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Inflation high enough to keep Fed on guard

Earlier this year, we expected inflation to rise temporarily in the first half of the year. This was partly due to a resilient US economy that has been able to maintain steady spending power. But we expected most of the impetus to come from remaining economic imbalances, originally triggered by the pandemic. The pandemic may be over, but the aftershocks it created are still with us, and have caused persistence in inflation. We believe the factors driving recent higher inflation reports are now receding and we expect disinflation to resume this summer.

Why has inflation been higher in the first half of the year?

After a few months of promising inflation numbers late last year, monthly core inflation picked up momentum in the winter. A number of factors explain much of the uptick in inflation, namely, the pent-up demand for cars and travel, and the persistence of shelter inflation in official measures.

Car prices likely stabilizing

Car prices, new and used, rose substantially in the last two years because of supply shortages. Now we believe we are nearing the end of this imbalance and expect car prices to stabilize and fall in the coming months. New car prices increased by as much as 14% at their peak in 2022 and used car prices rose by just over 40%.¹ Given the auto sector's large share in the consumer price inflation (CPI) basket, it has been a major contributor to overall inflation. Despite improvements in global supply chains and auto production, the supply-demand imbalance in the sector

hasn't yet been fully resolved, leading to ongoing price increases until recently. Before the pandemic, US new car sales averaged around 17 million cars per year.² Auto sales declined to just over 13 million units last summer and have remained below 15 million units in the last six months on an annualized basis.³ Going forward, we expect car prices to stabilize and decline. On the demand side, pent-up demand should gradually be met with improving supply. Meanwhile high interest rates and slowing nominal income growth are becoming headwinds to demand. Finally, we have supportive evidence on disinflation from used car auctions that typically lead the retail market by two or three months. Used car prices consistently rose in auctions earlier this year, but they have come down by more than 5% in the last two months.⁴

Travel prices are leveling off

Travel is another sector where we have seen pent-up demand because of the pandemic. After two years of restricted and risky travel, the world started to open up last year after the Omicron wave. It was a "boomy" travel season, and airfare inflation shot up to over 40%, with hotel prices rising sharply too, by about 29% as of last September.⁵ Travel inflation has declined significantly since then, but we are currently experiencing another strong travel season, although perhaps not as buoyant as last year. Not surprisingly, both airline and hotel prices have risen sharply since the winter when many bookings and purchases are made for summer travel. We expect this demand to fizzle and turn to disinflation in the coming months, as travel patterns normalize and excess savings decline.

1. Source: Bureau of Labor Statistics. Data as of May 10, 2023.

2. Source: Ward's Automotive Group. Data as of May 2, 2023.

3. Source: Ward's Automotive Group. Data as of May 2, 2023.

4. Source: Manheim Auctions. May preliminary data. Data as of May 17, 2023

5. Source: Bureau of Labor Statistics. Data as of May 10, 2023.

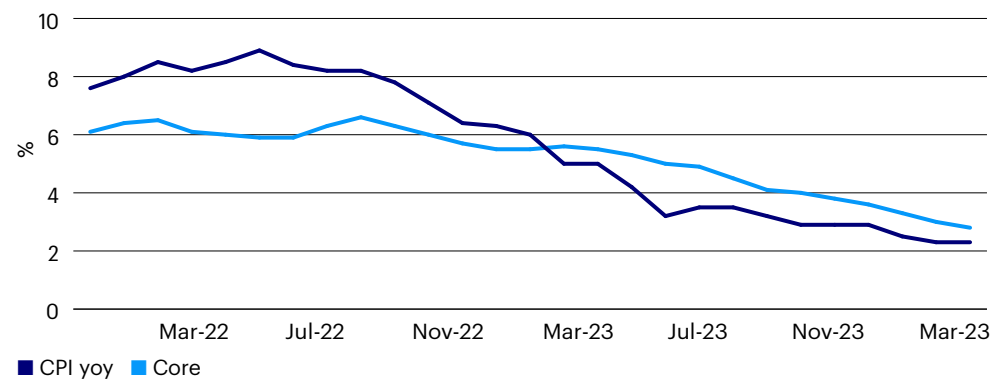
Housing inflation may have peaked

Finally, shelter inflation likely peaked recently, and should begin to converge toward historical norms. It is well understood that official CPI data follow private sector rent data with a lag of roughly a year. Private rent inflation for new leases declined to historical norms last fall and, by some measures, is tracking below historical norms. Our inflation models that rely on macro variables and private sector rents suggest that the peak in year-over-year shelter inflation occurred in April at around 8.1%. Our models suggest it will slow to below 6% by the end of the year. It is important to note that shelter inflation's weight in core inflation is around one third, so a decline should have a major impact on the overall inflation outlook.

Recent inflation readings have been promising

The April inflation report was promising and in line with our baseline expectations. Monthly core CPI inflation was high at 0.41%, as expected, but about one third of that increase was due to used car prices, which we expect to decline in a few months. Regarding shelter, monthly inflation has averaged 0.5% over the past few months, a decline from 0.7% over the prior six months and in line with our models. Finally, travel related inflation was below our expectations, partly due to seasonal adjustments, and we continue to expect inflation to persist in this sector for a bit longer. Overall, the latest inflation report was broadly in line, if not slightly better, than our baseline forecast, giving us confidence in our forecast of resumed disinflation going forward, with declines in core annual inflation to around 2.8% in a year from now (Figure 1).

Figure 1: US CPI inflation projections



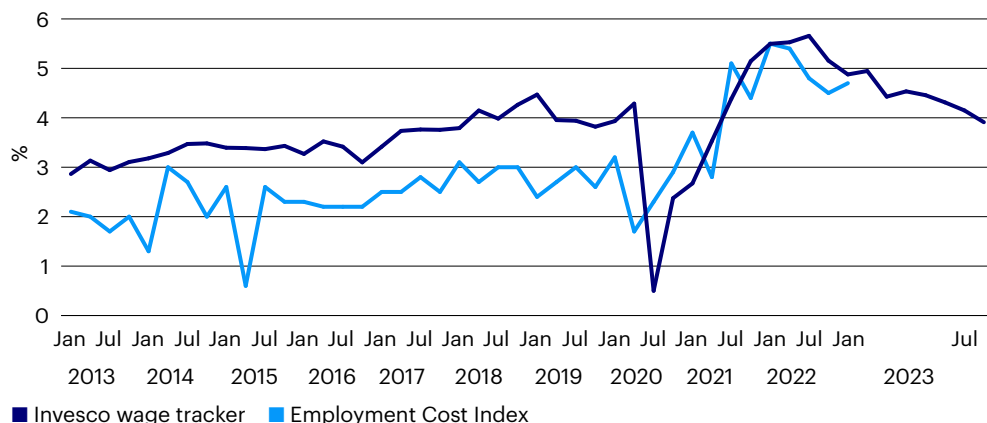
Source: Bureau of Labor Statistics, Invesco. Data from Jan. 31, 2022 to April 30, 2023. Invesco forecasts thereafter.

Risks and the Fed

The remaining piece of the puzzle is non-shelter core services inflation that the Fed highlights in its communications. Those sectors are wage sensitive and the tight labor market poses risks to disinflation. Wages were on a declining trend last year but gained momentum in the first quarter of this year. There were one-off adjustments early in the year, such as cost of living adjustments because of high

inflation last year. Those are unlikely to be repeated in the coming months. Moreover, our wage tracker, which is composed of forward looking components of various surveys, suggests that wage inflation should decline in the coming months (Figure 2).

Figure 2: Employment Cost Index and Invesco wage tracker



Source: Macrobond, Invesco. Data from Jan. 1, 2013 to Jan. 1, 2023. Forecast thereafter. SAAR is seasonally adjusted annual rate.

On the other hand, healthcare inflation in CPI is backward looking and is expected to increase in the fall, limiting the scope for disinflation. We believe there is a path to around 3% inflation but going below that may prove difficult for some time. For the Fed, that means staying on course and

keeping rates elevated until there are clear signs of progress toward the target. This means we expect the Fed to keep rates on hold for the rest of this year.

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Interest rate outlook

US: Neutral. Slowing inflation and low growth argue for lower yields across the yield curve. But a very hawkish Fed is keeping short-term rates high, and limiting the downside for yields, given the very inverted yield curve. We continue to look for US 10-year Treasuries to be in a 3% to 4% range. At current levels, we are in the middle of this range and favor a neutral stance on duration

Europe: Overweight. Our outlook for the European bond market is positive, despite the recent back-up in yields and continued hawkish rhetoric by most ECB members. While inflation remains well above the ECB's target of 2% and the service sector continues to prove resilient, forward looking indicators such as credit demand and growth have turned down. The cumulative impact of the rate hikes so far have yet to be fully felt by households and companies and, as they filter through in the coming months, our analysis indicates that the European economy will likely begin to slow, forcing the ECB to reappraise its tightening bias. With the market now pricing in a peak in rates of around 4%, we believe that rates will begin to fall as we move into the second half of the year.

China: Overweight. Despite the international community's expectations of positive growth for China and a potentially high GDP number on the back of base effects, onshore investors have appeared more conservative. This has been reinforced by the government's relatively modest GDP growth target for 2023 and reflected in limited expectations for substantial easing efforts on the monetary and fiscal sides. Although yields have declined since mid-April, investor positioning might not be heavy at this stage. This could provide room for a potential further dip in bond yields, although there could be some consolidation at current levels.

Japan: Underweight. New Bank of Japan (BoJ) Governor Ueda's reluctance to signal an imminent end to Yield Curve Control at his first meeting has resulted in a sharp move lower in 10-year Japanese government bond yields over the past month, primarily driven by short covering. However, higher than expected growth and inflation data point toward the ultimate unsustainability of the BoJ's current policy stance. Although the BoJ only revised its forecast in April, recent releases make a further upward move at the July meeting likely. In addition, optimism on the sustainability of the inflation process should be reinforced by higher than expected annual wage

negotiations. Aside from positioning, the fall in yields over the last month might stem from the market misinterpreting the launch of a 12 to 18 month review of policy by Ueda as effectively ruling out any near-term policy adjustments. However, he has said that the review would not prohibit a policy adjustment if inflation were sustainably above target. We believe the market will need to reflect more risk premium for an upcoming change in policy, pushing JGB yields higher.

UK: Overweight. Improved growth data and stickier than expected inflation and wage data have led to a sharp repricing of interest rates on an absolute and relative basis. The market is now pricing in a rise in overnight rates to almost 5% by September.⁶ In addition, 10-year gilt yields have hit their highest level since October, when the market was still reeling from PM Truss's "mini budget", as heavy supply has led to a parallel shift higher in yields over the last month. Although recent domestic data justify part of the recent repricing, valuations now incorporate a good deal of growth and inflation upside. Economic growth will likely be supported by better terms of trade, but higher interest rates should weigh as the year progresses. Furthermore, it seems unlikely that the BoE can diverge as much as the market expects from the Fed and the ECB. The market is now pricing in UK rates more than 100 basis points above US rates by late 2024, which seems unrealistic given the relative growth and inflation dynamics.⁷

Australia: Overweight. The Reserve Bank of Australia (RBA) surprised the market by hiking by 25 basis points at the May meeting to 3.85%. However, since the hike, domestic data have generally disappointed expectations, with weak retail sales, falling confidence, slowing wage growth and decelerating employment, raising the probability that the May hike will be the last in this cycle. Additionally, the recent weakness in Chinese data suggests that Australia is unlikely to see a substantial growth boost from China's reopening. Macro dynamics are therefore moving in a more favorable direction for long duration positions. However, the downside for yields is relatively limited because of the very high starting point for inflation. The RBA is unlikely to cut rates until mid-2024 at the earliest. Overall yields will likely remain relatively range bound, but the range has probably drifted lower to between 3.6% and 3% for 10-year Commonwealth Government Bonds.

6. Source: Bloomberg L.P. Data as of May 18, 2023.

7. Source: Bloomberg L.P. Data as of May 18, 2023.

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Currency outlook

USD: Neutral. We believe the near-term outlook for the US dollar is positive, given its recent underperformance, improvement in economic data and a rise in bond yields in the US. The resilience of the economy has surprised us so far but we expect the cumulative impact of the rate hiking cycle and the tightening of credit conditions following the SVB collapse will begin to weigh on the real economy. In that environment, the US dollar downtrend could continue to reassert itself, but only once we have navigated the debt ceiling challenges successfully.

EUR: Overweight. The recent move higher in the euro has stalled in recent weeks as rates in the US have moved sharply higher and fears of market disruptions driven by a debt ceiling impasse have supported the US dollar. While those dynamics are likely to drive the broad dollar mood in the near term, we are positive on the euro over the medium term and expect the currency to appreciate.

RMB: Neutral. Although the USD/RMB exchange rate was led higher by US dollar strength in early May, we expect China's solid external sector fundamentals to support renminbi performance in the medium term. The Chinese central bank's statement May 19 showed its commitment to curbing one-way speculative moves of the currency. From a seasonality perspective, corporate dividend payments in the next two months could create corporate demand for dollars, but exporters' dollar supply could be a mitigating effect.

JPY: Overweight. The yen has depreciated by almost 3% against the US dollar over the last month, due to a combination of strong risk sentiment, higher US yields, positioning and disappointment that the BoJ did not signal an imminent shift in policy at its April meeting. However, looking forward, a number of factors should support the yen. Global growth sentiment is starting to wane, as Chinese data have disappointed expectations recently. Commodity prices have fallen sharply, supporting Japan's terms of trade. US debt ceiling related volatility could lead to a safe haven bid for the yen, as investors seek diversification and Japanese investors repatriate funds. Positioning is now also cleaner, after yen positions have stopped out over the last month.

GBP: Neutral. The British pound has been the best performing major currency year-to-date, rallying by 5% against the US dollar and 2% against the euro.⁸ This appreciation can be justified by a better terms of trade outlook based on lower energy prices, more resilient than expected growth and a favorable shift in interest rate differentials, as the market has priced in Fed cuts versus further BoE rate hikes. Although the terms of trade improvement will likely support growth and the balance of payments, interest rate differentials are unlikely to provide additional support, and higher interest rates could offset the terms of trade boost as the year progresses. Consequently, we believe the outlook for the pound is rangebound.

AUD: Underweight. The recent sharp decline in commodity prices and disappointing Chinese economic data increase the downside risk for the Australian dollar, in our view. Domestic economic weakness probably means that the RBA has finished hiking, maintaining the interest rate discount versus the US, and probably leading to a rare convergence of Australian and European interest rates.

8. Source: Bloomberg L.P. Data as of May 18, 2023.

Author**Jason Trujillo**Head of Emerging Market
Credit

This section highlights the views of Invesco Fixed Income's credit analysts across a broad range of fixed income assets managed by Invesco.

EM investment grade debt offers attractive long-term value

The last three years have been challenging for emerging market (EM) hard currency debt. A series of unusual and disruptive events have weighed heavily on performance: the pandemic, a crisis in the Chinese real estate sector, Russia's invasion of Ukraine, record developed market (DM) inflation and a

sharp rise in US interest rates. The result has been unusually weak performance for emerging market debt as well as fixed income in general. Since the start of 2020 until the present, annualized returns across EM investment grade debt as well as in the US have been negative (Figure 1).

Figure 1: EM returns and volatility, 2020 - present

	Duration	Annualized Returns	Volatility	Sharpe ratio
EM Sovereign IG	8.82	-3.82%	10.01%	-0.11
EM Corporate IG	5.31	-1.80%	5.77%	-0.15
US IG	8.18	-1.63%	9.89%	-0.09

Source: Invesco, JP Morgan EMBI Global Diversified Investment Grade Index, JP Morgan Corporate Broad EMBI Diversified High Grade Index, Bloomberg US Corporate Total Return Value Unhedged USD Index. Data as of 3/30/23. **Past performance is not a guarantee of future results.**

This is a sharp departure from the prior decade and beyond, when annualized returns have been strongly positive and years of negative total returns rare. Over this prior period, EM investment grade

returns exceeded those of US investment grade debt while offering comparable Sharpe ratios.

Figure 2: EM performance, 10-year period from 2010-2019

	Duration	Annualized Returns	Volatility	Sharpe ratio
EM Sovereign IG	9.37	6.35%	7.37%	0.86
EM Corporate IG	5.48	5.71%	6.46%	0.88
US IG	8.68	5.59%	5.89%	0.95

Source: Invesco, JP Morgan EMBI Global Diversified Investment Grade Index, JP Morgan Corporate Broad EMBI Diversified High Grade Index, Bloomberg US Corporate Total Return Value Unhedged USD Index. Data as of 03/31/23. **Past performance is not a guarantee of future results.**

While the period of disruption that has characterized the past three years has been challenging for EM, we believe it is largely behind us. In addition, EM growth is expected to considerably out pace that of DM. Additionally, EM hard currency debt has become an increasingly broad and mature asset class. It has grown several fold to over USD4 trillion of bond stock, representing

more than 70 countries and 1,000 distinct issuers.⁹ More than half of the EM dollar denominated market is now rated investment grade. All of this, plus bond yields higher than we have seen in more than 10 years, leaves us with the expectation that the coming years will be more similar to the 2010-2019 period from a total return standpoint.

9. Source: JP Morgan. Data as of March 30, 2023.

Support for EM performance

Going forward, we believe EM investment grade debt is poised to perform well based on several factors:

- Credit fundamentals in the investment grade segment of EM are as strong as they have ever been, as marginal credits have fallen to high yield.
- The long-term value proposition offered by current “all-in” yields is the most attractive it has been in more than a decade.
- EM economic growth is poised for a period of global outperformance, based on EM’s powerful and differentiated demographics.
- EM offers potential diversification benefits.

Improved credit quality of the EM investment grade universe

Credit quality has greatly improved in recent years across EM sovereign and corporate segments. This is due to the expansion of the A and AA rating buckets and the heavy downgrade cycle experienced over the last three years that pushed marginal investment grade issuers into high yield.

The improvement in the average credit quality of the asset class is most dramatic in the sovereign and quasi-sovereign space, where the percentage of the market rated A or higher has more than doubled since 2017 to just over 50% (Figure 3).

Figure 3: Investment grade EM sovereign bond index - breakdown by rating

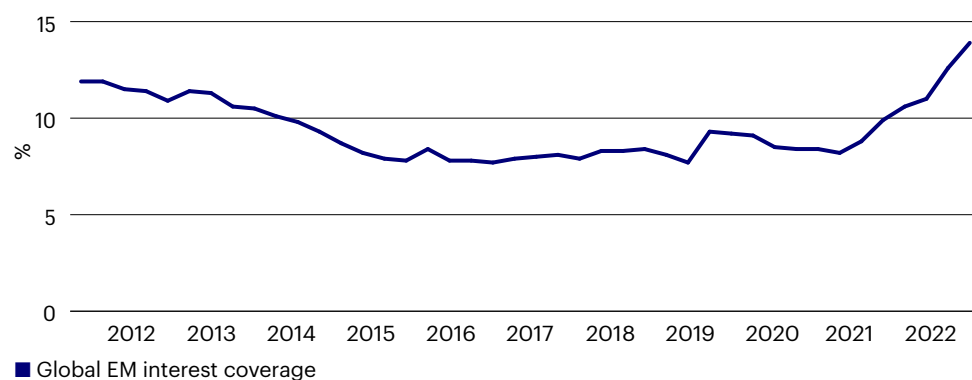
	March 17	March 19	March 21	March 23
AA	6.0%	3.8%	14.3%	16.1%
A	17.8%	23.7%	29.2%	33.9%
BBB	76.2%	72.5%	56.5%	49.9%

Source: JP Morgan EMBI Global Diversified Investment Grade Index. Data as of 03/30/23.

Credit metrics of investment grade EM corporates have also improved significantly. Net leverage is less than one time on average, the lowest it has been for the past 15 years, and well below levels in

the US and European investment grade credit markets. Interest coverage ratios have also improved (Figure 4).

Figure 4: EM investment grade interest coverage



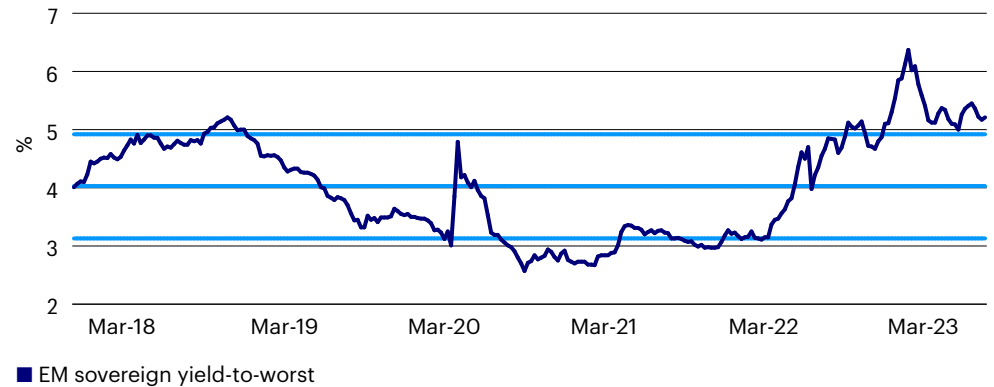
Source: BofA Global Research. Data from March 31, 2012 to June 30, 2022.

Compelling long-term return opportunity

In addition to improved credit fundamentals, EM debt's value proposition is based on its compelling level of

expected returns relative to traditional alternatives. Aside from periods of market crisis, EM investment grade sovereign yields are the highest they have been in over a decade (Figure 5).

Figure 5: Investment grade EM sovereign yield-to-worst



Source: JP Morgan EMBI Global Diversified Index. Data from Jan. 5, 2018 to March 31, 2023.

Economic growth trends support the EM value proposition

EM growth is expected to remain strong this year, despite an expected slowdown in DM. We expect EM GDP growth to reach 4% or higher in 2023, compared to expectations of tepid growth and an increasing risk of recession in DM. In addition, the age distribution in EM is skewed younger, which bodes well for future growth. If current EM growth differentials hold, EM will potentially account for more than 50% of global GDP in the next 20 years, up from 40% today.¹⁰

Diversification benefits and broad investment opportunity

In the past, EM hard currency debt was often – and justifiably – viewed as a narrow, highly correlated asset class. That is no longer the case. The EM market is broad in terms of credit quality and maturity profile and there is significant dispersion of returns by region, country and individual issuer, especially during times of stress. Of course, hard currency EM and DM credit markets are somewhat correlated based on major macro drivers, such as US rate moves. However, in the same way that returns can diverge between DM and EM credits, absent broad macro drivers, the same is true within EM. Over the past three years,

returns within EM have ranged from deeply negative to sharply positive. Even within the investment grade universe, the dispersion of returns has been high, with the best performing country up over 100% and the worst performing country down more than 50%.¹¹

Conclusion

The last three years have been challenging for EM hard currency debt. Over the long term, however, we believe the asset class can deliver attractive risk-adjusted returns. EM investment grade performed well compared to US investment grade in the 10-year period leading up to the COVID crisis, and we believe it will display similar performance in the coming years. The events of the last few years have been rare, and we believe EM investment grade's prospects have been strengthened by improved credit fundamentals, more attractive valuations and an expanded investment universe that offers potential diversification benefits to global investors.

10. Source: IMF, World Bank, Global Economic Outlook. Data as of March 30, 2023.

11. Source: JP Morgan. Data as of March 30, 2023.

Panelist



Philip Armstrong
Co-Head Asset-Backed
Portfolio Management

The bottom line: A floating rate, ultrashort bond strategy can be a strategic allocation

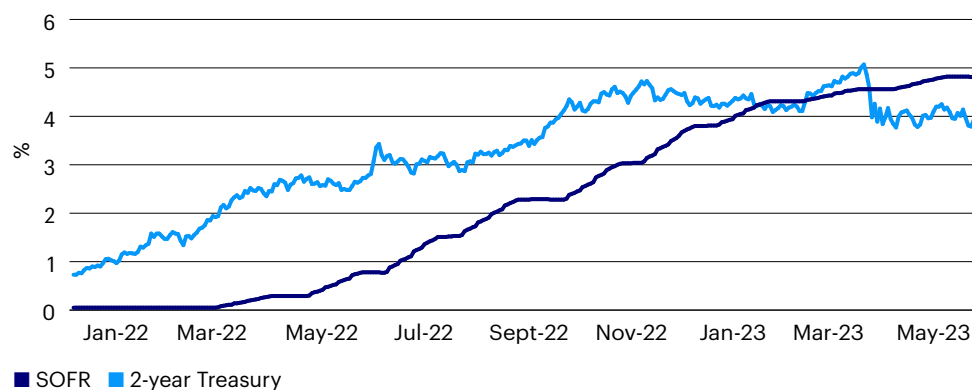
We speak with Philip Armstrong, Co-Head of Asset-Backed Portfolio Management, about opportunities in the floating rate, ultrashort bond space. While conventional thought may suggest switching to traditional fixed rate strategies at the end of a rate hiking cycle, Philip explains why floating rate strategies still make sense.

Q: As the Fed nears the end of its rate hiking cycle, investors typically think it's time to turn to fixed rate strategies. How can investors still capture strong returns in a floating rate investment grade strategy?

This is a great question, as oftentimes investors think floating rate assets are only relevant when there is a pending or

ongoing rate hiking cycle. It's important to note that most floating rate assets float off the new Secured Overnight Financing Rate (SOFR) base rate. This base rate currently yields more than every tenor of the US Treasury curve. So, floating rate assets have a high probability of yielding more than fixed rate equivalents. The result is greater potential income generation, especially in an environment with an inverted yield curve, as we are currently in now. Second, as the Fed begins to pivot, this should create looser financial conditions, which should benefit any strategy with credit exposure. Our ultrashort strategy seeks to have a higher degree of credit exposure than traditional ultrashort strategies, which should lead to strong relative performance when spreads tighten.

Figure 1: SOFR vs. 2-year US Treasury yield



Source: Bloomberg L.P. Data from Dec. 30, 2021 to May 10, 2023. SOFR is the Secured Overnight Financing Rate.

Q: Why do you believe the Structured Team's approach to ultrashort is an attractive alternative to standard ultrashort strategies?

The idea behind a non-traditional ultrashort strategy came about by looking at the availability of short duration, floating rate assets within the securitized market, specifically, those that were being underutilized in the ultrashort bond category. These types of assets generally carry more spread and, thus, yield, relative to the assets traditionally utilized in the ultrashort category. The idea is that a broadly diversified, multi-asset, floating rate strategy should outperform a traditional ultrashort strategy over the long term as result of two factors: first, its active asset allocation decisions across the universe of floating rate bonds and

second, the yield premium associated with longer-maturity, floating rate securitized and corporate assets – the same types of assets we employ in our strategy.

Q: What does the investment opportunity set look like in your space currently?

Fortunately, the opportunity set is quite large, as the strategy is actively managed. Therefore, we can allocate toward more traditional ultrashort asset classes as well as a significant amount to floating rate corporate and securitized assets. In principle, this means we can look across the fixed income market to identify asset- or asset class-specific characteristics that we want to target within the strategy. That could result in a focus on floating rate mortgage credit, for example. Allocations are based on our fundamental analysis

and outlook for each specific asset class, as well as attractive valuations. The strategy currently reflects our relatively positive outlook on the securitized sectors with a higher than normal allocation to residential and commercial mortgage backed securities. Currently, within the commercial mortgage market, we continue to believe there are opportunities among high quality bonds backed by trophy properties.

to conclude that they are “cheap” to corporates. We run z-score metrics to evaluate how attractive each subsector is relative to its shorter and longer-term average spread differential, to identify especially attractive entry points across the structured universe. According to these measures, we find that structured securities currently do look attractive.

Q: Do structured securities currently look attractive relative to corporate bonds?

Many subsectors of the structured market do, in fact, look attractive relative to corporate bonds. Typically, structured securities trade at higher spreads than equally rated corporate bonds, so higher spreads alone are not sufficient for us

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