral/Positive**	**Neutral/Positive**
Private Debt	**Neutral/Positive**	**Neutral/Positive**

Syntrinsic has upgraded our near-term sentiment on Global Fixed Income from Neutral to **Neutral/Positive**, reflecting the improved forward-looking prospects for the broad asset class given higher yields and the potential to provide non-correlated returns in the coming years. This upgrade has been reflected in almost all segments within fixed income.

In conjunction with the improved relative valuations of fixed income and continued **Neutral/Positive** sentiment for private equity and private debt, we have lowered our sentiment on Hedge Fund Strategies to **Neutral/Negative**.

II. Global Macro-Economic Themes

Themes

Themes	Syntrinsic Perspective	Allocation Effects
Inflation	Inflation, while decelerating, remains higher than Central Bank targets for many reasons, some of which are aging infrastructure, geopolitical crises, labor dynamics, and de-globalization/onshoring. While some of those factors have shifted/abated, we anticipate structurally higher inflation over the next decade.	• Maintain quality basis within equities • Allocate to real assets with strong cash flows
Monetary Policy	Tightening monetary policy in 2022 and an increase in rates across most developed markets has improved the outlook for fixed income on a relative basis. However, continued hawkish monetary policy in the coming quarters to offset inflationary pressures will add to the volatility and the duration risk of the asset class.	• Add to fixed income to take advantage of higher rates but maintain a duration slightly lower than benchmark • Increase allocation to senior secured private debt
Fiscal Policy	While fiscal policy has been largely accommodative in the past couple of years, the rising debt service burden could limit additional stimulus. Recent stimulus measures that have furthered onshoring could prove inflationary while benefitting real assets and renewables.	• Allocate to real assets with strong cash flows • Allocate to clean energy/renewables
Global Growth	Economic indicators such as Purchasing Manager's Index (PMI) and retail sales have declined while unemployment remains strong. Inflation and higher rates have been affecting consumers and corporations, but balance sheets remain healthy, and inflation is decelerating. We anticipate that the continued hawkish policy will slow growth further, but our base case is not a steep recession. With valuations at attractive levels in some areas, we see opportunities across the markets.	• Allocate to high dividend stocks • Maintain a quality bias within equities • Allocate to alternative investments, particularly in the private markets • Add to small cap exposure on favorable valuations and growth opportunities
Geopolitics	Geopolitical crises will continue to influence the investment markets and other larger macroeconomic themes such as inflation and interest rates.	• Maintain a diversified portfolio across asset classes and geographies
Environmental, Social, and Governance	While ESG has been under political pressure for the past year, we continue to see a growing focus on evaluating these factors in investment decision-making. The growing impact of climate issues, income inequality, and scarcity of resources will drive the transition to a low carbon economy and demand greater investment of capital, creating financial and social return opportunities.	• Allocate to sustainable opportunities including resource and industrial efficiency, innovation, and clean energy

Rate Hikes are Waning, The Case for Fixed Income

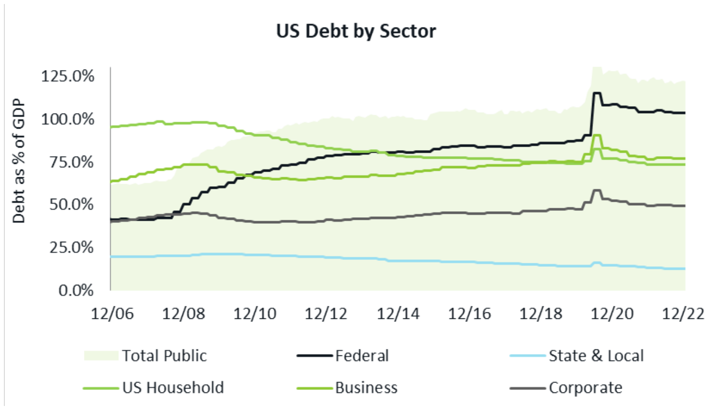
Author: Robin Meyer, CFA, Syntrinsic Fixed Income Research

Using fixed income as a diversification tool in traditional portfolios is much more relevant than one year prior, which is why we have increased our allocation.

Major global economies have commenced monetary tightening cycles to combat global inflation from becoming entrenched. Domestically, the US Federal Reserve (the Fed) kicked off this process mid-March 2022 and has moved aggressively using its primary policy tool, the Fed Funds Rate, which it has increased to 4.25% after beginning the year at zero (0.0%)[1]. The magnitude of these hikes (+4.0% over the course of nine months) is unprecedented from a historical context. The effects of tightening monetary policy impacts both consumers and corporations. The most immediate and noticeable impact is the removal of cheap debt which had been abundant for most of the past decade. For consumers, this manifested in a swift spike in mortgage rates, with benchmark 30-year fixed mortgage rates having eclipsed 7.1% in the 4th quarter of 2022.[2] Financing costs also increased for vehicles, furniture, and many consumer goods. Corporations are experiencing a higher cost of capital to run their business such as the cost of financing an expansion, investing in R&D, hiring, and many operating expenses.

Fortunately for consumers, US household balance sheets entered this cycle in the strongest financial shape in at least 10 years (see Exhibit 1), given the extreme accommodative monetary and fiscal policy up until 2022. With rates so low over the last decade, most corporations have refinanced or issued new debt in 2020 – 2021 and pushed out maturities (see Section III: Exhibit 22) in advance of interest rate hikes. These two dynamics, higher quality corporate and consumer household fundamentals, supported the argument until recently for the Fed to be successful in achieving "soft landing," slowing the economy while a.k.a. avoiding a recession.

Exhibit 1: US Debt by Sector



Source: Bloomberg

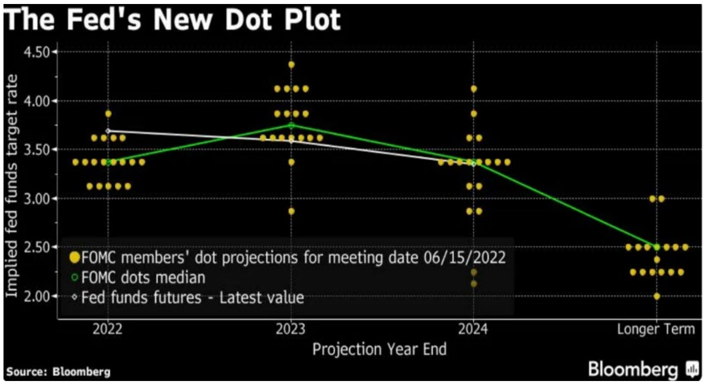
The Fed has made progress in terms of dampening inflationary pressures, as indicated by both observable Consumer Price Inflation (CPI)/Personal Consumption Expenditures (PCE) prints declining from their peaks as well as future consensus inflation expectations declining (both consumer expectations[3] and market-implied expectations). However, the Fed remains hawkish and steadfast in continuing to raise the Fed Funds Rate to more restrictive levels. Indeed, the Fed's December Summary of Economic Projections indicates the median expectation among voting members for the terminal Feds Fund Rate to be 5.1%,[4] an additional 0.8%

[1] FRED database, St. Louis Federal Reserve
[2] Freddie Mac
[3] NY Federal Reserve
[4] Federal Reserve Summary of Economic Projections

higher than the current level. Fed Chair Powell and other members continue to drive home the point that inflation remains the Fed's top priority and everything else is secondary.

The Fed altered its pace slightly in December, opting to raise the Feds Fund Rate only 0.5% after consecutive hikes at the 0.75% level. Fed Chair Powell acknowledged financial conditions in the US are now restrictive, but the need remains for conditions to become "sufficiently restrictive." All signs point to further increases to the Fed Funds Rate in 2023, and we anticipate the Fed Funds Rate could exceed 5.0%, though that is not our long-term base case.

Exhibit 2: Fed's Dot Plot



Source: US Federal Reserve

As of June, the Fed has begun to unwind its sizeable balance sheet by allowing maturing Treasury securities and Agency Mortgage-Backed Securities (MBS) to "roll-off" without reinvesting the proceeds. This dynamic has removed the most substantial buyer (the Fed) from both markets and can perhaps explain the relative performance weakness among Agency MBS during 2022. While the Fed's balance sheet has taken a backseat to increasing Feds Fund Rate, this unwinding will continue in 2023 with additional implications on fixed income performance.

As we mentioned in our mid-year 2022 update, one of the benefits of the move higher in US Treasury rates alongside a widening of credit spreads, is that US bond markets now have some of the more attractive yield levels across the fixed income landscape than we have seen in several years. To boot, overall corporate fundamentals continue to remain strong with ample cash on balance sheets, strong debt service ratios, and better overall quality among high yield companies than during previous cycles. Using fixed income in a traditional defensive portfolio allocation is much more relevant than one year prior, which is why we have increased our allocation to fixed income.

Why now is a good time to add to US small cap exposure

Author: Jared Hobson, CFA, Syntrinsic Global Equity Markets Research

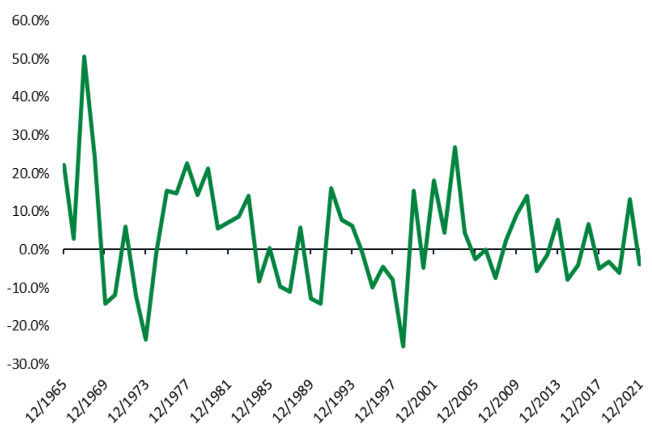
Small cap stocks offer an attractive valuation discount and greater exposure to US specific growth drivers around reshoring, infrastructure, and green investment.

We are more favorable on US small caps stocks over the intermediate horizon despite the near-term economic headwinds. Our positive outlook on the small cap segment is founded on a view that (a) small cap stocks offer an attractive valuation discount versus large cap stocks, (b) have a higher percentage of revenue sourced domestically and have greater exposure to some US-specific growth drivers around reshoring, infrastructure, and green investment, and (c) have historically outperformed coming out of economic downturns.

US Small Cap Attractively Valued vs Large Cap after multi-year period of lagging

Large cap and small cap relative outperformance periods over the last half century tend to run in cycles; that is, one market segment typically has a multi-year period of outperformance that is generally a function of investor over-optimism for specific themes that eventually fade. For example, the 'go-go' 1960s were a period of significant small cap outperformance driven by high-flying industrial roll-ups and emerging tech stocks that gave way to the final innings of the 'nifty fifty' large cap growth mania of the early 1970s. The unwinding of this large cap bubble then led to a multi-year period of small cap outperformance through the early 1980s.

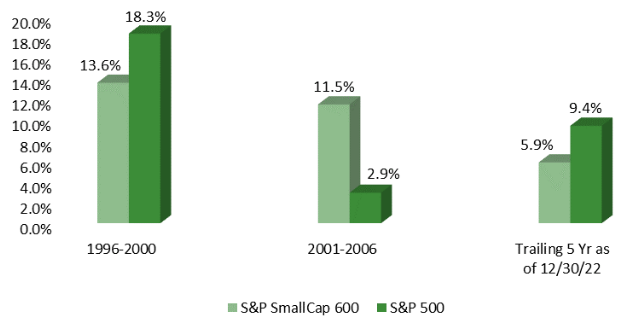
Exhibit 3: Annual US Small versus Large Cap Stock



Source: Fama/French factor data library; Kenneth R. French - Description of Fama/French Factors (dartmouth.edu).

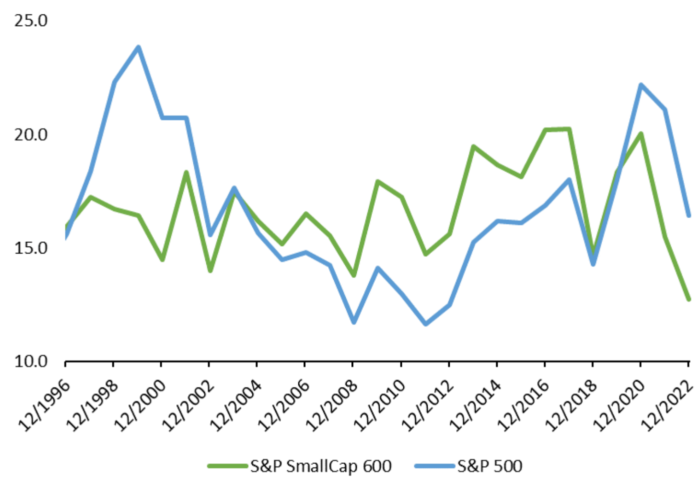
The recent multi-year relative outperformance of large caps appears quite similar to what occurred from 1996-2000, which could portend an oncoming small cap cycle. The late 1990s could be characterized as a goldilocks combination of decent economic growth with minimal inflation. After an interest rate hike scare in 1994, monetary policy remained benign for the next five years. This encouraged a risk-on environment where investors bid up large cap growth stocks, especially tech, to lofty valuations. As shown in the chart below, from 1996 through 2000, the S&P 500 outperformed the S&P SmallCap 600 index by almost 500 basis points annually. However, when the Fed helped pop the dotcom bubble with its late 1999/early 2000 interest rate hikes, investors turned their attention to the neglected small cap asset class. The six-year period from 2001 – 2006 was a period of significant small cap outperformance as the S&P SmallCap 600 climbed 11.5% annually vs. just 2.9% for the S&P 500.

Exhibit 4: Small Cap vs. Large Cap Annualized Returns



Source: Morningstar

Exhibit 5: Forward Price to Earnings



Source: Bloomberg

Similar to the late 1990s, the trailing five years have been another period of large cap growth outperformance led by the FAANG stocks, with the S&P returning 9.4% annualized vs. just 5.9% for small caps. Valuation spreads between large and small cap remain above historical levels, similar to the late 1990s. As shown in Exhibit 4, in the 1999-2000 period, large caps traded at almost a 50.0% valuation premium to small caps which proceeded to evaporate as small cap stocks took over market leadership. Currently, large caps trade at a 30% premium to small caps, with the S&P 500 forward P/E multiple at 16.7x compared to the S&P 600 SmallCap at 12.7x.

Footnote: The S&P SmallCap 600 is selected as the small cap proxy for this analysis over the more cited Russell 2000 Index as the S&P SmallCap 600 is comprised entirely of profitable companies whereas a material percentage of the Russell 2000 constituents are unprofitable firms which makes it difficult to analyze a valuation metric such as Price/Earnings. Although the Russell 2000 publishes a forward P/E valuation metric excluding its unprofitable components, we find this metric unhelpful. It should be noted that the S&P SmallCap 600 has consistently outperformed the Russell 2000 over the last 25+ years.

Small caps have more exposure to the emerging manufacturing reshoring trend as well as the government's evolving US industrial policy

Although the number of manufacturing jobs troughed in 2010 at 11.5 million, the current tally of 12.9 million workers[5] is well below the peak of almost 20 million in the late 1970s. However, the supply chain fallout from COVID as well as heightened geopolitical risk has resulted in companies re-examining the potential risks from overseas suppliers and logistic partners. This 'reshoring' trend is in its early days, but more manufacturing activity will be returned to the US. Consulting firm, McKinsey & Company, estimates the manufacturing industry has the potential to add 1.5 million jobs by 2030.[6] Not only are US-based companies

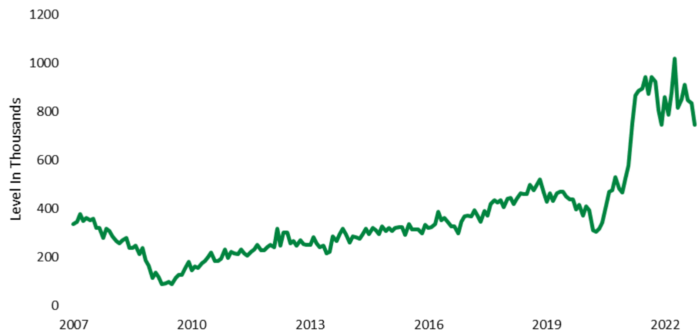
[5] FRED Database, St. Louis Federal Reserve
[6] August 29, 2022, Delivering the US manufacturing renaissance, McKinsey and Company

recognizing that the US has strategic advantages in areas such as its captive oil and gas resources, but German chemical giant BASF recently announced that it was curbing production in Europe primarily due to high energy costs and would be spending $780 million in doubling production capacity in Louisiana.

In addition to the reshoring trend, the Biden administration has made significant progress over the last year in pushing ahead with its policy agenda focused on creating jobs and securing critical components for the long-term:

- The **Infrastructure Investment and Jobs Act** is a late-2021 bill with the goal of improving US transportation and other physical infrastructure (roads, bridges, rail, water systems, broadband) over the next decade with a $1 trillion+ package.

Exhibit 6: US Manufacturing Job Openings



Source: FRED Database, Federal Reserve Bank of St. Louis

- A large piece of the 2022 **Inflation Reduction Act** focuses on investments to push forward a cleaner energy future for the US with almost $400 billion of manufacturing tax incentives over the next 10 years in the areas of solar, wind, and battery manufacturing.
- The **Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act** signed into law in August 2022 directs $280 billion in spending over the next 10 years to increase US chip production capacity over the long-term as a geopolitical risk mitigation strategy. This includes almost $40 billion in manufacturing incentives to encourage fabrication investment in the US.

As a result, companies are committing capital investment to create and expand onshore facilities.

- In mid-December, Redwood Materials announced a $3.5 billion investment in South Carolina to recycle traditional batteries where its basic metals are refined to then be used for Electric Vehicle (EV) batteries. Redwood estimates that it will create more than 1,500 jobs in the Charleston region.
- Intel is initially earmarking $20 billion to two new fabrication plants in Ohio that will employ 3,000 workers and could grow to $100 billion when all is said and done. The world's largest chip manufacturer, Taiwan Semiconductor, is spending $40 billion on adding fabrication capacity in Arizona.

The US small cap asset class is well-positioned to benefit from these domestic tailwinds, as almost 23% of the S&P SmallCap 600 Index is comprised of Industrials and Materials companies versus only 11% for the S&P 500. Although these sectors likely will feel the near-term impact of a slowing economy, corporations will need to strategically add resources to meet future demand. As shown in Exhibit 6, manufacturing job openings remain elevated. Companies face a talent shortage as entry level, non-skilled positions compete against services industries for employees. On the other side of the spectrum, skilled labor is difficult to find as it takes a few years of apprenticeship and on-the-job knowledge to be productive. As factories move to the digital world, skill sets will need to evolve in conjunction with increased investment in productivity-enhancing industrial automation technology.

Small caps have a mixed history of relative performance before and entering a recession but have significantly outperformed coming out of every downturn over the last 50+ years

Although small caps have historically been the more volatile asset class, the data is inconclusive whether small caps underperform large caps entering and in the early months of recessions. But small caps have a perfect track record of relative outperformance in the late innings of the recession through the following six to twelve months. While we recognize our timing could be early, our base case does not anticipate a severe recession in 2023; therefore, adding small cap stocks into a portfolio at this time appears attractive.

Exhibit 7: Small Cap Performance

	6 months pre-recession through 6 months before end of recession		6 months until end of recession through 12 months post-recession	
Recession	**US Market**	**Small Cap Outperformance**	**US Market**	**Small Cap Outperformance**
1969-1970	-30.6%	-21.8%	30.6%	4.5%
1973-1975	-28.4%	-9.8%	75.3%	13.0%
1980	15.8%	6.5%	26.9%	13.8%
1981-1982	-12.0%	7.8%	61.1%	18.5%
1990-1991	-14.8%	-15.3%	44.9%	16.7%
2000	15.1%	16.5%	-18.2%	14.2%
2007-2009	-43.7%	-2.4%	21.0%	14.7%
Average	-14.1%	-2.7%	34.5%	13.6%

Source: Fama/French factor Data Library; small cap premium factor (SMB) is the equal-weight average of the returns on the three small stock portfolios (value, neutral, growth) minus the average of the returns on the three big stock portfolios.

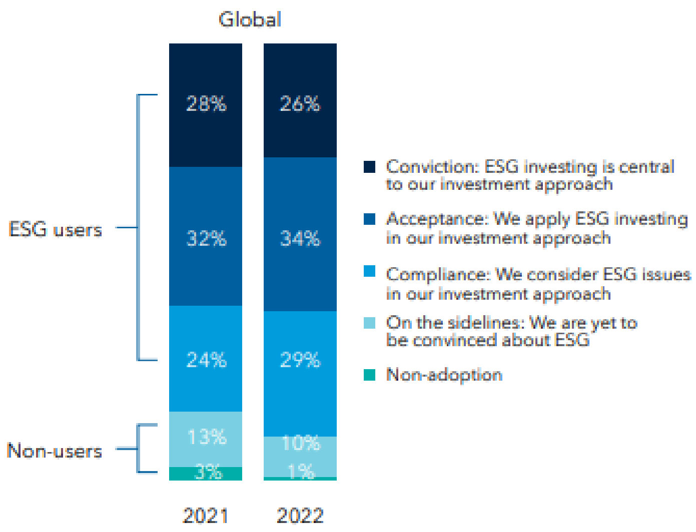
Defining Environmental, Social, and Governance (ESG) Integration

Author: Akasha Absher, Syntrinsic Markets Research

ESG integration has received significant political pressure and regulatory scrutiny over the past year due to the lack of standardized measurement and tracking, perceived and real greenwashing, and lackluster short-term performance. Even with the concerns, we believe that evaluating material ESG factors is integral to mitigating risk in portfolios. The growing impact of climate issues, income inequality, and scarcity of resources will continue to drive the transition to a low carbon economy[7] and demand greater investment of capital, creating financial and social return opportunities.

Evaluating material ESG factors is integral to mitigating risk in portfolios.

Exhibit 8: Capital Group ESG Adoption Levels



Source: Capital Group

Despite all this political pressure and regulatory scrutiny, ESG adoption is continuing to grow with more than 89% of global investors using ESG in their investment approach, up from 84% in 2021, and 79% in the US.[8] Some of the adoption is intentional as evidenced by the 26% with conviction and some unintentionally with the 24% in compliance.

Syntrinsic's Process

ESG investing is different from aligning your portfolio for impact. For Syntrinsic, incorporating environmental, social, and governance factors is material to our investment manager due diligence process to mitigate risk in portfolios enhance long-term performance. There are certain aspects of ESG investing, particularly with values aligned managers, which can potentially create a more positive impact in society, but we do not see that as the starting place along the ESG spectrum (see Exhibit 9).

Like all investing, it is important to have a disciplined process when integrating ESG. We evaluate investment managers on how they incorporate environmental, social, and governance factors and values alignment in their decision-making. Although not all investments we source integrate ESG, when evaluating ESG investments, the manager's full integration into the investment process is an important consideration for Syntrinsic. For ESG managers, we evaluate whether ESG factors are a consideration for risk, integral to the decision-making process, and for clients that are focused on specific values alignment – how that manager is integrating the values in its decision-making process with investments and shareholder advocacy. The

[7] January 18, 2022, 2022 Capital Markets Forecast, Syntrinsic Investment Counsel, page 11
[8] 2022, ESG Global Study, Capital Group

degree of impact is analyzed separately from the return focused investment process. At an investment level, we evaluate each investment manager on their ESG score, sourcing data from MSCI and Sustainalytics, manager interaction, and impact stories. We recognize that this can be challenging as the data sets are not standardized and can be inconsistent; still, it provides a starting point.

We have found that investing in companies that have strong governance, are resilient, and are using their capital strategically to mitigate ESG risks has been successful over long-periods of time.[9] We see the recent pressure and regulatory scrutiny as a natural evolution that will further the development of a more universally agreed upon definition, comprehensive measurement tools, and greater transparency. We recognize that there has been a lot of momentum into ESG investing and like all things, there is room for improvement.

Exhibit 9: Syntrinsic's ESG Spectrum

ESG Integration	ESG Mandate	Values Aligned ESG Mandate
• Investment manager evaluates companies on material ESG factors relative to their sector for risk mitigation only.	• Investment managers that invest in companies that score well based on material ESG factors relative to their sector and is integral to the decision-making process.	• Investment managers that invest in companies that score well based on material ESG factors relative to their sector and invest in companies that also score well on values aligned issues (e.g., climate change, racial and gender diversity, etc.). In addition, engage in shareholder advocacy to support values aligned issues.

Source: Syntrinsic

[9] MSCI KLD 400 Social Index Returns 12/30/22 versus MSCI USA IMI

III. Near-Term Sentiment

Global Equities Outlook

Author: Jared Hobson, CFA, Syntrinsic Global Equity Markets Research

The global equity markets stumbled in 2022 in response to tightening monetary policy globally to combat extremely high inflation. Much of the decline in the equity markets took place in the first half of the year as global markets began pricing in the negative economic ramifications of higher inflation and slower growth, which was amplified following the Russian invasion of Ukraine. After a multi-year period of outperformance driven by strong fundamentals, low rates, and excess liquidity, growth stocks bore the brunt of the pain in 2022 (see Exhibit 2). Investors rotated into more traditional value sectors such as energy, whose stocks were direct beneficiaries of spiking commodity prices in 1H 2022 because of the supply constraints that resulted from Russia's invasion of Ukraine and the subsequent war. Traditional defensive sectors such as consumer staples and health care also outperformed as their historical earnings stability were favored as concerns around a recession rose.

Exhibit 1: Global Equity Returns as of December 31, 2022

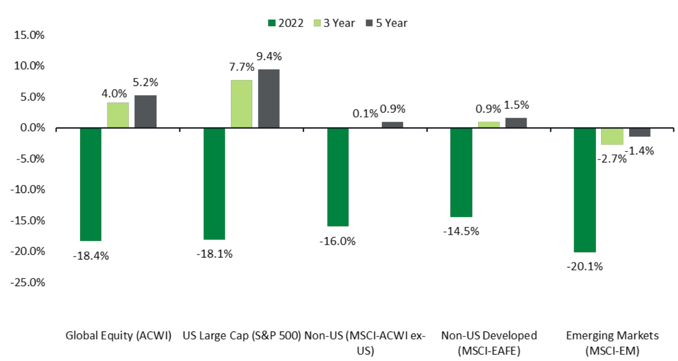
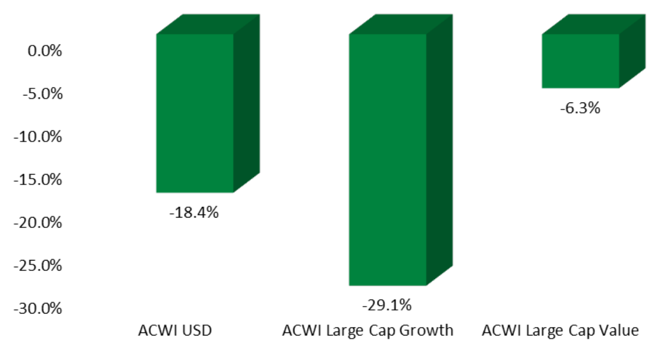


Exhibit 2: 2022 All Country World Index Returns by Category



Source: Morningstar

We anticipate that global equity markets will continue to be volatile as investors grapple with high, yet moderating, inflation and continued tightening monetary policy through at least the first quarter of 2023. The aggressive tightening of monetary policy by central banks globally to combat inflation has increased the likelihood that global growth will slow. The Organization for Economic Cooperation and Development (OECD) is forecasting 2.2% real global GDP growth for 2023, with both the US and Europe estimated to generate sub-1.0% growth. Europe faces greater recession odds driven by structurally higher inflation due to its outsized reliance on imported energy.

Exhibit 3: Global Economic Indicators as of December 31, 2022

Purchasing Manager's Index (PMI)

	Q/Q	12/31/22	9/30/22	6/30/22	3/31/22	12/31/21	9/30/21	6/30/21
US Composite	↓	45.0	49.5	52.3	57.7	57.0	55.0	63.7
DM Composite	↓	47.1	49.3	52.5	55.9	54.8	53.8	59.3
EM Composite	-	50.1	50.1	55.2	46.8	53.2	52.4	50.8

Retail Sales, Annual % Change

	Q/Q	12/31/22	9/30/22	6/30/22	3/31/22	12/31/21	9/30/21	6/30/21
US	↓	6.5	8.4	8.8	7.1	16.8	14.4	19.8
Eurozone	↓	-2.8	0.1	-2.8	2.2	2.5	2.6	5.6
China	↓	-1.8	2.5	3.1	-3.5	1.7	4.4	12.1

Consumer Confidence

	Q/Q	12/31/22	9/30/22	6/30/22	3/31/22	12/31/21	9/30/21	6/30/21
US	↑	108.3	107.8	98.4	107.6	115.2	109.8	128.9
Eurozone	↑	-22.2	-28.7	-23.7	-21.7	-9.4	-3.6	-1.9
China	↓	85.5	87.2	88.9	113.2	119.8	121.2	122.8

Unemployment Rate

	Q/Q	12/31/22	9/30/22	6/30/22	3/31/22	12/31/21	9/30/21	6/30/21
US	-	3.5	3.5	3.6	3.6	3.9	4.8	5.9
Eurozone	↓	6.5	6.6	6.7	6.8	7.0	7.3	7.9
China	-	4.0	4.0	4.0	4.0	4.0	3.9	3.9

US Financial Conditions

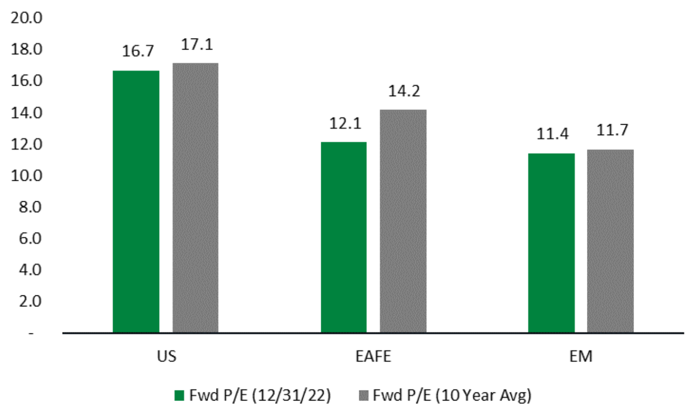
	Q/Q	12/31/22	9/30/22	6/30/22	3/31/22	12/31/21	9/30/21	6/30/21
US	↑	-0.3	-1.2	-1.2	-0.1	1.1	0.9	1.3

Source: Sources: Bloomberg, Markit, US Census Bureau, Eurostat, National Bureau of Statistics China, US Conference Board, European Commission, and US Bureau of Labor

Since 1961, aggressive rate cycles by the Federal Reserve spurred by higher inflation have led to slowing growth and in eight of the last nine periods, a recession.[10] However, there are reasons to be optimistic. Inflation in the US as defined by the Consumer Price Index (CPI), has declined from the record high of 9.1% in July 2022 to 6.5% in December 2022, while unemployment has remained healthy at 3.5% [11]. European inflation remains elevated because of higher energy and food price increases from the war. November data finally showed a slight moderation to 10.1% from the record high of 10.6% in October[12]. Even with reasons to be optimistic, we anticipate growth will potentially slow further as global central banks continue to increase interest rates in the first half of 2023 to combat higher inflation.

In the face of slowing growth that could lead to a recession, the global equity markets may face headwinds over the short-term. However, valuations are considerably more attractive over a multi-year period as equity multiples are now below their respective trailing 10-year average for the US, non-US developed, and emerging market equities (see Exhibit 4). Our Global Equity sentiment remains **Neutral/Positive** with a continued positive bias to the US, as its premium multiple to non-US markets is justified by being further along its inflation moderation path as well as growth that is less reliant on other emerging and developed economies.

Exhibit 4: Global Forward Price/Earnings Multiples



Source: Bloomberg

Within the US, we are incrementally positive on small cap equities and higher dividend yielding companies. The valuation on small cap equities appears attractive relative to large cap equities. In addition, there are potential US-specific growth drivers that could disproportionally benefit the small cap asset class outlined earlier in ***Why now is a good time to add US small cap exposure***.

Given our expectations for inflation to remain above trend, higher interest rates, and potentially slowing growth as a result, we are increasing our allocation to high dividend stocks. This furthers our view of focusing on quality companies with strong balance sheets, low leverage, solid management teams, and high free cash flow. High dividend stocks provide an income cushion in portfolios and the potential for lower volatility as the markets continue to digest higher rates. Furthermore, even though dividend stocks performed well in 2022, valuations remain relatively attractive.

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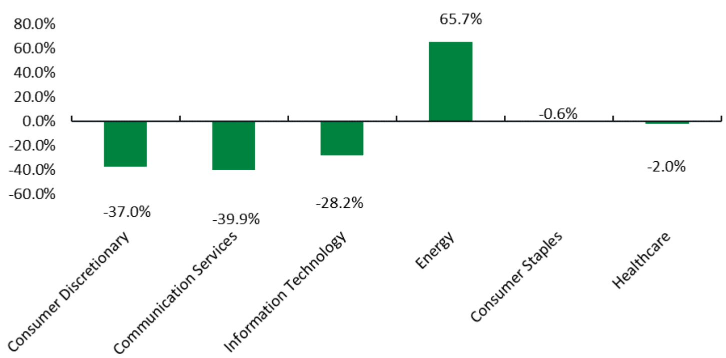
[10] March 25, 2022, "How Likely is a Soft Landing? A look at history since the 1960s," Piper|Sandler Global Policy Macro Research
[11] Federal Reserve Bank
[12] Eurostat

US Equity

The Fed spent 2022 playing catch-up as inflation accelerated to levels not seen in 40 years, topping out at 9.1% mid-year. The subsequent 4.25% of interest rate hikes since March 2022 meant to slow down the economy and ultimately lower inflation back near the 2.0% level has taken a toll on the US stock market. US equities sold off in 1H 2022 with highly valued growth stocks particularly vulnerable to the inflation shock. Higher quality stocks disappointed as valuations entering the year also were elevated, although safe haven sectors such as consumer staples and health care outperformed (see Exhibit 5).

Exhibit 5: S&P 500 Sector YTD 12/31/22 Performance



Source: Morningstar

Higher interest rates began negatively impacting the economy as the spike in mortgage rates from just over 3.0% entering the year to 6.8% at the end of the year slowed the relatively strong housing market. Although the jobs market remains healthy exiting 2022 with unemployment at 3.5%, it remains below the Fed's target unemployment rate of 4.6% for the end of 2023. The Fed is focused on moving back to trend unemployment to combat higher wage inflation.

Historically, employment data has tended to be a lagging indicator. In addition, labor market dynamics and demographics could be influencing the employment statistics and keeping the trend unemployment rate below the Fed's target. So, the risk is that the Fed will enter 2023 with too aggressive an interest rate policy that will drive the US into a recession sometime during the year.

In mid-December, the Fed lowered its 2023 growth outlook to +0.5% real GDP growth from its previous +1.2%. The consensus view is for a mild recession later in 2023 driven by the aggressive Fed rate hikes in 2022, but the US stock market has priced much of this in with the forward S&P 500 P/E multiple of 16.7x, at a slight discount to its 10-year average. We are particularly encouraged by small caps, which trade at a significant discount to large caps and have historically outperformed in the late innings of economic slowdown periods through the first 12 months of an economic rebound.

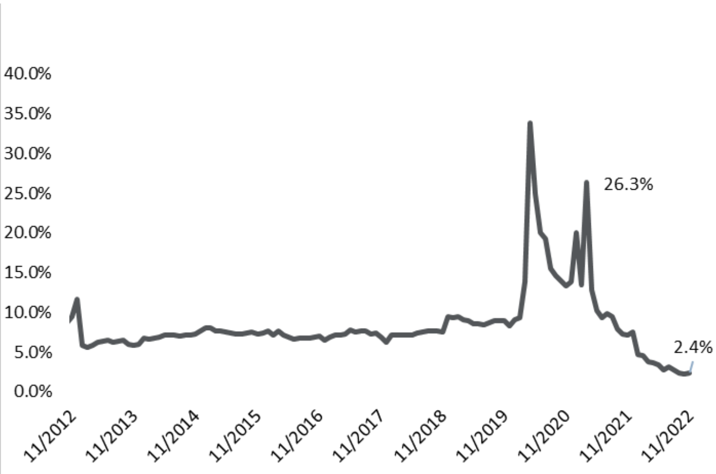
The US consumer is buoyed by wage gains, but inflation has taken its toll

Although moderating, the employment market has remained healthy over the course of 2022 with the unemployment rate at 3.5%, job openings elevated, and wage growth of 6.1% up from 4.5% a year ago[13]. Despite this strong backdrop, real wages have been negative for much of 2022 driven by elevated inflation. As a result, the personal savings rate has nose-dived over the course of the year with the lower-end consumer feeling the greatest impact from higher food and energy inflation as well as higher rents. The higher-end consumer, although having much more cushion, is feeling the wealth effect of the market sell-off accompanied by declining housing prices. However, most existing homeowners have locked in low fixed mortgage rates, so

[13] Federal Reserve Bank of Atlanta

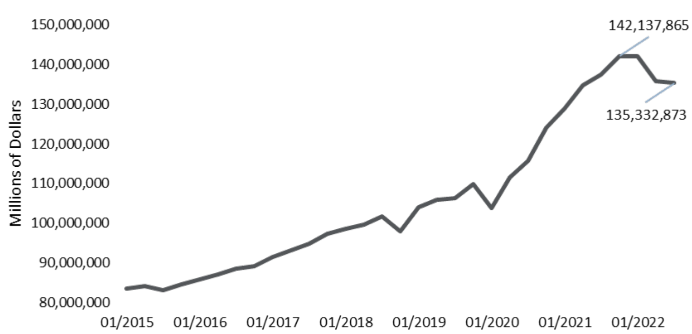
higher shelter inflation is not an issue. As inflation moderates over the course of 2023, with the Fed currently forecasting 3.1% Personal Consumption Expenditures (PCE) inflation versus 5.6% in 2022, real wage growth may turn positive later in the year. Goods inflation has clearly rolled over from a combination of post-COVID demand moderation in certain categories as well as improved supply chains and product availability. In addition, prices at the pump have declined and surprisingly finished 2022 lower than a year ago. However, as mentioned earlier, the Fed is focused on slowing the jobs market in 2023 and a higher unemployment rate will clearly be a headwind for the consumer, exacerbated by the evaporation of excess savings (see Exhibit 6) and higher debt service costs.

Exhibit 6: US Personal Saving Rate



Source: FRED database; Federal Reserve Bank of St. Louis

Exhibit 7: Household Net Worth



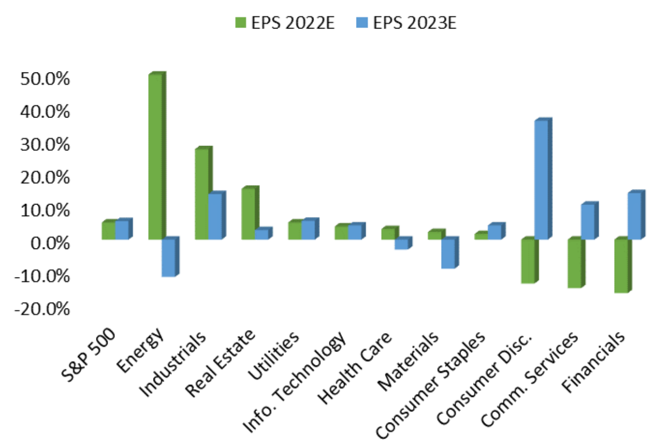
Source: FRED database; Federal Reserve Bank of St. Louis

US corporate revenue bolstered by inflation but profit margins being pressured in some sectors

In the aggregate, companies in the S&P 500 are estimated to have grown 2022 revenue by an impressive 10.0%, benefiting from inflationary price hikes in sectors such as consumer discretionary and industrials, with higher commodity prices a tailwind for the energy and materials sectors. S&P 500 2022 earnings growth is projected at +5.0% with overall net profit margins down 0.60% year-over-year to 12.0%[14]. Cost pressure and lower real demand led to margin declines in sectors such as consumer discretionary and information technology. Post-COVID demand for certain goods proved difficult to forecast for many retailers in 1H 2022 as consumers pared back discretionary purchases because of extreme inflation for the basic necessities. Prices were subsequently slashed to clear out these excess products which resulted in lower earnings for bellwether retailers but will result in easier year-over-year comparisons in 2023. Technology companies were impacted by the slowing macro backdrop as many hired aggressively ahead of what was assumed to be continued strong secular growth. In addition, as investors soured on growth stocks as interest rates climbed, it became clear that the sector needed to focus more on profitability, which resulted in 2H 2022 layoffs.

[14] FactSet

Exhibit 8: S&P 500 Earnings Growth by Sector



Source: FactSet

For industrial companies, many have done a stellar job of re-configuring supply chains and protecting margins during the logistical nightmare that was COVID. As commodity prices moderate from the 1H 2022 Russia invasion-driven spike and as supply chains normalize, input prices have dropped considerably recently, providing a tailwind for margins; however, demand is beginning to slow, and there is a heightened risk of a manufacturing downturn as evidenced by the most recent Manufacturing PMI data (see Exhibit 3).

The labor-intensive services industries are still dealing with labor shortages and inflation that will likely remain a headwind to profit margins in 2023, with the most recent Atlanta Fed Wage Growth Tracker at 6.1% as of December. The Fed's highest priority entering 2023 is driving down services wage growth which has been the key driver in higher services inflation. But, with services job openings remaining elevated, services industries' margins will likely continue to be pressured especially in a slower demand environment.

US equity market valuation more attractive but earnings remain vulnerable

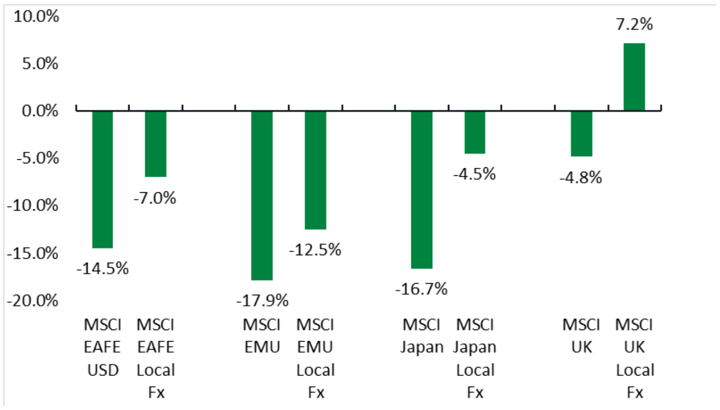
Forecasting S&P earnings is a fraught exercise with the 'experts' having proven little worth in being able to correctly foresee earnings one year in advance. According to FactSet, over the last 25 years, the average difference between the bottom-up S&P 500 EPS estimate entering the year and the actual EPS number at year-end has been 7.0%, with 18 of the 25 years being overestimated. Although 2023 EPS forecasts have been ticking down in 4Q22, the current consensus still indicates mid-single digit EPS growth. Most investors are skeptical as it appears that growth is slowing as evidenced by the decline Purchasing Manager's Index (PMI) and retail sales (see Exhibit 3). Those factors, combined with continued cost pressures, will suppress margins.

Valuation multiples have compressed over the course of 2022, and the current S&P 500 forward P/E multiple of 16.7x is reasonable based on historical levels. So, market direction in 2023 will be a function of (a) where earnings go from here, but, more importantly, (b) inflation and unemployment trends that will determine the Fed's interest rate path. Worsening economic news could very well be good news for the market if it causes the Fed to re-evaluate their position and pause interest rate hikes.

Amongst this backdrop of heightened uncertainty, we continue to favor active equity managers that construct a diversified portfolio of reasonably valued, high quality companies with defensible business models capable of preserving margins during economic downturns.

Non-US Developed Equity

Exhibit 9: Non-US Developed YTD Returns (12/31/22)



Source: Morningstar

Although the US has its share of economic challenges, non-US developed nations face even greater near-term headwinds. This pressure is particularly acute in Europe, where inflation is currently running at 9.2% driven by higher energy and food prices. Like the Fed, both the European Central Bank (ECB) and Bank of England (BoE) are raising interest rates to combat inflation, but the energy supply shock created by Russia's invasion of Ukraine make this a more difficult challenge for the region and could lead to a steeper economic contraction. As a result, despite non-US developed equities trading at a meaningful discount to the US, we prefer US equities at this time. The strong US dollar was a headwind for non-US equities throughout much of the year, although the fourth quarter reversal of this trend was a key factor in non-US equities closing some of the performance gap for the full year.

Europe

Perhaps surprisingly, Europe will likely report a higher real GDP growth rate in 2022 (+3.4% ECB estimate) versus the US, mostly due to easier comparisons as the region had a greater economic drawdown during the COVID crisis. However, higher inflation is weighing on growth and the ECB now expects a 'short-lived and shallow recession' as a result in 4Q22 and 1Q23. For the full year 2023, the ECB projects positive real GDP growth at 0.5% with inflation at +6.3%. This growth forecast could be at risk as the ECB continues to raise interest rates to combat extremely high inflation, with a December 0.5% increase to rates making it the fourth increase in 2022. This takes the deposit facility to 2.0% and the refinancing rate to 2.5%. The ECB signaled that there are more increases to come if inflation does not moderate.

Inflation in Europe remains elevated relative to the US with the inflation expectations at 9.2% in December[15] led by expectations of energy and food inflation of +25.7% and 13.8%, respectively, down from 10.1% in November. As a large net importer of energy, the excess inflation created by the natural gas supply shock from the war and sanctions is difficult to tamp down through higher interest rates. Instead, European countries are providing subsidies in the form of rebates and capping prices to consumers to soften the blow. But consumers are feeling the pinch, similar to the US, with Europeans experiencing negative real income as wage gains are not enough to offset these inflation headwinds.

From a resource perspective, at the end of 2022, natural gas storage levels were at nearly 84% capacity.[16] With the mild temperatures so far this winter, it appears that Europe has ample inventory in the near-term but

[15] Eurostat
[16] January 4, 2023, EU hails high gas storage levels despite Russian cuts, ABC News

high gas prices likely will remain until the completion of liquified natural gas (LNG) storage terminals a few years out.

Within Europe, Germany faces more headwinds than most as it tied its economic growth to natural gas from Russia, with around 1/3 of its primary energy supply imported from Russia. Germany has done an admirable job in 2022 of reducing its natural gas usage as a country, but it still will need to find a long-term solution for the country's energy supply. Earlier in 2022, Germany accelerated its clean energy plan with a target of clean energy making up 80.0% of its power mix by 2030,[17] currently at 40.9%. Even with the reduction in usage, inflation as defined by the index of consumer prices in Germany is higher than Europe, with the November reading at +11.3%[18]. Producer prices rose by 28% year-over-year in November driven by its large industrial sector's reliance on natural gas that has the potential to diminish its global competitive position due to these structurally higher input costs.

The UK is the first developed economy likely to be in a technical recession defined by two quarters of negative growth, as Q3 GDP was reported at -0.2% and the BoE is forecasting a 0.1% contraction in 4Q followed by -1.5% real GDP growth in 2023. As in other regions in Europe, UK inflation continues to be a headwind and was reported at 9.3% in November, though down from the October reading of 9.6%[19]. The BoE has raised interest rates over 3.0% to 3.5% at year-end (highest level in 14 years) with the market anticipating more in 2023. Like the US, the UK labor market remains tight with the unemployment rate at 3.7%. Despite the headline risks to the UK economy, UK equities were one of the big surprises in 2022, returning –4.8% vs -16.0% for the All-Country Word Index (ACWI) ex-US. This relatively strong performance is attributable to the sector weights in the MSCI UK Index, as almost 50% of the index is comprised of global sectors that outperformed in 2022 such as consumer staples, energy, and healthcare. Underperforming growth sectors consumer discretionary, communication services, and information technology only make up less than 10% of the UK index.

Japan remains mired in a low-growth, low-inflation environment with the OECD projecting 1.6% and 1.8% real GDP growth in 2022 and 2023, respectively, with inflation of 2.0%. Wage growth of sub-3.0%[20] is well below other developed regions, but the Japanese consumer faces higher import prices brought about by currency depreciation that the government is attempting to offset through aid programs. Japanese manufacturing activity will be negatively impacted by the slowing global economy. However, the weaker yen will make goods more competitive from an export perspective, and the re-opening of the Chinese economy will also mitigate some of the macro headwinds as China is Japan's largest trade partner. In terms of its equity market, in local currency the Japanese stock market returned -4.5% in 2022. However, yen depreciation led to negative returns for US investors, as the Bank of Japan's monetary policy remains accommodative, despite the surprise 0.25% rate increase in late December. This accommodative stance has created a wide interest rate differential with other developed nations.

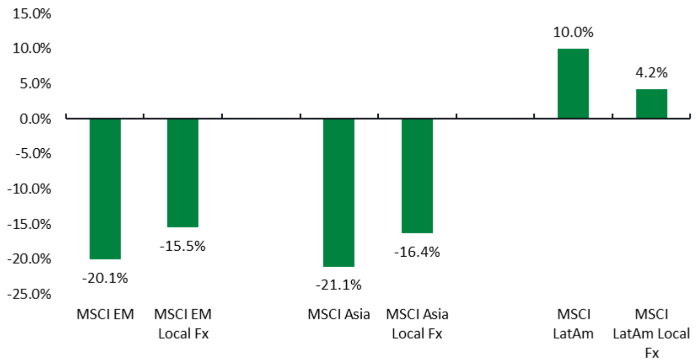
[17] April 6, 2022, Germany unveils plans to accelerate green energy expansion, Reuters
[18] Destatis.de
[19] Office for National Statistics
[20] January 16, 2023, Japanese Firms Seen to Offer Biggest Wage Hikes in 26 Years, Reuters

Non-US Developed Equity valuations are attractive, but risks remain elevated

With inflation currently running 3.0% higher in Europe versus the US due primarily to higher food and energy prices, recession odds are certainly higher in the near-term. In addition, with the region's energy situation in flux over the next several years, the risk of a deeper economic downturn than is currently forecasted is elevated. As a result, we believe the equity multiple discount versus US equities is warranted currently and maintain our **Neutral** near-term sentiment on non-US developed equities.

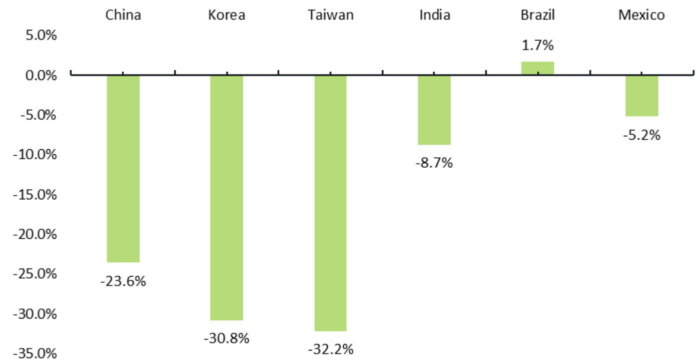
Emerging Markets Equity

Exhibit 10: Emerging Markets YTD Returns (12/31/22)



Source: Morningstar

Exhibit 11: EM Country Returns (12/31/22)



Source: MSCI

If ever there was a year to give active Emerging Markets (EM) managers a chance to shine on a relative basis it was 2022 as key countries in the EM diverged significantly. Russian equities were marked down to zero in 1Q22 when Russia invaded Ukraine and sanctions on Russia were imposed. Chinese equities faced significant headwinds as the economy remained shut down as result of the government's zero-COVID policy combined with messaging that signaled an even more authoritarian regime going forward. On the flip side, Brazilian equities outperformed in 1H 2022 because of the relatively high exposure to commodities. India also outperformed in 2022 as investors were attracted to its strong economic growth that appears to be sustainable for a multi-year period.

China disappointment continues, but reason for hope

There is reason for incremental optimism entering 2023 related to Chinese equities as the country emerges from its zero-COVID policy that effectively shut down the economy for much of 2022. Economic growth will gradually re-accelerate over the course of 2023, especially for domestic services as consumers likely have pent-up consumption demand. However, manufacturing exports will encounter headwinds from the projected global economic slowdown. The OECD forecasts 4.6% real GDP growth in 2023 compared to 3.3% in 2022 for the country. Unlike the rest of the world, high inflation and interest rates have not been a concern in China, which should allow the government the flexibility to provide both accommodative fiscal and monetary policy to aid in the re-acceleration of growth.

After a difficult first 10 months of 2022, Chinese equities staged a significant rally beginning in November as the first signs of a less restrictive COVID policy emerged. However, although Chinese equities are trading at a discount to both developed markets and most other EM countries, the authoritarian overhang likely will keep a lid on valuation multiples.

India an outlier in EM Asia ex-China

With China's long-term growth potential now in question, India has become the favored locale for EM investors seeking secular growth. The country is a standout relative to other Asian countries with the OECD forecasting 6.6% real GDP growth in 2022. The OECD expects the country to be the fastest growing major economy in both 2023 and 2024. India's stock market outperformed the broader EM index by over 10% in 2022, as EM growth investors have rotated out of China into India. With global manufacturing supply chains thrown into chaos because of COVID and geopolitical concerns in other parts of Asia, multinational corporations are re-examining India as a future source of capacity. The country already has been at the forefront of back-office labor offshoring and this trend likely will continue as remote work is here to stay. Equity valuations are stretched, however, as Indian equities have priced in many of these tailwinds.

Latin America boosted by commodity prices

Latin America outperformed during 2022, especially in the first half of the year, driven by high commodity prices. No stranger to inflation, the region was ahead of the curve in raising interest rates, with Brazil's current policy rate at 13.8%. This allows for more flexibility to adjust to a potential global slowdown versus most developed markets. Mexico is positioned to benefit over the long-term from US companies looking to de-risk Asian manufacturing exposure, as 'friend-shoring' is a similar theme to the domestic US reshoring theme.

Volatility of EM markets make us hesitant to overweight the region despite higher growth and attractive valuation

2023 continues to offer EM managers an opportunity to add value through solid country selection. Ex-India, valuations are reasonable, but it is difficult to get excited about the EM region as global recession concerns mount, as less developed economies are not immune, and these stock markets are more volatile than developed markets. As such, we maintain our **Neutral** view on EM equities.

Global Real Estate Outlook

Author: Akasha Absher, Syntrinsic Markets Research

We are maintaining our **Neutral** sentiment on global real estate. Investing in real estate can offer portfolio diversification benefits, inflation protection, and typically has the added attraction of a solid current yield in both REITs and private real estate investments. In addition, private real estate funds are less correlated to the public equity markets and often offer the benefit of better liquidity than other private investments, as they can be structured as interval funds offering quarterly liquidity.

In 2022, the public real estate market as evidenced by the FTSE EPRA/NAREIT Global Index was down 24.9% though year-end. Tightening monetary conditions globally amongst central banks increased financing costs and led to valuation compression, despite most sectors in the asset class maintaining solid underlying fundamentals. The private real estate market, however, remained intact with the NCREIF Property Index returning 9.35% as of September 20, 2022, though we anticipate some repricing of valuations as transaction values soften from rising rates. December 31, 2022, data is not yet available.

The real estate market remains attractive with strong net operating income and a discount to NAV in the public markets. However, there are sectors within real estate that have stronger underlying fundamentals and better risk/return opportunities. Within commercial real estate, construction spending across all sectors has been declining in the face of higher capital costs. Inflation adjusted spending on real estate construction has fallen by 18% since the beginning of 2020 to its lowest level since 2015.[21]

Exhibit 12: US Commercial Real Estate Construction Spending

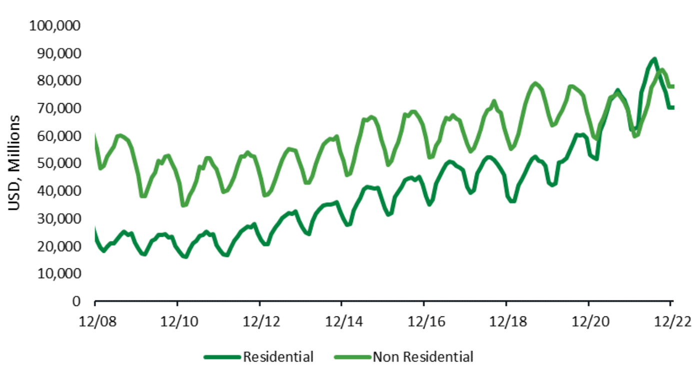
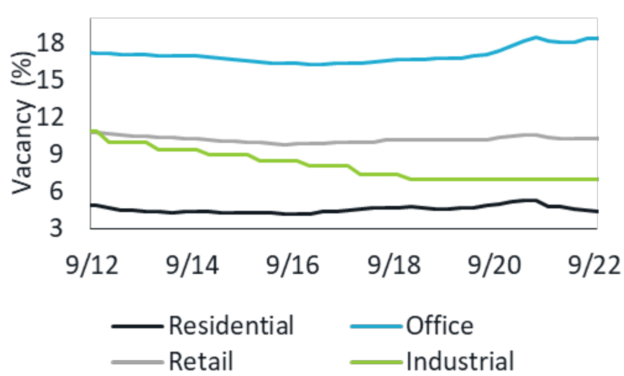


Exhibit 13: Vacancy Rates



Source: Bloomberg

The office sector continues to be under pressure from the post-pandemic work from home environment and vacancies rates for office properties have been increasing steadily since 2020 though rents have started to stabilize from 2020 lows. Both retail and industrial vacancy rates and rents are holding steady. The bright spot continues to be residential real estate with vacancy rates declining and rental rates increasing.

[21] December 9, 2022, The redeeming qualities of global real estate, DWS

Stable rents and vacancy rates coupled with declining supply could provide a favorable backdrop for real estate supply/demand fundamentals, especially in the residential sector. That said, the potential for slowing growth and a continued increase in interest rates in the near-term, as well as the cracks in the office market limit us from becoming more positive on real estate as a sector at the present time.

Commodities Outlook

Author: Akasha Absher, Syntrinsic Markets Research

Exhibit 14: WTI Crude Oil Price (US $/Barrel)

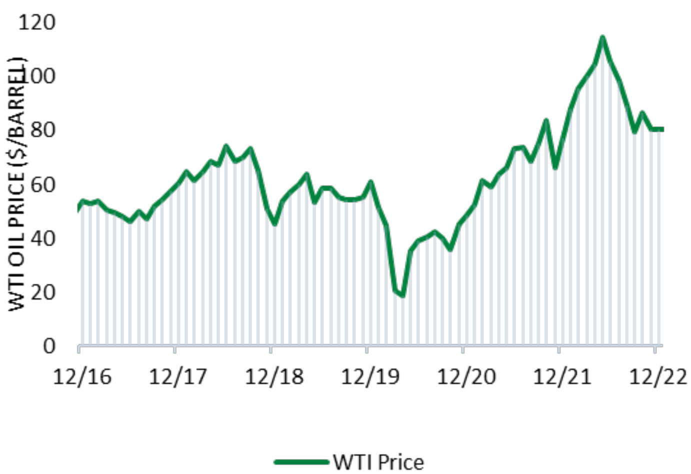
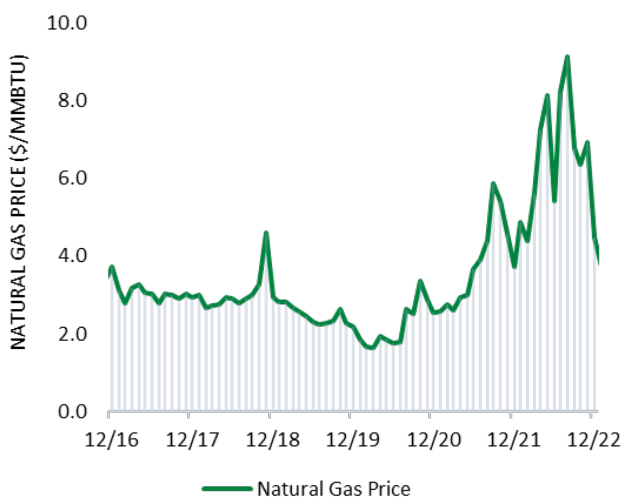


Exhibit 15: Natural Gas Price (US $/MMBTU)



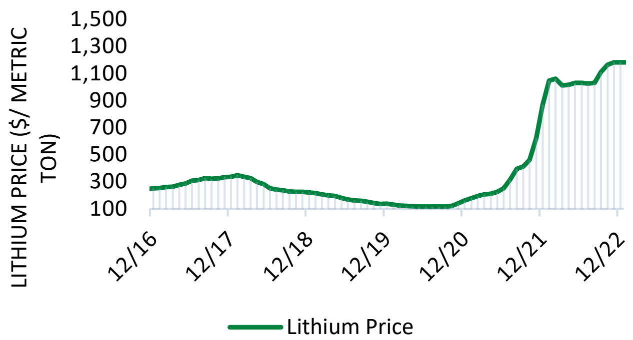
Source: Bloomberg

We are upgrading our sentiment on commodities to **Neutral** from Negative. Russia's invasion of Ukraine on February 24, 2022 introduced widespread volatility across the markets, most notably the commodity markets. Pair that with lean inventories and continued disruption in supply chains from the COVID crisis and oil, gas, and food prices skyrocketed in the first half of the year. Commodities remain one of the most diversified segments in the market that encompasses energy, agriculture, metals, and minerals, though the bulk of many commodity indices are comprised of energy related segments, most notably oil and gas.

Oil prices peaked at $115/barrel in May 2022, up over 115% from the average price of $53/barrel in 2021 and 2020. At the end of 2022, oil prices stabilized back to $80/barrel. Natural gas behaved similarly to oil with prices peaking at $8/MMBTU in May 2022 up from the $3/MMBTU average the prior two years. Natural gas prices at the end of 2022 settled in around $4 - $5/MMBTU. We anticipate that we will continue to see this volatility in commodity prices over the coming years as we navigate supply and demand side shocks from geopolitical conflicts, the re-opening of China after the zero-COVID policy, and missteps in the transition to a low carbon economy. While this continued volatility at times will make oil and gas attractive and we anticipate the trajectory will be more positive than in prior years, we prefer to get exposure to oil and gas from more favorable trends through public market equities and real assets as appropriate.

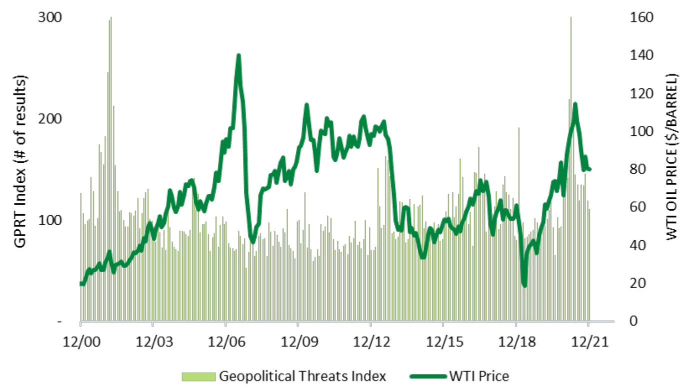
Demographics and the transition to a low carbon economy could also have an outsized influence on commodities in the coming years. JPMorgan anticipates that population could be 10.6 billion by the end of the century based on census data,[22] which will further the need for investment in resources, particularly low carbon energy and agriculture.

Exhibit 17: Lithium (US $/Metric Ton)



Source: Bloomberg

Exhibit 16: Geopolitical Threats Index vs Oil Prices



Source: Bloomberg, Geopolitical Risk Index, Caldara, Dario, and Matteo Iacoviello (2021), "Measuring Geopolitical Risk," working paper, Board of Governors of the Federal Reserve Board, November 2021".

Investment in the transition to a low carbon economy will continue to provide a bright spot for commodities such as metals. As we mentioned last year, lithium for example, is in short supply and thus could see prices rise in the near-term, given the sustained push for lithium-ion batteries for electric vehicles. In addition, minerals such as copper, zinc, nickel, chromium, cobalt, and rare earths will be needed to continue to build solar and wind farms and electric vehicles. We continue to recommend investors have a dedicated allocation to companies that are focused on developing solutions to environmental resource challenges.

Private Investments Outlook

Authors: Matt Kukla, Syntrinsic Alternatives Research, Akasha Absher, Syntrinsic Markets Research

Over the past several years, we have been encouraging most clients to increase their allocations to private assets given the potential benefits of increased diversification, lower correlation, lower volatility, higher yields, and inflation protection relative to more liquid traditional asset classes such as equity and fixed income. The underlying structure and, in turn, illiquid nature of private markets also provides less exposure to extreme emotional reactions compared with its public market counterparts.

The opportunity set in the private markets is higher as the number of privately held companies is substantially larger than public traded companies, with less than 1% of the 27 million companies in the US being publicly traded.[23] In the US, the large cap equity markets have become dominated by large technology companies with 25.7% weighting in the S&P 500 Index as of 12/31/22. Investing in the private sector allows for more company diversification, reducing concentration and other risks.

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[22] The challenges and opportunities of a 10-billion-person planet, JP Morgan Asset Management
[23] National Bureau of Economic Research

Some additional benefits of private markets investing include growth potential, timing and time horizon, control and information, and the opportunity to invest in more focused themes, such as infrastructure or sustainability.

- **Growth Potential:** Private companies are typically at an earlier stage of development compared with more mature companies listed on public exchanges, which provides a greater runway for growth. The infusion of new capital and financial resources can help companies at inflection points and provides greater flexibility to get a new idea off the ground, shake up internal structuring, acquire a rival, buy new equipment, upgrade facilities, increase exposure through marketing, and/or avoid bankruptcy. These possibilities provide a unique opportunity for investors as intensified regulation since the Great Financial Crisis has caused traditional banks to reduce lending to certain parts of the markets, particularly middle-market companies.

- **Timing and Time Horizon:** Managers spend months sourcing, underwriting, and completing investments and can choose between trade sales, sales to other funds, and IPOs upon exit. This flexibility in the timing of their entry into and exit from positions can be advantageous. Additionally, private equity portfolio companies have a longer time horizon to implement their strategies compared with listed equities that tend to have a narrower focus on quarterly earnings and appeasing shareholders short-term.

- **Control and Information:** Deeper access to information, the ability to influence management, and more direct and transparent governance at the portfolio company level can create value through strategic and operational improvements. For private debt markets, the ability to negotiate covenants reduces the risk profile of the investment. In addition, there has been a concerted push across private equity and private debt managers to establish formalized Environmental, Social, and Governance policies,[24] which in turn has been incorporated into the operational controls at portfolio companies to reduce risk and create value. Some had been doing that work all along; for others, recent trends have solidified their efforts.

- **Sustainable Investment Opportunities:** The private markets provide investors with the opportunity to invest in themes such as job creation, education, healthcare, renewable/clean energy, sustainable communities, infrastructure, etc. For investors that are using investment portfolios to not only generate returns but create meaningful social impact, the ability to invest in sustainable themes can provide the opportunity to create change in that directly influence the economy and the environment.

Investment returns in the private market over the past several years have been driven by a period of extraordinarily low interest rates. This increase in liquidity from low interest rates resulted in asset price inflation and asset classes becoming more highly correlated which reduced the benefits of diversification from traditional asset allocation strategies such as the 60% equities/40% fixed income portfolio.

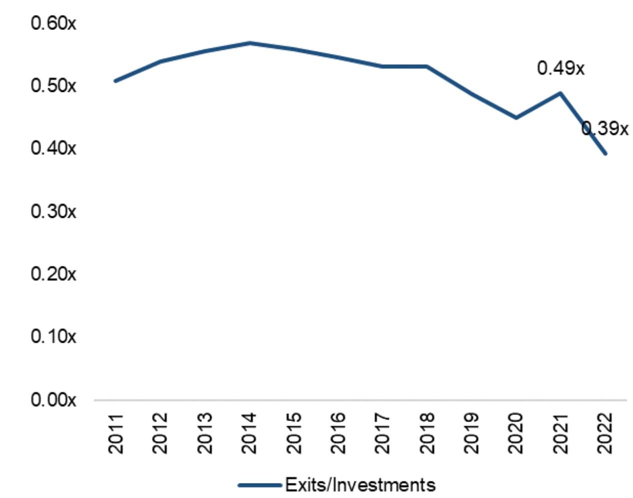
Even with the rise in interest rates from historically low levels, we believe that private assets such as private equity, debt, and real assets provide a level of diversification not available in public markets and should continue to be considered as part of an investor's longer-term asset allocation strategy assuming it fits within their risk/return objectives, time horizon, and liquidity needs. Furthermore, given our expectations for

[24] March 24, 2022, Private Markets Annual Review, McKinsey

increased volatility over the coming years in the face of rising interest rates, higher structural inflation, and the potential for slower growth, we believe the value of the illiquidity premium will increase.

Private Equity

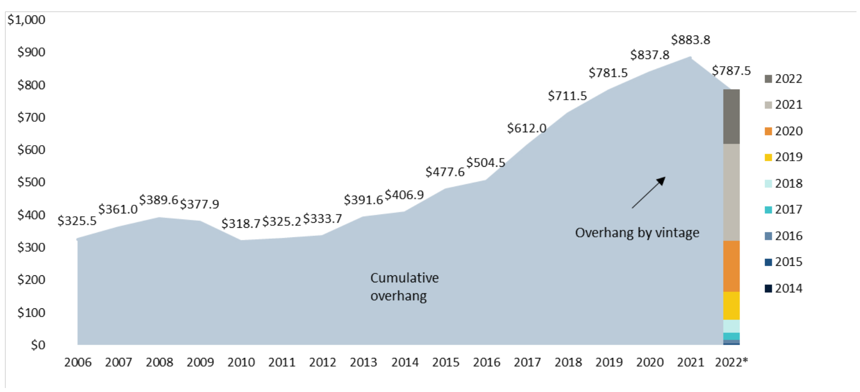
Exhibit 18: Private Equity Exits/Investments



We are maintaining our **Neutral/Positive** sentiment on private equity, which is in line with our sentiment for the public equity markets. The private equity market continues to expand, increasing the opportunity set of attractive strategies for investors. Low interest rates and economic growth has provided a tailwind for this asset class over the last decade. While still attractive, higher borrowing rates will weigh on the asset class for the foreseeable future.

In 2022, we saw a slight fundraising decline of 5.5% and investments to exits hit a decade low at 0.39x while valuations remained strong. Even with the slight fundraising decline, private equity dry powder still stands at $780 billion, which is 30% of the outstanding AUM of $2.6 trillion[25].

Exhibit 19: Private Equity Dry Powder



Source: PitchBook

Last year, we were somewhat concerned that competition for deals could be increasing and with that, entry valuations could also rise, thereby pressuring the ultimate investment return. We continue to have that concern particularly as fund flows continue to go into larger established funds and the dispersion of returns for investment managers is so wide (12.9% between top and bottom quartile managers[26]). That said, we continue to see the benefits of a well thought out private equity program in diversified portfolios.

Private equity offers direct exposure to sectors/themes of the market that are unavailable or limited in the public markets. Investors also have the option to invest across the spectrum from venture capital to late-stage private equity to build a diversified portfolio with attractive risk-return characteristics. The secondaries market is also growing and can be a good component of a private equity program, minimizing the J-curve

[25] PitchBook
[26] Fall/Winter 2022, The New Dynamics of Private Markets, PGIM – Internal rates of returns for PE funds of the vintage 2004 – 2017 as of December 2021.

effect and providing exposure to more than one primary fund, allowing for greater diversification. In addition, for those investors that are focused on environmental and social impact with their investment portfolio, some focused private equity funds can allow investors to have a deeper impact.

Private Debt

Our near-term sentiment on private debt remains **Neutral/Positive**, which is in line with our public fixed income sentiment and in line with our sentiment for private equity. We continue to see private debt as an attractive asset class that has the potential to generate returns similar to or higher than other credit investments such as high-yield loans, leveraged loans, and broadly syndicated loans, but with less relative risk. Direct lending also provides investors potential exposure to private-equity-sponsored deals without assuming the same level of risk as private equity investors.

Relative to fixed income, private debt with its floating rate structure and shorter duration has less interest rate sensitivity and typically is higher in seniority and security. The loans within private debt (direct lending) portfolios can be structured as first lien debt which has a senior claim in the event of a bankruptcy. Additionally, loan-to-value (LTV) ratios are typically lower with higher interest coverage ratios. Private debt investment opportunities have continued to expand over the past several years as companies, notably those in the middle market, continued to find private markets more willing and able than traditional banking channels to provide debt capital. As of 4Q 2022, global private debt assets under management (AUM) surpassed $1 trillion with AUM in North America a little less than $800 billion. Direct lending remains the most popular form of private debt and of 3Q 2022, the direct lending market had $114 billion in dry powder available[27].

That said, we recognize that higher levels of inflation and increased borrowing costs for portfolio companies are a headwind for margins and the potential for a recession could lead to increased defaults which we have included in our base case return assumptions for private debt. Even with the increased risks, we think the asset class remains attractive from a yield and diversification perspective and would continue to allocate to investment managers that have a disciplined approach to investing in high quality private companies. Please see our Private Debt whitepaper for more information.

Hedge Fund Strategies Outlook

Author: Akasha Absher, Syntrinsic Markets Research

We are downgrading our sentiment on hedge fund strategies to from Neutral to **Neutral/Negative.** While volatility remains elevated and rising interest rates create a slightly more positive environment for hedge funds as the higher interest rates provide higher cash returns, we see more attractive opportunities in other asset classes, particularly fixed income.

When interest rates were at historically low levels, hedge funds strategies were essential to portfolio diversification to minimize interest rate risk and create real return potential within the portfolio. Now that interest rates are back to levels not seen since the early 2000s and potentially rising further, we are moving back to the basics and reallocating to traditional fixed income within portfolios as a risk mitigation tool. In

[27] Preqin

addition, the manager dispersion and the high fees associated with many hedge fund strategies make the asset class even less compelling.

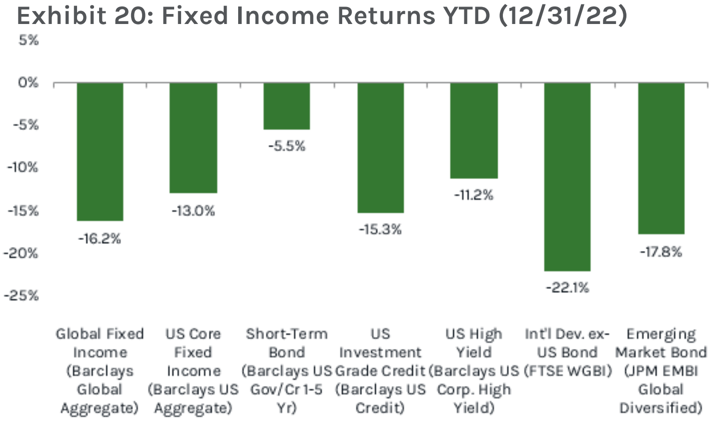
Global Fixed Income Outlook

Author: Robin Meyer, CFA, Syntrinsic Fixed Income Research

Our near-term sentiment on Global Fixed Income has improved to **Neutral/Positive** entering 2023. Following what can only be considered a horrendous calendar year 2022 for fixed income performance, we are encouraged by the forward-looking prospects for the broad asset class given higher yields and the potential to provide non-correlated returns in the coming years.

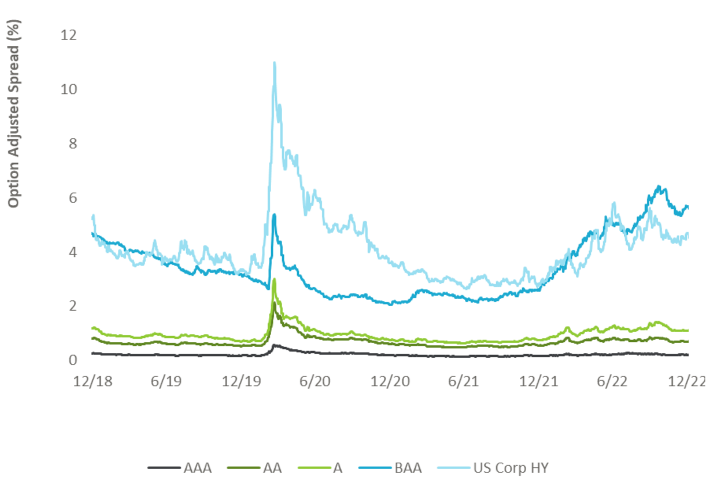
Yields and Real Return Expectations

Exhibit 20: Fixed Income Returns YTD (12/31/22)



Source: Morningstar

Exhibit 21: US Credit Spreads by Rating



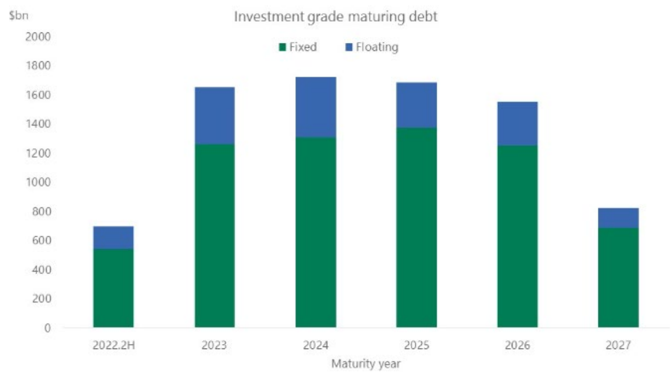
Source: Bloomberg

Yields across bond markets have increased in attractiveness throughout 2022 because of higher Treasury rates as well as wider credit spreads. While real interest returns are still negative due to heightened inflation, expectations for forward real returns have improved reflecting both higher absolute bond yields and lower forward inflation expectations. At the end of 2022, the yield curve was inverted as evidenced by the difference between US short-maturity Treasury yields (2-year) versus 10-year yields, which was 0.5% as of December 31, 2022. This dynamic is not unique from a historical context during periods of higher inflation and slowing long-term growth and currently supports sentiment to maintain a relatively shorter duration in portfolios given attractive yields on the front end and less interest rate risk.

Credit Spread Opportunity and Risk

Year-to-date 2022 has offered investors the worst performance from bond investments in modern history, as indicated by returns of the Bloomberg US Aggregate Bond Index (see Exhibit 20). With index declines nearing (13%) YTD on a total return basis through December 31, 2022, investors this year have missed out on the diversification benefit of bonds experienced in previous recessions. In addition to the interest rate risk because of rising interest rates, nearly all major credit segments experienced spread widening throughout 2022 as well. The widening of credit spreads and rising interest rates have provided a more attractive entry point for investing in fixed income in 2023 than in previous years. The widening was the greatest in high yield (+1.86%). Broadly, credit segment spreads are now closer in-line to near-term averages. Slowing growth could lead to additional spread widening, but this risk is much more limited given current levels than was the case at the beginning of the year. Ultimately, we remain constructive on corporate, structured, and securitized, credit. We think fundamentals are supportive of the segments and the current yield opportunities offer attractive compensation for incurring incremental risk above US Treasuries. The strength of debt fundamentals has been partly aided by the recent wave of corporate and consumer refinancing throughout 2020-2021 at very cheap levels. This activity will keep fixed costs at low levels for longer time periods and supports the argument for lower levels of near-term realized defaults among borrowers. However, given the potential for slowing growth because of higher inflation and interest rates, we anticipate a rise in default rates[28] and have factored that into our long-term forecasts and near-term sentiments. Moreover, we expect spread volatility to remain elevated with spread compression and widening to coincide with broad swings in risk on/risk off market behavior as the Fed continues to raise rates to combat inflation. As such, we continue to prefer active managers with strong fundamental credit research capabilities, an emphasis on overall higher quality credits, and the ability to take advantage of price discrepancies when they appear.

Exhibit 22: Maturity Schedule for Investment Grade Debt



Source: S&P Global Ratings Research, Apollo

Short-Term Bond

Short-term US Treasury yields now exceed intermediate and long-term US Treasury yields highlighted by the often-referenced 2s/10s spread (the differential between the 2-year US Treasury yield and the 10-year US Treasury yield) of nearly 0.5% bps at the end of 2022. This yield curve inversion has helped increase the relative attractiveness of short-term bonds, as evidenced by our increase to the Short-Term Bond sentiment from **Neutral/Positive** to **Positive**. This fixed income segment currently offers both higher relative coupon and the structural advantage of lower interest rate sensitivity (relative to longer-term bonds). The Fed Funds Rate ended 2022 at 4.25%, yet Fed Chair Powell continues to emphasize that more work remains to be done in restoring price stability. Indeed, the Fed's own forecast for the peak in the Fed Funds Rate stands at 5.1% as of year-end. Short-term bond funds should weather the remaining monetary tightening well due to the lower duration profile and ongoing reinvestment at higher rates. We believe lower interest rate sensitivity, lower overall historical price volatility, and now a relatively attractive yield all supports the use of short-term bonds in diversified portfolios.

[28] November 21, 2022, "Global Corporate Default rate will climb", Moody's Investor Service

US Core Bond

US Investment grade corporate credit spreads have increased 0.38% since the beginning of 2022.[29] Corporate debt yields now offer a compelling premium over governments bonds, and that premium has moved toward recent historical averages during the course of the year. Duration risk is much more muted within government and corporate bonds given the Fed's aggressive rate hikes thus far. In an environment featuring now higher absolute US Treasury yields and a more attractive spread cushion among corporate credit, we find core bond exposures much more attractive than just one year ago. Agency MBS, the other major component of core bond exposures, performed subpar on a relative basis in 2022, likely due to the unwinding of the Fed's balance sheet as part of the broader plan to reduce its $9 trillion portfolio, which included maturing $35 billion MBS per month starting in September.[30] Agency MBS are among the more attractive bond segments as we enter 2023. Considering these dynamics, we have upgraded our Core Bond segment to **Neutral** as we slightly favor the opportunities in both Core Plus as well as the current characteristics of the short-term bond segment.

US Core Plus Bond

Spreads on nearly all investment grade and high yield corporate credit securities have widened in 2022. US high yield continues to offer an attractive profile of lower structural duration and higher relative yields. Further, the high yield credit segment boasts an overall credit quality that is higher than it has been in decades, with over 50% of the high yield index rated BB/Ba (one credit rating step below investment grade). Floating rate bank loan opportunities have diminished in attractiveness given the swift move in interest rates which will now translate into higher debt servicing expenses for these issuers. However, floating rate bank loans are now yielding double-digits on average, offering a compelling total-return potential particularly if weaker credit issues can be avoided. We remain **Neutral/Positive** in our Core Plus sentiment based on sound corporate fundamentals and compelling yield opportunities. We continue to prefer managers with flexibility in allocations and expertise in evaluating the relative opportunity set given the dynamic market environment.

Non-US Developed Bond

Non-US developed sovereign bond yields have risen alongside US Treasury rates during 2022 with some notable sovereign 10-year yields (e.g., Japan, Germany) finally escaping the negative yield profile which had been a feature for the last few years. All G-10 developed countries now have positive yielding sovereign 10-year bonds, though still negative real yields. While most major foreign central banks have also become more in-sync with regard to the direction of monetary policy goals, there remain outliers like Japan which has thus far resisted major monetary tightening. We believe larger macroeconomic risks – specifically the war between Russia and Ukraine and the associated energy crisis, as well as the ongoing global inflationary pressures – will continue to dominate the performance of non-US debt exposures in the near-term.

UK's bond market in late September 2022 shows the recent evidence of pockets of extreme volatility. In reaction to the new government's proposed budget on September 23, the UK 30-year bond yield increased nearly 1.50% over the course of just four business days before the BoE intervened to quell ongoing fears. The chaos proved to be relatively short-lived, but the experience highlighted the vulnerability of even a mature

[29] December 31, 2022, Baird Advisors Fixed Income Commentary 2022 Review and 2023 Outlook, Baird
[30] August 29, 2022, Fed's QT to Hit "Full Stride" with Central Bank Shrinking $9 Trillion Portfolio, Bloomberg

bond market like the UKs to ongoing economic uncertainty. We have upgraded our sentiment for the non-US developed bond segment to **Neutral**/**Negative** because of some positive developments, namely higher yields. However, we continue to prefer the US bond market for both US Treasury and credit exposures due to the relatively attractive yields.

Emerging Market Bond

Emerging Market economies remain in vastly different circumstances in terms of monetary policy path and, in reference to China specifically, because of their zero COVID policy for most of 2022. Some emerging market economies began monetary policy tightening before the US Federal reserve, and as such are well ahead of developed economies in their respective monetary tightening cycles. China, on the other hand, continued to be primarily accommodative through 2022 with primary interest rates decreasing during the year. Drastic swings in currency exchange rates were also experienced in Latin American and Middle Eastern emerging economies in 2022. Emerging Market bonds, both hard currency and local currency denominations, are offering compelling yields with some well into the double digits. However, risk in the emerging market debt segment is highly idiosyncratic and while a strong active manager can find compelling opportunities, the overall opportunity set remains **Neutral**. We prefer to delegate the pursuit of emerging market debt opportunities to those managers that have flexibility in portfolio allocations.

IV. 2023 Long-Term Capital Markets Forecast

Global Equity Forecast

Across global equities, Syntrinsic's equity projections have materially increased across all segments from the 2022 forecast. Higher projections for inflation and a positive change in valuations offset lower yields globally and slowing GDP growth in the US and Non-US Developed regions.

Exhibit 1: Syntrinsic Global Equity Forecast

Asset Class	Index	2023 Ten-Year Forecast	2022 Ten-Year Forecast	Change
Global Equity	MSCI ACWI	**8.35%**	**6.30%**	**2.05%**
US Large Cap	S&P 500	7.65%	5.90%	1.75%
US SMID Cap	Russell 2000	8.55%	7.05%	1.50%
Non-US Dev Large Cap	MSCI EAFE	7.20%	6.05%	1.15%
Non-US SMID Cap	MSCI ACWI ex-US SMID	8.90%	7.60%	1.30%
Emerging Markets Equity	MSCI EM	9.05%	8.65%	0.40%

Source: Syntrinsic

Forecasting Global Equities

Growth and Inflation

GDP Growth | Inflation Projections

+

Yield Projections

Buyback Yield | Dividend Yield

+

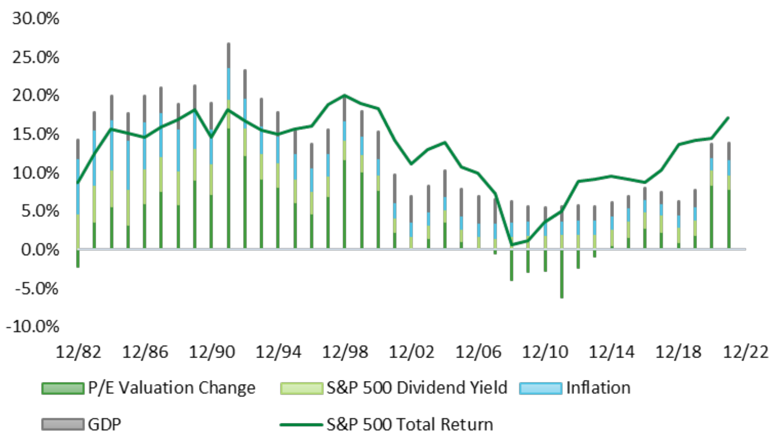
Valuation and Trade

Valuation Change | Trade Effect

=

Long -Term Equity Forecast

Exhibit 2: US Equity Forecast versus Actual - 10 Year Rolling Average Back test



Source: Bloomberg

Syntrinsic's public market large-cap equity forecasts are based on expectations for real economic growth, inflation, and yields, with adjustments made for trade, valuation changes, and market capitalization.

Our research and experience indicate that these factors have been highly correlated to actual returns over long sweeps of time, particularly in US equity markets. Exhibit 2 illustrates how the growth of US Gross Domestic Product, plus inflation, plus the dividend yield, and P/E valuation change of the US equity market have trended on a rolling ten-year basis. The solid light green line indicates the annual total return of the Standard & Poor's 500, a reliable proxy for the US large cap equity market.

This year, given the dramatic downdraft in price-to-earnings (P/E) ratios across all equity markets, we factored in a valuation change using historical P/E ratios for context. We speak to specific areas of the market where the valuation change is more meaningful to the segment (e.g., small cap US equities, non-US equities) in our near-term (three-year) sentiment.

Forecasting real growth in Gross Domestic Product (GDP)

Exhibit 3: Ten-Year Real Economic Growth

Region	2023 Ten-Year Forecast	2022 Ten-Year Forecast	Change
US	**1.67%**	1.71%	**-0.04%**
Non-US Developed	**0.56%**	0.99%	-0.43%
Emerging Markets	**3.54%**	3.23%	0.31%

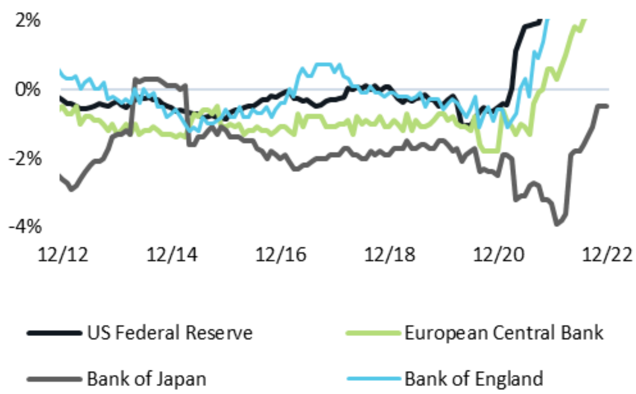
Source: Syntrinsic, Bloomberg, OECD

Growth in Gross Domestic Product (GDP) should manifest in the public equity markets as companies derive additional earnings, buy materials, make capital investments, and pay employees, contractors, and vendors.

Syntrinsic takes a two-pronged approach to forecasting real growth in GDP. We rely, in part, on forecasts from key governmental and quasi-governmental sources such as the Organization for Economic Cooperation and Development (OECD) and International Monetary Fund (IMF). In addition to these forecasts, we incorporate Bloomberg consensus estimates into our analysis. The Bloomberg consensus estimates are timely, incorporate a diverse set of assumptions and expectations, and provide complementary insights. We have used this data to check our internal research efforts. After careful review, we use the Bloomberg Consensus estimates to establish a three-year GDP growth picture, then incorporate our previous estimates for long-term growth and the shape of the recovery to develop a ten-year growth forecast.

Forecasting inflation

Exhibit 4: Central Bank Target versus Actual



Source: Bloomberg, US Federal Reserve = US Core PCE YoY – 2% Fed Inflation Target, Bank of Japan = Japan CPI YoY – 2% BOJ Inflation target, European Central Bank = Eurozone Core MUICP YoY – 2% ECB Target, Bank of England = UK Core CPI YoY – 2% BoE Inflation Target

Syntrinsic relies upon global central bank target rates of inflation as a starting point for our inflation assumptions, as do many other analysts. Indeed, long-term inflation forecasts from the IMF and OECD closely match the central bank stated targets for most countries. However, Syntrinsic has noted that pre-pandemic, many developed world central banks—in particular, the US Federal Reserve, European Central Bank, and the Bank of Japan—failed to achieve their inflation targets. Despite the significant recent uptick in inflation, we believe Central Banks will be relentless with monetary tightening until inflation is under control. Above and beyond central bank tightening, we believe changing demographics, labor dynamics, ongoing technological innovation, will anchor inflation on a secular basis slightly above the central banks' long-term inflation targets. Our inflation assumptions factor in the spread from stated inflation targets and actual inflation over a trailing ten-year period. This spread is

Exhibit 5: Syntrinsic's Inflation Expectations

Central Bank	Inflation Target	10 Yr Spread	PCE/CPI	Weighting	Total	
United States	2.00%	0.12%	0.39%	100.00%	2.51%	
United States Inflation Assumption						**2.51%**
Non-US Developed						
European Central Bank (ECB)	2.00%	-0.71%	-	59.67%	0.77%	
Bank of Japan (BOJ)	2.00%	-1.72%	-	8.59%	0.02%	
Bank of England (BOE)	2.00%	0.20%	-	15.47%	0.34%	
Bank of Canada	2.50%	0.04%	-	8.87%	0.23%	
Bank of Australia	2.50%	-0.28%	-	7.40%	0.16%	
Non-US Developed Inflation Assumption						**1.53%**
Emerging Markets						
Central Bank of Brazil	3.75%	-	-	9.45%	0.35%	
People's Bank of China	3.00%	-	-	62.80%	1.88%	
Reserve Bank of India	4.00%	-	-	13.66%	0.55%	
Bank of Indonesia	3.00%	-	-	4.82%	0.14%	
Bank of Russia	4.00%	-	-	7.58%	0.30%	
South African Reserve Bank	4.50%	-	-	1.69%	0.08%	
Emerging Markets Inflation Assumption						**3.31%**

Source: Syntrinsic, Bloomberg

**The US Federal Reserve uses the Personal Consumption Expenditures (PCE) price index to set its inflation target. Most US investors use the Consumer Price Index (CPI) to measure inflation, which on average tracks 0.30% above PCE. Syntrinsic has adjusted our inflation forecast similarly.*

included to incorporate the consistent inability of developed countries to reach their inflation targets over the past decade as we believe will persist over the next decade.

Given that the emerging markets are represented by a much more diverse array of central banks and that there are significant limits on the reliability of data regarding actual inflation rates, Syntrinsic has not applied a similar discount to forward-looking emerging market inflation.

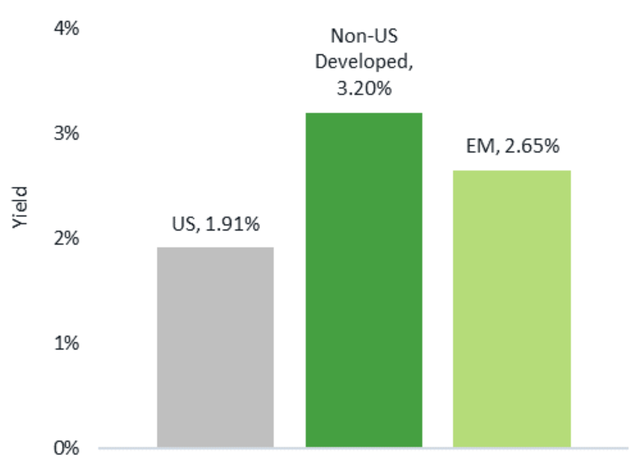
Forecasting equity dividend and buyback yields

Equity yields over the past decade have been stable across regions. We expect dividend yields to follow current trends going forward as we do not see a meaningful catalyst that would propel yields of the major indexes positively or negatively. Our expectations for equity dividend yields are based on the ten-year rolling average as we believe it is more indicative of an economic cycle and better reflects the potential trajectory for yields coming out of this crisis.

Dividend yields have been on a downward trend resulting in a slightly lower yield assumption from our 2022 forecast update. The dividend yield is a particularly important part of equity return in non-US developed markets, with dividend yields representing almost half of anticipated equity total return.

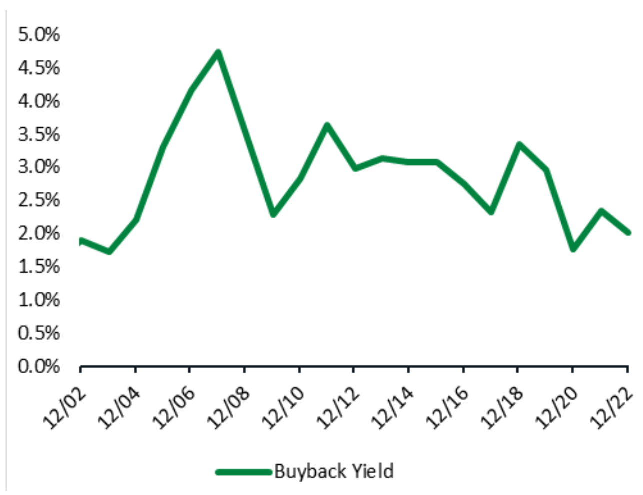
This year we added in buyback yields as part of our US equity forecast as it has been a meaningful aspect the return over the last 20 years, averaging about 2.74%. At the end of the 2022, the current buyback yield was 2.0%. In our forecast, we have lowered the buyback yield to 1.25% to factor in higher interest and the addition of the new Federal excise tax of 1.0% on buybacks.

Exhibit 6: Ten-Year Dividend Yield Assumptions



Source: Bloomberg

Exhibit 7: US Buyback Yields



Source: Bloomberg

Forecasting adjustments due to international trade

While growth forecasts across regions directly impact the anticipated earnings of equity markets in those regions, Syntrinsic considers it essential to account for where companies are securing their revenues. For example, a company that is dependent on revenues from a developed economy such as the US or France will

Exhibit 8: Equity Index Revenue Exposure by Region

Index	United States	Non-US Developed	Emerging Markets	Trade Effects
S&P 5000	**61%**	**21%**	18%	0.10%
MSCI EAFE	20%	**56%**	24%	0.94%
MSCI EM	11%	19%	**69%**	-0.79%

Source: Morningstar (11/30/22)

be operating in slower growth economies than a competing company that may be growing its revenues in China or India where economic growth rates are likely to be higher.

To account for the impact of trade on anticipated economic growth, Syntrinsic incorporates regional revenue sources for the MSCI All-Country World Index. As indicated in Exhibit 8, S&P 500 companies have recently derived 61% of revenues from US sales, with 21% coming from trade with non-US Developed markets and 18% from emerging markets. These non-US revenue sources end up adding an additional 0.10% per year in anticipated growth for the U.S. equity market (slightly down from the previous year at 0.12%).

Similar exercises for non-US Developed and emerging market indices result in a 0.94% for non-US Developed companies while companies based in the emerging markets subtract 0.79% from projected growth due to revenues derived from slower growing developed economies.

Forecasts for large cap equities by region

By summing the forecasts for real economic growth, inflation, dividend yield, P/E valuation change, and then adjusting for trade effects, Syntrinsic calculates the baseline results for large cap equities in each region. (Please note the methodology change with the inclusion of P/E valuation change and buyback yield).

Exhibit 9: Syntrinsic Large Cap Equity Forecasts by Region*

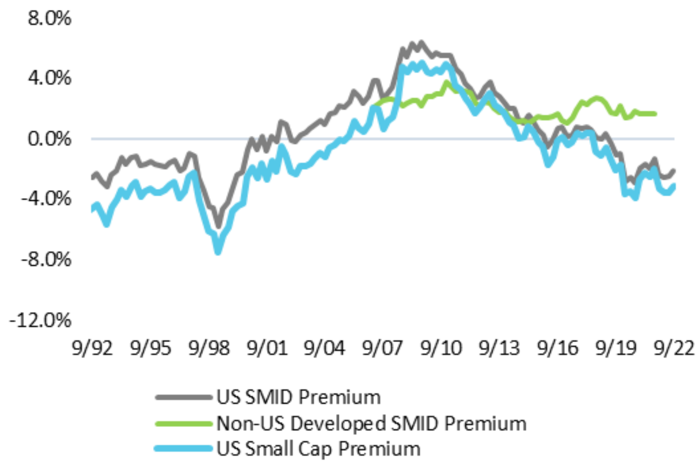
		United States			Non-US Developed			Emerging Markets	
Assumption		**1Q 2023**	**1Q 2022**		**1Q 2023**	**1Q 2022**		**1Q 2023**	**1Q 2022**
Growth	↓	1.67%	1.71%	↓	0.56%	0.99%	↑	3.54%	3.23%
Inflation	↑	2.51%	2.08%	↑	1.53%	1.08%	↓	3.31%	3.36%
Dividend Yield	↓	1.91%	1.98%	↓	3.20%	3.30%	↓	2.65%	2.68%
Buyback Yield	↑	1.25%	0.00%	-	0.00%	0.00%	-	0.00%	0.00%
P/E Valuation Change	↑	0.23%	0.00%	↑	0.98%	0.00%	↓	0.35%	0.00%
Trade Effect	↑	0.23%	0.12%	↑	0.94%	0.67%	↑	-0.79%	-0.61%
Large Cap Equity Return Forecast	↑	**7.80%**	**5.90%**	↑	**7.20%**	**6.05%**	↑	**9.05%**	**8.65%**

Source: Syntrinsic
**Red arrows indicate a decline from 2021 to 2022, while green indicates an increase. "-" represents no change in forecast.*

Forecasts for Small and Small/Mid (SMID) Cap Equities by Region

Syntrinsic recognizes that small and midcap equities have historically tended to earn an equity risk premium relative to large cap equities. Our research confirms that the SMID cap premium has approximated 0.39% per year for US equity markets but the historical small cap premium has turned negative. We anticipate however over the next 10 years that that discount will turn back into a premium and have forecasted 0.88% premium over large cap equities. Therefore, we anticipate a return of 8.05% and 8.55% for SMID cap and small cap US equities, respectively.

Exhibit 10: Small and Mid-Capitalization (SMID) Premiums by Region (10 Year Rolling Average)



Source: Morningstar (9/30/22)

Recognizing that most non-US SMID managers invest in both non-US developed and emerging market equity, we used the SMID cap premium to the MSCI-ACWI ex US index of 1.55% premium (see Exhibit 10) and added that to the forecast returns of the Non-US Large Cap equity markets, bringing the forecast return to 7.60%.

Listed Real Estate Forecast

Exhibit 11: Listed Real Estate Forecast

Asset Class	Index	2023 Ten-Year Forecast	2022 Ten-Year Forecast	Change
Global Listed Real Estate	FTSE NAREIT/EPRA Global	**6.10%**	**5.60%**	**0.50%**
US Listed Real Estate	FTSE NAREIT/EPRA United States	6.46%	6.00%	0.46%
Global ex -US Listed Real Estate	FTSE NAREIT/EPRA Global ex-US	6.05%	5.20%	0.85%

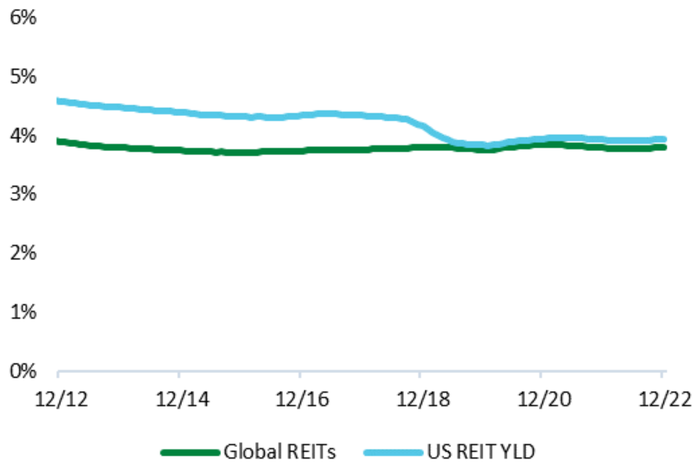
Source: Syntrinsic

Real estate as an asset class is highly idiosyncratic, with tremendous variation across types of exposures, particularly in private real estate. For forecasting purposes, Syntrinsic uses different methodologies for private real estate (See Private Investments) and real estate accessed through securities listed on public market exchanges, what is known as listed real estate.

Forecasting listed real estate

Investors that gain exposure to real estate through public markets generally invest in Real Estate Investment Trusts (REITs) and Real Estate Operating Companies (REOCs). While trading like equities, the structural differences, and historic correlations of these securities result in Syntrinsic treating listed real estate as an asset class distinct from other equity sectors.

Exhibit 12: Global REIT Yields (10-Year Rolling Average)



Source: Bloomberg

Exhibit 13: Listed Real Estate Forecast by Region

	United States	Non-US Developed	Global
Yields	3.94%	3.72%	3.81%
Inflation	2.51%	2.33%	2.29%
Spread: NOI less inflation	0.00%	0.00%	0.00%
Real Estate Forecast Return	**6.46%**	**6.05%**	**6.10%**

Source: Syntrinsic

To forecast listed real estate returns, we start with current REIT yields. Current global yields of 3.79% are in-line with 2022 yields. We then add a return component to account for anticipated growth in Net Operating Income (NOI), the "earnings" of a REIT. We estimate this premium to be zero globally due to downward pressure on Real Estate demand. We apply that spread to listed real estate in each region and then proportionately calculate the global listed real estate forecast.

Commodities Forecast

While commodity-related investments manifest within equity and debt markets—and some hedge fund strategies—Syntrinsic views commodities as a distinctive asset class that might be worth dedicated investment depending on market conditions and investment objectives. Commodities include industrial metals (e.g., iron, copper), precious metals (e.g., gold, platinum), energy (e.g., oil, natural gas) agricultural products (e.g., wheat, soybeans), and softs (e.g., coffee, cotton)

Syntrinsic assumes that commodity returns will closely match global inflation. Given our regional inflation forecasts, we anticipate global inflation of 2.29% over the coming decade. We recognize that near-term environmental and geopolitical events can trigger price spikes or dips in certain commodities; however, we do not see such events as driving long-term fundamentals.

Exhibit 14: Commodity Forecast

Commodity Return Expectations	
Global Inflation Forecast	2.29%
Premium/Discount above inflation	1.22%
Commodity Return Forecast	**3.50%**

Source: Syntrinsic

We discount or add to global inflation based on supply/demand dynamics and current demand trends for commodities. We use the historic 10 year rolling average spot premium over inflation, as a proxy for this premium or discount. That spot premium has averaged -1.25% over the last 50 years. However, we anticipate that the premium will turn positive over the next decade because of supply/demand dynamics and the transition to a low carbon economy heightening volatility and prices from pre-2020 levels. To determine the forward premium, we evaluated the premium seen during the last commodity Supercycle (2000 – 2014) and added in a discounting factor as we do not anticipate that this cycle will be as extreme as the previous cycle based on demographics and technological factors.

Private Investments Forecast

Exhibit 15: Private Investments Forecast

Asset Class	Index	2023 Ten-Year Forecast	2022 Ten-Year Forecast	Change
Private Equity	Cambridge US Private Equity	10.25%	9.85%	0.40%
Private Debt	Cliffwater Direct Lending	7.35%	7.10%	0.25%
Private Core Real Estate	NCREIF ODCE	5.70%	6.00%	-0.30%
Private Core Plus Real Estate	NCREIF ODCE + Premium	7.45%	6.70%	0.75%

Source: Syntrinsic

Syntrinsic's forecast enables investors to model reasonable long-term return expectations; however, private equity, debt, and real estate investments exhibit so much dispersion in terms of strategy, style, sector, leverage, and other factors, that investors must strive to understand how specific investments might compare to the broad universe to a much greater degree than in traditional public market equity and debt investments.

Forecasting private equity

Investors typically access private equity markets over public equity markets to earn a return premium in exchange for the additional risks and costs inherent in private equity, including liquidity. As such, Syntrinsic forecasts private equity returns by analyzing the historic risk premium of the Cambridge Associates US Private Equity Index over the S&P 500 Index. In addition, we added a Valuation adjustment to account for the public market adjustments as result of the 2022 drawdown.

Exhibit 16: Private Equity Forecast

Private Equity Return Expectations	
US Large Cap Equity Forecast	7.65%
Premium Over Large Cap US Equity	3.65%
Valuation Adjustment	-1.10%
Private Equity Forecast Return	**10.20%**

Source: Syntrinsic, JP Morgan

Forecasting Private Debt

Private debt investment funds represent a pool of loans made to companies. Specific funds will vary in terms of sector, credit quality, and use of leverage, thus creating great dispersion across the asset class. Recognizing this, Syntrinsic's private debt forecast relies on the historical weighted average direct lending spread of the Cliffwater Direct Lending Index over our forecast for cash (US 3 Month-T-bills). The Cliffwater index represents a broad array of private debt strategies and is recognized as a proxy for the asset class. In addition, we factor in credit costs with assumed defaults and losses net of recoveries based on the historical Cliffwater Direct Lending Index. As a result of the drawdown in 2022, and the anticipation that defaults will rise over the next decade, we also added in an

Exhibit 17: Private Debt Forecast Calculation

Private Debt Return Expectations	
Cash Return Forecast	3.50%
Weighted Average Direct Lending Spread	7.19%
Credit Cost	-1.35%
Increase in Default Rates	-2.00%
Private Debt Forecast Return	**7.35%**

Source: Syntrinsic, Cliffwater Direct Lending Index, Moody's increase in default rates of 2.00% based on Moody's projections.[31] This return forecast is unlevered; we do not factor in leverage which is commonly used by many private debt managers and can potentially enhance long-term returns while increasing risk.

Forecasting private real estate

Syntrinsic organizes private real estate most broadly into two categories, core, and core plus. In this context, core private real estate represents diversified pools of high quality, mature U.S. real estate properties diversified across sectors and geography. Returns are driven primarily by cash flows of those properties and some return due to realized gains. Core plus private real estate includes core properties as well as some more aggressive properties that strive to add value through improvements, resale, and other activities.

For core private real estate, Syntrinsic adjusts current capitalization rates for the valuation changes in property prices as result of rising interest rates. Despite the decline in property values, we anticipate that Net Operating Income (cashflows) will remain strong given supply demand dynamics in real estate and higher cashflows as rents reprice from higher inflation. (Please note change in methodology from previous years).

Meanwhile, core plus private real estate strategies have a historical premium of 1.80% over the Core Real Estate as measured by the NCREIF Property Index. While there may be times when investing in core private real estate makes sense, we recommend that investors in private real estate focus their efforts on core plus investments that could add value.

Exhibit 18: Private Core and Core Plus Real Estate

Private US Real Estate Expectations	
Private Core Real Estate Forecast Return	**5.70%**
Core Plus Premium	1.80%
Private Core Plus Real Estate Forecast Return	**7.50%**

Source: Syntrinsic

Hedge Fund Strategies Forecast

Exhibit 19: Hedge Fund Strategies Forecast

Asset Class	Index	2023 Ten-Year Forecast	2022 Ten-Year Forecast	Change
Hedge Fund Strategies	**HFRI FoF Composite**	**4.75%**	**2.20%**	**2.55%**
Hedge Fund Strategies	HFRI FoF Composite	4.75%	2.20%	2.55%
Equity Hedge	HFRI Equity Hedged	5.80%	3.50%	2.30%

Source: Syntrinsic

Hedge fund strategies encompass myriad trading methodologies across multiple asset classes and with different investment and risk management objectives. Syntrinsic draws upon industry practices in concentrating our forecast on equity and fixed income beta with additional support from cash returns.

The equity and fixed income beta components recognize that while hedge funds represent a highly diverse universe, historically their bottom-line results as an asset class have had consistent correlation with equity

[31] November 21, 2022, "Global Corporate Default rate will climb", Moody's Investor Service

and fixed income markets. To determine the appropriate beta for the different hedge fund strategies, we analyze the historic beta and correlations to global equity markets, fixed income markets, and the Hedge Fund of Fund universe. We then apply those beta estimates to our long-term return forecasts for equity and fixed income to establish a return forecast for different hedge fund strategies.

The cash component of our forecast considers the elements of hedge fund return attributable to short rebates and interest earned on cash being held as an investment or as collateral for leverage.

Forecasting hedge fund of fund

Exhibit 20: Hedge Strategies Forecast Calculation

Hedge Fund Strategies Return Expectations	
Equity Beta	0.26
Equity Beta Contribution to Return	**1.28%**
Fixed Income Beta	(0.00)
Fixed Income Beta Contribution to Return	**0.00%**
Equity + Fixed Income Beta Return	1.28%
Cash Return	3.50%
Hedge Fund Strategies Forecast Return	**4.80%**

Source: Syntrinsic. Morningstar (9/30/22)

Hedge fund of fund expected return speaks to strategies that represent multiple hedge fund methodologies such as equity hedge, global macro, relative value, and fixed income arbitrage. In practice, some strategies are developed by a single firm that incorporates multiple third-party managers, while other times a single manager will apply multiple strategies within a single investment fund.

Forecasting equity hedge

Approximately half of the hedge fund universe is represented by equity hedge strategies. Even within that more limited segment, strategies vary in terms of long, short, and gross positioning, concentration risk, regional exposure, use of leverage, sector exposure and other factors. Nonetheless, equity hedge strategies overall have expressed a beta to the equity markets of 0.50, providing a useful reference point for forecasting the market segment.

Exhibit 21 Equity Hedge Forecast Calculation

Equity Hedge Return Expectations	
Equity Beta	0.50
Equity Beta Contribution to Return	**2.43%**
Fixed Income Beta	(0.07)
Fixed Income Beta Contribution to Return	**-0.11%**
Equity + Fixed Income Beta Return	2.32%
Cash Return	3.50%
Hedge Fund Strategies Forecast Return	**5.80%**

Source: Syntrinsic. Morningstar (9/30/22)

Global Fixed Income Forecast

Exhibit 22: Global Fixed Income Forecast

Asset Class	Index	2023 Ten-Year Forecast	2022 Ten-Year Forecast	Change
Global Fixed Income	Barclays Global Agg	**3.50%**	**1.05%**	**2.45%**
Short-Term Bond	Barclays G/C 1-5 Yr	2.00%	1.15%	0.85%
US Core Bond	Barclays U.S. Agg	4.80%	1.70%	3.10%
US Core Plus Bond	Barclays 80% U.S. Agg/ 20% HY	5.81%	2.10%	3.71%
High Yield bond	Barclays U.S. High Yield Corporate	9.85%	3.85%	6.00%
Non-US Developed Bond	FTSE WGI ex-US	2.70%	0.65%	2.05%
Emerging Markets Bond	JPM EMBI	8.65%	4.75%	3.90%

Source: Syntrinsic

Syntrinsic recognizes that ten-year fixed income returns will be closely aligned with the average yield received over that ten-year period. While our forecasting process does allow for modest adjustments to current yields, we account for cyclical factors such as potential credit spread tightening, timing of interest rate increases, and/or expansion in our near-term sentiment. To anchor our scenarios with reasonable assumptions, we consider long-term structural drivers of interest rates (growth and inflation), the path of the Fed Funds rate, and the term premium of interest rates. Over the last decade, other factors such as supply/demand dynamics that are a result of Fed intervention, structural changes in the economy, fiscal stimulus, and the relative attractiveness of US debt have influenced the level of long-term interest rates. As a result, we updated our forecast for the US long-term risk-free rate using the Fed projections for short term Fed Funds rates as a baseline and adding in the term premium. This premium reflects the amount investors expect to be compensated in yield for lending for longer periods.

The current projection for the mid-point of the long run Federal Funds Rate is 4.50% (as of 12/22). Adding in the historical term premium for the last 10 years of 0.48%, we anticipate long-term risk-free rate at approximately 4.98%. The risk-free rate in this case is represented by the ten-year US Treasury Bond.

Forecasting US core bond

US core bonds are represented by the Bloomberg Barclays US Aggregate Bond Index, which includes approximately 80% to US Government bonds and 20% to investment grade US corporate bonds. Thus, to forecast reasonable returns for US core bonds, it is important to understand the premium (spread) of the US Aggregate over the risk-free rate, as well as likely scenarios for the movement of ten-year yields from where they are today to the expectations for the Fed Funds Rate and movement of the term premium.

Exhibit 23: Core Bond Forecast Calculation

US Core Bond Return Forecast	
10 Year U.S. Treasury Yield Expectation	4.98%
US Aggregate Spread	0.20%
US Core Bond Expected Yield	5.18%
Current US Core Bond Yield	4.73%
US Core Bond Forecast Return	**4.80%**

Source: Syntrinsic. Federal Reserve Bank of St. Louis, Bloomberg

Given our expectation that US Treasury yields should be approximately 4.98% ten years from now and adding the historic 0.20% spread of the US Aggregate over US Treasury yields, it is reasonable to expect that US core bonds will yield 5.18% ten years from now. With yields currently at about 4.73%, our forecast would require interest rates to rise over the decade. We expect that the extreme inflation pressures will drive central banks to continue to increase interest rates over the next two years. While the pace may not be as aggressive and quick as 2022, we do not believe that central banks will pivot to lowering interest rates until inflation is well under control. The rising interest rate environments will create opportunities for higher yield. In certain parts of the curve rising rates will also adversely impact bond values, particularly in the next two years, leading to an annualized forecast that is slightly below the current yield on US core bonds.

Forecasting US high yield bonds

US high yield bonds follow a similar pattern except that the spread between high yield bonds and the US Treasury Bond is higher to account for the additional risk inherent in below investment grade bonds.

Exhibit 24: High Yield Forecast Calculation

US High Yield Bond Return Forecast	
10 Year U.S. Treasury Yield Expectation	4.98%
High Yield Bond Spread	4.88%
US High Yield Expected Yield	9.86%
Current High Yield Bond Yield	8.92%
US High Yield Forecast Return	**9.85%**

Source: Syntrinsic. Federal Reserve Bank of St. Louis, Bloomberg

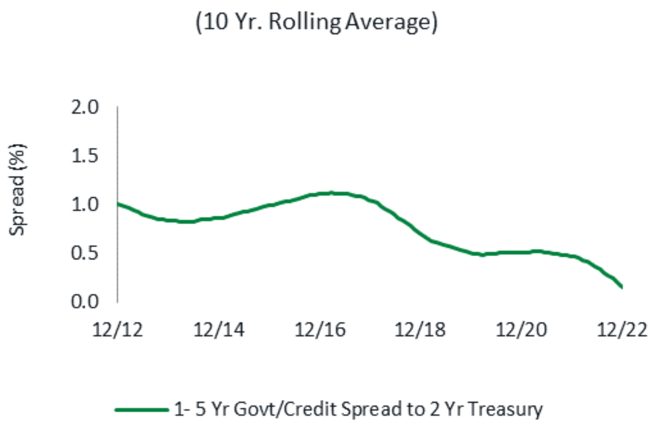
Forecasting US core plus bonds

In practice, many active fixed income managers strive to add value through incorporating more aggressive, higher yielding bonds into a portfolio of primarily investment grade securities. Syntrinsic considers such an approach to be "core plus" with the "plus" acknowledging the additional risk and potential return of such a strategy. While every fixed income manager is unique, we find that US core plus can be represented by 80% US core bond and 20% US high yield bond. Given the forecasts outlined above and the 80/20 weighting, Syntrinsic forecasts 5.40% total return per year for US core plus bond.

Forecasting US short-term bonds and cash alternatives

Creating a ten-year forecast for short-term bonds and cash is inherently challenging due to the mismatch in time horizon. Nonetheless, it is important for investors using short-term bonds and cash to have guidance regarding reasonable return expectations for an asset class often used to keep pace with inflation.

Exhibit 26: US Short-Term Bond Premium to Two-year US Treasuries



Source: Bloomberg

Exhibit 25: Cash Yield Forecast Calculation

US Treasury Yield and Spread Expectations	
10 Year Yield Expectation	4.98%
10 Yr-2 Yr. Spread	-1.48%
2 Year Yield Expectation	3.50%
2 -Yr. - Fed Funds Rate Spread	-0.21%
Fed Funds Rate Expectation	3.29%
Fed Spread - 3 Month T-Bill	-0.21%
Expected Cash Yield	**3.10%**

Source: Syntrinsic. Federal Reserve Bank of St. Louis, Bloomberg

To anchor our approach, Syntrinsic relies on historic spread relationships between the 10-year US Treasury Bond, 2-year US Treasury Note, Fed Funds Target Rate, and 3-month US Treasury Bill. While these relationships are not set in stone and can vary over the short-term, they provide reasonable guidance for longer-term planning.

Syntrinsic short-term bond yield expectations extend spread analysis from above to include credit.

Exhibit 27: Cash Forecast Return

Cash Forecast Return	
3 Month T-Bill Expected Yield	3.08%
Current Cash Yield	4.18%
Cash Forecast Return	**3.50%**

Source: Syntrinsic. Bloomberg

Forecasting Non-US. Developed and emerging market bonds

Syntrinsic develops forecasts for non-US Developed bonds starting with components of expected inflation and real GDP growth of non-US Developed nations. We apply the same discount to expected yields due to yield suppression seen across the developed world for our expected long-term yield. While we recognize that extraordinary central bank intervention across non-US Developed countries affects interest rates, we expect current yields to move towards our long-term expected yields over the next two years.

Exhibit 28: Non-US Developed Bond Forecast

Non-US Developed Bond	
Non-US Developed Expected Growth	0.56%
Non-US Developed Expected Inflation	1.53%
Non-US Developed Expected Yield	2.09%
Current Non-US Developed Bond Yield	2.71%
Non-US Developed Bond Forecast Return	**2.70%**

Source: Syntrinsic. Bloomberg, OECD

Bonds have become an increasingly useful tool in the emerging markets and represent many diverse economies and currencies. As such, the calculus for anticipating return requires a different approach. For our emerging market bond forecast, we utilize the long-term historical spread of emerging market debt to the 10-Year US Treasury Bond. Based on our expectations for emerging market debt yields to move from current levels to our expected yield over the next five years, we anticipate ten-year returns of 8.65% per year, above the current yield on the emerging market bond market.

Exhibit 29: Emerging Market Bond Forecast

Emerging Market Bond	
10-Year US Treasury Yield Expectation	4.98%
EM Bond Spread to 10-Year Treasury	3.56%
Emerging Market Bond Expected Yield	8.54%
Current Emerging Market Bond Yield	8.64%
Emerging Market Bond Forecast Return	**8.65%**

Source: Syntrinsic. Federal Reserve Bank of St. Louis, Bloomberg

Exhibit 29: Syntrinsic 10-year asset class expected returns

Asset Class/Segment	Index	1Q 2023 10-Year Forecast	1Q 2022 10-Year Forecast	Change from Previous Forecast
Global Equity	**MSCI ACWI**	**8.35%**	**6.30%**	2.05%
U.S. Large Cap	S&P 500	7.65%	5.90%	1.75%
U.S. SMID Cap	Russell 2500	8.05%	6.25%	1.80%
U.S. Small Cap	Russell 2000	8.55%	7.05%	1.50%
Non-U.S. Dev. Large Cap	MSCI EAFE	7.20%	6.05%	1.15%
Non-U.S. SMID Cap	MSCI ACWI ex-US SMID	8.90%	7.60%	1.30%
Emerging Markets Equity	MSCI EM	9.05%	8.65%	0.40%
Private Investments				
Private Equity	Cambridge US Private Equity	10.25%	9.85%	0.40%
Private Debt	Cliffwater Direct Lending	7.35%	7.10%	0.25%
Private Core Real Estate	NCREIF ODCE	5.70%	6.00%	-0.30%
Private Core-Plus Real Estate	NCREIF ODCE + Premium	7.45%	6.70%	0.75%
Real Estate				
Global Listed Real Estate	FTSE NAREIT/EPRA Global	6.10%	5.60%	0.50%
U.S. Listed Real Estate	FTSE NAREIT/EPRA United States	6.45%	6.00%	0.45%
Global ex-U.S. Listed Real Estate	FTSE NAREIT/EPRA Global ex-US	6.05%	5.20%	0.85%
Commodities				
Commodities	S&P GSCI	3.50%	2.20%	1.30%
Hedge Fund Strategies				
Hedge Fund Strategies	HFRI FoF Composite	4.75%	2.20%	2.55%
Equity Hedge	HFRI Equity Hedged	5.80%	3.50%	2.30%
Global Fixed Income	**Barclays Global Agg**	**3.50%**	**1.05%**	2.45%
U.S. Core Bond	Barclays U.S. Agg	4.80%	1.70%	3.10%
U.S. Core Plus Bond	Barclays 80% U.S. Agg/ 20% HY	5.40%	2.10%	3.30%
High Yield bond	Barclays U.S. High Yield Corporate	7.75%	3.85%	3.90%
Non-U.S. Developed Bond	FTSE WGI ex-US	2.10%	0.65%	1.45%
Emerging Markets Bond	JPM EMBI	8.65%	4.75%	3.90%
Cash	**3 Mo Treasury**	**3.50%**	**0.75%**	2.75%
US Inflation	**CPI: Consumer Price Index**	**2.50%**	**2.10%**	0.40%
Global Inflation	**Weighted Regional Forecast**	**2.30%**	**2.11%**	0.19%

Source: Syntrinsic

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Syntrinsic's Investment Philosophy

Time is of the Essence

Recognizing that investors often destroy capital when they try to time the markets, we are patient investors. To that end, we construct portfolios on a foundation of our long-term capital markets forecast, recognizing that the secular building blocks of long-term economic growth, yield, and inflation will drive the long-term potential of the capital markets.

Quality Matters

Syntrinsic focuses on thoughtful analysis, reasonable assumptions, intensive due diligence, and nuanced portfolio development. When conducting due diligence on investment managers—both active and passive strategies—we seek to identify those with ethical ownership, strong diverse teams that work well together and have done so through multiple market cycles, and investment strategies that are sound, proven, and repeatable.

Objectivity Over Emotion

While on the lookout for unexpected trends and risks, our data-driven process keeps us from getting distracted by emotional headlines or less meaningful data points. We pride ourselves on the quality of our economic analysis and investment due diligence. Much of the value we have added over the years has involved being a source of calm and objectivity in the face of fear, hype, greed, ego, and anger. While we, too, are emotional, we have constructed an investment process that drives us toward objectivity.

All Investing has Impact

Syntrinsic sees impact investing as a possible way to mitigate the risk in portfolios, enhance long-term performance, and potentially create a positive impact in society. As an investment advisor, we believe it is our responsibility to guide clients through the process of defining the values that they hold most important and help them manifest those values in their portfolios to the degree they wish.

Disclosures

The information in this document is not intended as a recommendation to invest in any particular asset class or strategy or as a promise of future performance. The opinions expressed in this document are the combined work of Syntrinsic's Investment Committee. Our research comes from a multitude of sources, but any opinions expressed are our won.

Given the complex nature of risk-reward trade-offs involved in portfolio construction, we advise clients to consult with financial professionals on specific investment-related decisions. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. In addition, past performance is not a guarantee of future results.

Assumptions, opinions, and estimates are provided for illustrative purposes only and are subject to significant limitations. Expected return estimates are subject to uncertainty and error. Expected returns for each asset class can be conditional on economic scenarios to which actual returns could be significantly higher or lower than forecasted. They should not be solely relied upon as recommendations to buy or sell securities.

Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable, but do not warrant its accuracy or completeness.

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