NEUBERGER BERMAN

Fixed Income Investment Outlook 3Q 2022

Building Value as Conditions Tighten

Central bank monetary tightening has arrived, with a resulting shift upward in market interest rates and widened credit spreads. Although there is risk to the upside, we believe that inflation will ease from peak levels but remain elevated above targets until well into next year. In this environment we are seeing opportunities across credit sectors. Continued macro volatility will keep spreads "two-way," while positive underlying fundamentals across a range of sectors should provide support.

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Building Value as Conditions Tighten

In the wake of more aggressive central bank positioning and an associated pricing reset, we believe that fixed income assets are likely to continue experiencing a two-way market in coming months, with improved valuations drawing investors to targeted opportunities, but the weight of higher short-term rates and the threat of inflation contributing to volatility.

Based on monetary trends and the early reaction in the economy, we anticipate a slowing growth environment in the U.S., with rising recession risk that depends on the extent of frontloaded Federal Reserve interest rate hikes. In Europe, growth is more uncertain given crosscurrents of fiscal support and slowing growth from rate increases, monetary tapering and elevated commodity prices. U.S. inflation has likely peaked, but will stay higher than many would have expected only a few months ago, while European inflation may prove more stubborn.

Emerging markets remain a mixed proposition overall, with valuations and earlier tightening by some central banks providing current support, along with likely commodity strength supporting commodity-sensitive countries and companies. On the other hand, monetary shifts in developed markets and slowing growth could prove challenging.

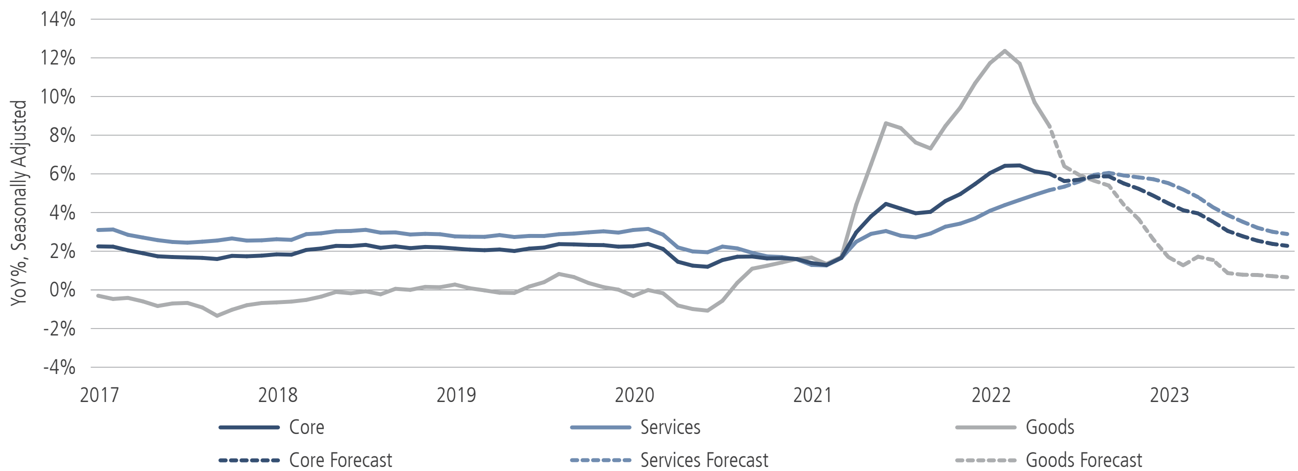
In this publication, we highlight five key observations that inform our outlook. For our high-level views on market sectors, see the table on page 8.

1. U.S. Core Inflation Could Take Time to Ease

In our opinion, U.S. core CPI is likely to stay elevated until the end of the year, when we think it could ease to slightly below 5% versus 6% levels currently. Housing data in particular could drive this outcome, while autos could also prove a factor. This will come in addition to rapidly declining goods inflation, which should accelerate further in the third quarter as the impact of inventories and rate hikes takes hold. In addition, once summer travel is done, we are unlikely to see sustained airfares and travel expenses at current levels of increase. Still, inflationary pressures overall are likely to keep the Fed on a hiking path, with the near-term outlook unlikely to provide enough "compelling evidence" for a substantial pull-back in monetary tightening. By the first half of 2023, however, we would expect that evidence to emerge, with core CPI moving closer to 3% by next summer.

GOODS INFLATION EASES, SLOWER FADE FOR SERVICES

Core inflation is likely past its peak, but may not see any material improvement until 4Q22



Key assumptions for estimates:

- Shelter remains firm though the summer before seeing some relief on MoM basis
- Reopening services reaccelerate MoM through 2Q on second reopening
- Recreation inflation remains firm MoM through 2Q on second reopening
- Used cars start seeing deceleration as new cars remain firm in the near term
- Household furnishings move to flat on inventories
- Apparel sees modest increases in the near term before moving to flat on inventories

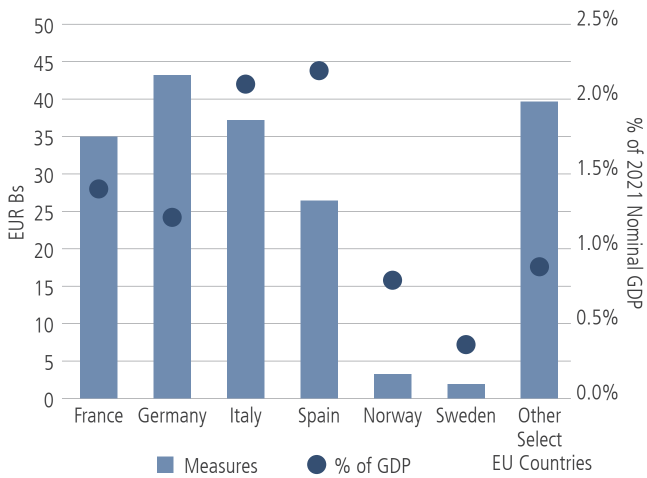
Source: Bloomberg, Neuberger Berman forecast. Actual through May 2022. Reopening Services: for CPI, defined as Lodging Away from Home, Car and Truck Rental and Airfares. Forecast calculated using MoM seasonally adjusted data and converting to YoY% without adjusting for seasonal effects. Weights are also held constant at April 2022 levels without dynamically changing them. Forecasts done at summary product level and rolled up.

2. Eurozone Fiscal Moves and Wages to Prop Up Regional Inflation

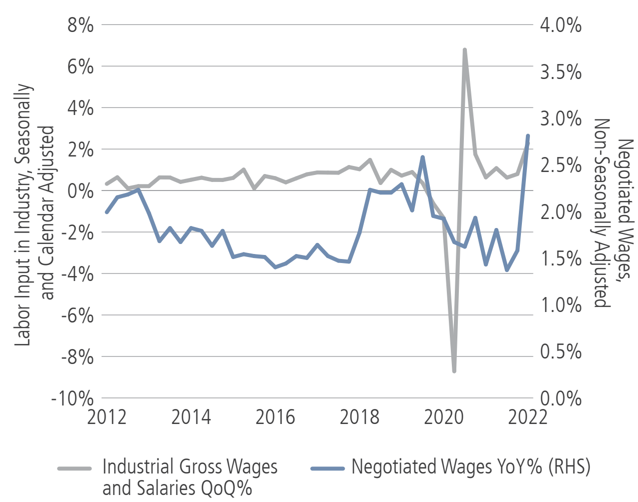
Relative to the U.S., European inflation may be tougher to cure for a number of reasons: (1) Interest rate increases are starting later and the amount of hikes will likely be more modest for fear of undermining vulnerable regions; (2) European countries are subsidizing energy consumption equal to 1% of nominal GDP, preventing demand destruction and thus keeping prices higher globally; and (3) wage growth may only just be starting in the Eurozone, having lagged the U.S. In the face of likely continued upward pressure on wages, the European Central Bank will either have to act more forcefully or accept materially higher inflation, neither of which would be a positive outcome.

POLICIES APPEAR GEARED TO PROMOTING CONSUMPTION

Subsidies to consumers are increasing fiscal spending with an average of 1% across 26 countries



Wages have been aided by one-off bonus payments in Germany, which could happen again



Source: Bloomberg, Bruegel, Eurostat, ECB. GDP data as of 2021, wage data as of 1Q22.

3. Aggressive Fed, but Range-Bound 10-Year Treasury

After delivering 150 basis points in interest rate hikes over three months, the Fed is set to expeditiously move the policy rate to neutral, and appears comfortable shifting further into restrictive territory to bring long-run inflation to its 2% target. We expect a continued aggressive stance from the Fed in the near term as inflation and inflation expectations remain elevated; in our view, the fed funds rate is likely to shift up to around 3.25% – 3.75% and stay in that restrictive territory for a while before normalizing to the long run neutral rate of around 2.25% – 2.50%.

The Fed will also likely be more reactive on higher inflation data points (actual data and expectations), but less sensitive to slowing growth in the near term; however, that balance could change in the second half if growth deteriorates substantially. An entrenchment of elevated inflation expectations could push the fed funds rate path to be steeper, with a higher peak rate of around 4.50%, while a sudden collapse in demand or recession-level labor weakness could force a rethink in policy adjustments, capping the fed funds rate at a neutral range of 2.25% – 2.50% before shifting slightly lower to 1.50%.

For U.S. rates, the trajectory moving forward will be highly contingent on the path of inflation and inflation expectations. Using the U.S. 10-year Treasury rate as a proxy, we expect levels in a range of 3.00% – 3.50% (with a tail risk of hitting 4.00% on elevated inflation expectations) over the next 12 months.

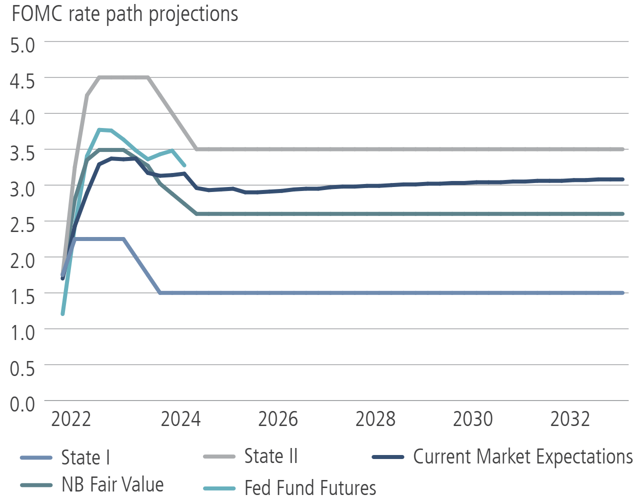
U.S. RATES OUTLOOK: MOVE INTO RESTRICTIVE TERRITORY

Base Scenario (NB Fair Value)	With the Fed's dual mandate goals achieved and inflation at extremes, we expect monetary policy to shift to restrictive territory to combat inflationary pressure. Policy rate hikes and adjustment of balance sheet will drive higher nominal yields and real yields while inflation expectations remain stable. We expect fed funds rates to temporarily shift up to around 3.25% – 3.75% before normalizing to the Fed's long run neutral rate of 2.25% – 2.50%.
Downside Risks (State I, 20% probability of worse outcome)	**Medium-term economic deceleration:** An abrupt change in economic drivers resulting in a below-trend growth, faster rollover in inflationary dynamics, forcing the Fed to turn more cautious, thus pausing the hiking cycle once fund rates hit the 2.25 – 2.50% neutral rate that ultimately leads to a pivot in monetary policy that, in turn, leads to cutting of funds rates to 1.50% on recessionary fears.
Upside Risks (State II, 20% probability of better outcome)	**Above-trend growth and entrenchment of inflation expectations:** Compounding effects of elevated wages, stubborn supply chain bottlenecks and commodities inflation keep inflation elevated without impacting above-trend growth, Fed continues an aggressive hiking cycle, raising rates by 400bps in 2022, with policy rates in restrictive territory and aggressively reducing of balance sheet—ultimately moving the terminal rate to 4.50% temporarily to address overheating inflation before settling at a 3.50% terminal rate.

Treasuries bonds nominal rates analysis

	Current	Scenario I	Scenario II	Fair Value Treasuries
1Y	2.87	2.63	3.84	3.24
2Y	3.23	2.66	4.41	3.53
3Y	3.38	2.61	4.54	3.57
4Y	3.39	2.57	4.49	3.53
5Y	3.4	2.57	4.48	3.52
7Y	3.4	2.55	4.45	3.5
10Y	3.32	2.48	4.35	3.41
15Y	3.46	2.65	4.47	3.56
20Y	3.61	2.84	4.61	3.72
30Y	3.35	2.66	4.34	3.5

FOMC rate path projections



Source: Neuberger Berman. As of June 15, 2022. Treasury views are forward one year.

4. IG Credit Fundamentals Are Solid, but Have Likely Peaked

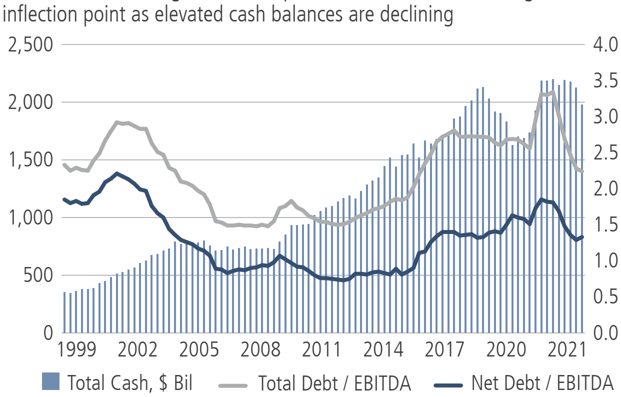
Following the initial COVID shock in 2020, investment grade companies went into defensive mode, building cash balances by issuing debt, cutting costs, pausing share repurchases and scrapping any plans for mergers and acquisitions. As economies gradually reopened in 2021 and governments provided stimulus, demand recovered quickly and higher costs from inflation were initially passed onto customers. This resulted in a strong fundamental credit backdrop, including record EBITDA margins and cash flows, while leverage declined to below pre-pandemic levels.

Strong economic growth in 2021 and a healthy demand environment entering 2022 were catalysts for companies to begin spending cash war chests on capital expenditures, share repurchases and M&A. Due to supply chain issues, inventory building to meet demand, and onshoring trends, companies began investing more heavily in capex. As of the first quarter, capex (last 12 months or LTM) was up 19% year-over-year. Share repurchase programs have been turned back on and are accelerating as equity valuations have dropped in recent months, with LTM share repurchases up 84% (YoY). Also, M&A has been more active, with a shift to more cash deals as equity prices have dropped.

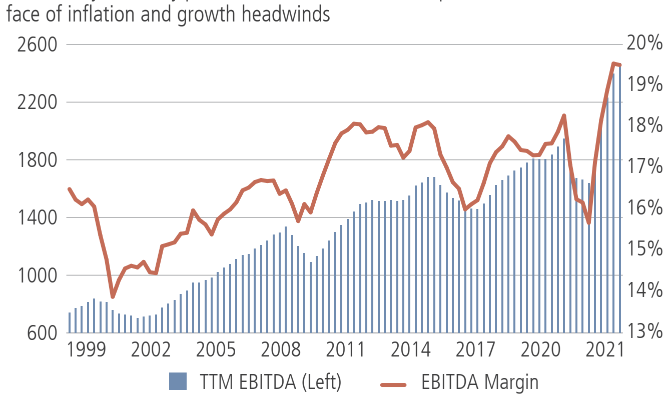
As 2022 has progressed, the demand outlook has softened as the Fed is hiking rates and inflation is proving to be stickier than expected. Higher operating costs in more discretionary or commoditized sectors have proven harder to pass on, exacerbated by some shift in consumer demand trends away from discretionary items. This caused credit metrics such as EBITDA margins, cash flow generation and leverage to peak. While we expect credit fundamentals to weaken, it's important to point out they are still solid as they started from a position of strength. We expect security selection to become more important as the margin for error for companies will be reduced over the coming quarters.

CREDIT METRICS HEALTHY, BUT COULD WORSEN; CASH BEARS WATCHING

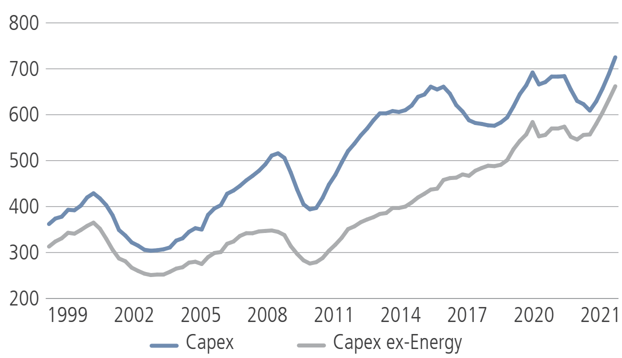
Gross and net leverage are below pre-COVID levels, but reaching inflection point as elevated cash balances are declining



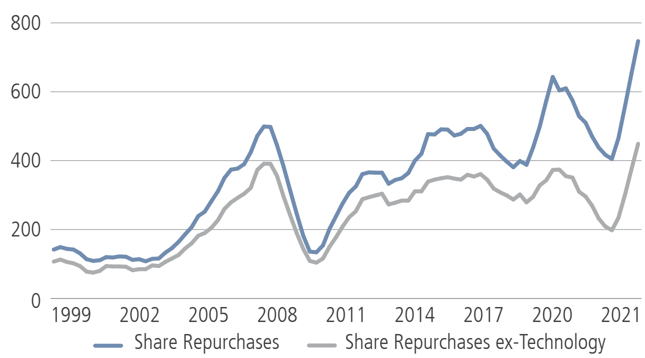
Profitability has likely peaked and could come under pressure in the face of inflation and growth headwinds



Capex is up 19% y/y on an LTM basis ($bn) as companies address supply chain issues and rebuild inventories



Share repurchases are up 84% y/y on an LTM basis and up 127% y/y ex-Technology ($bn)



Source: Bloomberg, S&P500 ex-Financials. Data as of March 31, 2022.

5. Non-IG Defaults Could Be Well Below Historical Experience

Trailing 12-month default rates for U.S. non-investment grade credit as of May 2022 remained near all-time lows in high yield (0.43% on a par-weighted basis) and just above all-time lows in loans (0.21% on a par-weighted basis), which is consistent with sturdy balance sheets and solid free cash flow growth. The question is, where do defaults go from here given slowing real GDP growth and elevated inflation?

Our research team regularly conducts a bottom-up assessment of default risk for each issuer in portfolios so that we can compare our forward-looking default estimates for the market overall compared to what might be priced into spread levels. Based on the team's recent default risk exercise in June, looking at both a base case and a "stressed" or downside case, our outlook for defaults remains benign, with well-below-average default rates expected in 2022 and 2023, as shown below.

In our base case, we expect defaults to remain very low, driven by the higher-quality ratings mix in high yield (over 52% of issuers with credit ratings of BB), and less aggressive new issuance and fewer near-term maturities in high yield, as well as an energy sector across non-investment grade credit that is far healthier than in the past few cycles. Our stress-test downside case indicates cumulative defaults of more than 50% below levels experienced in the 2008 – 2009 cycle during the Global Financial Crisis. As a result, we believe non-investment grade spreads are more than compensating investors for the benign default outlook.

NON-INVESTMENT GRADE CREDIT DEFAULT EXPECTATIONS

U.S. High Yield Default Estimates[1]	
Base Case	
Assumptions	• No recession • Capital markets remain open
2022 Estimate	0.73%
2023 Estimate	1.09%
2024 Estimate	0.28%
Base Case Cumulative Default Rate	**2.10%**
Downside Case	
Assumptions	• Recession case • Capital markets closed to issuers with spreads >+750
2022 Estimate	0.73%
2023 Estimate	1.55%
2024 Estimate	5.49%
Downside Case Cumulative Default Rate	**7.77%**
2008/2009 Cumulative Default Rate[2]	*18.39%*

Leveraged Loans Default Estimates[1]	
Base Case	
Assumptions	• No recession • Capital markets remain open
2022 Estimate	0.13%
2023 Estimate	1.30%
2024 Estimate	0.39%
Base Case Cumulative Default Rate	**1.83%**
Downside Case	
Assumptions	• Recession case • Capital markets closed to issuers trading < $92.5
2022 Estimate	0.13%
2023 Estimate	2.00%
2024 Estimate	4.74%
Downside Case Cumulative Default Rate[3]	**6.87%**
2008/2009 Cumulative Default Rate	*13.36%*

Source: Neuberger Berman. Data as of May 31, 2022. [1]Represents NB bottom-up default analysis. [2]Data represented by the ICE Bank of America U.S. High Yield Index. [3]S&P/LSTA Leveraged Loan Index LTM Default Rate. Defaults based on par amounts.

6. In EMD, Focus on Sovereign High Yield and Local Rates

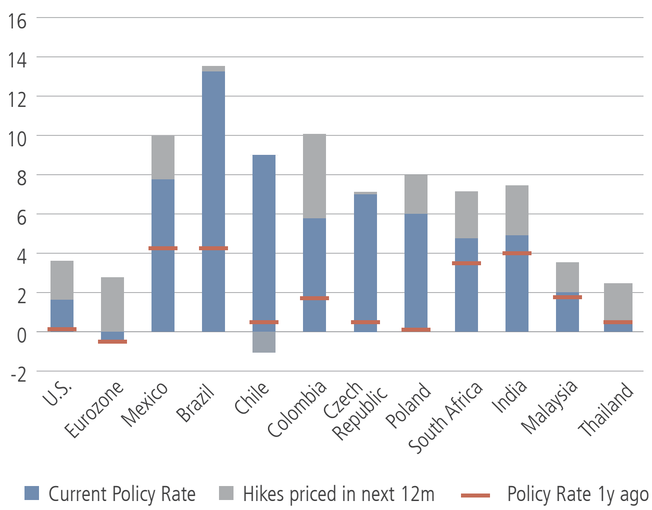
Inflation has been a global issue, with food and energy especially affecting emerging local markets given their large proportion of the Consumer Price Index basket. As a result, most emerging markets, with the notable exception of China, have meaningfully hiked interest rates over the past year.

In our view, this suggests that when the Fed is done with its increases, the duration trade in local markets is likely to become more attractive. The U.S. dollar has typically peaked in the first stages of a hiking cycle, and emerging market currencies, which in real effective terms are trading at their lowest valuations since the Asian crisis in the late 1990s, could start to recover then as well. That said, emerging assets will probably have more chance to outperform in a moderate growth environment, especially if emerging markets can post higher relative growth rates. If recession risks remain manageable, as we anticipate, and economies can get over the hump of inflation, conditions may fall into place in Q3 2022 to increase duration risk more meaningfully.

Currently, however, we see a disproportionate risk premium embedded in sovereign U.S. dollar-denominated debt. Although many countries are trading at distressed levels, default risk is far from a given, with policy optionality in combination with the existing, or possible, support by the International Monetary Fund in various cases.

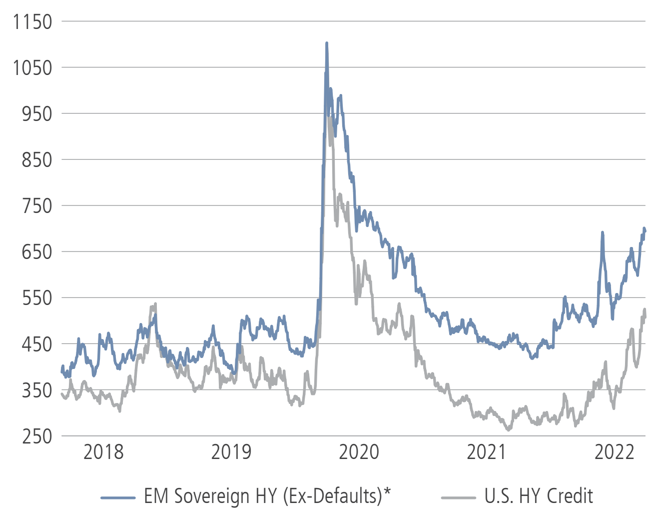
MONETARY POLICY TIMING AND VALUATION ARE KEY EMERGING MARKETS THEMES

Advanced hiking cycles are underway across emerging markets
Policy rates by country (%)



Source: Bloomberg, S&P500 ex-Financials. Data as of March 31, 2022.

EM high yield spreads remain compelling vs. developed markets
Spread over Treasuries (bps)



* Excludes the following defaulted Sovereign HY: Sri Lanka, Suriname, Lebanon, Zambia and Venezuela.
Source: JPMorgan, Bloomberg, Neuberger Berman. Data as of June 27, 2022. Indices used: JPM EMBI Global Diversified HY and IG subindices, JPM CEMBI Diversified HY and IG subindices, Bloomberg US High Yield Index, Bloomberg Global Aggregate Corporate Index.

Market Views

Next 12 Months

	UNDER −−	−	NEUTRAL ◇	+	OVER ++	CHANGE NOTES
GOVERNMENT BOND MARKETS						
United States	○	●	○	○	○	
United Kingdom	○	○	●	○	○	
Germany	○	●	○	○	○	
France	○	●	○	○	○	
Italy	○	○	●	○	○	
Spain	○	○	●	○	○	
Japan	○	●	○	○	○	
Canada	○	●	○	○	○	
New Zealand	○	○	●	○	○	
Australia	○	○ →	●	○	○	Prices already reflect expected aggressive frontloading of rate hikes by the central bank.
U.S. TIPS	○	○	●	○	○	
INVESTMENT GRADE SECTOR						
U.S. Agencies	○	○	●	○	○	
U.S. Agency MBS	○	○	○ →	●	○	Monetary tightening and higher mortgage rates have contributed to value opportunities.
U.S. CMBS	○	○	●	○	○	
U.S. ABS	○	○	●	○	○	
U.S. Mortgage Credit	○	○	●	○	○	
U.S. Credit	○	○	○ →	●	○	Wider spreads appear to compensate for increased risks from higher interest rates and economic softening.
Europe Credit	○	○	●	○	○	
U.K. Credit	○	○	●	○	○	
Hybrid Financial Capital	○	○	○	●	○	
Municipals	○	○	●	○	○	

	UNDER −−	−	NEUTRAL ◇	+	OVER ++	CHANGE NOTES
HIGH YIELD & EMERGING MARKETS						
U.S. Full-Market High Yield	○	○	●	←○	○	Spreads are high relative to default risk, but recession risk heightens need for selectivity.
U.S. Short-Duration High Yield	○	○	○	●	○	
Pan-Euro High Yield	○	○	●	←○	○	European companies are holding up well, but may face additional pressures given energy shortages and monetary shifts.
Floating-Rate Loans	○	○	●	←○	○	Tighter yields and weaker growth represent challenges, though spread opportunities are available.
U.S. CLO	○	○	○	●	←○	Valuations remain appealing, but the macro environment calls for caution.
EM Hard-Currency Sovereigns	○	○	●	←○	○	Higher policy rates in developed markets and global growth pressures have tightened risk/reward.
EM Hard-Currency Corporates	○	○	●	○	○	
EM Hard-Currency Short Duration	○	○	○	●	○	
EM Local-Currency Sovereigns	○	○	●	←○	○	Move toward the U.S. dollar is curbing near-term price opportunities though yields remain appealing.
CURRENCY*						
U.S. Dollar	○	●	○	○	○	
Euro	○	○	●	○	○	
Pound	○	●	←○	○	○	Economic growth is expected to slow further; post-Brexit tension with EU over Northern Ireland is on the rise again.
Yen	○	○	○	●	○	
Swiss Franc	○	●	○	○	○	
Australian Dollar	○	○	●	○	○	
Swedish Krona	○	○	○→	●	○	The Riksbank has turned more hawkish, which should be supportive vs. other European currencies; global slowdown remains a risk.
Norwegian Krone	○	○	○	●	○	
Canadian Dollar	○	●	○	○	○	
Mexican Peso	○	○	●	○	○	
Brazilian Real	○	○	○	●	○	
Chinese Yuan	○	●	○	○	○	
Turkish Lira	○	●	○	○	○	

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*Currency views are based on spot rates, including carry.

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